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The South-East Consortium for International Development

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ANNUAL WORK PLAN

HMG FY 1981/82

NEPAL FIELD TEAM

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**** LETTER OF TRANSMITTAL ****

Mr. Dennis J. Brennan
Director
USAID/Nepal
Rabi Bhawan
Kathmandu

July 31, 1981

Dear Dennis:

Enclosed is the SECID Annual Work Plan as required by the contract. We appreciated your extending the due date for the Plan so it could be revised in accordance with the outline provided by the Mission. I am sure this resulted in a plan which more fully meets the needs of all parties.

Please note we have requested Mission approval for an international travel policy on page 21. We would be pleased to submit it in a different form if this is an inappropriate place for the request.

The SECID Team appreciated the help and cooperation in preparing the plan from you, Mission members, and particularly the ARC office. Your outline proved extremely useful and I would encourage continued use of this device when we are preparing reports for which a format or sample does not exist.

We shall look forward to receiving your comments on the Plan.

Sincerely,

Mark

Mark H. Freeman
Team Leader
SECID/RCU Project
Kathmandu

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ANNUAL WORK PLAN

HMG FY 1981/82

SOUTHEAST CONSORTIUM

for

INTERNATIONAL DEVELOPMENT

NEPAL FIELD TEAM

JULY 31, 1981

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CONTRACTOR'S OBJECTIVES

The overall contractor objective is to:

" . . . provide the services to implement the Resource Conservation and Utilization Project"

The types of services needed are defined by examining RCU^P goals.

The major goals are:

"To assist HMG/N in the protection and restoration of the soil, water, and plant resource base"

" . . . increased agricultural production, raise the nutritional level, and to develop employment opportunities"

"To assist HMG in building an infrastructure at the national, district, and community level capable of designing, implementing and evaluating conservation techniques and activities."

These goals will be attained via a series of physical activities.

The physical activities have been grouped into 10 functional sub-projects.

These sub-projects are: watershed management; forest management; energy; irrigation; drinking water; community livestock; agriculture, extension and research; horticulture; fisheries; and training. These sub-projects are supported by an inventory and monitoring system and a social support system.

Sub-Goals

The breadth of the goals and the large number of sub- and support projects may be confusing. They are combined by forming four sub-goals which are more specific than the goals stated above but not quite as detailed as the sub- and support projects.^{1/}

These sub-goals are:

Institutional Development - The main objective of this sub-goal is to increase the capacity of the Nepalese people to provide the technical and administrative skills required to carry out resource conservation management. It includes the training sub-project and the social support system.

Resource Management - This sub-goal is directed at the protection and restoration of the soil, water, and plant resource base. It includes the watershed and forest management sub-projects and the range management portion of the community livestock sub-project.

^{1/} The sub-goals are based on those suggested by Mr. Richard Blue and Ms. Barbara Pillsbury during the Evaluation Workshop in Kathmandu on March 17 to 21, 1981.

Agricultural Production - This sub-goal contains those sub-projects which seek to attain the broad sectoral goals of increased agricultural production and employment opportunities. The sub-projects are: irrigation; drinking water; agriculture, extension, and research; horticulture; fisheries and the animal husbandry portion of community livestock.

Energy Alternative - This sub-goal contains only the energy sub-project. It contributes directly to resource management and agricultural production objectives through decreased fuelwood use and increased energy availability.

The inventory and monitoring support system provides information for all of these sub-goals. The inventories will provide information to make the detailed plans for implementing the sub-projects and can be updated, in part, by monitoring system data. The monitoring system will provide information to control the achievement of quarterly and annual targets for the entire project. It will also provide some of the data needed for the mid-term and five year evaluations.

Integrated Implementation Plan

Implementing RCUP, will be difficult, particularly in the panchayats. Panchayat implementation difficulties are caused by RCUP's integrated design. Most implementing agencies, including HMG's are organized with chains of command and lines of authority to assure direction of focus and continuity of effort while implementing programs. This situation exists now in the districts and panchayats in which RCUP will operate.

RCUP's design, on the other hand, cuts across the existing organizational boundaries. This will make it very difficult to maintain focus and authority because RCUP will be operating outside existing organizational boundaries and because district and panchayat officers are likely to identify most closely with their parent organization's objectives and incentive systems. Thus, RCUP is entering an existing organizational structure and trying to work within it to achieve the objectives of an integrated project.

These difficulties required designing a procedure for implementing sub-projects in panchayats. The procedure was also designed to routinize villager participation and thus increase the likelihood of its presence. However, we believe success or failure largely depends on the HMG district officers and their subordinates in the panchayat. They are the people who must work together for integration and who must convince the villagers that participation is for their self-benefit.

A model or process is needed to gain maximum villager participation in the preparation and implementation of RCUP. However, experience indicates there is no one process which insures villager views and participation are properly incorporated.

The approach described below has been used successfully by the U.S. Forest Service. However, another process may be more suitable for Nepal. Therefore, another model will also be developed by the Rural Sociologist/Anthropologist. This model will take into account prior efforts in Nepal to involve villagers in decision making as well as this individual's own experience. Both models will be implemented when completed but both models are likely to be extensively modified as experience is gained. Monitoring and adaptive research techniques will greatly aid in developing approaches for subsequent years.

Implementing sub-projects in the panchayats will follow five steps; selecting lead panchayats, performing integrated inventories, forming panchayat conservation committees, writing panchayat development plans, and implementing panchayat development plans.

Lead Panchayats

One or more lead panchayats will be selected in each catchment. These panchayats will have most phases of RCUP implemented as soon as possible, considering the villager's own priorities, their ability to use the changes, and RCUP resource availability.

Panchayats will be selected during the beginning years of RCUP by judgement and existing information and findings made during the design plan of the project. The Catchment Conservation Officer (CCO), Division Forest Officer (DFO), Agriculture Development Officer (ADO), Local Development Officer (LDO), and Livestock Development and Animal Health Officer (LDAHO) will collaborate to recommend subsequent lead panchayats to the RCUP co-managers. Recommendations should be based on (1) panchayat needs and (2) the likelihood of cooperation and meaningful villager involvement. HMG will then choose the lead panchayats.

Implementation activities will not be limited to lead panchayats. Some panchayats within the catchments will have certain needs that are obviously critical and require immediate attention. Other panchayats may require implementation activities to insure proper time phasing. Certain interventions must be undertaken, having a district-wide importance. These activities will also be identified by the HMG district officers and the RCUP co-managers and incorporated into implementation activities.

Panchayat Conservation Committee

The Panchayat Conservation Committee (PCC) will be formed during or before the integrated inventory. The Panchayat Conservation Committee is one of the most important institutions which will be developed to obtain villager participation. The RCUP Central Office, Department of Soil Conservation and Watershed Management (DSCWM), field

officers, and Peace Corps Volunteers (PCV) will be responsible for developing the PCC and promoting villager participation in their panchayats.

Concurrently, an information and education program will be initiated in the panchayat to inform villagers and local leaders about RCUP and its potential for their panchayat. Villager participation will be promoted during this period. The techniques for gaining such participation will be provided when Rural Sociologist/Anthropologist has joined the Central Staff.

Integrated Inventories

Integrated inventories are discussed in greater detail in the Inventory and Monitoring section. The basic idea is to perform a resource inventory over the entire panchayat gathering data needed to develop an integrated Panchayat Development Plan. These data would include physical and biological variables, such as soil and plant cover types, and also social data, such as population and attitudinal variables. The objective is to obtain data on all aspects of RCUP implementation to decide specifically which physical activities are needed for the panchayat and to decide upon the amount and location of these activities.

Panchayat Development Plan

The CCO, DFO, ADO, LDO and LDAHO will collaborate to write the Panchayat Development Plan with Central Office Staff technical assistance. This is where integration first occurs because officers from different departments with different expertise act together to recommend an action plan. The plan will be based on the integrated inventory. In addition, the HMG officers will discuss panchayat needs and desires with the pradhan pancha and other local leaders, the PCC, the Catchment Conservation Committee (CCC), and other interested parties.

Public meetings will be advertised and held in the village. The HMG officer's role is to promote comments from people attending the meeting about their ideas and desires for resource management. The officers will not attempt to influence or change opinion. They will simply gather information to use to develop the plan and formulate programs. Meetings should also be targeted to reach women and other special interest groups.

The Panchayat Development Plan will be drafted after all the above information is received. The CCO with assistance from the RCUP Central Staff is responsible for drafting the plan because of DSCWI's lead role. The DFO, ADO, LDAHO, LDO, and other HMG district officers should actively participate in writing the plan. The CCO is also responsible for obtaining their participation. The amount of their participation will be relative to the amount of physical activities in each of their areas that are needed in the panchayat.

The draft Panchayat Development Plan will then be circulated to the pradhan pancha, the village panchayat, PCC, CCC, RCUP specialists, and others concerned with implementation. Village level meetings to explain the plan and receive additional comments will be held. These meetings could also be targeted for special interest groups.

A final draft will be developed after this review. Comments should be seriously considered and incorporated in the plan where technically and financially feasible. Final approval of the Plan will be given by the Catchment Conservation Committee, the HMG district officers and the RCUP co-managers.

The management plan will include the specifics for implementing RCUP activities with the panchayat. It will specify the quantity of physical activities to be implemented, the year of implementation, and the location of implementation within the panchayat. It will also specify which HMG officer is responsible for the implementation. The plan can thus become a control tool for the PCC and HMG officers.

Plan Implementation

The plan will be implemented by those HMG officers designated in the plan. SECID will not directly implement the plan but will act as an advisor and consultant to the HMG officers. SECID will assist HMG in all possible ways but its major objective is to help build an HMG field organization which can continue to implement RCUP after SECID leaves Nepal.

GENERAL RESPONSIBILITIES

This section contains a discussion of SECID's general responsibilities in RCUF. These are the responsibilities which SECID has throughout the five year contract life.

The General Advisory Role

The General Advisory Role section contains discussions of SECID plans for implementing an interdisciplinary approach; Nepal - Chapel Hill roles; line agency, counterpart, and external relationships; and proposed international travel policy.

The Interdisciplinary Approach

The organization structure contained in the Revised Overall Management Implementation Plan (pp. 78-85) still shows the team's concept of how RCUP will be managed. Since the preparation of this plan, some revisions have been made and these revisions are incorporated in the organization chart on page 13. The major revision is the assignment of three expatriates to the field. Organizationally, these three individuals will report to the Co-Managers and are under the technical supervision of the Central Staff Deputy Co-Manager. The Training Specialist who has had extensive field level experience, will conduct inservice training programs for these expatriates and the CCO's.

The interdisciplinary approach proceeds from the requirements of the project and the skills brought to RCUP by the assigned expatriates. Each person is not only senior in their respective discipline but also brings a wealth of related experiences valuable to project implementation. As a result well thoughtout decisions can only be reached after full and frank discussions by all team members. Weekly staff meetings and written monthly reports are the formal way in which communication proceeds. In fact, specific subject areas are discussed by all team members even though their particular responsibilities are not directly affected. Concensus is always sought but, if after full discussion, one does not emerge then the Team Leader will weigh the varying positions and reach a decision. At this point the team's attention then focuses on how to implement the decision reached. This interdisciplinary approach has worked well and these procedures will continue to be followed.

Figure 1 - Organization Chart of SECID/N

The co-managers also meet on a regular basis with the Director General and with ARC officials.

Overall coordinative responsibilities for RCUP implementation rests with The Ministry of Forest and Soil Conservation through the recently created MCCNR and an RCUP Implementation Committee set up by the Council. The team has assisted in their deliberations and, upon request, will aid in whatever way possible.

Nepal - Chapel Hill Roles

SECID's Management Council has determined at this juncture not to delegate contract amendment authority to the field. Negotiations regarding contract amendments are the responsibility of the Project Co-Manager. SECID approval though will remain in Chapel Hill. If these procedures cause undue delay, the Management Council will then determine whether further field delegation of authority is required.

The Management Council section contains a discussion of how overall management responsibilities in the United States will be handled. SECID itself has many direct management responsibilities either working through one of the three co-lead institutions or indirect support of the project. These include:

- o Recruitment of long and short term expatriate personnel.
- o Procurement of all commodities to be purchased in the United States.

- o Arrange for placement and support of Nepalis selected for long term training in the United States. Duke University assumes primary responsibility for this activity.
- o Short-term training and observation tours are also directly administered by SECID Chapel Hill relying on Western Carolina University to make necessary arrangements.
- o General support for project needs both in the United States and in Nepal are coordinated by SECID Chapel Hill through the services of a full-time coordinator. Procedures to assist in carrying out the project have evolved over the past year and are working well.

Line Agency Relationships

Each participating line agency has appointed an RCUP Coordinator. This individual is usually a high ranking departmental official and is responsible for coordinating RCUP activities smoothly into the department's operations. The Team Leader, through the Program Manager, assists the Coordinators. The Team Leader also assists the Implementation Council and Committee through the Program Manager.

Individual expatriate responsibilities in coordinating sub-project implementation with HMG line agencies are reflected in Table 4. The table indicates the sub-project for which the expatriate is primarily responsible. Primary responsibility includes providing

technical guidance to the lead HMG department and informally expediting work and avoiding problems before they occur. District relationships are discussed under "Technical Services - Catchment Advisor".

Counterpart Relationships

Counterpart relationships for individual expatriate positions are discussed below in the Technical Services section. Therefore, only general counterpart relationships are discussed here.

Each expatriate possesses unique expertise. Each will provide this expertise through both primary and supporting responsibilities as indicated below:

Primary

1. Provide technical guidance to counterpart and lead HMG department implementing physical activities for sub-projects where expatriate has primary responsibility.
2. Monitor progress informally to expedite work and avoid problems before they occur for sub-projects where expatriate has primary responsibility.
3. Seek and coordinate information needed from other expatriates for accomplishing sub-project activities for sub-projects where expatriate has primary responsibility.
4. Provide technical guidance and training to inventory teams in area of expertise.

Secondary

1. Provide information as requested to expatriate primarily responsible for a sub-project. This may range from casual consultations through formal analyses.

2. Provide technical guidance in developing and interpreting monitoring system.

Counterparts are clearly defined for some expatriate positions but less well defined for others. The Assistant to the Dean, IRNR; the Training Specialist; and the three Catchment Advisor positions all have clearly defined counterparts. However, this is not the case for many of the Central Staff counterparts (see below).

