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**PROJECT ANALYSIS
FOR THE
FORESTRY DEVELOPMENT PROJECT
USAID/NEPAL**

OCTOBER - NOVEMBER, 1987

Contract No. PDC-5517-1-00-7137-00

Delivery Order No. 1

TROPICAL RESEARCH AND DEVELOPMENT, INC.

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Typos for NEPAL report

pg. 1 - degradation

pg. 24 (c) - involved

pg. 28 (f) - data

pg. 29 (para 2) - forest survey (not resources) and Research Office

pg. 32 (c) planning (no cap)

pg. 39 (G para 3) - HMG (not F)

pg. 40 (7) - 3.H (not E)

Annex III (5) - November, Henry Kernan, and (7) capability

Annex V (last para) - colleagues

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Executive Summary

During the period October 19 - November 24, 1987, a Forestry Project Design Specialist and two Nepali forestry experts were assigned by USAID to prepare the Project Analysis for the proposed USAID Forestry Development Project (367 - 0158) which consists of four components. Component I focuses on planning, policy analysis, monitoring and evaluation at the national level. Component II deals with forest management planning and land use planning with principal emphasis on the district and panchayat level. Component III addresses in-service training within MFSC to increase and improve the development of community forestry programs. Component IV includes the improved stove program.

Analysis of the current situation, problems and related activities in each subject area led to the recommendation that the Forestry Development Project could best address Nepal's needs, during a 7 year project period and in the light of other ongoing and proposed donor assistance, by providing for three components.

Component I inputs would increase and improve MFSC's Planning Division capabilities; concentrate its limited resources on highest priority tasks; improve its procedures and communication systems; and make it more responsive to the needs of resource managers in the field.

Component II would strengthen capabilities of the Forest Survey and Research Office (FSRO) in the FOD, by providing FOD field staff and leaders in panchayats with aerial photos, maps and data to expedite transfer of forest lands to panchayats and initiate integrated management of them.

Component III would increase capabilities of MFSC's Training Wing for providing the training needed by FOD staff and panchayat leaders and farmers to expedite and improve community forestry programs. The employment of Nepali consultant services is used to offset the general shortage of trained foresters, managers, and trainers. Development of such consultancy services, especially through existing organizations such as Tribhuvan University's IOF and IAAS also will enhance their

financial independence and encourage private enterprise. The development of mobile training teams will set the stage for eventual establishment of regional training centers. The establishment of Agroforestry Demonstration Farms will enhance extension and technology transfer within the panchayats.

The Forestry Development Project, as designed, is consistent with the objectives, priorities, and goals of HMG Five Year National Development Plan, and the Master Plan for the Forestry Sector.

The duration of the project will be 7 years and will be initiated by 1989 so as to coincide with the last two years of HMG Seventh Five Year National Development Plan (1985-90) and with the full period of the Eighth National Development Plan (1991-95).

The total costs for the recommended USAID inputs are summarized on page 41.

PROJECT ANALYSIS OF THE FORESTRY DEVELOPMENT
PROJECT (367-0158) PROPOSED FOR USAID FUNDING

THE PROJECT SETTING

Development in the rural areas of Nepal, where 93 percent of Nepal's 17 million people live, most in extreme poverty, is a central goal of His Majesty's Government (HMG). The need is particularly acute in the 64 percent of Nepal consisting of forest, crop, and pasture lands that are steep, severely eroded and difficult to reach. As a result of depredation of the forest resources and cultivation of hill slopes, the fertility of the hill farmland is declining. To this end, priority is given, in the Seventh(1985-90) National Development Plan, to land, water, and forest conservation programs. The need for such programs exceeds government resources, thus HMG stresses (1) the enlistment of popular participation in program implementation and, (2) the need to fix priorities for such works on the basis of national urgency before they are undertaken. In addition, the Plan also directs that the present land use situation be studied and serve as the basis for policies and programs relating to land use.

There are currently thirty four organizations and sixty five ongoing projects concerned with forestry development in Nepal. Many of these are relatively small, area-specific efforts to promote forestry and related natural resource management. A dozen or so funding agencies provide support to the larger programs that make up the bulk of the forestry development work currently underway. Of these, eight are considered "major donors" including: the World Bank (WB), Asian Development Bank (ADB), USAID, United Nations Development Programme (UNDP), ODA (United Kingdom), European Economic Community (EEC) , CIDA (Canada), and FINNIDA (Finland). No project currently provides the long-term assistance necessary to assist Nepal in developing its planning and policy analysis capabilities or in strengthening its forest and land-use planning and in-service training programs.

Several recent studies have identified severe constraints to the improvement of renewable, natural resources. These have led to a number of recent initiatives designed to reverse the trend of resource degradation.

The HMG's Ministry of Forestry and Soil Conservation (MFSC) is developing, with ADB assistance, a comprehensive Master Plan for the Forestry Sector. Using a 25 year planning horizon, the Plan, to be completed in July 1988, will elaborate programs and priorities for MFSC and donor assistance that are consistent with the National Five-Year Development Plans.

A 5-year Community Forestry Development Project proposal, for funding by the United Nations Development Programme (UNDP) and execution by the Food and Agriculture Organization (FAO), has been developed. This is a follow-up to the recently completed Hill Community Forestry Development Project (Phase I). The objectives are:

1. Formulation and establishment of a comprehensive national policy and program for development of community forestry including private tree-farming;
2. Formulation of policy, legislative and procedural framework for effective community and private participation in afforestation and forest management;
3. Strengthening the capability of the Forest Department at the national, regional and district levels to support and implement community forestry programs. Priority would be given to establishment and management of the forests targeted in the current and future National Five-Year Development Plans.

