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DEPARTMENT OF STATE  
AGENCY FOR INTERNATIONAL DEVELOPMENT  
Washington, D.C. 20523

63p

NEPAL - RAD/RCUP Design Project

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AGENCY FOR INTERNATIONAL DEVELOPMENT  <b>PROJECT PAPER FACESHEET</b>		1. TRANSACTION CODE <div style="border: 1px solid black; display: inline-block; padding: 2px;">A</div> A = ADD C = CHANGE D = DELETE	PP  2. DOCUMENT CODE 3
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8. ESTIMATED FY OF PROJECT COMPLETION FY <div style="border: 1px solid black; padding: 2px;">810</div>		9. ESTIMATED DATE OF OBLIGATION A. INITIAL FY <div style="border: 1px solid black; padding: 2px;">718</div> B. QUARTER <div style="border: 1px solid black; padding: 2px;">3</div> C. FINAL FY <div style="border: 1px solid black; padding: 2px;">718</div> (Enter 1, 2, 3, or 4)	

10. ESTIMATED COSTS (\$000 OR EQUIVALENT \$) - Rs. 11.90 (N.C.)						
A. FUNDING SOURCE	FIRST FY			LIFE OF PROJECT		
	B. FX	C. L/C	D. TOTAL	E. FX	F. L/C	G. TOTAL
AID APPROPRIATED TOTAL	1,000	1,000	2,000	1,836	1,064	2,900
(GRANT)	(1,000)	(1,000)	(2,000)	(1,836)	(1,064)	(2,900)
(LOAN)	( )	( )	( )	( )	( )	( )
OTHER U.S. 1.						
OTHER U.S. 2.						
HOST COUNTRY						
OTHER DONOR(S)						
<b>TOTALS</b>	1,000	1,000	2,000	1,836	1,064	2,900

11. PROPOSED BUDGET APPROPRIATED FUNDS (\$000)									
A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE		E. 1ST FY		H. 2ND FY		K. 3RD FY	
		C. GRANT	D. LOAN	F. GRANT	G. LOAN	I. GRANT	J. LOAN	L. GRANT	M. LOAN
(1) FN	290	050		2,900					
(2)									
(3)									
(4)									
<b>TOTALS</b>				2,900					

A. APPROPRIATION	N. 4TH FY		O. 5TH FY		LIFE OF PROJECT		12. IN-DEPTH EVALUATION SCHEDULED
	Q. GRANT	R. LOAN	S. GRANT	T. LOAN	U. GRANT	V. LOAN	
(1)					2,900		<div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div>
(2)							
(3)							
(4)							
<b>TOTALS</b>						2,900	

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

1 = NO  
 2 = YES

14. ORIGINATING OFFICE CLEARANCE				15. DATE DOCUMENT RECEIVED IN AID/W OR FOR AID/W DOCUMENTS. DATE OF DISTRIBUTION															
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Director, ASIA/PD				<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px;">MM</td> <td style="width: 20px;">DD</td> <td style="width: 20px;">YY</td> <td style="width: 20px;">MM</td> <td style="width: 20px;">DD</td> <td style="width: 20px;">YY</td> </tr> <tr> <td style="text-align: center;">07</td> <td style="text-align: center;">19</td> <td style="text-align: center;">78</td> <td style="text-align: center;">07</td> <td style="text-align: center;">19</td> <td style="text-align: center;">78</td> </tr> </table>				MM	DD	YY	MM	DD	YY	07	19	78	07	19	78
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PROJECT DEVELOPMENT PROJECT

PART I : Summary and Recommendations

A. Grantee and Implementing Agency

The Grantee will be the Government of Nepal (GON). The executing agency for the design efforts will be the Agriculture Projects Services Center (APROSC). Other activities will be coordinated through the Ministry of Home and Panchayat, the Ministry of Forestry and the Ministry of Agriculture.

B. The Grant

Amount: grant \$2,900,000 in foreign exchange with approximately \$1,372,600 for the Rapati Area Development (RAD) design; \$1,227,400 for the Resource Conservation and Utilization (RCU) design; and \$300,000 for support to APROSC. The contribution of the GON will be less than 25 percent of the AID grant. Grant funds will be disbursed over a period of 24 months.

C. Purpose

The purpose of this project is to design action project(s) to: (1) assist self-reliant development and make development opportunities available to the rural poor in Nepal's Rapati Zone; (2) test and apply conservation techniques in selected hill lands of Nepal; and (3) improve the capacity of APROSC as a training and development project design and evaluation organization.

D. The Project

The project which the proposed grant will assist in financing will: (1) provide necessary resources to carry out design activities for the Rapati Area Development Phase I project and the Resource Conservation Project, both proposed for funding by AID in FY 79. In both design efforts, the project will produce studies, detailed plans, trained personnel and activities in the field necessary to proceed with full Phase I implementation in FY 1979; (2) assist in improving staff capability and training facilities of APROSC; and (3) contribute necessary resources to carry out selected

subprojects in the Rapati Zone and other selected areas where the RCU will be implemented.

E. Proposed AID Assistance

1. Technical Assistance - The AID grant will fund the majority of the technical inputs needed to design these two projects. This includes approximately 300 m/m of technical consultancies, 100 m/m of field technician services and additional support assistance to APROSC and USAID of professional consultancies for RAD and about 50 m/m for RCU. Both local and foreign consultants will be funded under this project.
2. Training - Under this project, training is considered an essential step to project design and full Phase I implementation. Short term training planned for both projects is both observational and operational in nature. Limited long term participant training under the project design necessary for effective Phase I project implementation in FY 1979 is also contemplated.
3. Transportation - Incountry transportation for technicians is a major cost item under this design project. Since neither the Rapati Zone nor the several sites for the conservation project are accessible by road, air transport must be rented. (estimated cost \$330,000). The project also permits one jeep type vehicle and two motor cycles for Rapati and two jeeps for the conservation project.
4. Other - The project also proposes financing planning and commodities for selected field activities, local support costs for the technicians, such as office space, purchase or rental of field camping equipment, and costs of facilities and staff development for APROSC including assistance for construction of a training center.

F. Other Donor Assistance

1. Rapati Area Development - Other donors such as the Canadians, the IBRD, and the Japanese are participating in rural area development project in Nepal. The IBRD is financing a major road linking part of the Zone with outside markets.

UNICEF is supporting some village water supply projects in the zone . Other donor inputs are expected. There will be constant donor co-ordination and interchange during the Rapati Project Design.

2. Resource Conservation and Utilization - Several donors are involved in forestry e.g. FAO and Australia, and some are more directly involved in conservation activities, e.g. Japan, France, Germany and Switzerland; however, none are approaching the project on the level proposed herein. FAO has expressed an interest in participating in a portion of this project, particularly in the area of nursery development and watershed management. The coordination of such involvement will be established during project design.

G. Issues

All issues relating to this PDP project have been resolved. All issues relating to the two proposed projects are expected to be answered during project design.

H. Statutory Criteria

The project meets all applicable statutory criteria.

I. Summary of Findings

The design of the project is determined to be sound and the cost estimates are believed to be relatively firm and reasonable. The series of activities set forth in the paper indicate that the project is capable of achieving the project purpose and the projects when implemented will benefit the rural poor and those most in need.

## PART II. Project Background and Detailed Description

### A. Background and Rationale

#### 1. General

The two projects to be designed under the proposed \$2.9 million grant, the Rapati Rural Area Development (RAD) and Resource Conservation and Utilization (RCU) projects, represent a major and innovative thrust into problems plaguing Nepal's development efforts, especially as directed at the rural poor.

The Development Assistance Program (DAP) submission for Nepal has listed a number of constraints and problems that are impeding Nepal's development progress. Some of the major constraints identified in the document include geographic isolation, limited physical resource base, lack of trained manpower and management skill, low agricultural productivity, high population growth rate, limited financial resource base, inadequate infrastructure for the transport of goods and services to and from markets and poor land utilization. The constraints identified in the DAP contribute directly to problems of extensive soil erosion and deforestation resulting from rapidly increasing human and livestock populations that are destroying the vegetative cover even on steep slopes; lack of effective demand in many rural areas to stimulate growth; under-employment; absence of an effective information-gathering/feedback system, and general inability of local participatory institutions to achieve their full potentials.

The GON has identified both Rural Area Development and Resource Conservation as priority problem areas to which AID can significantly contribute. Accordingly the AID Mission in Nepal has proposed projects in these areas with funding to begin in FY 1979. Project Identification Documents (PID's) were submitted in FY 77. They identified extensive analysis studies and implementations that would be required over the next two years to design effective action projects in these problem areas by FY 79.

The design project presents a plan to design these projects over the next year, to begin a limited amount of training, pilot tests and

other activities necessary for the projects, and to provide staff development and facilities for APROSC which will play the key role in project design in both projects.

2. Rapati Rural Area Development (RAD)

The overwhelmingly rural character of families in Nepal's Rapati administrative Zone in the Far Western Region, including the Dang Valley and surrounding mountainous districts, means that about 90% of these families are substantially below the poverty line drawn by AID and are largely by-passed by development efforts to date. Data suggests that agricultural production per hectare in the Rapati Zone, and in the Dang Valley in particular, is lower than in the other comparable areas of the country as a whole. The exports to other points in Nepal and to India are low. Agriculture is the principal source of income in the area, comprising 76% of the total as compared to 63% for the country as a whole. The per capita income is about \$69 in the Rapati Zone compared to \$114 for the country as a whole. Most important, the conditions of life of the people of the Zone are very difficult.

USAID/Nepal submitted a PID for this project responding to the interest expressed by the GON in having AID undertake a rural development project to support the GCN project in Rapati Zone. (The PID proposed a \$17,500,000 project to begin in FY 1979). USAID/Nepal concluded that the predominately hill population in the Zone would benefit little without a concerted rural development effort.

Following the submission of the PID, USAID/Nepal began collaborative development of the project with the GCN which delegated primary design responsibilities on its behalf to the Agricultural Projects Services Center (APROSC). With support from AID, APROSC has ably provided leadership in project development efforts, carrying out a preliminary reconnaissance survey of the Zone and providing most of the personnel and support for the team which prepared the Preliminary Project Description in November 1977.

The prefeasibility study of the RAD project outlines a project which utilizes an integrated rural development approach to address basic

human need objectives within the Rapati Zone. The project is experimental in objectives and method. It seeks to develop methods stressing self-reliance and participation with acceptable levels of assurance of appropriate expenditure of public funds.

The project strategy is strongly committed to a participatory approach based on self-reliant development activity and strengthened local organizations; an emphasis on improving the production and productivity of off-farm employment; and on strengthening and vitalizing government institutions, administrative systems and social services within the Zone.

This will necessarily be supported by a strong monitoring and information system, and the development of appropriate management and evaluation capabilities at all levels of project activities.

As a part of the collaborative process of project development between the GON and AID, APROSC has prepared a revised version of the Preliminary Project Description for the use of the GON in coordinating multi-donor support of development efforts in the Zone. Key central ministries of the GON have expressed their approval in principle of the broad outline of the project.