The general posture of the expatriate toward his counterpart is that of an equal who has special knowledge in some areas which will complement the special knowledge the counterpart has in other areas. The expatriate is an advisor to the counterpart. The counterpart is the decision maker. The expatriate should not only respond to direct inquiries but should also develop a relationship which permits him to offer unsolicited advice. Advice will usually be given verbally during discussions but may also be documented in memos. Lengthy, formal reports are possible but not expected.

Central Staff Counterparts - SECID personnel may be divided into those assigned to IRNR, MFTW, and the Central Staff. The Central Staff personnel are those usually assigned primary responsibility for implementing sub-projects other than Training.

The classical counterpart relationship visualizes an expatriate and a host country officer, matched one to one, working together for the same objectives. The host country officer provides knowledge of the local biological, social, and other systems. The expatriate provides knowledge of advanced methodology or technology. The two cooperate in a close working relationship where each area of knowledge complements the other. Sometimes both individuals have other tasks outside the common task but the common task usually occupies a substantial amount of both persons' job responsibilities.

As explained above, RCUP design cuts across existing departmental boundaries. Thus, a Central Staff expatriate may be primarily responsible for activities implemented by two or three HMG departments, some of which may not even be in the same ministry. This means there is no one person in HMG who is responsible for all, and in several cases a substantial amount, of the activities for which the expatriate is responsible. Thus, a meaningful working relationship with one person is difficult to develop. Often, the SECID responsibilities are so diffuse that any classical counterpart relationship is precluded.

In these cases, SECID personnel will develop less intensive relationships with Nepali's. Meaningful relationships can and will be developed as needed to accomplish RCUP objectives. This puts an increased burden on Central Staff personnel because they must re-establish rapport and familiarize themselves with different parts of HMG operations several times during their tenure.

Counterpart relationships between the Central Office and the field require several different approaches. To achieve overall field coordination will require the co-managers to attend each scheduled meeting of the Catchment Conservation Committee. The co-managers intend to be actively involved in CCC deliberations and will assist them to evolve as the program coordinating mechanism described in the Project Paper. It is uncertain at this stage how the expatriate involvement will be organized to assist in the work of Panchayat Coordinating Committees.

Central staff expatriate experts will spend 25% of their time in the field assisting with the physical interventions to be carried out this HMG fiscal year. Their time will be allocated between the three districts as experience is gained. These expatriates will also assess progress made and note problems encountered in carrying out field based programs. Depending on the severity of the problems encountered, the co-managers will determine how best to gain a resolution of identified problems.

A specific mechanism will be established to interact with the three expatriates stationed in the field. These three individuals will report directly to a senior level expatriate in Kathmandu. Central office responsibilities will include training and advising these individuals in carrying out coordinative and administrative responsibilities, helping schedule their time in each catchment and in Kathmandu and to assist in their adjustment to living in remote areas.

SECID/N External Relationships

As an operational field project with some applied research incorporated within it, RCUP must draw on the advice and resources of a wide number of groups working on renewable natural resource projects in Nepal. Coordination between RCUP and related projects is an absolute requirement and will be carried out under the direction of the co-managers. These coordinative efforts involve developing programmatic contacts with other AID funded projects, other donor programs and with HMG efforts. The blueprint for carrying this forward is yet to be formulated beyond the informal contacts already made by the Central Staff. Exactly how many more formal efforts will be undertaken depends on advice from RCUP's Implementing Committee established by the NCCNR & Mission advice. A number of efforts are already underway and will be expanded on while more formal consideration is given to gaining firmer institutional footholds. Beyond this each Central Staff member will continue to be encouraged to become active in professional organizations and activities relating to their fields of interest. This is proceeding well.

International Travel Policy

Continual and rapid progress is occurring in all areas of science and technology throughout the world. Unfortunately, Nepal is isolated by geography, communication difficulties, and severe manpower shortages in technical and scientific fields. If project personnel are to provide sound advice appropriate to their General Advisory responsibilities they must maintain contact with current information and other professionals in their areas of expertise.

Therefore, each expatriate member of RCUP together with a counterpart will be given the opportunity to make at least one international trip a year to obtain scientific or technological information not available elsewhere. This trip will be within Asia, the subcontinent, or Australia. Approval for attendance at such meetings will be obtained from SECID, Chapel Hill and USAID/N. In seeking approval to attend a professional meeting, the expatriate will describe in writing the relationship of the meeting to RCUP and the benefits that will accrue to the project from his attendance. Costs of attending approved professional meetings will be borne by RCUP. Mission approval and concurrence is now formally sought.

USAID/N Relationships

Relationships follow two lines of authority. All communication from SECID/N to the Mission will be through ARC unless a direct response to correspondence from another Mission officials. All requests for action or information from team members will be authorized by the Team Leader and all Mission communications should be through the Team Leader. The same procedure will be followed to arrange Mission meetings. The Team Leader will clear requests and designate team members to represent the contractor. The second line of authority is the Mission Director who is also Contracting Officer. This approach should facilitate relations and expedite needed Mission or contractor action.

The Implementation Advisory Role

This section contains discussions of SECID's advisory role in the implementation of the different parts of RCUP. The discussion uses the four sub-goals as major divisions and then contains discussions of the sub-projects and/or support systems in each of the sub-goals.

The Institutional Development sub-goal section is much longer than the Resource Management, Agricultural Production, and Energy sub-goal sections. This is because the last three sub-goals have readily identified physical targets which have been discussed and documented in the Overall Management Implementation Plan, and Sub-project Management Implementation Plan, the Local Consultant Plan, and the Detailed Construction Plan. Thus, less space is required here. The Institutional Development sub-goal is less quantifiable and has not been as well covered in the other documents. Thus, it takes more space here.

Institutional Development

This is perhaps one of the most complex sub-goals because a diverse set of activities are needed to increase the capacity of the Nepalese people to carry out resource management. Two parts are identified, training and the social support system.

Training - Training is divided into three parts, the Institute of Renewable Natural Resources (IRNR), the Ministry of Forest Training Wing (MFTW), and the Participant Training Program (PTP). A discussion is presented for each.

Training - Institute of Renewable Natural Resources - A dearth of staff trained in the skills of natural resource management is a constraint which limits progress in the forestry sector and in the conservation of the nation's soil and water resources. This sub-project will support increased formal training (diploma and certificate levels) by improving facilities and programs at the Institute of Forestry at Hetauda and by assisting in the development of a new campus and programs at Pokhara. The campuses at both locations will be administered under an overall organization called the Institute of Renewable Natural Resources (IRNR). However, this name change has not been adapted officially in Tribhuvan University and "Institute of Forestry" is the current official designation of the organization. Hetauda will continue to offer programs only at the certificate level while the Pokhara campus will offer both the diploma and certificate. However, only the diploma will be offered at Pokhara until 1983.

A revised certificate program has been introduced only recently at Hetauda.^{1/} While curriculum development is an on-going process, and will continue during the life of RCUP, drastic revision of the certificate program appears unnecessary at this time. Since Tribhuvan University has decided to maintain the student enrollment at Hetauda at its

^{1/} As recommended in "Training in Renewable Natural Resources in Nepal", the report of the joint ODM/USAID Forestry Training Mission to Nepal in 1979.

present level of about 220 and because there is an urgent need for trained manpower at the diploma level, initial emphasis in the IRNR must be placed on the Pokhara facility and programs, and on improvement of the Hetauda campus. Current plans are to enroll the first students in the diploma program at Pokhara in the Fall of 1981; facilities of Tribhuvan University's Prithvi Narayan Campus will be used. Because of constraints imposed by the building program at Pokhara, the certificate program will not be initiated at that campus until the Fall of 1984. However, it should be noted that initiation of the Pokhara certificate program and successful implementation of the diploma program are absolutely dependent upon availability of trained faculty in natural resource management. Long-term training in both India (PL-480) and the United States, as outlined in the Project Paper, must be implemented on schedule.

Expatriate contributions to the IRNR will involve assistance in six major areas: (1) Spatial planning for new campus facilities at Hetauda and Pokhara, (2) Curriculum development, (3) Library development, (4) Research program development, (5) Departmental teaching, and (6) Outreach planning and coordination. Expatriate personnel involved in these activities will include five long-term academicians and 20 man-months of short-term consultants. Because of the initially heavy workload involved in the first four major areas, the current presence of only one SECID adviser to IRNR, and the paucity of adequately trained faculty at the Institute of Forestry, SECID support (and IRNR efforts) will concentrate primarily in those four areas during 1981/82.

Spatial Planning - Expatriate personnel will serve as liaison with the World Bank and will assist in meeting the procedural requirements of that organization during planning and construction of the campus facilities. In addition, contractor staff supported by local and expatriate consultants, will advise and assist in coordinating the detailed planning for these facilities. Planning will include review of spatial allocations for classrooms, laboratories, etc., and also development of time schedules for initiation and completion of the various building program components. Contractor personnel will also advise and assist in coordinating detailed planning for the field research centers.

Curriculum Planning - Contractor personnel will assist counterpart faculty in curriculum planning. Initial emphasis will be on planning the three-year B.Sc. curriculum and on development, with the assistance of local consultants, of syllabi for 10, first-year courses for that program. Following recruitment of an expatriate resource economist/management expert and an engineer in May 1982, syllabi for 11, second-year courses will be developed.

Syllabi for third- and fourth-year courses will be developed after the recruitment of the expatriate silviculturist and soil and water conservation expert. In all instances the detailed course syllabi will be developed in a collaborative effort between the expatriate adviser and appropriate Nepali counterparts. Contractor personnel, supported by local consultants, will assist and advise in selection

and preparation of teaching materials, visual aids, auto tutorial materials, and programmed learning packages.

Library Development - The library is the heart of any educational institution. Contractor staff will assist in selecting library materials and teaching resources that will supplement holdings in the Prithvi Narayan Library.

Research and Development - Contractor staff will assist the Dean and faculty of IRNR in developing long range plans for research. Research planning will take into account the National Forestry Research Plan currently under development and will be coordinated with the RCUP Central Office to help meet overall RCUP objectives.

Training - Ministry of Forest Training Wing - SECID is to assist the Ministry of Forest and Soil Conservation Forest Technician Training Project (MFTW) to:(a) become a viable, on-going in-service training institution able to help all departments of the Ministry of Forest and Soil Conservation (MFSC) reach their training objectives; (b) systematize in-service training offered to personnel in all departments of MFSC in all parts of the country; (c) incorporate natural resource conservation training segments in the existing and/or proposed in-service training programs of other HMG agencies; and (d) monitor the effectiveness of MFSC in-service training programs. SECID assistance to MFTW will occur in five program areas.

Faculty Support - SECID will support MFTW staff development by scheduling available personnel (HMG officers, local consultants and expatriate) to develop and teach courses and by upgrading the Nepalese members. The later support will be provided by identifying all training opportunities appropriate to trainers and by facilitating attendance in those courses by MFTW staff.

SECID will further assist the MFTW by recruiting and guiding the work of qualified local consultants. The number and type of consultants will depend upon a local consultant plan drawn up by the MFSC Chief Training Officer (CTO) with the Training Specialist's assistance and approved by HMG. Among the objectives for recruiting local consultants and using expatriates to augment the staff is bringing women onto the MFTW teaching faculty and, thus, elevating the perception by MFSC personnel of women in Nepalese natural resource management.

Courses Taught by MFTW Staff - This program area encompasses training done by the MFTW central staff. SECID will provide support to MFTW in five elements.

The Training Specialist will help introduce, test, and finalize forms to regularize analysis of training needs and organizing courses. He will provide instruction and guidance in the use of the forms and a methodology for planning and organizing training courses and for evaluating both the course (trainers and material) and trainees.

Providing subject specific expertise. SECID Central Office Staff and IRNR faculty have in-depth knowledge of many subjects for which syllabi should be developed, modules presented/packaged, and instructors counseled. The available skills will be employed to the extent practicable and consistent with MFSC departmental training priorities.

Improving instruction techniques. The Training Specialist will work with the MFTW Instructional Staff to develop skills in the use of audio-visual aided instruction, group dynamics and other forms of instruction better suited to non-formal instruction than formal lectures.

Recognizing RCUP priorities. The Training Specialist and other SECID personnel will act to include within all courses used at all MFSC levels the following RCUP priorities: realistic concepts of women's roles in determining family resource, adopting energy conservation devices and other appropriate technology, panchayat planning, and techniques for achieving citizen participation.

Arranging for new areas of instruction. Some officer's job performance may, following analysis in departmental training plans, benefit from acquiring specific skills, for example, improving ability to converse in English. SECID would arrange for such courses under MFTW sponsorship.

Course Development and Packaging - Work in this program area is highly specialized. It consists of taking a body of well-defined technical information and putting it in a form that will be most easily used by field level trainers to teach target groups (some of whom are likely to be illiterate). The two technical courses selected for development and packaging in 1981/82 are excellent examples: Panchayat Forest Foreman and Forest Guard. SECID will assist the CTO to:

Identify existing complete courses. There are a significant number of training courses now offered in Nepal. Many of them have been developed and taught by the staffs of MFSC related projects; others are offered through the facilities of related agencies and departments (e.g., APROSC). The projects, agencies and departments will be queried on the content of courses offered and the availability of syllabi.

Select contractors. Preparing programmed learning packages is performed by a few highly skilled people. Firms, institutions, and organizations will be evaluated for award of contracts to do the work for MFTW. The services to be provided will include instructing Nepalese to do the work.

Planning and Administration - SECID support in this program area has been and will continue to be substantial. The elements are:

Developing department training plans. SECID will help define, department training needs by:

- a. Having the Training Specialist assist the CTO act as Member - Secretary of the Inter-departmental Training Coordinating Committee chaired by the Secretary of Forest (Sector).
- b. Setting the format and procedures to be used in developing departmental training plans.^{1/} The approach will be cooperative plan preparation by department and MFTW staff. Selection of personnel to be trained will be a function of the training plans. The departmental priorities will take into account the jobs the departments must accomplish. The departments will select trainees for courses, but selection will be in accord with the minimum backgrounds specified in the plans.