A 7-year Forestry III-Community Forestry Development Project proposal is being formulated by the World Bank to continue and expand the assistance initiated by the previous World Bank Forestry I Project. It would improve and expand community forestry operations in 36 Hill districts by :

1. Improving management practices on 100,000 ha. of Panchayat Protected Forests;
2. Reforesting about 105,000 ha of badly denuded Panchayat Forests;
3. Providing for tree planting on 20,000 ha. of private land;
4. Establishing nurseries to provide the necessary seedlings;

5. Establishing soil conservation works, forestry employment demonstrations, and distribute 80,000 fuel efficient stoves;

9 These tentative inputs were developed by the FAO/WB Investment Center Design Team and will be reviewed by the WB Pre-Appraisal Mission.

Forestry development in Nepal is at a turning point. During the process of implementing a large number of community forestry projects across the country, it has become clear that while the legislation that provides the underpinning for community forestry programs in Nepal is unusually progressive, contradictions between stated policy and administrative regulations, flaws or loopholes in the legislation, and an overly centralized administrative structure staffed by foresters trained to protect government resources have led to programs being less effective than had been expected. Many of the constraints have been clearly identified, most notably in four Special Studies prepared at World Bank urging by sixteen senior HMG officials. Publication of these studies, which seasoned observers find among the most self-critical and constructive of any undertaken in the region, injected an important element of open evaluation and frankness into the debate. This has now been followed up in various special studies (i.e. USAID's Forestry Private Sector Study) as well as in development of the Forestry Sector Master Plan. The momentum for change on a wide range of fronts (policy, organization structure, decentralization) is substantial.

Extensive discussions have been underway for almost a year to insure that the USAID Forestry Development Project, proposed herein, would be fully compatible with the World Bank Forestry III and the UNDP/FAO Community Forestry Development Project proposals. Project identification was carried out in a highly collaborative style within Nepal by representatives of each agency and in joint consultation and analysis with officials of HMG. The proposed Forestry Development Project is designed explicitly to take advantage of the momentum behind substantive change, working closely with the World Bank, UNDP, FAO, and other donors to help re-orient and strengthen national forestry programs.

THE PROJECT FRAMEWORK

- ▶ The Forestry Development Project proposed for USAID funding consists of components for which there is a U.S. comparative advantage based on linkages to ongoing technology in the U.S. and to earlier and/or ongoing USAID funded programs. The components in this proposal are closely related to those in the World Bank's Forestry III and UNDP/FAO's Community Forestry Development Project proposals but, the relationships are complementary. These linkages and complementary relationships are identified in the following description and analyses of each of the components.

Project Components

1. Strengthening at the National Level, HMG Capability for Preparing, Analyzing, Updating, Monitoring and Evaluating Policies, Plans and Programs which Support Development of Forest and Agroforest Lands. This would institutionalize current sector planning, program budgeting and project monitoring/ evaluation initiatives needed to implement the Forestry Sector Master Plan and to complement HMG/UNDP Program Budgeting and Project Monitoring Project as well as the monitoring and evaluation system developed by HMF/UNDP/FAO's Hill Community Forestry Development Project.

It also would develop additional analytical capability in the Planning Division for policy analysis and program evaluation thereby enabling systematic follow-up to the Four Special Studies done by HMG/UNDP/FAO Community Forestry Development Project, the USAID Forestry Private Sector and Forest Products Marketing Studies, the WECS study on forestry/land use legislation, and the World Bank /IDS study on land tenure.

The proposed UNDP/FAO Community Forestry Development Project is expected to concentrate on strengthening planning activities at the Department of Forest, Regional and District levels. The proposed USAID project would focus on planning at the MFSC level including development of a computerized management information system.

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II. Strengthening Forest Management Planning and Land Use Planning at the District and Panchayat levels. The object is to increase MFSC capability for doing the forest management and land-use planning prescribed in the Forestry Sector Master Plan, with initial emphasis on the delineation and transfer of land to panchayats, wards and traditional users as recommended in the Four Special Studies Report. This also would be in connection with the Panchayat Forest, Panchayat Protected Forest, Leased Forest, and Private Forest provisions of the national Community Forestry Program. Initial support of technical assistance, training and equipment would be given to relevant units of MFSC involved in the production and use of digitized land resources mapping data, aerial photos, photo enlargements, and land-use planning maps. Capability would be developed for eventual updating of the national forest inventory, the land status data, and for monitoring land degradation. Development of multi-disciplinary teams to assist farmers in assessing and managing their own natural resources will also be given support.

III. Expanding and Improving Training at all Levels to Expedite the improvement of Forest and Agroforest Land Management. A major objective of the Master Plan for Forestry Sector (MPFS) is to develop the planning, project formulation and preparation, monitoring, evaluation, and donor-coordination functions of the Planning Unit (PU) of the Ministry of Forests and Soil Conservation (MFSC), to enable the implementation of MPFS proposals within the framework of annual plans on a continuous basis.

PU needs to further develop its capability in the various aspects of planning particularly in (a) long-term perspective planning, (b) policy development, (c) translation of long-term plans to annual plans, (d) program and project formulation and preparation, (e) project monitoring and evaluation, and (f) donor coordination.