Based on the Preliminary Project Description, the Rapati Project was included in the FY 1979 Congressional Presentation, at an initial funding level of \$2 million, part of a five-year funding level of approximately \$17.5 million.

In the course of further negotiations with the GON, however, the Ministry of Finance expressed strong views that the studies and lengthy design efforts proposed by AID prior to obligation of a comprehensive \$17.5 million rural development project were largely unnecessary and inconsistent with the GON's desire to minimize expatriate technical assistance in its development program. In response to this position, USAID and APROSC developed a modified approach to the RAD concept and project design strategy. This approach envisions that RAD be handled as a series of two or more projects in a program that will in

the aggregate amount to roughly \$17.5 million. The first project in the series (RAD I) will involve about \$2.4 million in FY 79. Its components will be structured in such a fashion that APROSC can handle design work with a minimal specialised expatriate assistance.

The Project Design Project has been revised to reflect the changes in the GON position. Expatriate technical assistance has been reduced, and visible on-the-ground field activities have been expanded considerably. A major component of assistance to APROSC has also been included to enhance its ability to train personnel and to lead a development design efforts.

### 3. Resource Conservation and Utilization (RCU)

Nepal is a country made up of hills, mountains and a narrow plain area running east-west along the southern border (called the "Terai"). Each year, about 240 million cubic meters of eroded soil are transported by Nepal's four major rivers and over 6,000 tributaries. Approximately 10,000 square kilometers of land are now so devoid of vegetation that they have entered the desertification process. Throughout the Himalayas, forests are being destroyed for firewood, timber and to land clearing for cultivation. In addition, the soils are losing their meager supply of nutrients through leaching. Landslides are common and the area as a whole is becoming less productive. The ecologic system is complex and there is no simple, easy, short-term answer to eliminating the impact of improper use of the land.

Approximately two-thirds of Nepal's land is mountainous and two-thirds of its people live in such areas. Yet, this area contains less than one-third of Nepal's arable land. The mountains also have the most variable weather. The growing season is short and the soils are variable and low in fertility. Rainfall varies from 15 to over 200 inches annually. Crops are grown to elevation of 10,000 feet or more. No effort is made to control the grazing of livestock. Temperatures range from mild or hot to bitterly cold and the supply of energy for cooking and heating is a major problem. The

population of Nepal is increasing at a rate of 2.6% per year. The available arable land per capita in Nepal is less than in Bangladesh and the arable land per capita in the hills and mountains is less than half that in the Terai. As a result of this combination of circumstances, farmers either migrate to the Terai or cultivate increasingly steeper slopes, encroaching on more and more sub-marginal lands with their crops and animals. Supplementary employment is sought in the Terai or scattered valleys. For these sub-subsistence farms as well as for break-even or subsistence farms, acute food shortages always are a possibility at any time the weather is not favorable.

Soil loss and reduced fertility owing to the above factors coupled with a rapidly increasing population is perhaps the single most serious development problem facing Nepal today. It is estimated that between 50 and 75 tons of soil are lost per hectare per year as compared to a loss of 2.5 to 12.5 tons per hectare in the United States.

It is important to understand that the problems of soil and water conservation are extremely complex, perhaps as much as development itself. The variables contributing to the problem include the full spectrum of those influencing development. There will be no simple and quick solution.

Nepal's options vis-a-vis the soil erosion problem conceptually range from doing nothing, allowing maximization of short-run returns by "mining" the soil to mounting a massive investment program to optimize the long-term utilization of soil resources through reforestation, river control works, irrigation, conversion of marginal croplands to pasture, flood control works, and the like. The latter approach is clearly beyond the capacity of existing internal and external financial resources. The former approach would probably result in steady decline of the quality of life in the hills with accompanying socio-economic problems for urban areas in the Terai and would result in permanent loss of a significant proportion of the existing arable land base and out-migration from the hills.

Realizing the complexity and magnitude of the

problem, USAID/Nepal submitted a PID for the RCU project. This was in direct response to the GON desire for AID to undertake a project or projects in the area of resource conservation. The PID projected a \$12,000,000 effort to begin FY 1979.

Following approval of the PID, the GCN and the Mission continued to investigate the problem area and in late 1977 AID dispatched a reconnaissance team to Nepal to work with APROSC to collect information and prepare a preliminary report on various component problems contributing to the overall problem, to generally present ideas of possible solutions and to prepare a course of action to design a project for AID to assist in solving the conservation problem. While the report of the team provides valuable information, it is clear that detailed planning is needed if the RCU project is to proceed in FY 1979 as proposed.

In summary the team recommended the following elements of a strategy as the central hypothesis to be further analyzed and tested during project design:

1. planting of steeper slopes, usually held in common by villages and panchayats, with fast-maturing, dual purpose fodder and fuel-wood species,
2. establishing and improving pasturelands on less-steeply-sloping land that is not suitable for agriculture and introducing improved pasture and livestock management systems,
3. introducing improved crop technology to increase the productivity of upland terraces and paddy lands,
4. establishing the institutional capacity required to carry out this nationwide program of improved land and water use,
5. using alternate energy sources as substitutes for scarce wood and manure, and
6. expanding off-farm employment opportunities

to decrease the burden on already overworked and limited arable land.

Based on the PID and the report of the reconnaissance team the project has been included in the FY 1979 Congressional Presentation at an initial funding level of \$2.5 million.

B. Project Design Process

1. General Design Strategy

Project design will be a complex task requiring well planned and careful collaborative implementation. It is essential that the preparation of the Project Paper for both RAD and RCU not be an intensive three or four week effort by a small team of foreign technicians working against a deadline. Project design and PP preparation will constitute, in effect, the first stage of project implementation. Design must be led by GON and be based on local implementing institutions. The contribution of GON officials and specialists in designing the activities and programs which they will be called upon to implement is of critical importance. The design process must develop strategies for the continued participation of the rural population in the projects. When the project papers are completed, GON political and administrative officials at central and local levels will have a clear understanding of and commitment to the projects. AID on its part, will have become thoroughly familiar with the fiscal and managerial controls required by the GON.

Nepalese technical specialists will be utilized to the maximum extent in the design effort and therefore funds are requested in this design project to finance the costs of local as well as foreign consultants.

The contributions of foreign technical consultants will be carefully planned to supplement the lead design effort already assumed by APROSC and the Soil and Water Conservation Department. The work of foreign consultants and all design professionals in Nepal will be carefully phased

over the design period to optimize collaboration with GON officials, local institutions and Mission staff. This will also minimize strain on Mission personnel. The well planned timing of these consultants will also facilitate obtaining the best possible talent.

The RAD and RCU project design efforts include a total of \$500,000 for initial field operations. These operations will (1) provide immediate benefits to the target population, (2) generate valuable information that will enable more expeditious implementation during Phase I and (3) provide local institutions experience in activities they will shortly be responsible for on a larger scale. Some examples of these activities are presented in the following section of this paper.

## 2. Rural Area Development - Rapati (RAD)

1. Preliminary Activities under the project will begin as soon as funding is available. Mission local currency financed planning and some survey activities are already underway. Major activities for which funding will be required include the design and trial development of information systems, the carrying out of a baseline study,

and the undertaking of selected studies. Literature reviews, baseline study design, existing data compilation, ongoing project design refinement and the identification of supplementary consulting needs are already underway. The division of responsibility for these activities between APROSC, AID and consultants remains to be worked out in detail.

2. Participation Workshop - A key concept upon which the project is built is a participatory approach to development, involving local people in project identification, decision making, implementation and evaluation. This concept is not wholly consistent with previous approaches to development assistance in Nepal. It is essential that Nepalese

officials have the opportunity to articulate this concept in a form appropriate to the Nepalese situation. The stress recently placed by His Majesty on the participation of the people in development, and the participatory basis of GON "Strategy for Rural Development" makes this an opportune time to address this issue.

APROSC and other GON agencies, with AID support, plan to sponsor a workshop on the participation concept and methods for applying it in this and other rural development projects. The workshop will primarily involve GON officials and other Nepalese citizens. Cornell University, under a separate centrally funded AID project, will provide technical assistance for the workshop.

Participants in the workshop will develop a Nepalese concept of "participation" which will be used as a basic guideline for further project development. If the workshop participants cannot develop an articulation of participation acceptable to GON for the purposes of the project, the project will require major redesign. The workshop is scheduled for July, 1978.

3. The Implementation of Studies and Technical Consultancies in Nepal will begin after the Participation Workshop in July of 1978. Major studies will be phased insofar as possible so that they can form the basis of an integrated information system for the zone.

Selected area studies combining sample surveys and participant observation (where feasible in conjunction with field trials and experiments) will be initiated as soon as planning can be completed. These combined studies will provide information of particular importance in subjects such as farm management, off-farm employment, food production and consumption patterns, local resource utilization and community organization and capabilities. The project baseline study

is being designed as a key component of a permanent

zone information system.

APROSC will be responsible for all phases of project design and supporting analysis. For the most part, this work will be carried out by APROSC staff, by Nepali government officials seconded to APROSC or by Nepali consultants contracted by APROSC. In certain cases where Nepali personnel are not available, expatriate consultants will be sought. USAIS Mission staff and AID/W TDYs will assist APROSC and provide guidance on certain technical issues and AID administrative requirements. However, the RAD project design effort is intended to be an exercise which will both develop and demonstrate APROSC capacity to handle work of this nature.

5. A Phase I Final Design Workshop will be held in Kathmandu after design consultancies are completed. The purpose of the Workshop will be to establish the final design of Phase I of the project. Workshop participants will include appropriate GON officials and AID representatives. AID operational personnel required for preparing the Project Paper, such as the team leader, economist, capital development officer, financial analyst (and any personnel which the Mission cannot provide) will attend the Workshop. The final design as established at the Workshop will provide the basis for the PP.
  6. There will be a final review of the PP by key GON officials, consultants, and AID team members prior to its submission. This review should:
    - (1) assure that the work carried out throughout the design period is adequately presented; (the PP accurately represents the evolving project);
    - (2) meet AID's needs for project documentation and analysis; and (3) serve to establish that the GON understands key AID policies and procedures that will govern use of AID funds and (4) that AID understands the rules and procedures of the GON.
  7. The PP will be submitted to AID/W during the second or third quarter of FY 79.
3. Resource Conservation and Utilization
1. Detailed design planning will begin as soon as the team leader can be recruited and placed in Nepal. While the GON and Mission are continuing

a dialogue and collecting pertinent information, the detailed inputs from technical specialists, which we view as critical to project design, will probably not get under way until late January 1979. It should be noted that the mix of technical consultants, workshops, field trails, etc. presented in this paper are judged to be necessary. Exact scoping and scheduling will be left to the discretion of the GON, the team leader and the Mission (and if in fact they want to vary the mix of consultant inputs within the parameters of this design project, they will be authorized to do so without prior approval of AID/Washington.