Planning and budgeting. This task builds from the departmental training plans. The SECID Training Specialist will help the CTO segment the gross MFSC training initiatives into manageable units for which the MFTW can muster adequate support. The Training Specialist will serve as the major interface between HMG, International Bank for Reconstruction and Development (IBRD), USAID and other donors in preparing annual budgets to be submitted through the MFSC to the Ministry of Finance (MinFin).

^{1/} The MFTW will also be assisted in this task by the "Development Training and Communications Program" (DTCP) staff in Bangkok as part of the UNDP assisted Integrated Watershed Management, Torrent Control and Land Use Development Project.

Developing a monitoring system. SECID proposes to assist MFTW perform this task by extending the questionnaire system to be initiated under "Identifying existing complete courses", above, to include periodic reports from the field units of the MFSC departments. Such reports will include titles of courses offered, number of persons starting completing the course, and course content. In addition, the Training Specialist will, with MFTW staff, make unannounced field visits to observe scheduled training courses to evaluate training quality and adequacy of reporting. The career progress of trainees (re-entry record) will also be monitored.

Facility Development - There are five SECID assisted elements in this program area.

Liaison for building construction. The Training Specialist (as in planning and budgeting) serves as liaison between HMG and the IBRD (IDA credit) to assure that all procedural requirements are met for selecting firms who will provide design, construction and supervision services. These responsibilities pertain for constructing a training center building in Kathmandu and a field demonstration center in the field.

Analysis of space needs. Based on the prospects for the magnitude of MFTW responsibility, SECID has advised that the proposed training center be enlarged to 800 M² (net space). IBRD officials have predicted favourable response to an HMG request. Interior arrangement

of space, wall and floor finishes, and furniture design are to be considered as part of "space needs".^{1/} SECID will make arrangements for the use of a DTCP consultant and will assist the CTO choose the most appropriate interior arrangements.

Specify and mesh delivery of commodities. SECID will perform the task by coordinating the ETA of commodities with the availability of building space to use them. Thus, initial audio-visual commodities are small items suitable for use in temporary quarters; large equipment is delayed until completion of the training center. Vehicle type and principal training medium have been changed after analysis and discussion. Printing support will come from RCUP Central Office until an HMG decision is made on a proposed MFSC Communication Support Wing.

Develop a training library. SECID interprets the training library function as including systematic storage and retrieval of all training media - films, video cassettes, slide shows, original art work for visual aids, and training/adult/vocational education periodicals. SECID will assist in organizing such a library by listing available sources, advising the CTO about the available materials, by helping make regular surveys of materials available in Nepal, and organizing a library cataloging system.

^{1/} Assistance in this task will also be available through the DTCP staff.

Training - Participant Training Program - The SECID Participant Training Program (PTP) is designed to conduct activities in three program areas related to nominations, processing and monitoring persons whose advanced training in U.S. and Indian institutions of higher education will improve HMG's capability to perform complex resource conservation and utilization programs.

Long-Term U.S.- SECID support for the long-term U.S. participant training program targets will take place both in Nepal and in the U.S.

In Nepal, SECID will provide a portion (30 percent) of the time of a staff person, and a support staff person. SECID's major activities in Nepal will be:

Securing qualified nominees. SECID will help analyze the special skills departments and agencies participating in the RCUP require; the analyses will be used to determine the qualifications nominees for training should possess and to establish general training objectives. The listing of needs by year for each cooperating agency/department, within the guidelines of the RCUP Project paper, was agreed to in February 1981 by HMG, SECID and USAID/N.^{1/} Personal contact and liaison were maintained with those agencies/departments asked to nominate candidates. The same procedure will be used for 1982/83 nominations but personal liaison will be strengthened to overcome what has been

^{1/} The long term U.S. training schedule and analysis of RCUP needs are the basis for the USAID/N request for 14 RCUP - related nominations for HMG fiscal year 1981/82. But only 13 nominations were received. So, adjustments will be necessary for the following years(s).

a long time-lag in the line agencies/department nominating process. Some analysis of department training status related to RCUP needs will be carried out.

Process nominees. Processing in Nepal will consist of:

- a. Scheduling English language classes and TOEFL examinations and acting to make the GRE and other qualifying examinations available in Kathmandu in timely fashion.
- b. Collecting transcripts, bio-data and recommendations for transmittal to U.S. PTP Co-ordinator. Letters of recommendation will be confidential. TOEFL and GRE test scores will be sent directly to the U.S. PTP Co-ordinator. In addition, SECID will counsel nominees on specific career and vocational objectives so as to have an education program mutually understood by the nominee and SECID. Then, a statement of training objectives and a recommendation of university and major professor will be prepared. For those admitted to graduate student status, SECID will, in collaboration with the Training Branch USAID/N, complete the pre-departure formalities. Ticketing needed to transport the participants to their destinations in the U.S. and an overall orientation session for the departing participants will also be provided by SECID/N.

Reentry Record. The name of each participant who has been awarded the degree specified in the PIO/P and returns to HMG service will be entered in a register. The register will show the position held prior to departure for training, the degree awarded, the position to which the individual is posted and the dates of each personnel action. The reentry record will be used to check compliance with the service commitment made by the participant and whether the participant serves in the job for which he was trained. In the event the participant leaves HMG service or is transferred from the professional field for which he was trained, SECID will communicate the facts to USAID/N for action.

SECID's major activities in the U.S. will be:

Gain admittance to an appropriate university. In the U.S., Duke University (the SECID PTP coordinating institution) personnel will act upon the bio-data, academic records, test scores and recommendations. The PTP co-ordinator will evaluate the data and make determinations as to the most appropriate institution (both within and outside the SECID) to whom applications for acceptance will be submitted. Fully prepared applications will be transmitted to those universities indicating interest. Upon notice of acceptance, SECID/N will be notified. SECID/CH will see trainees are met at ports of entry and transported to campuses at the end of college summer school so the trainees can locate housing and become oriented. Thereafter, three

weeks of intensive mathematics and English will be taught and counselling performed prior to registration and the start of regular classes for the fall semester/quarter.

Monitor/Counsel. The SECID/CH staff will monitor participant performance by securing progress statements from advisors at regular intervals and by biannual personal visits. A copy of each trainees' performance record will be sent to SECID/N. Summaries of these records will be sent to the concerned agencies/departments to keep them informed on progress of the trainees.

Thesis Co-ordination. SECID supports in principle the conduct of thesis research in Nepal. Thesis proposals duly approved by a trainee's committee will be considered by SECID. The proposed research in Nepal should contribute to advancing the state of knowledge of resource management in Nepal and specifically contribute to planned RCUP interventions. The PTP Co-ordinator (Duke) will review the proposals in the light of the above criteria and approve or reject SECID support of the work. SECID expatriate staff will offer minimum advice and counsel but will not act as advisors or members of the students' committees. Travel, living expenses, some facilities and labour will be provided in accord with adopted policy.

Long-Term India Training - The contract between USAID and SECID specifics that SECID " . . . will collaborate with the GON in designing programs for their participants in India. . . . These programs will be compatible with the overall objectives of the RCUP".

SECID's support of this activity area will consist of the following elements.

Designing Program. SECID's training specialist will engage in planning with USAID/N and HMG the use of India training seats. The planning will be of three kinds: determining priority departmental training needs, negotiating each year seats for RCUP purposes from the total number of India training seats available to Nepal, and determining the number of seats which appropriate Indian institutions will make available to RCUP students. SECID will also consult with USAID/N to locate institutions with curricula closely related to RCUP needs and/or those institutions amenable to shaping their curricula to better serve the training needs of Nepalese students sent to India under RCUP auspices.

Securing qualified nominees. SECID will, for India training openings, use the same approach employed for the long-term U.S. nomination process except that project and agency analyses will include distinctions between the number of openings that will lead to the award of the baccalaureate degree and the number that will lead to the award of the master degree.

General Process: a) Placement of participants in different Universities in India that are applicable as per USAID. b) For those admitted to different Universities in India, SECID will, in collaboration with training branch USAID/N complete the pre-departure formalities. Ticketing needed to transport the participants to the destination in India will be provided by SECID/N, c) Overall Orientation session prior to their departure will be provided by SECID/N.

Re-entry records. SECID PTP personnel will maintain records of the postings of graduates of Indian universities. The purposes of the

records are to document the location of the graduates in RCUP related departments/agencies, to assist in identifying holders of baccalaureate degrees qualified for advanced training, and as an aid in planning in-service training programs.

Short-Term Training - There are 61 remaining short-term training slots for the RCUP. SECID will provide support to the following elements:

Listing training needs. SECID Nepal will collaborate with the HMG/RCU Project Coordinator to identify specific short-term training needs and the short-term training preferences of the participating departments/agencies.

Design programs. Some opportunities, such as short courses offered by USDA or FAO, may well match RCUP training needs and nominees sought for participation in such courses. In other instances, the SECID lead institution for short-term training (Western Carolina University) will be consulted and be asked to organize special classroom and/or observation courses to meet specific RCUP objectives. One such course might focus upon interagency coordination in the Tennessee and Cumberland River Valleys.

Process. SECID/N staff will obtain nominations for the appropriate openings and handle the pre-departure details; Western Carolina University personnel will arrange registrations, meet trainees, and ensure their arrival, participation and timely departure.

Local-Internal to RCUP - There are already identified a substantial number of RCUP specific training needs; there will be others. The categories of personnel to be trained in the Daraundi and Kali Gandaki catchments include the field staff of HMG line agencies operating at district level, SECID/RCUP field support staff, various classes of villager/farmer/pastoralist, and local government officials.

SECID will develop during the first year the scope of needed training activities and match, to the maximum extent possible, existing facilities and training programs (e.g., Local Development Training Centers). For some groups, specialized training courses may be necessary.

Social Support System - General

The social support system has several parts including the Local Resources Conservation Coordination Fund (LRCCF), villager and women's participation, and supporting intergovernmental structures within HMG to help implement and perpetuate RCUP. The plans presented here should be considered more tentative than others because the Sociologist/Anthropologist is not yet hired. This person has a great deal of the expertise needed to formulate these plans. Thus, additions and some changes are expected once this expertise is available to the project.

Social Support System - LRCCF

Resource Conservation and Utilization Project has a provision to establish an initial credit fund known as Local Resource Conservation Coordination Fund (LRCCF). Its purpose is to stimulate farmers' interest in converting degraded land to environmentally sound uses.

LRCCF will be used to provide loans to the farmer in RCUP catchments through the Agricultural Development Bank, Nepal (ADB/N) for buying necessary agricultural inputs, like seed, fertilizer, implements, livestock, fruit saplings etc. This fund will also be extended to the farmer in the form of loans for introducing appropriate technologies, like solar heaters, bio-gas plants, cottage industries and other agro-industries. A part of this fund will also be used to provide grants to support innovative approaches not normally supported under established loan practices.

In the FY 81/82, ADB/N plans to extend loans not only to individual farmers but also to small farmer groups. ADB/N will appoint personnel to help identify small farmer groups and also help develop plans and programs. Small farmers' group training will be organized to acquaint them with new technologies. At present, there are two ADB/N branch offices and 8 cooperatives in the Daraundi and Upper Kali Gandaki Catchments. The Agricultural Specialist has primary responsibility for LRCCF.

The original LRCCF concept also included authority to award small grants to selected jurisdictions or groups (i.e. small farmers' development groups, women's organizations, cooperatives generating off farm income) to allow for quick action on undertaking projects where high visibility can be obtained. They may also be used for incentives for villager or special interest group participation, for example, to encourage tree planting on Panchayat Forests. These projects would, of course, be consistent with RCUP objectives. The level of grant assistance would be small and in no case would exceed \$5,000. The bulk of the grants would be at dollar levels considerably less than \$5,000. These seed grants would offer RCUP invaluable opportunities to give real meaning to the concept of villager participation and the idea of involving disadvantaged castes and women in RCUP activities. It is felt that authority exists to award such grants but Mission and HMG concurrence will be sought in the LRCCF plan.

Social Support System - Villager & Women's Participation

Villager participation, including that of women and other special interest groups, is an integral part of RCUP as well as HMG's sixth Five Year Plan. Participation by these groups is desired because programs, and particularly long-term programs like RCUP, will be difficult to accomplish without the committment which comes with active participation. Further, HMG and RCUP desire to benefit the entire population with their programs. This necessitates focusing on certain sub-groups which might otherwise be overlooked due to the existing social structure.

Villager participation is sought in both planning and implementation. Villager participation in planning is reflected in the Panchayat Development Plan. In summary, villagers participate in planning by:

- (1) representation on the Catchment and Panchayat Conservation Committees;
- (2) participation in public listening sessions before the first draft Panchayat Development Plan;
- and (3) participation in the review listening session after the first draft plan.

Villagers are involved in implementation by contributing their labor and/or other services during the implementation of several physical activities and by their representation on the Village Panchayat and Panchayat Conservation Committee which will be managing Panchayat Forests, Panchayat Protected Forests, and certain other completed physical activities.

RCUP is interested in participation and receipt of benefits by any socially disadvantaged group, one of which is women. Activities to encourage women's participation are interspersed throughout the whole RCUP program and may be found in plans already reported. Special activities which have been identified for the coming year include:

1. Sociologist/Anthropologist designing social data survey for integrated inventory including community profiles and attitudinal variables. These data will be used in writing the Panchayat Development Plan.
2. Recommended female representatives on the Catchment Conservation Committee.
3. Recommended one male and one female representative from each ward on the Panchayat Conservation Committee (PCC).
4. Recommended PCC sub-committees address special problems, such as women's participation in RCUP benefits.
5. The Local Resource Conservation Coordination Fund will consider designating funds for special interest groups.
6. The Energy Development sub-project will interview women to find their views on stove design and other technologies.
7. The Energy Development sub-project will try to make one member of each Energy Team a female.

8. The Ministry of Forestry Training Wing (MFTW) has requested two local consultants to: incorporate materials on village women in MFTW courses, guide preparation of materials and programs designed to reach rural women, advise on motivating village women in RCUP work, and offer modules on these topics in the MFTW training center.
9. The Institute of Renewable Natural Resources has requested a local consultant to work with the Sociologist/Anthropologist to produce a study on the: availability of qualified female candidates from the Hills of Nepal for entrance to IRNR, attitudes prevailing among such candidates towards careers in natural resource management, and number and characteristics of job opportunities for qualified female graduates of IRNR certificate and diploma courses.
10. The Integrated Implementation Plan procedure allows for Panchayat Management Plan review and comment by women's and other special interest groups.
11. Designing Extension Strategies specifically for women, for example, radio programming aimed at women's needs.