For MFSC it is necessary to develop the planning capability not only in PU, but also to the district and panchayat levels which are involved in forestry development. In addition, lack of practical training in the skills needed to promote community forestry has been repeatedly identified as a primordial constraint to developing more effective community forestry

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programs in Nepal. Although the MFSC Training Wing has been operational for five years and has developed a useful initial repertoire of training courses, in-service training capabilities must be substantially strengthened and greatly expanded to provide foresters with the new skills required to implement community forestry programs.

MFSC recognizes the need for more and better training. MFSC intends to muster resources from all available sources to formulate and implement a training program as a means of integrating the institutional development component of MPFS on a Ministry-wide basis. A training program also will be formulated to provide people at the district and panchayat levels with the skills and knowledge needed to expedite the transfer of lands to the panchayats, and to prepare the land-use plans and work plans needed for productive management of those lands.

The Tribhuvan University's Institute of Forestry (IOF) and Institute of Agriculture and Animal Sciences (IAAS) will be encouraged and assisted, through contracts, to organize and place in the field multi-disciplinary teams to (1) assist farmers assess their land resources, (2) prepare integrated management plans for them, and (3) enter into cooperative agreements for systematic management of them in order to optimize the farmer's benefits from his property.

ANALYSIS OF COMPONENTS

I. Strengthening, at the National Level, HMG Capability for Preparing, Analyzing, Updating, Monitoring and Evaluating Policies, Plans and Programs Which Support Forest and Agro-forest Land Development

1. An Overview of the Planning Process At All Levels within the MFSC

In Nepal the National Development Council (NDC), chaired by His Majesty the King and represented by the Prime Minister and other Ministers, Members of National Planning Commission and other political leaders and technocrats, is the highest agency for providing policy guideline for planning, monitoring and evaluation of development plans. National Planning Commission

(NPC), as the secretariat of NDC, chaired by the Prime Minister including Vice Chairman and Members with various academic backgrounds as well as HMG's Chief Secretary and Finance Secretary as ex-office members, is the central level agency for preparing, monitoring and evaluating periodic plans, and co-ordinating development activities within various sectors. NPC is also responsible for providing assistance to the district level authorities to prepare district development plans.

Development by decentralization is a basic policy of HMG. The main objective of this policy is to mobilize people's participation and local resources for national development. HMG has delegated much of its authority to the district panchayats for the preparation and implementation of local, district projects and programs.

Projects and programs have been identified and recognized - as central level and - district level to match with decentralization.

All concerned technical ministries have been recognized as lead agencies for planning and co-ordinating development activities within the sectors and to be implemented by the departments, parastatals and district panchayats. Their main responsibilities are to:

- Provide guidelines for planning to the departments, parastatals and district panchayats.
- Provide technical advice to the district panchayat during the preparation of district development plans and programs.
- Co-ordinate department and parastatals during the planning process.
- Co-ordinate with donors, Ministry of Finance, National Planning Commission and other related agencies.
- Develop sectoral policies.
- Monitor and evaluate development activities.

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Concerned departments and parastatals are responsible for implementing, and monitoring their related programs (central level), within the guidelines provided by their concerned ministry. Accordingly District Panchayats are the agencies for planning and monitoring of district level programs incorporated in the district development plans, under the guidelines provided by program related ministries.

Nepal is one of those few countries having a separate ministry for forestry, the Ministry of Forest and Soil Conservation. It is responsible for most of the forestry and related activities within the Country. Formulation, implementation, monitoring and evaluation of policies, plans and programs for forestry development and administration are the responsibilities of MFSC.

MFSC is headed by a Cabinet Minister and supported by a Secretary, who administer all programs within the ministry. The Secretary is assisted by divisions (Administration, Planning, Utilization and Intelligence) in the ministry. There are 5 departments under this ministry: Department of Forests, Department of Soil Conservation and Watershed Management, Department of National Parks and Wildlife Conservation, Department of Medicinal Plants and Department of Resettlement. Parastatals under MFSC are:

- The Timber Corporation of Nepal
- Forest Products Development Board
- Fuelwood Corporation
- Royal Drugs Limited
- Herbs Production and Processing Company Limited
- Nepal Resettlement Company
- Nepal Rosin and Turpentine Industry
- Shivapuri Watershed and Wildlife Reserve Board

There are about 12000 staff persons working within MFSC (including all departments and parastatals) for the development and administration of forestry and related activities.

The Planning Division of the ministry is responsible for assisting the Secretary formulate policies, plans and programs and co-ordinate, monitor and evaluate the implementation of such policies, plans and programs.

2. Analysis of Current Situation and Identification of Problems of Planning Division of MFSC

A. Staffing and their Background: Currently the Planning Division (PD) staff consists of 4 professionals and 4 non-professionals. Chief of Planning serves also as Chief of the Extension Unit and as Project Manager of the Master Plan for Forestry Sector Project.

Among 4 professionals 2 are from Nepal Forest Service with an academic background in forestry, from foreign institutions. Two are from Nepal Administrative Service, one with an academic background of general economics and planning. They are performing their responsibilities on an unplanned, ad-hoc basis.