The team leader, as an initial priority will help establish detailed working relationships and lines of responsibility with GON, USAID and other donors working on resource conservation.

2. Training during design will be a critical element to moving forward rapidly once the Phase I project is approved by the GON and AID. Training during the design effort will take four general forms:

a. Observation training for five or six key policy level GON officials to visit on a short term basis (up to four weeks total) four to six countries with similar conservation problems and programs developed to help solve them.

b. Workshops and seminars presented by foreign and local technical specialists in Nepal.

c. Management training of up to 10 weeks for GON senior operating personnel to visit American conservation agencies and study organization and management procedures/systems.

d. Long term training for a limited number of new hires:

Undergraduate training in India, Pakistan or the Phillipines for up to 10 individuals for one year each

Post graduate (second Bachelor's or a new Master's) level training in the US for up to five individuals. In order that this training be immediately relevant to the

RCU project purposes, provision is made for these students to travel and visit on-the-ground projects that can demonstrate implementation of classroom theory. Minor budgetary support for supplies to carry out individual study or research while at the university which will contribute to the Nepal project is also provided.

3. Technical Consultancies will constitute the major AID contribution to project design. The work will begin after the team leader arrives in Nepal, probably in early 1979. Use of Nepalese technicians will be maximized. Under this project AID proposes to finance the costs of both Nepalese and foreign consultants.

Because of the summer rainy season, implementation of field studies will not begin until September, 1978. Studies will take three forms: (1) surveys and baseline data gathering; (2) field trials or applied technological research; and (3) certain action programs such as small irrigation projects, revegetation, monitoring stations, nursery development, all of which can be implemented prior to the starting of the large scale phase. The surveys will be sociological and economic in nature, attempting to establish information on local existing behavior systems as related to resource conservation and potential impact and acceptability of various technological practices. The field trials will be limited in scope, and will attempt to test or refine conservation techniques so they can be rapidly implemented in Phase I. The action programs will reflect and expand on lessons learned in (1) and (2).

The consultancies will include two long-term US specialists and an estimated 10 short-term specialists (US and Nepali) in disciplines covering all technical areas which the project will encompass. A full time staff assembled by APROSC will have primary responsibility for project design. APROSC will call upon expertise from various departments -- mainly Soil and Water Conservation and Agriculture -- as needed. Part III "Technical Analysis" discusses the scope for these consultants and activities to be undertaken under this design effort in more detail.

4. Pilot Activities for RCU, as in the case of the

RAD project design, can also provide valuable information for the design effort, In the RCU, pilot activities might include:

-The introduction of tree seeds or seedlings to farmers with and without material to build fences to determine if they plant and care for them; who in the family cares for them; if the farmer is responsive to technical advice on planting and caring for the trees; how far the farmer will travel to secure seeds, etc.

-The same type of trial could be done with forage seeds to answer similar questions.

-Limited experimentation with fast growing plant species may also be appropriate under the design effort.

-Small construction projects such as drains, irrigation ditches, trails, check dams and diversions to test various methods of involving the local people and ensuring appropriate GON support.

It is proposed that pilot trials be conducted in each of the project sites selected for the RCU project. Cost per site is about \$100,000.

5. Phase I Final Design Workshop will be held in Kathmandu after design consultancies and studies are completed, probably in April of 1979. The purpose of the Workshop will be to establish the final design for Phase I of the project. Workshop participants will include appropriate GON officials, the team leader, AID representatives, and other interested donors as appropriate.
6. Project Paper Preparation will be based on the recommendations of the final design workshop. PP drafting will be the responsibility of AID and will occur during the period April 1979 through early May 1979.
7. Final Review of the PP will in effect be a pre-project negotiation since the Mission will present the draft paper to appropriate GON officials and a wrap-up meeting will be held in mid-May. The PP will be presented to AID/ Washington by

May-June 1979.

Funds in this design PP are sufficient to retain the services of the two long-term members through the point where the Phase I project would start. During the period between PP completion and availability of Phase I AID funds, these two individuals will work on continuing field trials, coordinating with GON officials and generally maintaining project momentum and ensuring that Phase I gets off to a rapid start when funds are provided.

### PART III. Project Analysis and Budget

#### A. General

This Project finances, under unit ont of management, a number of activities which might otherwise be handled under PDS funding (for project design costs) and small project authority. Project components are described in the following pages under the following headings:

B. RAD Design

C. RCUP Design

D. Training

E. Field Operations

F. APROSC Staff and Facilities Development

While RAD and RCUP are autonomous, self-contained projects, opportunities for mutual support and assistance will be sought out rather than avoided. Thus, consultants brought in on one project may be asked to provide some assistance on the other. Field operations under the PDP will not only provide operational insights to both projects but will also initiate long lead time activities relevant to both projects (such as tree nurseries). APROSC staff and facilities development will not only benefit deisgn of both projects but also the overall capacity of HMG to carry out its rural development strategy. Further APROSC staff development will be carried out in the context of design of the projects. While this approach necessarily entails a loss of "neatness", the benefits of its flexibility and mutual reinforcement outweigh the burdens.

#### B. RAD Design

RAD is viewed as a program involving a series of two or more projects to be implemented over a six to eight year period in the Rapati Zone. RAD was originally concieved as a single \$17.5 million project. Design of such a project would have required extensive expatriate assistance in the short run. HMG decided that it preferred to proceed stepwise through a series of projects which could be planned largely with available Nepali expertise. The new RAD I concept reflects this decision. RAD

I will include the following components:

1. Grants to Rapati Zone Panchayats at the district and Panchayat level to support rural works projects selected by the Panchayats but meeting certain criteria such as economic viability, incidence of benefits, contribution of local resources, construction standards, maintenance, etc.
2. Development of human resources of the Zone through accelerated training to academic achievements levels required for entry into regular HMG training courses in fields such as construction, agriculture and health; and the establishment of a Rural Transformation model school.
3. Extension of the successful Small Farmer Development Program and other forms of local action groups.
4. Support of selected Ministry programs such as those of the Cottage Industry Department which effectively address key problems and opportunities in the area. This type of support would not contemplate general budget support such as payment of Agriculture or Health Ministry salaries in the Zone.
5. Selected integrated intervention packages starting on a small scale to develop and refine concepts for addressing specified problems and opportunities in the Zone. Such experimental projects would include small activities such as developing methods of local seed and tree multiplication and distribution; mechanisms to improve availability of drugs for human and veterinary use; and medium scale experimental projects in new or adapted mixed farming system which address specific nutrition needs.

Based on information received from the systematic monitoring and evaluation of these projects, they would then be expanded, modified, or dropped as warranted by their results.

The emphasis in RAD I will be on "learning by doing". Not only will APROSC be developing its capacities in the process of design work but also operations in RAD I will emphasize learning how to promote rural development at all levels. Local governments as well as Ministry officials will be developing skills and techniques. Rural works projects will be used as training vehicles for local people to learn construction, agricultural, organizational and other skills.

The design of RAD I presents the problem of the need to develop a flexible general framework for the RAD program

and the detailed design of the RAD I project. The framework requires not only a general philosophical concept but also design of management and information systems which will serve the design and implementation of RAD II and later projects in the proposed RAD series.

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The following paragraphs describe RAD design work and analysis to be done under the PDP.

### 1. Rapati Zone Socio-Economic Analysis

As described in the Preliminary Project Description and Probability Study, the Rapati Zone is a highly diverse area in ecology, ethnology and economic potential. Unitary strategies of economic and social development are unlikely to be viable. In the absence of a comprehensive planning effort which is inconsistent with HMG wishes, program planning must proceed stepwise and cautiously. It is desirable that knowledge about the area be developed in a systematic manner throughout the life of the program to guide not only project activities but also local development decision making and operations of the donors. The development of such an information system will be based on social and economic data gathered and organized in the RAD Socio-Economic Analysis. It will be supplemented by secondary data sources and new information acquired during the RAD project's implementation.

The Socio-Economic Analysis works will include in-depth studies, baseline survey and other special studies. Not all of this work is required for RAD I and much of the work will not be completed until well after the RAD I project is under way. However, sufficient data and analysis will be presented in the RAD I PP to support requirements for economic and social soundness of the specific components of RAD I.

### 2. RAD Program Framework

The RAD Program Framework will lay out a general plan for the RAD Program in which RAD I is an initial step. The framework will present the best current thinking in HMG and USAID/N about the shape of the overall RAD program so that RAD I can be seen in the context of follow on RAD projects and other operations of HMG, AID and other donors in the Rapati area. It is important to recognize that RAD I is not an "integrated" rural development project. The

RAD program, together with other development activities in the area will be an "integrated" rural development program and the framework, as revised from time to time, will provide a general "roadmap" of that broader program.

### 3. RAD Program Management and Information Systems

A crucial factor in the development of the RAD program is the construction of an effective management system. This will incorporate formulation of plans (drawing both on expressions of need and interest by the people and technical analysis); budgeting; programming operations; implementation in the field; monitoring; evaluation; re-formulation of unsuccessful approaches and replication of successful efforts. A participatory approach makes development of an effective management system especially important and difficult for not only must resources be assessed, allocated and deployed intelligently but also the wishes of local people must be determined, local disagreements resolved, local managerial capacity encouraged, and local resources of knowledge, materials and labor mobilized. All this must be done within a set of constraints which includes not only the availability of skills and resources, but also the need to respond to existing government policy and political requirements. Perhaps most difficult is the accommodation of existing management systems of line ministries with project requirements.

To some degree a management system evolves in implementation. However, the Mission intends that design of the management system not be left to the implementation stage of RAD. Under the design effort a basic management system will be specified and the integration of RAD management system with the operational mechanisms of relevant GON ministries in each area of activity will be effected as soon as possible.

The information system must capture and to some degree guide the work done during project design. Work already done, material from secondary sources and the activities of many participants in the RAD project development activity must be coordinated at the outset to assure efficient utilization of design resources and effective design.

Design of other elements of the project management system (such as programming, budgeting, implementation procedures and the like) logically follow the more detailed determination of the form and substance of project com-

ponents. The precise approach to dealing with these problems depends not only on the nature of the work to be done, and the approval of changes in the existing system, but also upon the skills of available consultants. Insofar as possible, Nepalese consultants will be used when available and in any case, consultants will be sought for detailed project design work who can deal with the management system concerns expressed herein. The work of persons in the separate areas must, of course, be coordinated into a single management system.

#### 4. RAD I Component Design.

RAD I as currently agreed with HMG has five components. The nature of these components and special design problems associated with them are discussed below.

##### a. Rural Works

The pattern of capital investment in Rapati Zone is unusual and in certain respects surprising. The aggregate investment in terracing is enormous. Seemingly every opportunity for creating available land has been taken in some areas. However, one sees very little investment in protecting land from erosion. Use of small water sources for gravity irrigation is common but water systems for human consumption are not. Ingenious small irrigation systems around water courses contrast sharply with the absence of any but a few larger irrigation systems to tap the apparently substantial water resources of the area. There is a scattering of bridges and many trails but many nearby populated areas are largely cut off from each other for purposes of exchange or easy communication. Yet it is very common for trails to have many carefully developed and very beautiful resting places enchanting for the trekkers sheltered by trees and served by small tea shops. On occasion one sees a significant investment largely unused, such as a road motorable for most of its length between two points which themselves lack road access to the outside.