SECID personnel responsible for these Special Activities are detailed in Table 1.

Activity	Responsible Position
Villager Participation in Planning and Implementation	Catchment Advisor - PCV
Special Activity 1	Sociologist/Anthropologist
Special Activity 2, 3, & 4	Catchment Advisor, PCV
Special Activity 5	Agricultural Specialist
Special Activity 6 & 7	Energy Specialist
Special Activity 8	Training Specialist
Special Activity 9	Assistant to the Dean, IRNR
Special Activity 10	Catchment Advisor
Special Activity 11	Training Specialist

Table 1 - Primary responsibility for participation activities by SECID position.

The inclusion of villager and women's participation may be desirable for several reasons. However, it is not without drawbacks. The views of these groups must be incorporated into the plans they were asked to participate in making. RCUP insincerity will soon become self evident if they are not and the cost in project credibility may far exceed any temporary gain from early pronouncements about participation. Inclusion of these views can cause (1) the more technically or nationally desirable plan to be abandoned in favor of one desired by the local or special interest group, (2) requested detailed projections to be meaningless because the course of action will only be know after the local views are incorporated, and (3) direct conflict between HMG and USAID policies and/or plans which must then be resolved.

Social Support System - Intergovernmental Structures

During the design stage two alternative project organization plans were discussed. The first proposed an autonomous body to administer the program. The second, which was adopted, relies on ". . . the willingness to participate amongst local people and the different line agencies." This approach calls for creating new institutions to accomplish RCUP objectives.

One set of institutions, outlined in Annex N, is the National Council for Conservation of Natural Resources (NCCNR) and the Catchment and Panchayat Conservation Committees (CCC and PCC). SECID, in its collaborative role, will become actively involved in discussions as this set evolves. The Team Leader will be personally involved, particularly at the National and Catchment levels. The Catchment Advisor will be particularly involved at the Catchment and Panchayat levels. The elements of this structure are discussed in greater detail on pp. 49-61 of the Revised OMIP. However, we will discuss SECID support plans at these three levels.

National Support - SECID and the RCUP Central Staff may act as the secretariat of the NCCNR if DSCWM so desires. Among the duties which may be required by the NCCNR are:

1. Prepare background papers in suggested subject areas.

2. Assist in preparing project action plans so the NCCNR can more easily coordinate integrated resource management programs.
3. Prepare, in conjunction with Nepali counterparts, periodic reports citing progress made, problems encountered, and alternative means for dealing with these problems.

SECID will also, as required, assist the RCUP Implementation Committee. This committee was established by the NCCNR to assist in implementing RCUP.

District Support - SECID will also assist the Catchment Conservation Committee carry out their responsibilities. The Catchment Advisor will work closely with the CCC to assist them in all phases of their deliberations, in addition to other duties. Other SECID staff will be called upon by the Catchment Advisor for consultations, analyses, and/or reports when their special expertise is needed.

Panchayat Support - Several kinds of participation and support are planned in the villages and panchayats. These include:

1. Training the six Peace Corps Volunteers assigned to RCUP to assist the Panchayat Conservation Committees in villages where they will be located.
2. The Catchment Advisor assisting the Pradhan Panchas as Chairman of the PCC to perform assigned responsibilities.

3. The Catchment Advisor assisting the ex-officio members of the PCC and the member-secretary (the SCA) carry out staff responsibilities to the Committee.

HMG must determine how best to proceed with the intergovernmental arrangements described in Appendix N. SECID will, through its Team Leader render assistance sought by GON.

Social Support System - Field Structures

Several types of field structures are planned, including Project Offices, District Service Centers, Field Centers, and Agricultural Sub-Centers. These are physical contributions to Institutional Development.

A Project Office will be located in each of the three district bazaars; Gorkha, Jomsom, and Beni. This office will house the CCO, SCA's, SECID Catchment Advisor and other RCUP personnel. Offices have now been rented in all catchments and will be for IRNR in Pokhara.

The District Service Center is the focal point for RCUP activities in the catchment. One Center will be built in each district bazaar and eventually, it is hoped, will house all the HMG district officers. Centers are intended to contain offices and quarters for the CCO, DFO, ADO, and possibly the LDAHO as well as development and demonstration facilities. Thus there will be only one location which villagers need visit to obtain information on RCUP. Further, information on several

phases will be available so a person seeking information on one phase may obtain unexpected information on another phase.

One Field Center is planned eventually for each panchayat to demonstrate and coordinate the RCUP physical activities in the Resource Management sub-goal. The Center will be the nucleus for identifying and implementing community RCUP activities with the panchayat population. The Centers will build confidence that recommended changes in land use and cultivation are financially and technically sound. They will also provide a common platform for all extension workers from different line agencies.

Agricultural Sub-Centers, directed by the ADO, will also be established. Each Sub-Center will serve five panchayats and act as the headquarters for the JT and JTA. The Sub-Center will be the focal point for the ADO's activities at the panchayat level and will be coordinated with the District Service Center. In addition to these structures, several Livestock Development Centers and Horticultural nurseries are planned at various field locations.

The location, type of building, timing, and cost of these structures are located in either the Detailed Construction Plan or the SPMIP. In some cases the location and final plans cannot be reported. This is because we must await the results of A & E studies, negotiations between different HMG line agencies, and the recommendations of Catchment and

Panchayat Conservation Committees. It is particularly important that the committees be consulted if RCUP is to fulfill its promise of local and villager participation. The expatriate Civil Engineer will work closely with the A & E firms and line agencies during planning and construction

SECID is responsible for contracting with A/E firms for the design stage. This is currently being done by the Soil Scientist and Forest Management Specialist. It will be the Civil Engineer's responsibility upon arrival. Responsibilities for the construction phase have not yet been decided between USAID/N, HMG and SECID.

Resource Management

The resource management sub-goal seeks to protect and restore the soil, water, and plant resource base in the catchments. The sub-projects contributing to this are Watershed and Forest Management, and the range management part of Community Livestock Development.

The SECID personnel having primary responsibilities for this sub-goal are the Soil Scientist, the Hydrologist, the Forest Management Specialist, and the Range/Pasture Management Specialist. "Primary Responsibilities" are defined previously in the section of this plan titled "The General Advisory Role, Counterpart Relationships". This section also defines how SECID will generally assist to implement the

sub-goal. Potential difficulties with the Hydrologist and Pasture/Range Management positions are discussed below in the section titled "Technical Services, Catchment Advisors". Sub-project assignments for each SECID position are also given in Table 4 in this section.

The lead HMG Departments which are responsible for implementing the sub-goal, and through which the SECID personnel will work, are: Soil Conservation and Watershed Management (DSCWM), Forest (DF), and Livestock Development and Animal Health (DLDAH). DSCWM and DLDAH are lead departments for the Watershed Management and Community Livestock Development sub-projects, respectively. DSCWM is also the lead department in the Forest Management sub-project but is strongly supported by DF.

Agricultural Production

The Agricultural Production sub-goal seeks to increase crop yield and livestock production by adopting new technologies and improved management practices. The contributing sub-projects are: Agronomy, Research, and Extension; Horticulture; the animal husbandry portion of Community Livestock; Irrigation; Drinking Water; and Fisheries.

SECID personnel with primary responsibilities are the Agricultural Specialist, the Range/Pasture Specialist, and the Engineer. More specific discussions are found in the "The General Advisory Role" and "Technical Services" sections of this plan. Relationships with

HMG are similar to those for the Resource Management sub-goal except for Irrigation, Drinking Water, and Fisheries.

SECID's responsibilities in these last three sub-projects are to develop design and feasibility plans by contracting with A/E firms. This is currently being done by the Soil Scientist and the Forest Management Specialist. It will be the Civil Engineer's responsibility upon arrival. Responsibilities for the construction phase have not yet been decided.

The lead HMG departments are: Agriculture (DA), Livestock Development and Animal Health (DLDAH), Irrigation, Hydrology, and Meteorology (DIHM), Water Supply and Sewerage (DWSS), and Ministry of Local Development (MLD). DA is the lead Department for Horticulture and Agronomy, Extension, and Research. DLDAH is the lead Department for Community Livestock Development. With regard to irrigation, DIHM is responsible for implementing projects equal to or greater than 50 hectares and MLD is responsible for smaller projects. With regard to drinking water projects, DWSS is responsible for projects in villages with greater than 1,500 population and MLD for projects in smaller villages. HMG responsibility for Fisheries has not yet been assigned.

Energy Alternatives

A new Energy sub-project plan has been submitted to HMG and USAID/N. The new plan contains most of the original plans plus some additional elements. This section is based on the original plans. Therefore, it is likely to be expanded when the new plan is approved.

The Energy alternative sub-goal will: test and monitor alternative energy technologies which can (1) improve natural resource utilization practices and (2) provide new ways of using previously unharnessed indigenous energy resources; recommend and promote those technologies that prove to be the most effective and accepted by people in the RCUP regions; and strengthen the energy awareness and capabilities of those HMG line agencies cooperating in the RCUP.

The primary contributing sub-project is Energy Development. The Watershed Management sub-project also contributes by conducting drilling and windmill tests in the Kali Gandaki region. The Energy Specialist is currently responsible for this sub-project. However, he is also the Catchment Advisor for Mustang District and stationed in Jomsom. Thus, the difficulties discussed below in "Technical Services" may be experienced in this sub-goal.

The lead HMG department is Soil Conservation and Watershed Management (DSCWM). The activities consist of installing, testing, and monitoring four primary technologies, conducting studies of the feasibility of installing two additional primary technologies, and 13 promising appropriate technologies. SECID will assist in achieving the objectives by training Energy Teams who will work at the village level and by integrating the monitoring data into the Inventory and Monitoring system.

Extension Strategy

The extension targets for the RCUP, usually expressed in numbers of farmers and/or villagers contacted, are significant. To some extent, each sub-project depends upon effective extension activities, including conservation education, for successful implementation.

SECID's conception of extension activities stresses individual contact on the land with individual farmers and conduct of village meetings rather than widespread mass media campaigns. The objectives of the meetings are to show by demonstration and graphic example the advantages of wise resource husbandry and to build confidence in the personnel and programs of the RCUP.

During early stages of the RCUP, three experienced expatriate soil and water conservation professionals were to be posted in Nepal. One was to work in MFTW, one was to be assigned to the Central Staff, and one was to be a member of the IRNR faculty. All could work on developing extension approaches and training. In fact, a major role of MFTW is to train field officers in the techniques of extension-an activity in which the soil and water conservation training specialist would have made substantial contributions; a major activity of the Central staff professional was to be the preparation of farm plans-an extension activity. The faculty person will not arrive for service in Pokhara until the 1982/83 fiscal year.

Therefore, SECID proposes to meet the pressing RCUP extension needs by taking maximum advantage of existing extension institutions. In the MFTW, the training specialist plans to emphasize training trainers and non-Gazetted Officers from department's participating in the RCUP in extension techniques.^{1/} CCO's will be assisted by the Catchment advisors in coordinating training in resource conservation and utilization for villagers and women in Panchayat and Local Development Training Centers; for agriculture and livestock junior technicians in Regional Agricultural Training Centers; and general officers in the APROSC Training Center. In addition, the Panchayat Development Plan approach is inherently a strong extension tool.

In addition, SECID will initiate job specific training for CCO's and other principal HMG officers to be posted to the RCUP catchments. The training will emphasize such extension topics as village motivation, the demonstration method of education, and planning extension programs.

^{1/} These officers include Soil Conservation Junior Technicians whose major role is extension.

Inventory, Monitoring, and Evaluation

The Inventory, Monitoring and Evaluation Plans are separable because each has a different and identifiable function. The inventory primarily provides information for writing the Panchayat Development Plan. It will be the main source of current data upon which the plan is based. It also serves the secondary purposes of beginning a time series data base for future studies and possibly assisting in project evaluation. Monitoring will establish a data base for the control function. The monitoring system will provide management information to judge quarterly, or preferably monthly, whether sufficient progress is being made in implementation. Secondly, it will provide a data base for the midterm and five year evaluations. The Evaluation Plan contains the outline of how SECID/N will judge its own performance and use that information to increase its effectiveness.

Inventory Plan

The approved Inventory and Monitoring Plan of May, 1980 is the basis for this plan. Deliberations of the RCUP Central Staff (which arrived in the fall of 1980), and discussions with USAID/N and HMG personnel in Nepal, have all contributed to this more detailed view of the May, 1980 plan.

It has become apparent that the inventory's major focus should be providing land management data for implementing RCUP physical activities in the panchayat. The need for a comprehensive, integrated Panchayat Development Plan (discussed above under Integrated Implementation Plan) dictates that an integrated inventory must also be performed. This has caused a combination of some inventories discussed in the May, 1980 plan into an integrated inventory.

The integrated inventory will be a reconnaissance inventory of each lead panchayat after its selection. It will not be a highly detailed inventory but rather non-probability and relatively imprecise although some sections or variables may be more precise than others. The guidelines for determining precision, and hence inventory cost, will be the precision needs for planning.

Actual survey content and design will be made by conferring with HMG district officers to find their needs, RCUP expatriate advisors, and local consultants. We expect that the final form will change as field experience is gained and as unique needs change from panchayat to panchayat. Generally, the integrated inventory will contain enough information to determine the needed physical activities, their amounts, and their location within the panchayat.

General categories of variables can also be identified at this time: These are:

1. Soil Survey. This will be the cornerstone of the integrated inventory. We expect the soil survey can be so designed that the Land Capability Inventory and the Hazards Inventory (plan of 5/80) can be combined into it. That is, the soil survey will contain enough information so land capabilities and hazards can be interpreted from it.
2. Agricultural Use. The ADO and LDAHO must be consulted in planning these variables. However, we would probably map approximately the crop lands by size and crop; pasture and range by size, site and condition class; and note the type and location of particular problems, e.g. irrigation needs. The I.C.P. agriculture inventory system will be examined to see if it can be adopted.
3. Forest Cover Type. The location of forests will be approximately mapped. The maps will show cover type, density, size, and possibly condition class.
4. Social Data. Approximate population size and distribution will be mapped. This is important for determining the location of some physical activities. For example, Panchayat Forests must be located near enough to population centers or else fuelwood cutting will still be too time consuming.