B. Functions of the Division

- Assisting NPC in the preparation of periodic plans.
- Formulating annual program and budget proposals for submission to Ministry of Finance and NPC.
- Participating with donor missions during project identification, appraising and finalizing agreement for assistance.
- Project administration.
- Preparation of monthly accomplishment reports of the ministry.
- Compilation of expenditure and status reports of program accomplishment for periodic reviews.
- Preparing reports, briefs and other information papers required by Cabinet Secretariat, National Panchayat, National Planning Commission etc.
- Participating in tri-partite reviews, project performance reviews and other meetings.
- Providing guidelines and budget limits to the department, for the preparation of annual district program and budget.
- Participating in program budgeting and project monitoring.
- Other activities as directed by the higher authorities.

C. Problems and Constraints

- Policy Analysis and Strategy Formulation: Issues of policy and program strategy are determined at the Ministry level. Within the MFSC, staffing of the Planning Division is inadequate to meet the policy analysis and planning duties assigned to it. There is no staff capability to prepare assessments of the costs, benefits, and financial viability of alternatives. In order to develop and sustain an effective policy analysis and strategy formulation process, staffing of the unit must be substantially increased and the analytical skills of planning unit staff must be strengthened and expanded.
- Program Formulation: Program formulation is also a Ministry level function, carried out in close collaboration with the relevant departments. Forestry programs have not been developed in a systematic fashion, the whims and priorities of various funding agencies have tended to dictate. This situation is in the process of being remedied through preparation of a Master Plan for the Forestry Sector. Thereafter, the planning and programming process suggested by this plan will be institutionalized within the Ministry at all levels from the Ministry down to the District level. The MFSC Planning Division will also assume responsibility for institutionalizing the planning process, updating program formulation and monitoring implementation of the Master Plan.
- Project Planning and Analysis: Currently, the overwhelming bulk of project identification, analysis and design is carried out by teams of expatriate consultants hired by the funding agency interested in a particular project. Most of these teams includes Nepali members (HMG and/ or local consultants). However, only limited expertise in systematic analysis and project planning and design prevents more active involvement by HMG professionals in this process.
- Program Budgeting: The Ministry of Finance is currently introducing program budgeting concepts and procedures in HMG with the assistance of UNDP. Initial progress has been impressive. The overall success of the effort,

however, will be determined in large measure by the degree to which program budgeting methodologies are accepted and can be institutionalized in the Ministries. Within the MFSC, the Planning Division is responsible for developing a program budgeting system and for subsequently extending this down through the Ministry to the Department, Regional and District levels. Current manpower and staff capability needs to be strengthened.

- Monitoring and Evaluation: Although the MFSC is becoming more aware of the need for systematic monitoring and assessment of ongoing policies and programs, such a system has not yet been established.
- Office Equipment is Lacking: Except for a Devanagari typewriter, office equipment like calculators, word processors, telex equipment, telephones with outside connection, etc. do not exist. The introduction of computer technology, including computer programs in Devanagari Script, open new avenues for strengthening planning and management. Nepal has already adopted this technology and many government agencies have installed computers. MFSC Planning Division lacks this facility.
- Documentation: Systematic documentation practice has not yet been adopted. Consequent lack of necessary reference material results in information gaps and inconsistencies.
- Job Descriptions: Individual job descriptions that define responsibilities and authorities as well as describe routine duties do not exist. Individual work and travel plans do not exist either. Consistency, reliability, and accountability for staff work therefore is missing. Work accomplishment is often coincidental.

3. Proposed USAID Activities and Inputs.

- Technical Assistance

A. Provide the services of an expatriate consultant (Planning Advisor) for the duration of about 48 person months and local consultants for the duration of about 25 person months to:

- develop mechanisms for systematic monitoring and evaluation of policies, plans, projects and activities.
- assist to establish a management information system.
- assist to establish a Documentation Center.
- assist to formulate and re-adjust policies, strategies, plans and programs as recommended by MPFS.

B. Provide services of a task force comprising local consultants and HMG officials for 9 person months to prepare job descriptions for each level and each agency involved in planning, monitoring and evaluation of development activities within MFSC, and also to prepare guidelines for these levels to systematize working procedures.

C. Provide the services of a task force comprising of local consultants and HMG official for 12 person months to study and identify ways and means to improve communication within MFSC's central offices and its field offices. Such study should cover following aspects:

- Study radio transceivers installed in various districts under various projects and identify ways and means to institutionalize this facility in all 75 districts by establishing uniform network.
- Study computer facilities already established in various departments and projects and identify

ways & means to institutionalize and standardize this facility within MFSC.

4 D. Provide the services of a group of local consultants for 15 person-months to assist MFSC's Planning Division and Legal Unit prepare and submit to HMG for approval and enactment, specific policy and legislative amendments that would:

- Redefine what constitutes forest land. Such a definition should include most of those lands not in permanent or temporary cultivation or seeded pasture. Such lands do not necessarily have live trees on them and may be more valuable as sources of products other than trees.
- Recognize the legality of private ownership and management of forest land and the right to use, transport and sell both planted and naturally reproduced trees and their products in any way the owner of the land sees fit without undue interference. This would provide for abolition of permits presently required for transporting forest products or cutting timber trees on private lands.
- Establish and put in practice procedures whereby private (farm and industrial) interests can, with proper safeguards, acquire forest land from the public domain in freehold or leasehold whether under trees or not.
- Declare all forest lands not in private, national forest, institutional or otherwise reserved ownership, the property and responsibility of the panchayat, ward and/or user groups within whose boundaries they fall.
- Relieve the FOD from all responsibility and control of revenue collection duties other than those pertaining to national forests.