One is tempted to generalize that there is no lack of energy to convert labor to capital on the part of individuals or very small groups and that the power to mobilize labor for large undertakings exists, but that the organization and technical resources required for larger, more complex projects which could provide crucial

requirements such as water and easier access to outside services has been lacking.

The RAD program will address the problem of rural works by helping to develop the capacity of the Panchayat system to manage local works activities. District and local Panchayats will deal with questions of project identification, resource mobilization and allocation, construction coordination and maintenance. Current thinking calls for allocation of grant funds to Panchayats which will pay for work projects largely constructed with local resources.

Projects selected for RAD I grant fund support would meet selected criteria such as economic and technical feasibility, appropriate incidence of benefits, contribution of local resources, construction and maintenance planning and relationship of the project to other development activities and infrastructure. A modified FAR system would probably be utilized.

One objective of this activity will be to test how well the Panchayat System can handle the political and managerial responsibilities of small works construction programs.

The design of this component presents a number of difficult issues such as assuring equitable distribution of benefits of projects working through an often elite comonated system; working out an appropriate approach to utilization of "voluntary" labor contributions by the peasants; developing a viable administrative and managerial mechanism through which the HMG central Ministries and Panchayats can handle the distribution of responsibilities for and within projects; and, developing practical approaches to logistics problems in the isolated Rapati hills areas.

#### b. Small Farmer Development Program

RAD I will attempt a substantial replication in Rapati Zone of a successful experiment in small group organizations. Under FAO sponsorship, a pilot project was initiated by HMG in the Triouli Area (and was subsequently initiated in other locations). In this activity small, self-selected groups of farmers were organized initially to recieve group credit for small farm investments, particularly buffalo. The groups recieved credit, technical assistance and instruction in health and family planning. Preliminary evaluations of the approach are quite

promising. More definitive evaluations are expected shortly. The expansion of the program to several new districts recently will provide further information on problems of extending the program from the pilot project.

Major design problems in RAD I will include issues such as how to expand to a large number of groups; dealing with the more complex ethnographic problems of Rapati; operating in economically less developed areas than earlier tests; dealing with more complicated technical assistance problems than before and the like. The design problems will not be easy. However, building on a successful indigenous model for small farmer organization will be an important advantage.

### c. Training and Education

The RAD programs and related development activities in Rapati Zone will require a substantial investment in human resources development. As the first step in the program, RAD I will define certain specific training requirements and attempt to meet them.

The first concern of this component will be the inability to staff HMG Ministry programs especially in the hills. Training programs for positions in Health, Agriculture, Education and other Ministries are open to all Nepalis - indeed preferential placement is accorded hill applicants. However, HMG programs have not generally relaxed entrance requirements such as SLC or eighth grade attainment for such training. As a result, very few people from the hills get such training. Government officials and technicians from Kathmandu and the Terai generally have not performed impressively in the hills and transfer to better developed areas as soon as possible. The result often is unstaffed or ineffective health, agriculture, education and other programs.

It is generally agreed that people from the hills who enter government positions are much more willing to work in the hills and perform on balance more effectively than others. RAD I will attempt to build the pool of Rapati Zone people eligible for regular HMG programs in order to meet the need for government personnel willing to staff programs in the area. In the first instance efforts will be made to identify and train persons who nearly have required levels of attainment. Later the program will broaden to provide accelerated training to required

educational attainment levels for less advantaged people.

The second concern of the training component of RAD I is initiation of a program of skills development. Working either through existing or new programs, people will be trained in a variety of skills necessary for the Rapati Program. Training will be provided both for workers and if necessary, trainers in construction, health, agriculture, local organization, craft, management and other skills.

The final concern of this component will be a response to the request of the Ministry of Education to establish a Rural Transformation school in a Rapati location. This concept has been impressively implemented in a pilot effort. The replication effort will benefit greatly from the careful evaluation of the prior experience.

d. Extension of Selected HMG Programs

RAD I will not provide general budgetary support for HMG programs in the Zone. However, it is intended that selected activities of special interest be supported. HMG has not presented its proposals in this area. However, informal indications suggest an interest in expansion of certain operations of the Cottage Industry Department in Rapati Zone.

If mutually agreeable opportunities of the nature are determined, the design effort will evaluate prior experience and develop an approach to application of the concept in the Zone working through normal HMG channels for such activities.

e. Experimental Projects

Most of the activities of RAD I will follow fairly well explored paths. How to construct rural works is well known (though new organizational approaches will be explored); Small Farmer Development Program will be based on well tested and evaluated concepts; the training programs are not unique and build on local experience. It has been decided to reserve some resources of RAD I for experimental operations in keeping with the "learn by doing" philosophy. The intention is to try out ideas which show important potential for replication in later stages of the RAD program.

For example, thought is being given to development of local cooperatives to assure adequate supplies of drugs for human and veterinary use since HMG drug supplies generally are sufficient only for three months demand. Also under consideration are small "integrated" packages of activities which might provide low cost but crucial changes in local economics. For example, a water system, fodder trees and credit for buffalo without other outside contributions might be such a sufficient impetus to development that it should be broadly replicated before making major investments of other kinds.

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Concepts such as these will be tested in pilot areas and carefully evaluated to provide guidance to later RAD Program stages.

The design of this component of RAD I is an especially challenging task because it will be necessary to sift many ideas and to select those which have the greatest knowledge potential; locate and construct the projects with great care; and assure an effective approach to evaluation which extracts the best possible knowledge yield.

#### 5. APROSC and Consultant Functions

Management of the design process will be the responsibility of APROSC. APROSC will provide from its own staff, from other HMG sources or from private Nepali consultant sources personnel in the following areas:

1. Economics
  2. Agriculture
  3. Rural Works
  4. Education
  5. Training
  6. Conservation
  7. Local Organization
  8. Rural and Cottage Industry
  9. Anthropology
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A total of 200 months of design and analysis services of Nepali professionals and 100 months of Nepali field technicians will be required at a cost of approximately \$70,000.

APROSC has requested the following outside assistance:

1. One expatriate for 12 months to assist APROSC in the design, execution and analysis of a large baseline survey in Rapati Zone (\$120,000);
2. One expatriate for 12 months to assist APROSC in the design and implementation of a comprehensive rural development information system for Rapati Zone; (\$120,000)
3. A total of 12 months of selected consulting services (\$120,000).

In addition to the foregoing, the project will fund \$150,000 of specialized individual contract assistance directly to the Mission on matters relating to PDP, RAD and RCUP.

#### C. Resource Conservation - Project Design Analysis

Resource conservation is an extremely complex subject requiring a multi-disciplinary attack. The RCU design effort will attempt to begin a process that will, in time, significantly improve the soil and water resource conservation and use practices in Nepal. To do this and before proceeding to a Phase I project, a number of technical, social, economic and institutional analyses are required.

There will essentially be three main outputs from the design effort: (1) selection of areas for Phase I implementation, (2) a technical design, i.e., intervention packages, and (3) a plan for developing and improving institutional capability of the GON and local management authorities, all of which are interdependent.

1. Site selection will involve identifying up to five "Hill Land" areas, where the Phase I project will be implemented. These areas will be diverse in nature to enable trials under varying physical, biological and socio-economic conditions. All areas will be identified as having a reasonable chance of impacting on the problem area.

Using information and criteria collected and developed by the Soil and Water Conservation Department and APROSC,

the GON with the concurrence of AID will select the project areas for Phase I. This will require a screening process gradually narrowing potential sites to arrive at the "optimum site mix". The GON is currently working on this process and expects to have the sites selected by the summer of 1978. This will enable the design effort to focus on specific sites and prepare a detailed site specific project design.

2. Technical Design will constitute the detailed strategy, plans, analyses, and sub-project implementation packages for the Phase I project, i.e., the physical activities to be undertaken in the project sites. These activities would include changing cropping patterns, improving off-farm employment, research into non-conventional energy, application of improved animal husbandry techniques, hydrological data gathering, etc. It is critically important that the project implementation be viewed as a coordinated effort, each being interdependent of the other, and that socio-economic settings be fully integrated into the design.

The two long term team members, the team leader and the rural organization specialist, will have as a major responsibility helping the GON insure that integration of project components and village behavior patterns are rigidly adhered to.

3. Institutional Improvement will be an important long-term objective of AID involvement in Nepal's resource conservation program. This portion of the project will include development of appropriate reporting, control, information and other management systems. Currently the institutional capability, specifically trained and experienced personnel, is a major constraint to any sizeable conservation effort. The capability of Nepal to absorb resources necessary to significantly impact on the problem area is limited. Therefore a major objective of any project to assist in this problem area must be education and training needed to expand and improve Nepal's capability to solve its problems. AID envisions a major education and training component in the proposed Phase I project.

During the design effort, detailed plans for training and management improvement must be developed so the institutional improvement portion of Phase I can begin in force as soon as funds are available.

The training plan will include:

1. Curriculum design for soil and water conservation;
2. University faculty development;
3. Development of a technician training program;
4. Design of a continuing education program;
5. Development of short courses and seminars for non-technical policy makers.

To enable the Phase I project to get off to a fast start it will be necessary to provide training under the design project in (1) India for up to 5 junior level people who will be responsible for implementing various parts of Phase I. This type of training will be limited to one year. (2) Training in the US for 5, either at the B. Sc. or M. Sc. level in specialties not now available in the Nepal organization to provide input not only for Phase I, but the long-term organizational needs. This type of training may take up to two years.

#### 4. Consultancies

To assist the GON and Mission in performing the necessary design analyses, a design team (comprised of Nepalese and foreign consultants) is proposed under this project. Coordination of the RCU effort with related AID and other donor activities, eg. integrated cereals, seed production, will be essential.

a. Team Leader: A conservation/resource utilization specialist to assist the GON design effort and to advise as a particular specialist in resource conservation and forestry (long term, 12 months).

b. Rural Sociologist: Will concentrate on three main project areas; (1) local participation and acceptance of project interventions; (2) designing and testing effective community management systems and (3) seeing that the distribution of benefits is biased toward the rural poor (long term, 9 months; available in country).

c. Watershed Specialist: Will assist the GON with project design for those portions involving watershed management and development (short term, 10 weeks).

d. Range Management Specialist: Will contribute to development of range management plans, initial scopes

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and research design as appropriate for potential project areas. Will also propose potential areas where GON regulations could play more effective role (short term, 10 weeks).

e. Agriculturalist: Will recommend alternative crops and cropping techniques that would improve soil and water conservation and use (short term, 10 weeks; available in country).

f. Energy Specialist(s): Will assist the GON to identify site specific applied energy development possibilities and examine the general viability of various nonconventional energy technologies which would help in solving the conservation problems (short term, eight weeks).

g. Rural Employment Specialist(s): Will generally evaluate the role rural labor and employment plays or could play in alleviating the resource conservation problem and develop interventions which could contribute toward the project's conservation purposes (short term, eight weeks; possibly available in country).

h. Agricultural Economist(s): Will be expected to help GON and Mission personnel develop both the macro and micro level economic rationale and justification for the project (short term, eight weeks).

i. Technical Education/Training Advisor: Will be responsible for assisting GON in developing the training portions of the Institutional Improvement program (short term, eight weeks).

j. Extension Specialist: Will develop the non-formal and village/farm level public education component of the project (short term, eight weeks).

k. Agricultural Credit Specialist: Will assist GON in determining credit constraints to application of conservation techniques and design a plan to relieve constraints (short term, eight weeks; possibly available in country).

l. Marketing/Transportation Specialist: Will participate in surveys of marketing/transport constraints in project site area which are negatively impacting on the environment and make recommendations as to how Phase I project could alleviate constraints (short term, eight weeks; possibly available in country).