The inventory will also include additional social data as determined by the Sociologist/Anthropologist upon arrival. These variables may include: income and wealth variables, status of women and disadvantaged groups, social structure analysis, and attitudinal variables for planning motivation programs.

The integrated inventory must also be designed to contain sufficient data for farm planning. Farm planning is providing technical assistance to individuals and groups of land users to carry out locally adapted soil and water conservation programs. RCUP is committed to demonstrating on small areas how this can be done. For example, the 1981-82 target is 375 hectares. The CCO and ADO are responsible for executing the plans. SECID is responsible for providing consultation and technical assistance in developing and implementing them. A short-term expatriate consultant may be needed after some experience has been gained in farm planning by RCUP.

The Hydrologic Survey will provide information for the 20-50 ha. multipurpose impoundment, catchment ponds, stream bank stabilization, and irrigation schemes. This survey will also begin establishing time series data needed to interpret future catchment-wide data.

The Geology Survey will change from a lithographic survey to a geomorphologic survey with emphasis on interpreting land forms for landslides, ground water capabilities, and site specific surveys for large construction activities. This type of survey will be more useful for planning purposes.

The Soil Scientist has primary responsibility for inventories. This may pass to the Sociologist/Anthropologist when that person arrives. Initial plans for the integrated inventory will drawn by the Soil Scientist and the Forest Management Specialist. More specific planned responsibilities are shown in Table 2. These assume that all expatriate positions are filled and that the incumbents are available to work on inventories in Kathmandu and all three districts.

Inventory or Survey	Responsible SECID Personnel
II-Soil Survey ^{a/}	Soil Scientist, Hydrologist
II-Agricultural Use	Agricultural Specialist
II-Forest Cover Type	Forest Management Specialist
II-Social Data	Sociologist/Anthropologist
Hydrologic Survey	Hydrologist
Geologic Survey	Short-term Expatriate Consultant

Table 2. SECID personnel primarily responsible for inventories and surveys.

a/ "II" is integrated inventory.

SECID personnel are advisors who may suggest designs, provide technical guidance, and personally urge implementation. However, HMG retains the right to make final decisions about inventories and their implementation. The Department of Soil Conservation and Watershed Management (DSCWM) is the lead HMG agency and hence has primary responsibility. The CCO is the district level officer responsible for implementing the integrated inventory. Some yet undesignated person in the DSCWM Kathmandu office will be responsible for implementing the Hydrologic Survey and some other person will be responsible for implementing the Geology Survey.

Teams are planned to implement the integrated inventory. The three PCV's with soil science training will be the core team members. They will be augmented with Nepali staff as needed in each panchayat. For example, the SCA, JT's, or other junior officers may work with them in obtaining the inventory data for their area of expertise.

Integrated inventories will first be performed in the lead panchayats so planning can begin as soon as possible (Table 3). The team will move to adjacent panchayats when the lead panchayat inventory is completed to save on travel costs. The team will then move to those panchayats which are likely to be lead panchayats in the next year, and inventory

the adjacent panchayats upon their completion. Moving in this manner will eventually provide data for advanced planning on the panchayat level. The team may eventually become fluid with some members performing their part of the inventory independent of other team members. The catchment inventory will be the sum of the panchayat inventories.

District	Lead Panchayat
Gorkha	Barpak
	Chhoprak
	Raniswara
Mustang	Lete
	Marpha
	Jomsom
Myagdi	Begkhola
	Jhee
	Pakhapani

Table 3. Tentative locations for integrated inventories.

Implementation of RCUP physical activities will not always be delayed until the panchayat integrated inventory is performed. We expect that HMG district officers, or their subordinates, will be sufficiently familiar with the catchments to identify high priority problem areas in advance. For example, critical erosion control may be readily evident without an integrated inventory. RCUP physical activities will begin immediately in these cases. We expect a sufficient number of these cases to maintain target levels in the early years while the advanced integrated inventories discussed above are performed.

Monitoring Plan

RCUP is monitored to provide quarterly or monthly control data and secondarily, to provide data for the midterm and five year evaluations. The control data will also be used for USAID/N biannual and annual substantive and administrative reports. Monitoring RCUP is complicated because RCUP is implemented by HMG line agencies. Several line agencies often implement different parts of the same sub-project, and different agencies have different internal reporting requirements. In addition, the National Planning Commission (NPC) requires Quarterly, Half Yearly, and Yearly Progress Forms. Overall Monitoring responsibility is assigned to the Forest Management Specialist.

Physical Activities - A survey is underway to determine the content of reports which are currently required from the HMG line agencies.

A preliminary physical activity monitoring system will be designed upon completion of this survey. The design will be made in consultation with the line agency, expatriate specialists, and counterparts. Care will be taken not to request excessive new reports.

The unit of measurement for physical activity monitoring will depend on the physical activity being monitored. In general, the unit of measurement will be the same as that stated for the physical activity in the OMIP and SPMIP.

A potential weakness of this approach is that some physical activities are indivisible. That is, one can meaningfully report the fractional number of kilometers of forest boundary which have been demarked and obtain a good measure of monthly progress. However, this would be an inadequate measure for other activities, primarily in construction. For example, a nursery or building may take several months to construct. These activities must be monitored during their design and construction to assure that targets are being met. Tentatively, brief monthly narrative reports from the HMG district officer responsible for this kind of physical activity will be requested. The exact format will have to be discussed with the HMG agency and also will depend on the specific physical activity. The Forest Management Specialist is responsible for Physical Activity Monitoring.

Fiscal Expenditures - The heart of this sub-system is the Senior Accountant who will be located at each of the district offices. These individuals will provide a very important link between the RCUP Central Office and the line agencies located in each of the district offices. More specifically, each line agency will have their own accountant at each of the district offices with whom the RCUP Senior Accountant will coordinate, advise and assist with budget preparation, cash flow, reporting expenditures and submitting reimbursement claims under the "Working Capital" system. Through this process, perhaps funds will flow more rapidly, and equally important, a management information system will evolve from reports submitted to the Central Office monthly. These data will be entered into a computerized accounting system which will attempt to keep accurate accounting of expenditures in each of the districts by sub-project activity and intervention.

It is also expected that the Physical Activities and Fiscal Expenditure data files can be merged monthly. This will allow programming and publishing monthly estimates using the National Planning Commission evaluation format. This report could be circulated to district line officers, as well as RCUP personnel, to allow more timely corrective action for meeting targets. The RCUP Senior Financial Manager is responsible for Fiscal Expenditure Monitoring.

Impact Evaluation - The May, 1980 plan suggested installing a limited number of runoff plots and monitoring sedimentation behind existing dams or traps. The suggested runoff plots are too few to allow generalization about RCUP effectiveness over an entire catchment. Thus, tentative plans are to locate these runoff plots in some of the first

lead panchayats. In this way, they can enhance the panchayat's value as a demonstration area by graphically revealing the reduction in soil loss due to implementing conservation practices.

Sedimentation monitoring will be implemented because it is low cost and will begin to establish baseline time series data. However, its immediate value is questionable because there are no baseline data to establish long-term trends for comparison and because there appears to be no catchmentwide precipitation data with which to interpret the sedimentation rates. The Hydrologist is responsible for Impact Evaluation.

Adaptive Research - Adaptive research was originally proposed to establish ". . . a base . . . to document cultural ecology changes to evaluate the positive and negative aspects of these changes, and to provide feedback into RCUP decision making." We subscribe in principle to these objectives. However, no one on the current Central Staff has enough expertise in this area to either design the research or to assess the likelihood of its effectiveness. We expect that the Sociologist/Anthropologist, currently being recruited, will have this expertise and be responsible for adaptive research. Thus, further decisions about this segment of the monitoring system are postponed until that person is in-country.

Documentation - Documentation consists of repetitive ground and aerial photographs to record changes occurring on the land due to RCUP physical activities. The main value of this phase of monitoring, like the

impact evaluation, is to graphically demonstrate the changes caused by implementing conservation practices. We anticipate that those photo points which are first installed will be in the lead panchayats. However, photo points are also planned at those high priority areas where physical activities are implemented outside of lead panchayats. The Soil Scientist is responsible for Documentation.

Internal Evaluation Plan

Formal external evaluation mechanisms are sufficient to assess at regular intervals progress made, problems encountered, adjustments needed and plans for future specified time frames. Internal evaluations then will be informal and keyed to weekly staff meetings, monthly written activity reports submitted by SECID personnel and special meetings to discuss major programmatic approaches or issues. This system has worked well to date and will be continued. Field evaluations will also proceed informally apart from written reports which provide information for formal reports on project developments.

The project co-manager consults from time to time with all SECID expatriate Nepali counterparts. This has proven useful in assessing the performance of each expatriate and has served as the basis for resolving problems as they occur. Again, no change in procedure is indicated.

The monitoring of physical and social events in the field will rely on several methods for on-going evaluation. The first is the frequent visits to the catchment by the co-managers and expatriate

staff and local consultants. In addition, the CCO and field based expatriate will serve as an indispensable link between field level activities and the central office. Problems encountered can be acted on quickly and progress made can be accurately identified.

A formal evaluation will be carried out by the central office every six months and will be reported in the "substantive report" submitted to GON and USAID. The adaptive research field approach must await the arrival of the Rural Sociologist/Anthropologist before we can give clearer definition on how this will be included as part of the evaluation and reporting process.

The key to whether this informal evaluation process will continue to be effective rests on how quickly findings can be translated into corrective action at the center and in the field. The span of management control at the co-managers level is sufficient to allow for keeping abreast of program activities coupled with the submission of written monthly reports by each expatriate.

Reporting

Two reports are required by the Mission each year covering the period ending July 31 and January 31:

- a. The "Substantive Report" indicating progress made, plans for the next period and recommendations about needs in the field of activity covered under the terms of the contract.
- b. The "Administrative Report" detailing expenditures and personnel used during the period.

The "Substantive Report" will document progress made against both the work plan submitted by SECID/Nepal and HMG's FY 81-82 work plan. This will be presented in narrative form. Plans for the next period are included in the SECID/AID required Plan of Work and HMG's Annual Work Plan. Where substantial modification to either work plan is required, these will be noted in the report. If not, then the reader is referred to both the contractor's and HMG's plan of work for information regarding the next six months' plans. The contractor will place heavy emphasis on these reports and recommendations for gaining smoother project implementation. We prefer to call this section of the report "Issues and Problems" for consideration by both the Mission and HMG. The contractor would expect that based on this report, meetings would be held among the three parties to discuss the report's contents and to indicate steps to resolve any problems cited.

The kinds of information to be contained in this report in terms of progress made will be offered in quantitative terms against specific targets established. Where this is not possible a narrative statement will be offered discussing major events occurring during the reporting period.

The "Administrative Report" will be the vehicle used in detailing expenditures and personnel used during the reporting period. Prepared and submitted by the contractor's staff in Chapel Hill, North Carolina, this report will document project related expenditures authorized under the contract as amended. In addition to a narrative summary, the report will contain a line item budget authorization, cumulative expenditures, and expenditures for the current reporting period. As for personnel, the report will contain a section on long and short-term expatriates, consultants, part-time employees, local consultants, local support staff, home campus staff, and members of the contractors home office staff employed to assist with implementing this project. Other sections of the report will include status of procurement transactions and participant training activities.

Although there are many authors involved, the intent is to present a clear, concise and comprehensive picture of progress, status, issues and problems through the "Substantive and Administrative Reports".

In addition, expatriates will prepare and submit to the Team Leader progress reports on a monthly basis. The Team Leader in turn will assemble and prepare quarterly reports, in addition to the monthly financial reports, which will be mailed to the RCUP Management Council. Status reports, as mentioned earlier, will be prepared by the Team Leader and submitted to USAID/N semi-annually. Within one or two weeks after the semi-annual report is submitted to USAID/N, a briefing will be scheduled with USAID/N and GON. At that time questions can be answered and perhaps problems resolved, if any. The contractor publishes an annual report which will contain appropriate information relating to the RCUP. As implementation of the project proceeds there may be a need for other reports depending on what additional data is necessary to fill the gaps in the management information system.

Communications

Any operation the magnitude and complexity of the RCUP requires an effective communications program to guide its direction. This section of the contractor's annual work plan addresses the physical means of communications including: an RCUP radio network; both national and international mail; a series of scheduled meetings in addition to the many unscheduled; and a variety of reports and briefings.

Radio Communications

In order to assure timely communications between the Central Office in Kathmandu and the project sites in Pokhara, Gorkha, Myagdi and Mustang; an operational radio network is not only desirable, but very essential. This network will be used to establish viable and timely two-way communications between the Central Office and Project sites for better and quicker implementation of project activities coupled with providing an emergency means of communicating life support requirements.

Network - The contractor will assist HMG in establishing a radio network to support the requirements identified above. The network will include a base station located with the Central Office in Kathmandu and a station at each of the project areas including Pokhara, Gorkha,

Myagdi and Mustang. Installation of these stations including the base station hinges on several factors: 1) authority to hire a local consultant to assist in developing the entire wireless communications system; 2) arrival of equipment being procured offshore; 3) personnel necessary to support this functional area; and 4) availability and procurement of local components.

Resource Requirements - Broadly speaking, materials and manpower are the basic resources necessary to establish a radio network in support of this project. The materials include six radio sets and associated components which are being procured offshore by SECID (one set will serve as a running spare as discussed below). HMG will locally procure such items as heavy duty batteries, guidelines, antenna mast, etc. Personnel will be furnished through the contractor as outlined under a separate proposal entitled "RCUP Support Personnel Requirements". In addition to these resource requirements, the contractor will secure the services of a local consultant to assist with the development of Policies and Procedures, installation of each station, operational testing, and training operations. Another resource requirement is a local maintenance contractor as discussed under maintenance below. As stated earlier, six sets are being procured offshore by SECID, and one set will serve as a floating spare. This set will be used for two purposes: 1) to replace a malfunctioning set which requires immediate repairing;

and 2) replace each individual set on a regular scheduled basis in support of a preventive maintenance program as outlined below.