- Amend the forest lease law to provide for:
 - implementation by the panchayats;
 - long-term lease and/or transfer of title after a period of performance in management and development satisfactory to the panchayat;
 - payment of a rental at least equivalent to a real property tax;
 - the right to use or sell the products without interference;
 - cancellation of the lease agreement only by the verdict of an impartial, independent judiciary with the right of appeal;
 - size to be adjusted to the needs and resources of the applicant.

E. Provide the services of expatriate consultant (Forestry Organization Specialist) for 5 person-months and local consultants for 10 person-months to study implications and prepare a schedule for implementing the proposed re-organization of MFSC as recommended by MPFS.

F. Provide the services of local consultants to identify ways and means of reassigning available manpower from lower to higher priority activities as recommended by MPFS. (6 person months)

- Training:

G. Training support to be provided for the Planning Division staffs consisting of four M.S Degree, 2 in USA and 2 in third countries in the field of Forest Economics; ten short term courses (3-6 months) in policy analysis & decision making, basic planning methodology, development communication, monitoring & evaluation, and basic statistics & computer handling. Study tours, seminars and workshops in relevant fields (US\$ 300,000).

- Commodities

H. Provide office equipment (typewriters, copy machines, small calculators, word processors, equipment for

documentation units and 2 computers, etc.) for Planning Division of MFSC (US\$ 322,000).

- I. Provide vehicles (2 four wheel drive, 1 macro-bus and 5 motor cycles) for Planning Division of MFSC (US\$ 68,000),
- J. Provide 3 computers and 5 motor cycles for planning units of the departments under MFSC (\$ 45,000).
- K. Provide telephone exchange facilities within MFSC (US\$15,000).

Operational Support

- L. Provide funding for operating expenses, fuel costs, allowances and office supplies, etc. for additional staff activities. The purpose of this is to provide incentives to reorganize MFSC's Planning Decision gradually in line with MPFS's proposal for institutional development. For present purpose, it is suggested to strengthen by establishing at least separate units for (i) Policy Development and Macro-Planning, (ii) Project administration and Programming, (iii) Monitoring and Evaluation, and employ sufficient staff to make these units functional (US\$ 295,000).

4. Technical and Administrative Analysis of the Proposed Inputs for Strengthening Planning Capability of MFSC Planning Division:

- A. The Proposed Inputs Are Logical and Timely: HMG and donor agencies have been giving increasing priority to programs that will stop and eventually reverse forest degradation. They recognize that foresters, agriculturalists, horticulturalists, livestock specialists, and panchayat leaders in the field are the "keys" to improvement in land use. They recognize also that, in this context, the primary function of national headquarters and regional staff in HMG is to service and support the field personnel who, in turn, support local communities and farmers. This is a reversal of tradition and should be reinforced by appropriate donor assistance.

HMG's annual investment in forestry is increasing steadily. The fiscal year 1987/88 target is Rs 600 million. The Master Plan for Forestry Sector and the Five Year National Development Plan have identified development targets and priorities for community forestry development. National laws and policies have encouraged and authorized greater involvement of the rural population in the process. It is appropriate therefore, that USAID support internal improvements in the function of three government units that are indispensable "players" in this development process. These are MFSC's Planning Division, Training Wing, and Department of Forests.

- B. The Proposed Inputs Are Feasible: Basic level manpower needed to strengthen the Planning Division is being produced by the various institutes (IOF, IAAS, etc.) of Tribhuvan University. Additional training provisions included in Component III will further develop such capability. The NASC, as well as local consulting firms (DEVTEC, NEW ERA, Forestry Services, Integrated Development Systems, etc.), are seeking to increase their consultancy capabilities. Commercial utilization of these potential suppliers of trained manpower also will stimulate the local economy.
- C. The Proposals Are Consistent With HMG Policies and with the Master Plan for Forestry Sector: The Seventh (1985-90) Five Year National Development Plan directs that HMG agencies charged with framing economic and development policies, formulating and assessing development projects and programs, and processing statistical data for such activities, will be placed on a firm footing. Professional know-how will be developed in the planning units of ministries and departments as well as in the National Planning Commission (NPC).

The IUCN emphasized the need to strengthen integrated planning within HMG in order to implement the national conservation strategy for Nepal which it is developing.

5. Cost of the Proposed Inputs for Component I

Preliminary estimates of USAID inputs for this component for the duration of 7 years are as follows:

- Technical Assistance:- Expatriate consultants 53 person-months and local consultants 77 person-months.
- Training:- US\$ 300,000
- Commodities:- US\$ 450,000
- Operating Support:- US\$ 295,000

6. Expected Outputs:

The nature of changing attitudes and traditions, of developing skills and modifying work habits, and of improving responsiveness to the financial and administrative needs of field personnel defies precise measurement. Nevertheless, it is anticipated that the proposed inputs will develop, within the duration of this project, a Planning Division in MFSC that:

- Is competent and consistent in providing MFSC's forestry and community forestry field staff with the logistical support and information they need to fulfill planned work targets in a cost-effective manner.
- Has a management information and documentation system in the Division and in FOD field offices that safely stores information and provides ready access to it.
- Has a communications and word processing network that facilitates direct contact and reliable transfer of management information throughout the FOD and between the FOD, the Planning Division and the Administration Division of MFSC.
- Has a monitoring and evaluation system employed to maintain current status reports on FOD's progress in meeting the forestry targets scheduled in the National

Development Plan and the Master Plan for Forestry Sector.