M. Information Management and Systems Analysis:  
 Will assist in establishing baseline studies, planning and monitoring project progress. Data to be collected and analyzed on various resource factors will contribute ~~to assessing overall program effects as well as contribute~~ to suggesting program modifications as the development of an early warning system on basic resources.

The mix of local and foreign consultants to accomplish the project design will be determined by the GON design committee including the team leader. For purposes of budgeting the design costs, the GON has identified possibly five of the consultants listed above as being available in country. It is important to note that the mix and length of service of the consultants may change as we get further into project design and needs for other areas of specialty are possibly identified. For example, England and the World Bank will be supporting a Mission to look into forestry training and since soil and water conservation is closely associated with forestry in Nepal it will be most desirable for the team member of the design place to link up with other donors in the training development. This input will require adjustment of service time. Overall changes, however, are not expected to be significant and costs will not exceed those estimated herein.

Specific Nepalese APROSC staff members will include the project manager, three agricultural economists, three agriculturalists, one cottage industry expert, a soil conservation specialist, a sociologist, a forest specialist, technical training specialist, extension specialist, economic geographer, irrigation engineer, hydrologist and a civil engineer.

Note I: The Peace Corps has a considerable number of volunteers in the hilly areas of Nepal who will be used in this design effort and in the later implementation stage. Their experience as well as their willingness to live in isolated areas make them uniquely qualified to make a great contribution to this conservation effort.

#### 4. Other Project Support

The GON has submitted to AID a request to assist in

establishing the Remote Sensing Center for Nepal. The Mission has prepared a PID, based upon this request for Agriculture/Resource Inventory Systems Nepal. The proposals goal is to conserve land by promoting appropriate land use practices and to control soil erosion through effective watershed management and use. There is a strong relationship between these goals and the RCU/RAD objectives. Hopefully, approval of the P<sup>P</sup> can be accomplished in time to provide support to the RCU and RAD projects.

#### D. Training

The human resources development requirement for the RAD and RCU projects presents an especially serious constraint. As in any isolated area of very limited development, skills of many kinds are required. But most of the needs cannot be effectively filled from outside the Zone. Life in the hills is demanding. HMG experience suggests that very few Nepalis from the Terai or the cities can perform their jobs well in areas such as up-country Rapati Zone. While it is generally agreed that local people trained in various skills and returned to jobs in the hills do often perform effectively, the pool of potential trainees upon which HMG can draw for its regular training program is very small because the number of people with basic education required for the professional and para-professional training program is small.

The human resources development problem will be a long term concern in the RAD and RCU programs. Both will concentrate on expanding the pool of persons who meet the education prerequisites for HMG training programs and establishing training programs for skills required by RAD operations for local people (such as construction and basic management). In addition RAD I will finance the replication in Rapati of a Rural Transformation School.

USAID/N has been informed that experienced Nepali consultants are available to carry out the design requirements for these activities.

The PDP will finance initial training activities for the RAD and RCU programs. Preference will be given for training requirements necessary for early RAD I operations.

For RAD this will include courses for agricultural construction and small industry technicians. Training of APROSC staff in selected specialties is also contemplated. Specification of training activities under PDP will be dependant upon availability of suitable trainees, training program availability and the determination in the RAD I project planning process of crucial skill requirements. For RCU this includes training of five or six persons for one year in India or possibly the Phillipines in general soil and water conservation and five in the US for two years in soil and water conservation, range management and hydrology. Funds for the RCU are provided for US trainees to (1) visit field projects that serve as examples of classroom theory and (2) provide for purpose of supplies necessary to carry out studies connected with academic studies and related to the Nepal scene.

Where possible, in country training will be provided. Otherwise, preference will be given to training programs in India, the Phillipines or other Asian countries. However, where US training is warranted by the lack of suitable alternative training opportunities and by the need to initiate training as soon as possible for programmatic requirements, US training under PDP financing will be permitted.

Training costs are reflected in the budget under the projects to which they relate.

#### E. Field Operations

Preliminary consideration of a Rapati Zone project by HMG and USAID/N attracted considerable attention both in the Zone and Kathmandu. The desire to explore the possibilities of a large scale integrated rural development effort necessitated several reconnaissance efforts in the Zone. Because of the inaccessibility of the area, study teams were transported by STOL and helicopter to the Zone. A "low profile" was impossible under the circumstances. Expectations of early development activity on the ground were raised among local leaders despite efforts by HMG and USG officials to avoid it. As a consequence, HMG urgently requested that USAID include in this project funding for initial project activity in the Zone as an earnest indication of HMG interest in improving conditions there. This request was considered and approved in principle by AID/W in April. This history is repeatable for the RCU. The Mission was instructed to work out a small program of local activities of up to \$500,000 for

inclusion in these projects.

HMG and USAID determined that the initial activity should be limited to small rural works, the benefits of which would be beneficial to all in its area, but not especially beneficial to a few (such as water systems and bridges but not irrigation); tree nurseries; and support for the Cottage Industry Department's program in the area.

#### 1. Water Systems

Rural water systems are needed throughout the Zone. Preliminary RAD reconnaissance teams identified some forty potential sites for water projects and many more are doubtless required. The Local Development Department of the MHP has developed experience in construction of local water systems with Peace Corps and UNICEF assistance. The approach used is highly participatory in nature. While water systems could be built more rapidly under direct contract, HMG and USAID/N believe that the approach used by LDD is sounder because of the characteristic of self-reliance of local people.

Water project sites will be selected under the following criteria:

a. Access to drinking water at the site must present "serious" health problems. Existence of "serious" problems to be corrected by the system would include polluted water or water sources at such a distance that inadequate amounts of water are available for the majority of potential users.

b. Site selection should be consistent with a broad based demonstration effect. These projects should be allocated among districts on an equitable basis. Projects should be allocated to areas of various ethnic backgrounds on an equitable basis. The objective of this criteria is to have a selection of demonstration projects from which other people in the Zone can learn how to carry out water projects.

There should be a water project benefitting every major ethnic group and persons of every major language group.

c. In selecting between sites meeting the foregoing criteria, preference will be given according to a weighty formula which takes into account the number of people to be served and the reduction in distance from the

current water source to the proposed site.

The relationship of the water project to the purpose of the PDP (assist self-reliant development and make development opportunities available to the rural poor of the Rapati Zone) is grounded in the participatory approach to be used and the demonstration effects created. Local organizations will marshal local resources for building systems to be locally maintained. Only those commodities and services required which cannot be locally supplied will be provided. This approach emphasizing self-reliance will demonstrate to other communities how they can improve their condition with minimal or no outside assistance.

The problems addressed by the water systems are those of polluted water (and the myriad health hazards generated thereby); limited amounts of water whether or not polluted (which affects health among other ways through cleanliness); and the impact on family labor utilization of walking long distances to get water. As fetching water is generally done by women, water projects have an especially significant impact on the role of women.

It is not anticipated that building water systems will encounter serious problems other than the availability of trained persons to design the projects and supervise construction. Water projects are eagerly sought by communities throughout the Zone. Technical assistance sufficient for the limited number of projects involved can be supplied by LDD, Peace Corps, ex-PCVs in country and UNICEF.

## 2. Small Bridges and Trail Improvement

The typology of the hill areas of the Zone (approximately 75% of Rapati Zone) is a crazy-quilt of hills, ridges, rivers and valleys. Access from one village to another nearby is often difficult and at some times of the year is impossible. This impedes communication, elementary economic specialization and access to basic services. Small bridges and improved trails can significantly improve local conditions. Often the need for outside assistance is quite modest: a few implements, some technical assistance, or a few dynamite charges. This component of the PDP project will provide assistance.

Criteria to be applied for selection of local projects are as follows:

a. The project should be broadly beneficial to most or all people in the area rather than beneficial primarily to a few.

b. Allocation of funds should follow a pattern of equitable distribution and demonstration effect by geographic location, ethnic and language group as in the case of water projects.

c. Preference will be given to small activities involving purchase of commodities or technical assistance services to assist in ongoing local projects of projects already planned which are held up for lack of small amounts of funding ( up to \$2,000).

This activity relates to the purpose of the project by assisting self-reliant efforts at local improvements both for the benefits generated thereby and the demonstration effect of these activities on other people in the Zone.

The problems addressed are those of communication, access to services and development of trade in the area.

Few obstacles to carrying out this component are anticipated. There is a large backlog of requests for assistance in bridge and trail development. The tasks involved are technically fairly simple. Requirements are primarily for commodities and technical advice which can be accessed easily given the availability of funds.

### 3. Tree Nurseries

Many critical problems of Rapati Zone - the need for fuel, fodder, food, material, environmental degradation, and employment requirements among them - are related to trees. Trees - like water - have a myriad of linkages to the development problems of the Zone. Any viable development strategy conceivable for the Zone will involve tree planting. Local tree nurseries will be required. Developing tree nurseries takes time and much needs to be learned about how to organize and manage tree farms and distribution in the Rapati Zone context. Tree nursery development will provide experience for project planners as well as a crucial source of supply for later work.

Site selection will be made on the following criteria:

a. Technical suitability of soil and other ecological conditions for the types of trees to be grown at the sites.

b. Accessibility of the sites to the population of the Zone as a whole.

c. Accessibility of the sites to technical assistance, commodities and other requirements.

Tree nurseries relate to the project purpose primarily as a means to make development opportunities available to the rural poor. The nurseries are not themselves "self-reliant" projects but rather provide a crucial requirement for self-reliant projects involving tree planting. Such projects would improve supplies of fuel and fodder; improve nutrition with fruit (and conceivably lead to commercial fruit growing in the future); address problems of erosion and water control. These projects are uniquely suitable for local self-reliant planning, organization and control but the supply of suitable tree saplings is a crucial constraint as to which outside technical and material assistance is essential.

The problem addressed by this component is that of the supply of suitable tree planting material and how to organize local nurseries to meet the problem over an extended period of time.