Maintenance - Although a preventive maintenance program cannot assure continual communications, it can minimize needless down time resulting from a poor or no maintenance at all. Recognizing the value of preventive maintenance, the contractor will assist HMG in developing and maintaining this program through a systematic process. The first step rests with the operators each of whom will be trained to perform daily operational checks and basic preventive maintenance. The second step involves retiring each set to a local contractor who is qualified in maintaining and repairing this equipment. On a regular scheduled basis (probably every six months) each set will be replaced by the floating spare. The original set will be returned to a local contractor in Kathmandu for depot maintenance, calibration and testing. As this set is returned to the central office it will be transported to the next regularly scheduled station requiring depot level maintenance.

National and International Mail

In establishing a system of mail correspondence, one must first review the needs. On a national level, provisions for mail between the four project areas located in Pokhara, Gorkha, Myagdi and Mustang, and the RCUP Central Office in Kathmandu must be established. On the international level, provisions for mail between Kathmandu and the US must also be incorporated in the overall communicative process.

Internationally, two methods of transmitting mail between Nepal and the US are already established. These methods include: 1) an international post office box in Kathmandu in the name of SECID; and 2) the US Pouch system provided through USAID/N. Although there are certain constraints on each of these systems, the contractor can and will abide by the established rules, regulations and procedures.

The RCUP Central Office will establish a small mail and distribution center under the supervision of the local support Communications Specialist. Necessary equipment to run this operation will either be procured locally by HMG, or offshore by SECID, if so requested. Personnel will be supplied by HMG, or through the contractor under a separate proposal entitled "RCUP Support Personnel Requirements".

The contractor will assist HMG in setting up and managing the functional responsibilities of this mail and distribution center. Basically, the center will provide distribution within the Central Office and a distribution system to and from each of the line agencies operating within the RCUP. The center will pick up and deliver mail twice daily (Monday through Friday) at the local post office box and the USAID/N mail room. In making these runs, the center will also pick up or deliver any telex traffic at the Narayani Hotel and correspondence to or from all line agencies. In addition to these functional responsibilities, the center will also manage the mailing system to and from each of the project sites.

Although personal carriers, both internationally and within the project areas will be used to the maximum extent possible, it is psychologically essential that regularly scheduled pick up and delivery of mail within the remote districts be established. The contractor will establish a weekly air and road carrier service to and from each of the four districts including Pokhara, Gorkha, Myagdi and Mustang. The RNAC air documents system will be used where and when possible.

The operational targets for this phase of the communications program include the following:

- a. establish personnel and equipment needs - July 81
- b. establish a carrier service to Pokhara - August 81
- c. recruit and train personnel - September 81
- d. secure appropriate equipment - September 81
- e. establish a carrier service to Gorkha, Myagdi, and Mustang - Oct. 81
- f. review and revise any operational problems - November 81
- g. system completely operationally - December 81

Meetings

Frequent meetings and discussions are essential in order to assure progress in a systematic fashion while minimizing problems and confusion. The Central Staff will meet weekly excluding expatriates and technicians assigned to the project areas. One expatriate on the Central Staff

will take notes, prepare a written record which will be forwarded to each project site, and coordinate the concerns from the field.

One a monthly basis, all expatriates and HMG counterparts will meet to discuss progress, problems and issues. Resulting from this exercise, subsequent meetings with appropriate personnel will be arranged to resolve problems identified.

The frequency of meetings and the participants may vary depending on the needs at the time. It is, however, anticipated that meetings will take place more frequently in the beginning and level off to a more systematic schedule as the implementation process takes a stronger hold.

Meetings with appropriate HMG and USAID/N officials will be established to discuss semi-annual reports which will be prepared and submitted by the contractor. It goes without saying that a series of meetings will probably spin off from this semi-annual meeting to resolve problems identified and review the direction of progress.

Annually, the Project Co-managers will meet with the SECID Management Council. This meeting will take place on an alternating basis. One year the Management Council representatives will meet in Nepal followed by a meeting in the US the next year.

An annual RCUP meeting, in which all SECID personnel will actively participate is being strongly considered. This meeting is directed at district officers and their subordinates, for example, the CCO and the SCA. HMG officers from Kathmandu might also attend. The meeting's purpose is to provide a mechanism for field personnel to be updated on the project-wide status and to provide a forum to exchange field experiences and recommendations.

More specifically, the meeting might have three parts. The first would report current status and progress in each of the districts as well as the entire project. The CCC might give the report for all the district activities. The second part might report plans for the coming year. The third part could be a series of workshops on current project problems, for example, obtaining villager participation, and suggested solutions and strategies which have been tried in the field. The meeting would probably be located outside Kathmandu. Pokhara seems a good location for the first meeting because hotel and eating facilities are sufficient, transportation is good, and it is centrally located for the catchments.

Through this series of meetings, both scheduled and unscheduled, management, direction and resolution of problems relating to the implementation of the RCUP can be achieved. To keep those whom are not directly connected to the day-to-day operations informed of general progress a series of briefings will be established and presented.

Management Council

The overall management of this project in the United States rests with the Management Council. The Council consists of one representative each from the three co-lead universities. Council chairmanship will rotate each year to a different university. There are five ex-officio council members; the SECID Executive Director, the two RCUP Co-Managers, a representative from USAID/W, and an HMG official.

The primary responsibility of the Management Council is to advise SECID on how to fulfill its contractual obligations considering capabilities of SECID member institutions and RCUP objectives. Other responsibilities are:

- o Establishing general guidelines for project operation by the Project Co-Manager
- o Assisting to identify training sites in the U.S. for Nepali participant trainees
- o Assisting to identify SECID faculty members for long-term and short-term assignments in Nepal
- o Participating in the arrangement of observation tours for HMG officials

The Management Council will meet in person at least once a quarter (four times a year). Frequent conference phone calls will be used to communicate between meetings, as well as the usual mail service. Management Council representatives will meet with the Co-Managers at least once a year, alternating between a site in Nepal and the United States. It is strongly recommended that all Management Council members make at least one visit a year to Nepal.

Management Council deliberations and recommendations will usually be communicated to SECID/N by the SECID Project Coordinator in Chapel Hill. The Management Council will communicate directly with HMG, USAID/N, and SECID/N during visits to Nepal.

TECHNICAL SERVICES

This section contains discussions organized by each of the SECID positions. Each position contains three sections. The Scope of Work generally describes the position during the entire time it exists. The Areas of Emphasis contains a discussion of those activities which will be focused upon in the coming fiscal year. The General Discussion contains comments which are unique to the position and which answer questions asked by USAID/N which were not answered elsewhere.

The Scopes of Work are taken from previously circulated project materials. These may change slightly as new project needs become evident and are particularly subject to change where the position is not yet filled because the strengths and desires of the incumbent are unknown.

Most positions have both primary and supporting responsibilities in one or more sub-projects. The primary responsibilities are mentioned in the text but the supporting responsibilities are mentioned only in Table 4 to avoid undesired textual detail.

This section contains discussions of SECID position, except for the Catchment Advisor discussion. Catchment Advisor is not a position which was identified and assigned to SECID but is an additional set of duties added after the contract was signed.

Sub-Project	Primary Responsibility	Supporting Responsibility
Watershed	Soil Scientist, Hydrologist	Forest Mgmt. Spl., Range/ Pasture Spl., Civil Engineer
Forest Management	Forest Mgmt. Spl.	Soil Scientist, Hydrologist, Range/Pasture Spl., Civil Engineer
Community Livestock - Range Mgmt.	Forest Mgmt. Spl. (Range/Pasture Spl.) ^{a/}	Soil Scientist, Forest Mgmt. Spl., Hydrologist, Civil Engineer
Agriculture, Ext., & Research	Agriculture Spl.	Soil Scientist, Training Spl., Civil Engineer
Horticulture	Agriculture Spl.	Soil Scientist, Training Spl., Forest Mgmt. Spl.
Community Livestock - Animal Husbandry	Agriculture Spl. (Range/Pasture Spl.)	Training Spl., Civil Engineer
Drinking Water	Soil Scientist (Civil Engineer)	Soil Scientist, Hydrologist
Irrigation	Soil Scientist (Civil Engineer)	Soil Scientist, Hydrologist
Fisheries	Soil Scientist (Civil Engineer)	Hydrologist
Energy	Energy Spl.	Soc./Anthropologist, Forest Mgmt. Spl., Soil Scientist, Civil Engineer
Training - IRNR	Assist to Dean	All Central Staff, Training Spl.
Training - MFTW	Training Spl.	All Central Staff
Training-PTP	Training Spl.	Assist to Dean

Table 4. SECID position primary and supporting responsibilities by sub-project, 1981/82.

^{a/} Parentheses indicate position with responsibility upon arrival in Nepal.

Team Leader

Scope of Work

The Team Leader shares responsibility with the Project Manager, who is appointed by HMG, for the overall coordination of the project. He will assist the Project Manager in working with the various government line agencies to ensure that funding, equipment, training, and staff assignments proceed consistent with the Project Agreement, PIO/T, and the Contract. This person is responsible for the overall management and implementation of the project with respect to all expatriate assignments in the IRNR, MFTW, and Central Staff. Responsibilities include advice concerning both policy and RCUP program matters, problems encountered, and issuing timely reports on progress.

Areas of Emphasis

SECID will emphasize field implementation of the sub-projects and physical activities during the coming year. Therefore, in addition to his responsibilities for overall project management and implementation with respect to all expatriates, the Team Leader will place particular emphasis on this area including:

1. Directing newly created Catchment Advisor position incumbents, including field visits and help in writing work programs and analyses.
2. Coordinate field activities through the Catchment Conservation Committees (CCC) and, where appropriate, the Panchayat Conservation Committees (PCC). Attend meetings and act as advisor to CCC.

3. Establish field mechanism for project implementation by working with the National Council for Conservation of Natural Resources to assure sufficient funding, equipment, training, and staff positions are available in HMG organizations.
4. Assume responsibility for arranging meetings with (a) USAID/N, (b) The Director General, Department of Soil Conservation and Watershed Management, (c) other HMG departments, and (d) other donor agencies with related projects.

General Discussion

The Project Manager is the Team Leader's counterpart. They communicate verbally through formal and informal daily meetings. The Team Leader usually attends HMG meetings only with his counterpart. Communications to HMG usually pass through the counterpart to the Director General, DSCWM, and thence to the HMG agency. Team Leader field activities, other than inspection tours, usually stop at the CCC and HMG district officer level. Advice and comments are offered to these people and organizations verbally during informal meetings and through the Project Manager during formal meetings. Written reports may also be used. The Team Leader communicates directly with SECID personnel both verbally and in writing.

Administrative Officer

Scope of Work

Assist the Project Co-Managers in the overall management of the project including development of a management plan to guide internal matters; participation in the formulation of an implementation plan; advise on progress achieved in both areas and where objectives are not being reached; and general administrative responsibilities in the day-to-day operation of the project. Develop a trained cadre of professionals and technicians that will provide Nepal a self-sufficiency in the administration of a Resource Conservation and Utilization Project.

Areas of Emphasis

In achieving the responsibilities, the incumbent will, through close interaction and cooperation between HMG/N, SECID, and USAID/N, develop and implement systematic procedures for all functions relating to: general administration; financial management and accounting; recruitment, training, and development of local support staff; logistics, including supplies, maintenance, repairs, transportation, and travel arrangements; installation and management of a national and international communication network; and assist with the development, implementation, and management of a detailed time and task planning schedule.

General Discussion

The Administrative Officer has no counterpart but rather works directly with several Nepalis on the RCUP and SECID support staff. There are no regularly established relationships with HMG agencies or officials however, meetings occur when needed to solve a particular administrative problem. Field visits are anticipated when the district administrative offices become operational

Training Specialist

Scope of Work

The Ministry of Forest and Soil Conservation Forest Technician Training Project (MFTW) is established to facilitate in-service training for all employees and cooperation in the departments and corporations of the ministry. The Training Specialist, with the HMG Chief Training Officer, (CTO) will: develop curricula and assist in teaching courses in Kathmandu and regional centers for senior officials, train trainers and organize departmental training programs, develop and distribute training materials for use in field situations (training junior employees and villagers), oversee the construction of a training center in Kathmandu and a field demonstration center, and develop training center staff. The Participant Training Program (PTP) is a second Training Specialist responsibility. He will work with the RCUP Central Staff and HMG department officers to develop clearly defined areas of training needs and the minimum qualifications that should be possessed by persons nominated. He will be responsible for securing necessary participant documentation required by USAID, U.S. universities and other receiving institutions, arranging for/or conducting special instruction, making arrangements for administration in Kathmandu of TOEFL, GRE and other tests, and transmitting documentation to SECID/CH. He will advise participants on curriculum choices consistent with RCUP objectives and draft PIO/P objectives and training program. The third Training Specialist responsibility is organizing and coordinating project-

specific training in the RCUP target areas, including panchayat officials, HMG line officers from cooperating departments, farmers and other villagers.

Areas of Emphasis

The short-run areas of emphasis for the Training Specialist will be:

- a. MFTW. Advising on ministry-wide in-service training policy that applies to all departments and projects and implementing the policy. Specifically, the policy will be emphasized by including at the same time personnel from all the line agencies in those courses, such as "training trainers", held in the Kathmandu center; assisting departments prepare training plans; packaging subject-specific course material for use in the field by all departments and projects; and acting as a clearinghouse for existing audio-visual training materials and training courses.
- b. PTP. Improving the pre-registration preparation of participants, focussing short-term participant training on RCUP implementation and designing suitable India training experiences for Nepalese sent under RCUP auspices.
- c. Internal to RCUP. Systematizing the training of those engaged in the integrated inventory and panchayat development plans.

General Discussion

The incumbent is an experienced regional natural resource planner. His MFTW counterpart is the Chief Training Officer; there is no PTP

counterpart; and the counterparts for internal to RCUP training will be the CCO's.

- a. MFTW. Counterpart relations are personal and informal as well as formal. The MFTW provides desk space in the CTO's office. All work-preparing budgets, work schedules and course syllabi, implementing the building program and meeting with clients and others - is performed jointly.
- b. PTP. The principal coordinative relations are with USAID/N and the two SECID lead institutions coordinating long-term and short-term U.S. training programs. More extensive contacts with HMG line agencies and with Indian institutions of higher education are contemplated.
- c. Internal to RCUP. Work in this area is currently limited because panchayat programs and approaches are still being planned. Most field contacts will be through the Catchment Advisors to the CCO's, or other HMG district officers, to villagers and agency field personnel.