- Has a professional, competent staff, fully manned and for which each position is fully described and responsibilities/authorities defined so as to enable accountability and measurement of performance.
- Operates according to an annual program of work, linked to HMG priorities, and used within the Division as the basis for planning and scheduling staff work assignments.
- Provides for periodic rotation of professional staff between it and FOD's regional and district offices to insure better understanding of HMG/MFSC/FOD policies, programs, and procedures at all levels. Such rotation would be linked to the career development and promotion of Planning Division personnel.
- Conducts a regular program of field trips, workshops, seminars, and briefing sessions designed to keep MFSC administrators (including the Minister and Secretary) personally acquainted with the RFDs and DFCs and with their management priorities and problems. This will help to develop HMG resource management programs "from the ground up".
- Operates in conjunction with the Training Wing in-service training program at all levels to insure that technical competence in planning, programming, policy analysis, etc. is maintained.
- Has the office facilities and equipment necessary to fulfill regular work assignments.

II. Strengthening Forest Management Planning and Land Use Planning at the District and Munchayat level.

1. An Overview of the Current Situation and Identification of Problems.

Nepal's forests were nationalized in the Private Forest Nationalization Act 1957. Since then, the majority of these forests have come under the jurisdiction of the MFSC. Practically none of them are being effectively managed by the FOD. Some are being 'mined', some given away to settlers and the majority ignored. Most of the forests are overused, a minority protected. The MFSC has carried on a policy of forest liquidation in the Terai through their Department of Resettlement and the Nepal Resettlement Company.

Large areas of forest land have been turned over to the resettlement of hill people in the Terai. Settlers have continued to encroach on the peripheries of the forest, girdling the trees, planting crops in the forest and rapidly shrinking the forest area. The non-industrial forests are intensely used by the rural population for fuelwood, fodder and building construction, general farm use, and collection of herbs, medicinal plants, tannin and grasses.

Estimates of Nepal's forest resources mention but do not quantify the very large volume of wood in trees scattered over the private farmlands. They are doubly important because they are accessible for immediate use and reflect the farmers' preferences and needs for wood products. Again the estimates mention but do not elaborate upon the very large areas, perhaps 2.95 million hectares of cultivated land and non-cultivated inclusions which are in private ownership but not at present under trees. They represent a very important area for developing new sources of forest products.

The most important influences upon the forest are those of the rural people, the administrative and legal structure of the MFSC, and the inability of MFSC to control or manage them. MFSC's Forestry Department (FOD) has legal responsibility to control the cutting of trees on all lands and the transport of wood and other forest products therefrom. With 6000 employees the FOD cannot control the cutting and transport of 17.8 million cubic meters a year by 3.2 million rural families spread over the 12 million hectares below the tree line. In attempting such detailed control FOD faces an impossible task. The situation encourages disrespect for the law and distracts from the FOD's ability to manage forest land. Its personnel is more involved with law enforcement and revenue collection than with forest protection, rehabilitation and management.

The total population of Nepal is presently about 17 million comprising 2.8 million families. It is estimated that a typical family would require on average 4.5 ha of forested land to meet the basic requirements of fodder, fuelwood and timber. The forest land requirement would then be 13.5 million ha, a figure which is more than twice the estimated area of existing forest cover in Nepal (6.3 million ha). Unless sustainable yields of forests can be sharply increased, there is a risk that the sustainable annual yield is only one-half the rural population's requirements.

HMG's forest policy declared in the Sixth Five-year Development Plan (1980-85) and restated in the Seventh Plan (1985-90) emphasizes the protection and improvement of the forest estate and protection of the environment, especially watersheds. Special emphasis is given to community involvement in the achievement of these objectives, in order to intensify the level of people's participation in the management, conservation and utilization of the forest resources.

Therefore, the proposed policy of HMG is to encourage the people's participation in forest development by transferring responsibility and accountability for such development to the district and village panchayats.

Each panchayat is expected to prepare, with the assistance of DOF field staff, a formal communication to the concerned DFC expressing interest in community forestry operations and requesting the transfer of required extent of PF and PFF land.

Following this the panchayats or their Forest Management and Utilization Committees (FOMUCOs), in consultation with the DFC and his field staff, identify the sites and define the boundaries for PF plantations and PPF management. The field staff also assists the panchayats and their FOMUCOs in the preparation of management plans. Since the concept of forest management is new to the Hill farmers and the silvicultural practices to be followed would vary from location to location, the field staff play a key role in organizing the implementation of this component. The Ranger/ Assistant Ranger and CFAs inspect the PPF locations and identify the required silvicultural practices. Initially they advise the panchayats to follow simple practices such as rotation harvesting (e.g. branch lopping at one time,

grass cutting at another), limiting the harvest operations to one or two days in a month, and defining the trees to be left standing. They also progressively introduce other specific silvicultural measures. Enrichment planting on PPF land, in contrast to block planting on PF land, is done in patches. The DOF field staff, together with FOMUCOs, identify such patches. They, with the assistance of FOMUCOs, employ local labour to carry out enrichment planting and other forest management activities.