No major obstacles are anticipated to implementation of this component. The need is recognized and appropriate technical expertise is available to carry out the project.

### 3. Cottage Industry

Expanded opportunities for off-farm employment are essential for meeting the development needs of the people of Rapati Zone. The Department of Cottage Industry has supported rural industry in Nepal with various programs including training, market analysis, financial assistance and other services. This project will support extension of various Cottage Industry services to the people of Rapati Zone.

Criteria to be applied in selecting activities and the sites where they will be carried out are as follows:

a. The activity should be one which has been successfully implemented elsewhere in Nepal by Cottage Industry Department. Variations on activities as appropriate are acceptable but purely experimental new activities should be deferred to later financing.

b. All criteria normally applied by Cottage Industry Department will be applied to any activity financed under this project.

c. Preference will be given in site selection to those areas which service especially disadvantaged groups including craft caste members, Tharcts, and residents of the poorest sections of the Zone.

d. Preference will be given to activities which provide especially promising opportunities for wide-spread replication under RAD I financing or which can function as a base for widespread delivery of services with further financing (such as the establishment of emporia).

This component relates primarily to the project purpose of providing opportunities to the rural poor. It is not expected that a high degree of local self-reliance will characterize this component. To the contrary, the techniques, personnel and experience of Cottage Industry Department will be drawn upon heavily in implementation.

The problems addressed by this component are those associated with constraints on local industry: appropriate technology, market development, lack of trained - or appropriately trained - workers, and inexperienced management.

Obstacles anticipated are those commonly encountered by the Cottage Industry Department's programs: lack of trained personnel, difficulties of communication, inherent problems of business development in areas of very low levels of development and monetization. For these reasons, this component will focus on two areas: doing those things the Department knows how to do well and training personnel for later small industry operations in Rapati Zone.

The Department of Soil and Water Conservation is identifying action field operations that can be implemented during the RCU design project. There are tested and identified techniques of successful soil and water practices for the interrelated conditions found in the Nepal environment. The exact location of each sub-project will be identified by the project design teams during their field visit: examples of treatment or projects are as follows:

a. Nursery Development: It is apparent that nurseries will be required to produce plant materials for revegetation. Establishment of these nurseries prior to Phase I implementation will give a growing season or two lead time in getting planting stock prepared. Grasses, shrubs and trees will be used.

b. Reseeding of Deteriorated Areas: Erosion is evident throughout the mountains. Areas in need of immediate ground cover are readily seen. A sub-project will be carried out whereby local labor or aerial seeding will be used to provide a maximum of ground cover.

c. Small Scale Irrigation: As with the RAD project the RCU will initiate small irrigation schemes to help promote good agricultural practices. Local people express this need as high priority.

d. Construction of Check Dams: Nepal has a good background in construction of check dams to assist in arresting gully formations. Areas where these techniques can begin are evident in all locations. Local labor and materials will be used.

e. Small Scale Instrumentation: Nepal does not have a backlog of data to use as a foundation for detailed project planning and design. The sub-project will install monitoring equipment such as rain gauges, weirs or flumes, sediment samplers, etc.

The criteria to be used for selection of sites to initiate work will include (1) local people support and need, (2) HMG capability, (3) degree of site degradation, (4) accessibility, and (5) time available for completion.

#### F. APROSC Staff and Facilities Development

Agriculture Projects Services Center (APROSC) is a semi-autonomous dependency of the Ministry of Agriculture organized to provide project development and other consulting services in agriculture and rural development. Under the leadership of B. P. Dhittal, APROSC grew rapidly in size and scope of staff and workload. Under its new director, Dr. Pant, the organization is faced with need to upgrade its staff and facilities to handle the workload thrust upon it as well as build for the future. These projects will assist in three critical areas:

## 1. APROSC Staff Training

While APROSC has solid leadership and a number of talented young staff people, it is very short of middle level managerial and technical capacity - characteristic of a rapidly growing organization. Training is required for a number of key staff positions. However, that training would make the trainees unavailable for the unit's work for one or more years. Qualified persons must be found to fill in for APROSC staff on training assignments.

USAID/N proposes a cooperative training program under which APROSC staff member training will be financed and substitute expatriate personnel will fill in for the trainee during the training period. The cooperative training approach is experimental. It is not intended to cover all APROSC requirements. If the approach proves to be feasible, additional funding may be provided under Mission small project authority or by other donors or both.

This cooperative training approach will provide \$100,000 for up to two years of US training for APROSC staff and a US substitute or some other combination of training and substitute staff. If training is provided in India rather than the US, training costs will be reduced from approximately \$10,000 per year to \$2,000 per year. Substitute staff costs may range up to \$40,000 per year but may be secured for less if qualified persons are available locally or will work for less pay and supporting services than regular AID contractors. Substitutes may be provided through Peace Corps or other foreign donors.

It is not possible to present the plan in detail because, by the nature of the problem addressed, each operation must be tailored to APROSC requirements, including its staff capacities, identification of suitable substitutes, availability of suitable training opportunities and the like.

If this approach works effectively, a crucial bottleneck in project planning can be broken. In any case, APROSC's short and long term capacity will be improved to the extent of funding availability under this project. This will directly benefit, and will perhaps be essential for, timely RAD and RCUP project development.

## 2. Continuation of ASIP Program

The Agriculture Sector Implementation Program (ASIP) is a training program for agriculture and rural devel-

opment operations developed under a Development Support Bureau contract. The concept is being tested in Egypt and Nepal under central AID funding. This funding will run out in approximately one year.

HMG has concluded that the ASIP program is highly desirable and wishes to extend the program in time and scope. Specific decisions have not been made on the nature of the extension. However, APROSC, which has carried out the ASIP test, will be the implementing agency. Ultimately, ASIP training services will be financed by various projects using its services on a user charge basis. However, the transition from central AID funding to user project or other more permanent funding exposes the ASIP training activity to a potential financing gap. This presents a serious threat because the demand for ASIP trainers in other development activities may result in the loss of important, well trained staff people if their tenure with ASIP work is not secure.

This project will provide up to \$100,000 for continuation of ASIP training activities during the transition period. The funds will also be available for short term technical assistance for the Nepali staff if required.

### 3. Construction of APROSC Headquarters and Training Center

APROSC training activities have grown very rapidly as has its consulting work. Lack of a permanent training facility has been a hindrance to effective training and will continue to be so unless an appropriate facility can be provided.

Repeated moves from one rented office to another have made the orderly transaction of business very difficult for the organization.

APROSC has raised roughly \$300,000 of the approximately \$400,000 needed to build a facility in Kathmandu. An additional \$100,000 will make it possible to start construction promptly.

Adequate facilities for APROSC will be a continuing benefit to the RAD, RCUP and other rural development activities in Nepal for the foreseeable future. APROSC is the chosen instrument of HMG for design of these operations. Its training services are highly regarded.

APROSC has established itself as a factor in the Nepali development community. A continuation of temporary facilities can only constrain its capacity to assist HMG and donor organizations using its facilities for more effective services to the rural poor.

## PROJECT DESIGN PROJECT BUDGET

('000 DOLLARS)

	<u>FX COST</u>	<u>LOCAL COST</u>	<u>TOTAL</u>
<b>I. Estimated RAD Related Costs</b>			
Personnel			
Foreign	510	-	510
Local	-	70	70
Training	130	20	150
Local Transport	10	163.4	173.4
Field Operations	100	300	400
Miscellaneous	30	20	50
APROSC Overhead (40%)	-	19.2	19.2
Sub-total	<u>780</u>	<u>592.6</u>	<u>1,372.6</u>
<b>II. Estimated RCU Related Costs</b>			
Personnel	390.1	80	470.1
Training	341	20	361
Local Transport	15	141.5	156.5
Baseline Studies	-	26	26
Field Trials	25	75	100
Miscellaneous (supplies, office, etc.)	35	30	65
APROSC Overhead (40%)	-	48.8	48.8
Sub-total	<u>806.1</u>	<u>421.3</u>	<u>1,227.4</u>
<b>III. APROSC Staff and Facilities Development</b>			
Training	100	-	100
ASIP Extension	50	50	100
Facilities Construction	100	-	100
Sub-total	<u>250</u>	<u>50</u>	<u>300</u>
<u>GRAND TOTAL</u>	<u>1,836.1</u>	<u>1,063.9</u>	<u>2,900.0</u>

## PART IV. Implementation Planning

This part of the paper has three sections:

A. Implementation Planning for RAD 1; B. Implementation Planning for RCU and C. Implementation Planning which relates to both RAD 1 and RCU, e.g. contracting, procurement, evaluation, exceptions.

### A. Rural Area Development (RAD)

#### a. Government of Nepal

While the Agricultural Projects Service Center (APROSC) will have primary responsibility for project design, inputs will be required from a number of GON institutions. Accordingly, the GON will form a central government Project Design Committee composed of relevant ministry personnel. District and Zonal Committees will also be formed.

APROSC is a semi-autonomous organization of the Ministry of Agriculture. The organization was established to provide high quality technical services to the GON in the development, design and evaluation of projects affecting the rural sector.

APROSC performed a reconnaissance survey study and organized and managed the work of the large joint Nepali-American team which developed the document on the basis of which the Rapati Zone project was included in the FY 79 Congressional Presentation. Based on the team's report and its surveys, APROSC produced a general pre-feasibility study for the Rapati Zone.

The Mission plans to develop an involvement in the RAD by Tribhuvan University. Various faculties of the University will be drawn upon for assistance during design. Among other elements will be the Institute for Agriculture and Animal Science at Rampur and the social science and economics faculties and "Centers" located at Kathmandu. Rampur in particular has been an important center for practical training in agriculture and agricultural economics. Representatives of the Institute have participated in the design process and have indicated their interest in an extended involvement with the Rapati Zone project. It is anticipated that the other Tribhuvan faculties including public health and engineering will be

drawn into this process. In this fashion the Rapati Zone project will not only be of benefit to the population of the area but also provide experience and training which can be broadly relevant to development problems in Nepal as a whole.

A number of ministries of the GON will be involved in the design and development of the Rapati Zone project. These ministries include Home and Panchayat (which will be the key implementing agency), Agriculture, Public Works, Health, Education and the Department of Cottage Industries, as well as the Finance ministry and the Planning Commission.

During the process of project design to date, the various ministries have contributed the time and the personnel for analysis and design work. While agreement has not been achieved in all areas, the mission is satisfied that the ministries are committed to cooperation with the project. While the ministries are necessarily limited in the amount of time which their key personnel can contribute to the project, APROSC has been in continuing contact with all relevant ministries. The process of involving the ministries will continue through project design so that by the time RAD 1 begins, necessary intra-governmental relationships and responsibilities will have been established.