The Training Specialist has also been assigned responsibility for designing planning/implementing mechanisms extending from the NCCNR level to the panchayat level. Primary responsibilities are within the Training sub-project.

Assistant to the Dean, IRNR

Scope of Work

The incumbent will assist the Dean to establish the Institute of Renewable Natural Resources.^{1/} These responsibilities include:

- o Undergraduate curriculum development
- o Management of operations
- o Programming and planning the new campus
- o Recruiting temporary expatriate faculty and drafting their job descriptions
- o Transition planning for diploma curriculum

This person is directly accountable to the Dean but must maintain close contact with the RCUP Central Staff in Kathmandu. He will act as liaison between IRNR expatriate faculty and the Central Staff and advise it on contacts with the MFTW, the IRNR faculty board and its subject committees.

Areas of Emphasis

The incumbent is Deputy Co-Manager for the IRNR portion of RCUP. Thus substantial time will be spent on administrative duties once the full component of expatriate faculty is in place. Specific duties are to:

1. Act as liaison between the expatriate faculty, the Dean, and the RCUP Central Staff.

^{1/} As noted previously, Tribhuvan University has not acted to change the current name of the Institute of Forestry to IRNR. The former is the official current title of the organization.

2. Draft job descriptions and otherwise assist the contractor in recruiting expatriate faculty, short term expatriate consultants, and local consultants.
3. Direct and coordinate the efforts of the expatriate faculty and consultants.
4. Serve as advisory member of Tribhuvan University's Project Board which is responsible for construction of the new facilities at Pokhara and Hetauda.
5. Attend meetings of IRNR Faculty Board.
6. Attend meetings of the faculty and appropriate committees of the IRNR.

During 81/82 specific areas of emphasis for the Assistant to the Dean will include:

1. As an advisory member of Tribhuvan University's Project Board for IRNR campus construction and the selection subcommittee appointed by that Board, assistance in:
 - a. Divising criteria for selection of an Architectural-Engineering (A-E) Firm
 - b. Solicitation and selection of an A-E firm

- c. Selection of a contractor and
 - d. Special Planning for the IRNR campus
2. Development of a curriculum for the B.Sc. Program at Pokhara and development of detailed syllabi for first-year courses of the B.Sc. Program.
 3. Initiation of development of long range research plans for IRNR including plans for development of two field research centers. (Tentative completion of plans in 82/83)
 4. Selection and acquisition of library materials to supplement holdings in the Prithivi Narayan Campus Library.

General Discussion

The Dean of IRNR is the incumbent's counterpart. The incumbent is also a member of the IRNR faculty, and an adjunct member of the Tribhuvan University faculty. He will physically be located in Pokhara once IRNR classes begin. The exact relationship between the incumbent and other faculty members will be decided between the incumbent and his counterpart. The incumbent will have no regular direct contacts with the NCCNR, CCC, PCC, or HMG line officers at the district or panchayat level. The Assistant to the Dean will communicate with the Dean verbally and

in writing upon request. He will communicate with the IRNR faculty verbally and by memo. Communications with the Central Staff will depend on attending staff meetings every other week in Kathmandu, radio communications when the RCUP network is established, and occasional written reports. The incumbent's primary responsibilities are within the Training sub-project.

Catchment Advisor

The Catchment Advisor is not a separate expatriate position. Rather, it is a set of additional duties which SECID has been instructed to perform in the catchments. These duties must be performed in addition to other regularly assigned duties.

Scope of Work

The incumbent is the Catchment Conservation Officer's (CCO) counterpart and will live in the district bazaar of Gorkha, Jomsom, or Beni. He advises the CCO on: overall coordination of integrated RCUP activities in the panchayats; organizing the CCC and PCC to obtain cooperation and villager participation; acts as an informal communication link between the CCO and other district HMG officers; and assists the CCO in interpreting and explaining RCUP to district leaders and other HMG officers.

In addition, the Catchment Advisor has several Central Staff responsibilities. These include:

- o Represent his discipline on the interdisciplinary team and help shape RCUP policy in that area
- o Communicate to the Central Staff problems and solutions in implementing RCUP, with the CCO's concurrence
- o Seek opportunities to forward RCUP objectives and communicate these to the Team Leader
- o Assist Central Staff in planning field visits for most effective use of time. Facilitate visits by suggesting key persons to contact and placing priorities on alternative site visits

The incumbent must regularly visit Kathmandu to execute his overall RCUP responsibilities. It is also expected he will spend a substantial part of his time residing in Kathmandu each year, either during the monsoon, the winter or such the times as required by the Team Leader.

Areas of Emphasis

The persons recruited for these positions will probably spend their first two or three months in Kathmandu during which they will:

1. Learn to speak Nepali. An effective Catchment Advisor must be able to communicate with district and panchayat personnel in Nepali
2. Learn about RCUP structure and objectives. This knowledge is needed to interpret RCUP to the CCO and other district and panchayat personnel and to provide background for advice and independent decisions
3. Prepare suitable living quarters in the district bazaar. Suitable quarters, including electricity (generator), running water, sanitation facilities, appliances, and furnishings will be established before the incumbent moves to the field. Temporary arrangements will be suggested for consideration by the incumbent if this is not possible.

General Discussion

The Catchment Advisor position was established at the direct request of HMG and USAID/N and against the recommendation of SECID. One advisor will reside in each district bazaar. Two of the three are not new positions but rather existing Central Staff positions which now must be located in the catchment instead of Kathmandu. The other position was a full time Kathmandu local consultant. The incumbent must fulfill not only regular Central Staff responsibilities but also the additional responsibilities of a Catchment Advisor. Central Staff responsibilities often include duties not only in Kathmandu but also in all catchments. It is unlikely the entire scope of work can be accomplished by one person because of communication and travel difficulties, the amount of work involved, and the pressure to emphasize coordinative responsibilities at the expense of technical responsibilities. Every effort will be made to make this arrangement workable but SECID continues to have major reservations.

Land-Use Planner

Scope of Work

The incumbent's responsibilities include coordination of soils, vegetation, geology, socio-economic, and other inventories; collecting field and remote sensing data for land-use and farm management recommendations; and advising on the drawing of resource maps, land-use maps, and other cartography.

General Discussion

The Central Staff believes the expertise needed to accomplish the above tasks is already present, or will be present when existing expatriate positions are filled. Alternative uses of the position are being studied but no decision has yet been made. The alternatives include converting the position to that of an agriculturist/soil conservationist or dissolving the long-term position into a series of short-term expatriate consultancies.

Soil Scientist

Scope of Work

The Soil Scientist will work closely with counterparts in coordinating, surveying, interpreting and mapping soil types for the integrated inventory. He will also advise HMG line officers in Kathmandu and the district offices about technical aspects of soil science and soil conservation. His interpretive skills will be used to expand the soil survey to include hazards and land capability.

Areas of Emphasis

The incumbent is the Deputy Co-Manager for the Central Staff. Thus, a great deal of time will be spent on administrative duties. Specific areas include:

1. Soliciting and selecting A/E firms for designing construction projects
2. Designing soil survey part of the integrated inventory
3. Providing technical expertise and training to soil science PCV's and acting as SECID liaison with them
4. Assisting Team Leader to write reports and plans for Central Staff implementation phase

General Discussion

A counterpart in the Department of Soil Conservation and Watershed Management has been assigned. The incumbent has primary responsibility in the Watershed Management sub-project and has assumed primary responsibilities for the Drinking Water, Irrigation, and Fisheries sub-projects until the Civil Engineer arrives.

The incumbent's advice flows through the Team Leader and Project Manager to the NCCNR, the CCC and district HMG line officers. He may communicate directly with district and panchayat officers while on field trips. He will communicate directly with inventory teams while in the field with them. Almost all communication will be verbal unless specific reports and/or analyses are requested.

Hydrologist/Meteorologist (Catchment Advisor)

Scope of Work

The incumbent will work closely with counterparts to design and implement systems for hydrologic and meteorologic measurement in the catchments. He will also implement monitoring systems including:

- o Installation and operation of stream gauges and weather stations
- o Collection and analysis of hydrometeorological data
- o Installation and operation of runoff plots
- o Supervision of dam sediment measurements

Areas of Emphasis

This position is still being recruited but should be filled by September, 1981. This is a Catchment Advisor position and the incumbent will live in Gorkha. Initial areas of emphasis are:

1. Learning Nepali
2. Familiarization with RCUP structure and objectives
3. Design hydrologic survey and weather station locations

General Discussion

The incumbent has dual responsibilities, working as both a Catchment Advisor and a Central Staff member. His counterpart is the CCO when functioning as the Catchment Advisor. These responsibilities have been discussed above under "Catchment Advisor". An HMG counterpart for the Central Staff function has not been designated but a parallel HMG position does not exist and so a strong relationship is not likely. The incumbent will work directly with the field teams and HMG officers responsible for implementing the hydrologic survey, sediment measurements, weather stations, etc. Primary responsibilities are for Hydrologic Survey, the Watershed sub-project, and watershed management portions of the integrated inventory.

Advice to the NCCNR and HMG officials in Kathmandu will usually flow through the and Team Leader and Project Manager. Advice to the CCC and other district line officers will usually flow through the CCO. Direct advice will often be given during field trips, informal meetings, and when working directly with field teams. Most advice is verbal with special written reports and analyses as requested. Communications with the Team Leader and Central Staff will depend on attending staff meetings every other week, radio communications, and mail.

Pasture/Range Management Specialist (Catchment Advisor)

Scope of Work

The incumbent will assist to organize, operate, evaluate, and train HMG personnel in range management and improved pasture development programs. High altitude, intensive, and small holding management will be emphasized. More specifically, the incumbent will:

- o Assist organizing and training national and panchayat level RCUP professional and sub-professional employees in range management and pasture development
- o Develop extension materials for instruction and other programs
- o Formulate region-specific technology packages and phased intervention strategies, including standards for planning and application
- o Design part of integrated inventory to gather data for range and pasture management
- o Provide regular field guidance to HMG line officers
- o Organize simple on-farm demonstrations
- o Organize range and pasture planning and application records

- o Propose range management and pasture improvement research topics
- o Provide animal husbandry expertise to RCUP

Areas of Emphasis

This position is still being recruited. It is a Catchment Advisor position and the incumbent will live in Beni. Initial areas of emphasis are:

1. Learning Nepali
2. Familiarization with RCUP structure and objectives
3. Design range/pasture portion of integrated inventory.

General Discussion

The incumbent has dual responsibilities as a Catchment Advisor and a Central Staff member. His counterpart as a Catchment Advisor is the CCO. These responsibilities have been discussed above under "Catchment Advisor". A strong Kathmandu counterpart relationship is unlikely. Primary responsibilities are Community Livestock Development.

Advice to the NCCNR and HMG officials in Kathmandu will usually flow through the Team Leader and Project Manager. Advice to the CCC and other district line officers will usually flow through the CCO. Direct advice will often be given during field trips, informal meetings, and when working directly with field teams. Most advice is verbally communicated with special reports and analyses in writing as requested. Communications with the Team Leader and Central Staff will depend on attending staff meetings as often as possible, radio communications, and mail.

It is likely that a junior, less experienced person will be recruited for this position. It is also likely that Central Staff responsibilities will not be fully executed because of the Catchment Advisor duties. Therefore, it has been discussed that salary savings from hiring a junior person may be allocated to short-term expatriate consultants who can help perform the Central Staff responsibilities.

Agricultural/Civil Engineer

Scope of Work

The incumbent is responsible for assisting RCUP in the engineering activities for irrigation, drinking water, building construction, IRNR field research centers, and other construction. These activities are divided into design and construction phases. Design phase activities include: writing technical proposals, soliciting and evaluating tenders, negotiating contracts, overseeing contract preparation and signing, monitoring performance under contract including site visits, approving contractor reports, coordinating environmental impact assessments, and approving invoices for payment. The incumbent's role during construction is unclear because SECID and HMG roles in construction are still being discussed. However, he may do some or all of the design phase activities, as requested by HMG, including site visits with HMG officers.

Areas of Emphasis

The Civil Engineer is being recruited. His duties are currently assumed by the Soil Scientist and the Forest Management Specialist. The Engineer will reside in Kathmandu in order to work with the A/E firms.

Areas of emphasis, upon arrival include:

1. Implementing design phase for the 1981/82 irrigation and drinking water projects

2. Monitoring the 1980/81 design contracts
3. Implementation of the construction phase of the 1980/81 design projects

General Discussion

An HMG counterpart has been appointed to the RCUP Central Staff. Both persons will work directly with the HMG officer in each of the line agencies responsible for the particular construction project. These agencies include the Ministry of Local Development, the Department of Irrigation, Hydrology, and Meteorology, the Department of Sewerage and Water Supply, and various resource management departments. The agencies will designate the officers as the projects begin. Primary responsibilities will be assumed in Irrigation, Drinking Water, and Fisheries sub-projects upon arrival.

Regular communication with the NCCNR, CCC, PCC, and district HMG line officers is not anticipated. Advice will be communicated to the other HMG officers verbally or by written memo as the need arises.

Forest Management Specialist

Scope of Work

The incumbent assists the Department of Forest with forest inventories and writing management plans from those inventories for the two catchments. He also advises about nursery management, site preparation, seed production, planting practices, and species selection. The incumbent will coordinate and cooperate with other Central Staff and HMG officials in land-use planning for the RCUP catchments.

Areas of Emphasis

1. Developing and implementing forest cover type part of integrated inventory
2. Developing and implementing monitoring system for internal control of RCUP
3. Assisting Team Leader to write reports and plans for Central Staff implementation phase
4. Developing and implementing RCUP evaluation procedures
5. Monitoring, inspecting, and advising on Forest Management sub-project implementation
6. Developing and implementing computerization of RCUP catchment inventory data and calculations
7. Providing technical expertise and training for forestry PCV's and acting as SECID liaison with them

General Discussion

The incumbent has been assigned responsibility for designing the Monitoring and Evaluation programs for RCUP. He will work closely with the Soil Scientist in developing and implementing the integrated inventory. The incumbent has primary responsibility for the Forest Management sub-project.