Within the framework of the Decentralization Act and Rules, community forestry development programmes are to be implemented at the level of districts. As such, DFC's are responsible for the implementation of the CFAD's forestry programme. But their present judiciary role and administrative activities leave them with very little time to attend to community forestry development programmes in the districts. The special field staff - Community Forest Assistants (CFAs) - deployed to provide support, are very few in number and unable to cover all the panchayats in their jurisdiction. As against the required number of one CFA per 2-3 panchayats, an average CFA at present covers 6-10 panchayats. Most of the CFAs hold temporary positions and are not well trained to undertake community forestry development activities. Further, the services of CFAs are not integrated with those of the field level staff of DOF. As a result, the manpower deployed in the districts is not fully utilized in support of community forestry activities.

There are in all 5,915 approved staff posts in the FOD. These include 150 Professional Foresters, 521 Forest Rangers, 108 Community Forestry Assistants, 935 Assistant Forest Rangers, 2,476 Forest Guards and 1,725 administrative staff. Only about 80% of these posts have so far been filled.

The Department of Forests (FOD) is committed, on the basis of there being about 4,051 panchayats nationwide, to transferring a total of 2.5 million ha. of forest land based on an average of 123 ha. per PF and 494 ha. per for PPF. However, the extent of forest land transferred so far to local communities remains small, i.e. less than 10% of the above committed target. Lack of awareness on the part of panchayats, shortage of field staff to assist panchayats in formulating requests for transfer of PF and PPF lands, lengthy bureaucratic delays in granting the transfers,

lack of forest management plans and aerial photos and maps, lack of skill in photo and map interpretation, and lack of committed funds for the development of forest lands available at the local level - all have contributed to the slow progress in the distribution of forest lands to panchayats.

The Forest Survey and Research Office (FSRO) of MFSC labors away to acquire on a centralized basis, survey field data then prepare various maps depicting land features and vegetative types. FSRO's equipment is antiquated, trained staff is lacking and procedures are followed rigidly with no change in pace or priority to match the local pressures for transfer of land to panchayats. The few maps that do get to the field are seldom used. Aerial photos are not at all available for field use. DFC staffs are not sufficient for the survey and land transfer work needed. Regional staff for such works are non-existent.

Although Nepal's present laws affecting forestry and forest tenure are not the major barriers for the implementation of community forestry, there are weaknesses in the Forest Act itself and to a lesser extent in the rules under it for PFs and PPFs. These include the general thrust of the law with respect to access to forest resources on public land, the somewhat arbitrary limits on the amount of land that may be devolved as PFs and PPFs, the extent of the residual powers of the Government over the local communities' management of PFs and PPFs, as well as the extent of the legal protection to be afforded to plantations on private lands.

The Government needs to clarify its policy for the devolution of state owned forest land to village panchayats, the forested and unforested areas that are to be made available for devolution or allocation to private concerns, and the forests that are to be reserved as the national forest estate. There also is a need to streamline administrative procedures and arrangements for the transfer of forest land to local communities.

Private landowners' rights to trees planted on their land is a problem. With respect to privately-owned land it is hard to imagine any objection to private planting. So much of Nepal's territory is under terraced cultivation, and encouragement of private planting within this area (along terrace walls, etc.) would seem highly desirable. The law raises no opposition to such private planting, nor to establishment of plantations on

privately-owned land (within the general ceilings of landholdings). People, however, believe that if their land is not kept under cultivation it becomes Government land, or that any land planted to forest automatically becomes State forest land. No legal basis can be found for these beliefs, although officials may have (wrongly) acted on this basis. It is not surprising that ideas have become confused - especially when the forest concepts are themselves confusing. As has already been said, HMG's apparent wish to encourage private tree planting on private land must be accompanied by definite clarification, to both the general public and officials, that the State will not later interfere in the use of the trees, and the marketing of their produce. Officials should be given the appropriate direction on this critical subject.

Manuals on technical subject such as seed collection, nursery techniques, plantation and silvicultural operations, and management plan preparation are needed for standardization of methods and practices. They should be distributed widely to any interested person.

Finally, the real challenge of community forestry in Nepal is in the two related areas - formation of user group committees, and preparation of forest management plans. All that has been said about clarification of policy and the improvement of working procedures is only a "clearing of the decks" to enable the true work of community forestry to be undertaken. While communication techniques can be taught, a lot depends on the personality, commitment and patience of the individual officers. The longest-established forestry development project in Nepal, the Nepal-Australia Forestry Project, has made an important shift in emphasis over the years from a technically-oriented approach, to one which is village-centered with technical input. They have done this in response to the emerging realization that forest management will remain imposed and ineffective unless the actual forest users are active participants throughout the management planning process - from the initial assessment of demands on the forest, right through to planning and management for satisfaction of those demands on a self-sustaining basis.

2. Proposed Inputs by USAID's Forestry Development Project to Expedite and Improve Establishment and Management of Panchayat and Private Forests and Agro-forests :

Technical Assistance:

- A. Expatriate Consultant (Forest Land Use Planner) to assist FOD speed up the delineation of private, community, panchayat, and national forests currently done by FSRO. The consultant will advise and assist in decentralizing the forest survey activities (see L.) and in coordinating FSRO technical support to the RFD field survey crews (72 person months).
- B. Expatriate consultant (Multiple Resource Planner) to assist FOD with the design, implementation, and updating of simple, multi-resource management plans for private, community, panchayat, and national forests consistent with recommendation in the Master Plan for Forestry Sector (72 person months).
- C. Local consultant services to assist FOD identify and eliminate constraints to more rapid development of viable trees nurseries (forest, fodders, fruit, and medicinal trees and shrubs) in the private sector. This would include arranging for purchase from private nurseries the seedlings used by HMG and donor projects involving in community and panchayat forestry development. This should be coordinated with the establishment of private tree nurseries proposed by the World Bank in its Forestry III project (4 person months).
- D. Expatriate consultant (Geographic Information Specialist) to assist FSRO in development, use and maintenance of a Geographic Information System (24 person months).