In addition to the GON central ministries which will be working with the projects, the local administration and Panchayat systems are, of course, crucial to the success of project design and ultimate implementation. The Ministry of Home and Panchayat will be the primary ministry leading the Phase I implementation effort. Home and Panchayat is represented in the Rapati Zone by the Zonal Commissioner and five district officers. These officials in the past have primarily had responsibility for law enforcement and tax collection. However, a number of local public works projects are carried out on a regular basis under the leadership of the District Officer.

This capacity will be utilized under the proposed Rapati Zone project. Under the local government administrative system, representatives of the various central ministries work with the District Officer in his district in carrying out the programs of the central ministries in these areas. District and lower level representatives of the central government ministries reflect varying levels of technical competence and dedication. One of the objectives of the project will be to assure high quality of personnel which will be required to lead and supervise the various effects contemplated. Deepening the involvement of District and local Panchayats will also take place under RAD I.

In addition to the various Nepali institutions which are involved in the project, Cornell University may be involved in the activity. Cornell would work with APROSC and the Mission under a cooperative agreement arranged through the Office of Rural Development, Development Support Bureau. Under this agreement, a range of technical services will be provided relating to the scope and nature of "popular participation" in the project. Cornell University through its faculty has extensive experience in Nepal. In addition, a large number of Nepali citizens have been trained at Cornell and returned to Nepal. This network of personal and professional relationships would be a significant asset to GON and the Mission in assuring support and high level technical work in connection with the project.

b. AID Project Administration

Management of the design effort within AID will be accomplished through a Mission Project Committee. The Committee is chaired by the Chief of the Rural Area Development Office. Other members of the Committee will include other relevant Mission personnel, e.g., capital projects officer, agricultural officer, human resources officer, etc.

Given the interdisciplinary nature of the RAD project, technical coordination of the design effort within the Mission will be critical. The management of AID inputs to the design will be a time consuming job during design. The Mission plans to staff its newly created Rural Area Development Office with two US direct hires, one US PSC, two Nepalese professionals and two Nepalese admin/secretaries.

B. Resource Conservation and Utilization (RCU)

Administrative Arrangements

a. Government of Nepal

As with RAD, APROSC will assume the leadership role in the design phase of the RCU project. APROSC is in a unique position to take this responsibility during design because of its ability to pull in specialists from other GON ministries and institutions on a short or long term basis without going through time consuming government procedures. (The RAD implementation section discusses APROSC in more detail).

The RCU design effort, which APROSC will execute, will involve a series of design committees at various levels of government and a permanent staff composed of APROSC personnel; professionals borrowed from other ministries, e.g., Soil and Water Conservation Department, Home and Panchayat, Agriculture; and local and foreign consultants.

The committees will reach from the central government to the zonal and Panchayat levels and will thereby insure project coordination and inputs from central ministries, district and zonal officials and the representatives of the local population in the project sites. The Committee at the central level is presently being created and will include mission representation. The Committees below the central government level will be formed as soon as the project sites are selected -- not later than the summer of 1978. These lower level committees will be important during project design and project implementation as part of the prime moving concept of participatory development.

As regards the permanent staff of APROSC, there will be a project design manager and technical staff together with the AID funded Team Leader working full time on the project. Since this project will be a major program of the newly established Department of Soil and Water Conservation, the Department will assign at least one full time staff member to the effort as will the Ministry of Agriculture.

While APROSC will have a full platter of design activities with RAD, RCU and some non-AID projects, given the fact that APROSC can borrow personnel as needed, both APROSC and the Mission are of the opinion that it can adequately provide needed staff

resources and leadership to the RCU design effort. When design activities are completed the Department of Soil and Water Conservation, in conjunction with other involved ministries, particularly the Home and Panchayat Ministry of the central level of government, will form the core leadership group for Phase I. The ward, district and possibly zonal levels in selected site areas will assume the leadership role for Phase I implementation. Exact working relationships, administrative procedures, etc., will be developed during project design for Phase I implementation.

b. AID Project Administration

As with RAD, the Mission will form a Project Committee for RCU. The Committee will be chaired by a member of the Office of Agriculture and Committee with members from offices such as Capital Development, Economic and Sociology staff, Rural Development, Human Resources, the Controller, etc. The Chairman will have primary AID responsibility for the design project.

The optimum mix of Phase I project activities, given GON and Mission management and resource limitations, will be developed during project design. Special emphasis will be given to designing the project activity mix so that the Phase I project can be considered reasonably implementable. At present, the possible mix of activities is not restricted. Given the complex nature of the conservation problem and the number of variables contributing to the problem, all options must be explored in detail during project design before scaling down to a definite mix of Phase I activities.

Every attempt will be made from the outset to coordinate with other appropriate donors. This seems especially critical considering all the interest and potential investments in resource conservation and development. It seems likely that under the auspices of the RCU project a leadership initiative will be forthcoming, i.e., Soil and Water Conservation and range management.

The project envisages culturing support areas necessary for a successful operation. For example, there is a need for a soundly conceived small-scale network of instrumentation and associated measurements of treatment effects. Cooperation will be needed with the Department of Hydrology and Meteorology, the Remote Sensing Center and Department of Topographic Surveys.

C. General Implementation Arrangements (RAD and RCU)

a. Procurement and Contracting

To the maximum extent, country contracting and procurement will be utilized during the design of the RAD and RCU projects. However, because of the short-term PSC technicians required to execute the design efforts, it is anticipated that direct AID contracts, using the AID/W contract office as the agent, will be required to minimize the flow of contract documents between the field and Washington. PIC/Ts for direct contracts will be prepared by the Mission for submission to AID/W for action.

Procurement of commodities and equipment to the extent possible will be the responsibility of APROSC using "Country Contracting Procedures". It is anticipated that most commodity procurement will be "small value" and therefore non-formal procedures can be used in most cases.

b. Disbursements

Except where AID/W is the authorized agent and allottee, e.g., for some service contracts, disbursement of funds will be handled by the Controller. This will be in the form of direct payments to contractors and suppliers based on documentation presented through APROSC.

In disbursing for pilot activities in the field the Mission will test several payment mechanisms, e.g., fixed amount reimbursement, and during project design will work with the GON to develop an acceptable procedure for disbursements during implementation.

c. Evaluation and Reporting

APROSC will prepare monthly activity, financial and procurement reports for submission to USAID. Formal evaluations will not be required for design effort. The "Final Design Workshops" for RAD and RCU will be the point at which all work performed under the design will be reviewed. These workshops will serve as the evaluation, i.e., they will answer the question, "Has the design project accomplished its purpose?" Field operations and training will be monitored and evaluated in accordance with regular AID procedures.

d. Incountry Air Transportation

1. Rental of Air Transport Equipment: Costs of in-country travel of consultants, GON officials, project design staff and other persons participating in the project design will be substantial. The project can rely only in part on scheduled air service between Kathmandu, the Rapati Zone, and RCU sites. (One flight per week to Rapati - often cancelled) and most of the RCU sites will be without adequate scheduled service also. It will therefore be necessary to charter STOL aircraft for this purpose. In addition it will often be necessary to charter a helicopter for rapid movement within the project areas. Finally air service will be required for evacuation transportation in case of emergency.

Following is the estimated air transport rental costs for the RAD and RCU projects for the one year design effort.

Rural Area Development

STOL                    100 trips x 4 hours = 400 hours

Helicopter            50 days x 4 hours = 200 hours

STOL transport rental costs are about \$175 per hour and helicopter rental about \$375 per hour. Required RAD air transport will cost an estimated \$155,000. Hours of air time are computed on consultant trips (Nepalese and foreign) and supply trips required to the Rapati administrative center. \$10,000 has been budgeted for scheduled air service in the above figure.

Resource Conservation and Utilization

STOL                    130 days x 4 hours = 520 hours

Helicopter            25 days x 4 hours = 100 hours

At \$175 per hour for STOL and \$375 per hour for helicopter, the total estimated air rental charge is \$138,000 (allowing \$10,000 for scheduled air transport).

Total costs for renting air transport and for scheduled air travel for both projects is \$293,500.

2. Alternative to Hourly Air Rental: Given the high cost of renting required air-craft for the RAD

and RCU projects design effort, the probability that the limited Nepalese aircraft fleet will not be available on a timely basis and given the ever present question of proper maintenance and safety, the Mission has investigated the feasibility of leasing an aircraft for the RAD and RCU design efforts. The economics of doing so, not to mention the availability and safety question seem to justify a lease.

Rental from Royal Nepal Airlines for a seven passenger Pilatus Porter costs about \$175 per hour or \$122,500 for 700 hours. Cost quotations from Aerosystems, a distributor for Cessna in India, state that a one year lease of a 7 passenger Cessna Turbo Skywagon 207 would cost \$100,099 for 700 hours or about \$143 per hour. Aerosystems made estimates for the Cessna 207 equipped for use in Nepal as follows

1. Aircraft lease for one year	\$33,564
2. Monthly engine overhaul	2,496
3. Fuel for 700 hours	19,600
4. Full-time pilot	24,000
5. Engineer	18,000
6. Landing/parking fees	2,439
	Total <u>\$100,099</u> for one
(Aircraft and Passenger Insurance included)	year and 700 hours

Given the fact that the project will require in the neighborhood of 900 hours of STOL time, the Mission plans to lease or to finance the leasing of the Cessna, either directly or through the GON (APROSC) and supplement it as required with local STOL or helicopter rental.

It is the Mission opinion that for economic, availability, convenience and safety reasons, the lease agreement should be entered into assuming a workable contract can be developed. Before proceeding to lease or to approve the GON leasing an aircraft, the Mission will further investigate and request quotations from other local suppliers to obtain the lowest reasonable price.

e. Conditions to Disbursement

1. Prior to disbursement for any costs associated with construction (with the exception of feasibility and design costs), the GON will prepare, and submit to USAID detailed design plans, specifications and a plan for construction and acquisition of required equipment for the Training Center for AID's approval.

f. Exceptions

1. Vehicles: The PP proposes procurement of three jeep type vehicles and two motor cycles from a code 941 source, e.g., India. The reason for 941 source is that to obtain the required vehicles in time for use in this project design effort, procurement from the US is not practical. Vehicles from India can be obtained in two or three weeks whereas from the US, four to five months is required. Satisfactory vehicles are available from India.

2. FAA Section 110 (a): The project proposes financing almost all of the costs of designing RAD and RCU (both in foreign exchange and local). Therefore, the project does not meet the 25 percent "host country contribution" normally required under FAA section 110 (a) and a waiver is herein requested.

Provisions for this waiver are provided in Section 307 of the International Development and Food Assistance Act of 1975 which permits waiver of the 25 percent cost-sharing requirements for relatively least developed countries. This amendment contains two restrictions: (a) a waiver can be granted for a project or activity only on a case-by-case basis (i.e., no blanket country waivers), and (b) the determination of country eligibility must be based on the UNCTAD list of "relatively least developed countries".