This is a Central Staff position for which a parallel HMG position does not exist. A counterpart in Forest Survey and Research, Department of Forest, who is responsible for installing trial plots, has been assigned. The incumbent's advice moves upward to NCCNR and CCC through the Team Leader and Project Manager. Advice to Forest Survey and Research will be given verbally through the counterpart. Advice to HMG district officers and panchayat level personnel will be given directly during informal meetings and field trips and will pass through the Team Leader and Project Manager on more formal occasions. Most advice is verbal with written analyses and reports as requested.

Rural Sociologist/Anthropologist

Scope of Work

The incumbent will facilitate villager participation, including that of special interest groups, by providing information on the dynamics of caste and class, village social organization and structure, and the socio-cultural factors affecting land-use and conservation practices. He is responsible for identifying critical socio-cultural variables affecting project implementation and developing strategies to use or circumvent them.

Areas of Emphasis

1. Develop and implement social variable portions of integrated inventory
2. Develop and implement adaptive research
3. Familiarization with RCUP structure and objectives
4. Assist in training district officers, particularly the CCO, in communication skills needed to obtain villages participation and implement RCUP.

General Discussion

This position was eliminated from the design when the project scope was narrowed in 1980. It was reinstated when the Contract was signed in 1981 by eliminating 24 man months of short-term expatriate consultancies.

This position is being recruited and three candidates have been nominated. This is a Central Staff Position for which there is no parallel HMG position thus a strong counterpart relationship is unlikely. No counterpart has been designated at this time. The incumbent will work in a staff position within the Central Staff advising other Central Staff members and HMG officers on how to better implement their sub-projects. No sub-project primary responsibility exists.

Advice will flow upward to NCCNR and CCC through the Team Leader and Project Manager. Advice will be given to Central Staff and HMG line officers directly in specially arranged meetings or while on field trips. It may also flow through Central Staff members and their counterparts.

Agricultural Specialist

Scope of Work

The incumbent will provide assistance and technical advice on aspects of agriculture unique to Nepal. He will familiarize the Central Staff with the structure and communication channels in the Ministry of Agriculture and other HMG Agencies. Specific tasks include:

- o Work with MOA and ADB/N to create and implement the LRCCF
- o Orient expatriates about MOA communication channels. Help them write and edit reports for correct Nepali usage
- o Obtain documents, references, and written information from public and agency libraries; obtain verbal information; and conduct literature searches including written abstracts, as requested
- o Discuss with and advise Central Staff on the technical and administrative feasibility of RCUP agricultural plans, proposals, and reports.
- o Act as liaison between HMG field officers and HMG offices in Kathmandu, particularly for credit programs. Visits to ADB/N, AIC, Cooperatives, and other MOA departments are anticipated

Area of Emphasis

1. Develop and implement LRCCF
2. Develop and implement agricultural use part of integrated inventory.

General Discussion

The incumbent is a local consultant. He has primary responsibilities in Agronomy, Research, and Extension; Horticulture; and Community Livestock Development. He is also the only staff member with an agricultural background.

Advice flows upward through the Team Leader and the Project Manager to the NCCNR and CCC. Advice is given verbally to district officers and panchayat personnel during field visits and informal meetings. Otherwise, it will be given through the Catchment Advisor. Personal contact and verbal communications will be established with the HMG Kathmandu offices of the MOA. Written reports and memos will be given on request.

It may be desirable to have a long-term expatriate agriculturist/soil conservationist assume the responsibilities which the local consultant Agricultural Specialist currently assumes. This expatriate should ideally have training and experience in grains, horticulture, animal husbandry, range management, and farm planning. The desirability of converting the Land-Use Planner position to this position is currently being explored. However, arrival of an expatriate within six to 12 months is unlikely, even if the plan is adopted. Thus, the local consultant will continue to function as outlined above for some time.

Energy Specialist (Catchment Advisor)

Scope of Work

The incumbent will assist HMG line agencies to transfer existing, improved energy technologies. He will supervise the testing of alternative technologies; recommend and promote the most promising technologies; arrange demonstrations of energy-efficient technologies and building designs; and assist HMG line agencies and other donor agencies in having these technologies adopted in the villages.

Areas of Emphasis

1. Testing alternative technologies
2. Establishing self as Catchment Advisor

General Discussion

The incumbent has dual responsibilities, working as both a Catchment Advisor and Central Staff member. He will reside in Jomsom. The incumbent is currently a local consultant but will be changed to a long-term expatriate position, thus familiarization with RCUP objectives and structure are unnecessary. He also speaks Nepali. When this position has been recommended for conversion to a long term-expatriate position, it was agreed that all short-term expatriate energy consultancies would be eliminated and combined to finance this long-term position.

The CCO is the counterpart when functioning as a Catchment Advisor. An HMG counterpart for the Central Staff function is unlikely because a parallel HMG position does not exist nor is any one HMG department charged with energy responsibilities. The incumbent has primary responsibilities for the Energy Alternatives sub-project.

Advice flowing upward to the NCCNR and HMG officials in Kathmandu will usually flow through the Project Manager and Team Leader. Advice to the LDO and other district line officers will usually flow through the CCO. Direct advice will often be given during field trips, informal meetings, and when working directly with field teams. Most advice is verbally communicated with special reports and analyses in writing as requested. Communications with the Team Leader and Central Staff will depend on attending staff meetings as often as possible, radio communications, and mail.

INSTITUTE OF RENEWABLE NATURAL RESOURCES

General Scope of Work for Expatriate Faculty

All expatriate faculty will assist IRNR in the six major areas for which RCUP has responsibility: 1) Spatial planning, 2) Curriculum development, 3) Library development, 4) Research program development, 5) Teaching, and 6) Outreach planning and coordination. The areas of curriculum development and teaching will consume the majority of the expatriate faculty's time.

Each expatriate will be expected to develop syllabi for courses in his area of expertise and to advise and assist Nepali faculty with the development of course syllabi in peripheral areas. In the development of these syllabi, the expatriate will recommend teaching aids, texts and teaching approaches. In addition, each expatriate, with the exception of the Assistant to the Dean, will be responsible for teaching at least two courses per academic session in collaboration with and assisted by a Nepali counterpart. He will also assist and advise a Nepali faculty counterpart in teaching at least one additional course per academic session. The Assistant to the Dean will contribute to the teaching program through his administrative role and by assisting with syllabus construction, development of teaching aids, etc.

In the remaining four areas of responsibility, assistance will involve primarily verbal and written input to appropriate committees (e.g. Library Committee, Research Committee, etc.) or to the Dean and the Assistant to the Dean. For example, each faculty member will devise a list of journals, books, and other items needed for research and teaching in his area of expertise. These lists will be sent to the Library Committee which will prioritize the recommendations and compile a final list for acquisition. In addition, all expatriate faculty will serve as working members on one or more committees.

Civil Engineer/Hydrology

Scope of Work

The Civil Engineer will assist the IRNR program in all areas that involve his expertise in college teaching, civil engineering, soil mechanics, water management and hydrology.

Areas of Emphasis

This position should be filled by May 1982. Initial areas of emphasis will be:

1. Design syllabi for two to four, second-year diploma courses
2. Recommend texts, journals and other materials for library acquisition.
3. As a working member of IRNR's Construction Committee (to be formed), assist in planning and developing IRNR's two field research centers

Soil and Water Conservation Specialist

Scope of Work

The Soil and Water Conservation Specialist will assist the IRNR program in all areas that involve his expertise in college teaching, general soils, agronomy, soil conservation, and watershed management.

Areas of Emphasis

This position should be filled by May 1982. Initial areas of emphasis will be:

1. Design syllabi for two to four, second-year diploma courses
2. Recommend texts, journals and other materials for library acquisition
3. As a working member of IRNR's Extension Committee (to be formed) assist in planning and developing the outreach program

Resource Economist/Resource Management Specialist

Scope of Work

The Resource Economist will assist the IRNR program in all areas that involve his expertise in college teaching, economics, mensuration, valuation, management.

Areas of Emphasis

This position should be filled by May 1982. Initial areas of emphasis will be:

1. Design syllabi for two to four, second-year diploma courses
2. As a working member of IRNR's Library Committee (to be formed) assist in planning and developing the library at Pokhara and improving the library at Hetauda
3. As a working member of IRNR's Research Committee (to be formed) assist in development of a long range research plan

Silviculturist or Wildlife Management Specialist

Scope of Work

The final expatriate faculty position will be filled in May, 1983. It is possible that delays in long-term U.S. and India training or other events may create unanticipated needs for faculty. Thus, the expatriate required cannot be defined at this time. However, projected faculty needs appear to be most acute in the areas of wildlife and national parks management, and in silviculture.

The Silviculturist would assist the IRNR program in all areas that involve his expertise in college teaching, silviculture, forest protection, harvesting, and utilization. The Wildlife Management Specialist would assist in all areas that involve his expertise in college teaching, wildlife management, and habitat manipulation.

Areas of Emphasis

This position will not be filled until May 1983.

General Discussion for Expatriate Faculty

When feasible, each expatriate faculty member will have a Nepali counterpart with parallel expertise and area of interest. However, because of the shortage of faculty and the fact that many faculty are or will be receiving overseas training, this may not be possible in all cases. In such instances a strong single relationship is unlikely.

Advice concerning overall IRNR program development will be communicated verbally and in written reports to the Dean and the Assistant to the Dean. Advice concerning specific IRNR projects (e.g. library development) will usually be communicated through committees appointed for the purpose. The committees' recommendations and plans will then flow to the Dean and the Assistant to the Dean. Each expatriate will be a member of one or more faculty committees. Advice to counterpart faculty will be mostly verbal with written reports, analyses, syllabi, etc. as necessary.

ADMINISTRATIVE AND LOGISTICS SUPPORT

Due to the magnitude and complexity of supporting this multifaceted and integrated project, the contractor has assigned a professional administrative and procurement officer for approximately two years. Stationed in Kathmandu, this individual will establish a base of operations for the contractor and assist the project Co-Managers in establishing support systems for RCUP.

In addition to establishing the contractor's field office in Nepal, this individual will advise and participate in the development and implementation of a series of management support systems for the project. These systems will include the broad functional areas of administration, finance, communications and logistics.

The contractor will help HMG develop and implement an administrative structure to support not only the RCUP central office, but the Pokhara operations and the District Centers at Gorkha, Myagdi and Mustang as well. The contractor will secure a local consultant highly qualified in administrative organization and guide this individual in developing standard operating procedures (SOP) for all support project functions consistent with HMG and USAID/N requirements. Following this, the consultant will be posted at each field location to assist in establishing their support operations. The consultant will develop the operations and train a cadre of personnel at each field center

prior to the scheduled opening of the next district center. Finally, this individual will return to the central office and refine the operating procedures. The RCUP will then have a uniform foundation upon which to build and expand the administrative support mechanism into other districts of Nepal.

Consistent with HMG and USAID/N policies and procedures, the contractor will assist the lead department and all implementing line agencies with budget formulations and changes thereto, preparing quarterly cash flow projections, distribution of funds, accounting, and developing and submitting reports as required. In addition to these functional areas, the contractor will assist in developing and publishing the HMG annual work plan containing targets, supported by an approved budget, and indexed by implementing line agencies.

As an additional aid to successful implementation, the contractor will periodically hire a local consultant in financial management to review the flow of funds, accounting practices, and reporting procedures. The consultant will prepare and submit written findings and recommendations to streamline the flow of funds while maintaining acceptable accounting practices.

The contractor's contribution to logistics is extensive in that it includes: procurement of supplies, equipment, and services; warehousing, inventory and property management; implementation of transportation systems; and development of a maintenance program to support capital inputs to the project.

The contractor has developed, under separate cover, a Procurement Plan for supplies, equipment and services. Also contained in this plan is a section on warehousing, inventory control and property management which the contractor will develop and implement under the advice and assistance of both HMG and USAID/N. This, as with any five-year plan, will require modifications and refinement as the project proceeds through implementation.

A maintenance program is not, however, contained in the Procurement Plan. Recognizing the value of a well-administered preventive maintenance program, the contractor will recommend and, if adopted, assist in developing a program to sustain the useable life of capital equipment and structures procured or constructed for the project.

Relative to communications, the contractor will assist the lead department in developing a radio network, central printing operation for the RCUP, and a communications distribution system. Again, following a systematic approach to this set of requirements, the contractor will assist in: designing the systems; procuring, distributing and installing equipment; developing procedures; training operators; and devising a maintenance program. SECID proposes to hire a local consultant to assist in developing and implementing all phases of this vital link to project implementation. The contractor has assigned a project co-ordinator in the home office at Chapel Hill North Carolina who in turn will assist with project related activities

in the U.S. This person will assist each long and short term expatriate with their personal needs relative to travel, movement and storage of household items, educational assistance for dependents, passports and visas, travel to and from Nepal and other personnel arrangements necessary for assignments to the RCUP. From a project support point of view, the person will back-stop the contractor's field team by assisting with the needs of the field, processing and advising on procurement status, receiving and processing administrative and financial reports and other matters related to the implementation of the project.

CONSULTANTS

Sixty-six man months of short-term expatriate assistance is provided to assist in project implementation. The Co-Managers intend to use short-term expatriate assistance when suitable skills cannot be found in country, where the Co-Managers have defined a specific task which can be accomplished within a short time period, or where an outside assessment in the judgement of the Co-Managers is required to evaluate an item of work performed by the Central Office or in the field.

Eight months are scheduled for FY 81-82. Two short-term consultants will be retained by IRNR to assist in evaluating the curriculum being prepared for use at the Pokhara Campus and to advise in establishing a library to serve the Institute. One short-term consultant will work two months on the Geology Survey.

The Co-Managers intend to rely most heavily on the use of local consultants as provided for in the Project Paper. It is contended that this is the most cost effective manner in which to carry out numerous tasks identified by the Central Staff. In addition, the Co-Managers feels the maximum use of local consultants is of substantial benefit in promoting the advancement of Nepali professionals.

FY 81-82 is a critical year for RCUP. Therefore, the Co-Managers have determined to make maximum use of local consultants in the early years of the project in order to move the project ahead as quickly as possible. Two documents have been prepared. One details the needs for A & E assistance for irrigation and drinking water projects which has been approved by GON and the Mission. The other describes overall program support needs. This request is under review by GON and the Mission.