This project qualifies under this provision and fully meets the various criteria for the waiver (as discussed in AIDTO CA-127 dated 3/2/76 and AIDTO CA-682 dated 12/23/76). This request for a waiver is on a "case-by-case" basis. Further, Nepal is on the UNCTAD list of the relatively least developed countries and hence qualifies on that basis. Also, the nature of the project provides a strong argument for a waiver. The purpose is to develop two projects for implementation beginning in FY 79 and to provide limited field operations and training directly required for project implementation under Phase I. While the 25 percent requirement should, to the extent feasible, apply to actual Phase I project implementation, both the Mission and GON feel that design of projects should be regarded differently, especially given the high cost of foreign technicians in the design process.

This waiver has been discussed with the GON and both the GON and Mission strongly support the necessity and advisability for the waiver.



Nepal - Rural Area Development/Resource Conservation and Utilization  
Design Project Certification Pursuant To Section 611 (e) of  
the Foreign Assistance Act of 1961, as amended

I, Samuel H. Butterfield, principal officer of the Agency for International Development in Nepal, having taken into account, among other things, the capacity of the Government of Nepal and its agencies to properly utilize the commodities being imported under this Grant as well as the technical assistance and training to be funded, do hereby certify that in my judgment Nepal has both the financial and human resources capability to utilize effectively the inputs for this design project.

This judgment is based in part upon the project analysis as detailed in the Project Paper.

  
\_\_\_\_\_  
Samuel H. Butterfield  
USAID/Nepal

2 / 23 / 78  
/ Date /

## STATUTORY CHECKLIST

I. Country Checklist

A country checklist for FY 1978 was presented in the Project Paper for project number 367-0123, entitled Radio Education Teacher Training. No changes or modifications are required in regard to this project.

II. Project ChecklistA. GENERAL CRITERIA FOR PROJECT1. App. Unnumbered; FAA Sec. 653(b)

(a) Describe how Committees on Appropriations of Senate and House have been or will be notified concerning the project.  
 (b) is assistance within (Operational Year Budget) country or international organization allocation reported to Congress (or not more than \$1 million over that figure plus 10%)?

(a) Congressional notification to be sent in March 1978.

(b) No, see (a), above

2. FAA Sec. 611 (a)(1). Prior to obligation in excess of \$100,000, will there be (a) engineering, financial, and other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?

(a) Yes.

(b) Yes.

3. FAA Sec. 611(a)(2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance?

No legislative action is required.

4. FAA Sec. 611(b); App. Sec. 101. If for water or water-related land resource construction, has project met the standards and criteria as per Memorandum of the President dated Sept. 5, 1973 (replaces Memorandum of May 15, 1962; See Fed. Register, Vol 38, No. 174, Part III, Sept. 10, 1973)?

Not applicable

INITIAL ENVIRONMENTAL EXAMINATION

RADP/RCUP DESIGN PROJECT

Project Location: Nepal

Project Title: RADP/RCUP Design Project

Runding: \$2.9 million

Life of Project: 24 months

IEE Prepared by: USAID/Nepal

Environmental Action Recommended: Negative Determination

Mission Concurrence: Laura McPherson for Date: 19 July 1978  
Julius Coles, Assistant Director  
USAID/Nepal

Assistant Administrator's Decision: Approved: \_\_\_\_\_

Disapproved: \_\_\_\_\_

Date: \_\_\_\_\_

## INITIAL ENVIRONMENTAL EXAMINATION

### RADP/RCUP DESIGN PROJECT

#### I. Examination of Nature, Scope and Magnitude of Environmental Impact

##### A. Project Description

The two projects to be designed under the proposed \$2.9 million grant, the Rapati Rural Area Development (RAD) and Resource Conservation and Utilization (RCU) projects, represent a major and innovative thrust into problems plaguing Nepal's development efforts, especially directed at the rural poor.

The major constraints identified as impeding Nepal's development progress include geographic isolation, limited physical resource base, lack of trained manpower and management skills, low agricultural productivity, high population growth rate, limited financial resource base, inadequate infrastructure for the transport of goods and services to and from markets and poor land utilization. These constraints contribute directly to problems of extensive soil erosion and deforestation resulting from rapidly increasing human and livestock populations that are destroying the vegetative cover even on steep slopes; lack of effective demand in many rural areas to stimulate growth; underemployment; absence of an effective information gathering and feedback system; and general inability of local participatory institutions to achieve their full potentials.

The GON has identified both Rural Area Development and Resource Conservation as priority problem areas to which AID can significantly contribute. Accordingly the AID Mission in Nepal has proposed projects in these areas with funding to begin in FY 1979. Project Identification Documents (PIDs) were submitted in FY 77. They identified extensive analysis, studies, and small field activities that would be required over the next two years to design effective action projects in these problem areas by FY 79.

This design project represents a plan to design these projects over the next two years, to begin a limited amount of training, pilot test and selected field activities, and to provide staff development and facilities for the Agriculture Projects Services Center (APROSC), which will lead the design effort.

##### B. Identification and Evaluation of Environmental Impacts

The overall design and training elements will have no direct impact on the environment except insofar as at least 15 people will be trained in Soil and Water Conservation or related fields. Specific selected small projects, i.e., provision of domestic water supply or a local firewood plantation, will be evaluated ex ante as to environmental impact prior to implementation. A basic environmental examination will also be included as a condition to disbursement on any construction contemplated.

In that both projects to be designed are concerned with stabilisation of Nepal's human and physical resource base, environmental impact is in fact a major focus in all activities undertaken.

## II. Recommendation for Environmental Action

A decision for a Negative determination is recommended, with the understanding that ex ante evaluation of environmental impact be included in all scopes of work contributing to the design effort, and that field activity pre-feasibility studies include the same.

919

AID 1020-20 (1-77)

PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

Life of Project:  
From FY 1978 to FY 1980  
Total U.S. Funding \$2,900,000  
Date Prepared: 7/25/78

Project Title & Number: RAD/RCUP Design Project 367-0133

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS																										
<p><b>Program or Sector Goal:</b> The broader objective to which this project contributes:</p> <p>To improve the productivity, income and patterns of resource utilization of the rural poor of Nepal.</p>	<p><b>Measures of Goal Achievement:</b></p> <p>To be developed during the design of the RAD and RCU projects.</p>	<p>To be developed during the design of the RAD and RCU projects.</p>	<p><b>Assumptions for achieving goal targets:</b></p> <p>Continued GON interest and support for the application of conservation and area development approaches to rural development.</p>																										
<p><b>Project Purpose:</b></p> <ol style="list-style-type: none"> <li>To design viable projects to:               <ol style="list-style-type: none"> <li>test and apply conservation and resource utilization techniques in hill areas of Nepal.</li> <li>assist self-reliant development and improve development opportunities for the rural poor in Rapti Zone.</li> </ol> </li> <li>To initiate selected development activities and training in support of the RAD and RCU projects.</li> <li>To strengthen APROSC staff and facilities.</li> </ol>	<p><b>Conditions that will indicate purpose has been achieved:</b> End of project status.</p> <ol style="list-style-type: none"> <li>RAD and RCU projects authorized by AID/W and PGA signed by GON and USAID/N.</li> <li>Selected development projects and training completed.</li> <li>- training of APROSC staff members completed. - training facility constructed - ASIP continued on regular basis</li> </ol>	<ol style="list-style-type: none"> <li>Approved project papers. Signed grant agreements for RAD and RCU projects.</li> <li>Inspection Data from project information systems.</li> <li>Reports supplied by APROSC Inspection</li> </ol>	<p><b>Assumptions for achieving purpose:</b></p> <ol style="list-style-type: none"> <li>Results of design efforts and field operations indicate that acceptable projects possible - given institutional, technical and operational constraints.</li> <li>Viable and acceptable projects available, qualified trainees available and identifiable.</li> <li>APROSC continues as viable organization with GON support/use.</li> </ol>																										
<p><b>Outputs:</b></p> <ol style="list-style-type: none"> <li>Specific plans for project interventions           <ul style="list-style-type: none"> <li>-Project Management/Information Syst.</li> <li>-Macro &amp; Micro baseline studies</li> <li>-Project Implementation plans</li> <li>-Institutional improvement plans</li> </ul> </li> <li>Development/Test sites selected &amp; projects completed/underway</li> <li>-In-country/participant training comp.</li> <li>Training facility, trained personnel, continuing ASIP program.</li> </ol>	<p><b>Magnitude of Outputs:</b></p> <ol style="list-style-type: none"> <li>(dependent on outcome of design studies, analyses.)           <ol style="list-style-type: none"> <li>MIS's, 1 Macro baseline study (RAD), 5 site studies (RCU) Others as determined during design</li> <li>25 - 35 small rural work sites               <ol style="list-style-type: none"> <li>3 - 4 tree nurseries</li> <li>3 - 4 cottage industry centers</li> <li>5 RCU sites</li> </ol> </li> <li>1 training facility</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>Reports submitted to GON &amp; USAID Project papers for RCU &amp; RAD Functioning MIS's</li> <li>Reports to USAID from line agencies Training reports</li> <li>Reports from APROSC Site inspection</li> </ol>	<p><b>Assumptions for achieving outputs:</b></p> <ul style="list-style-type: none"> <li>- Qualified consultants and local institutions can be recruited to perform necessary work.</li> <li>-GON provides required personnel and support for design and operations/testing components</li> </ul>																										
<p><b>Inputs:</b></p> <ul style="list-style-type: none"> <li>Personnel           <ul style="list-style-type: none"> <li>Foreign</li> <li>Local</li> </ul> </li> <li>Local Support           <ul style="list-style-type: none"> <li>Field Operations</li> <li>Design</li> <li>Transportation</li> </ul> </li> <li>Training           <ul style="list-style-type: none"> <li>Workshops/In-country</li> <li>Participant</li> </ul> </li> <li>Commodities</li> </ul>	<p><b>Implementation Target (Type and Quantity)</b></p> <table border="1"> <thead> <tr> <th>Quantity</th> <th>Costs (\$1000)</th> </tr> </thead> <tbody> <tr> <td>743 pm</td> <td>\$1,110</td> </tr> <tr> <td>(93 pm)</td> <td>(930)</td> </tr> <tr> <td>(650 pm)</td> <td>(180)</td> </tr> <tr> <td></td> <td>930</td> </tr> <tr> <td></td> <td>(500)</td> </tr> <tr> <td></td> <td>(100)</td> </tr> <tr> <td></td> <td>(330)</td> </tr> <tr> <td></td> <td>670</td> </tr> <tr> <td></td> <td>(100)</td> </tr> <tr> <td></td> <td>(570)</td> </tr> <tr> <td></td> <td>190</td> </tr> <tr> <td></td> <td>\$2,900</td> </tr> </tbody> </table>	Quantity	Costs (\$1000)	743 pm	\$1,110	(93 pm)	(930)	(650 pm)	(180)		930		(500)		(100)		(330)		670		(100)		(570)		190		\$2,900	<p>Interim reports</p>	<p><b>Assumptions for providing inputs:</b></p> <p><u>Beginning of project Status</u></p> <p>No implementable projects Shortage of trained personnel Need for limited, but immediate activities in project areas.</p>
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Annex V