Training:

- E. Fellowship for M.S. Degree in aerial photogrammetry and mapping for two FSRO staff members, and short term training in survey and mapping techniques, at the Asian Institute of Technology/Bangkok or other comparable

institutions, for field survey staff of FSRO and the Regional Forestry Directorates (US\$ 400,000). (See L.)

Commodities:

- F. Purchase for FSRO of aerial photo/mapping plotters, enlargers, planimeters, photo developing and printing unit, office appliances, and Geographic Information System (GIS) computer equipment to improve and expedite mapping procedures (US\$ 350,000).
- G. Purchase of 4WD vehicles, motor-bikes, and horses, as appropriate, for field travel by survey crews assigned to the RFDs and FSRO (US\$ 150,000). (See L.)
- H. Purchase for FSRO of 3 sets of the latest aerial photos of Nepal, preferably at 1:20,000 scale, for use in forest survey and mapping and for transfer of forest lands to communities, panchayats, and farmers (US\$ 150,000).
- I. Purchase of aerial photo mosaics and enlargements by FSRO for use by FSRO and RFD field survey crews, by DFC staff, by the multi-disciplinary teams operated by IOF/IAAS, and by panchayat leaders and planners (US\$ 150,000).
- J. Purchase of field and camping gear to equip the existing FSRO survey crews and the five new RFD survey crews (US\$ 100,000). (See L.)

- Operating Support:

- K. Funding for fuel, parts, and other operating costs for FSRO and RFD field survey crews (US\$ 150,000). (See L.)

- Other:

- L. Funding for employment for 3 years of 5 five-man field survey and mapping crews to work under direction of RFD with technical support from FSRO to acquire GIS data for processing and documentation by FSRO. One crew to operate out of each RFD office. These crews will complement the RFD staffing proposed in WB Forestry III

Project. USAID funding provided on condition the survey crews and activities are maintained by HMG funding after year 3 (US\$ 450,000 on basis \$ 30,000 per crew year).

3. Technical and Administrative Analysis of Inputs for Component II.

Prompt and systematic demarcation of panchayat, community, private and national forest boundaries will clarify to FOD staff and the local people their respective areas of responsibility and concern.

First priority for preparation of aerial photos and forest management plans should be given to those panchayat, community and national forests that are most accessible and now in use. The management plans should be relatively simple as recommended in the Master Plan for Forestry. They should address problems of access and priorities for use rather than sophisticated silvicultural management systems. This should speed up the preparation of such plans at lower cost and should facilitate faster implementation. Expatriate consultant services will help to guide these changes.

The Forest Survey and Research Office (FSRO) of FOD needs updating and strengthening. ODA assistance is already being given to research. Forest survey equipment, materials, aerial photos and facilities are remnants of donor assistance ten to twenty five years ago. Survey and photogrammetric personnel are following conventional technical procedures with little or no awareness or sensitivity to priorities in the field. Hence, the national forest management plans already existing are not implemented. And, the survey data, maps, and aerial photos needed to expedite land transfers to the panchayats are not being provided to the field staff and panchayat leaders. Current proposals for assistance in strengthening the National Land Use Planning System of Nepal are being offered by the Asian Development Bank (ADB). USAID's RAPT Integrated Rural Development Project (RIRDF) is presently developing a panchayat resource inventory data base. The World Bank's Forestry III proposal and the UNDP/FAO Community Forestry proposals would channel assistance directly to the DFC and staff and to panchayat leaders. But none of these proposals would assist the FSRO of the Forestry Department in MFSC to play a more effective supporting role in these related activities.

Neither would these other donor proposals consider land use from the standpoint of management for meeting Nepal's requirements for forestry products including fodder and fuelwood.

The Regional Forestry Directorates are proposed to be strengthened by the World Bank's Forestry III project. Assignment of a field survey crew to each RFD will help to expand the role of that office and will initiate decentralization of the forest survey and mapping function. It will help to increase the participation of field staff in the survey, mapping & planning functions.

4 Total Costs of Proposed Inputs for Component II :

-	Technical Assistance:-	168 person months of expatriate consultants and 4 person months of local consultants.
-	Training:-	US\$ 400,000
-	Commodities:-	US\$ 900,000
-	Operating Support:-	US\$ 150,000
-	Other:-	US\$ 450,000

5. Expected Outputs of Component II:

- A. Completion, by 1989 of a plan of action for the delineation and demarcation of the panchayat, community, and national forests.
- B. Completion of management plans for the panchayat, community, and national forests which will vary in detail and sophistication according to the accessibility and actual likelihood of management of the forest planned for.
- C. Reassignment, by 1989, of FOD manpower from relatively low priority activities to the demarcation, planning, and management of the accessible, "high-use" forests.
- D. Substantial increase in the number of tree nurseries in the private sector.

- E. Provision by 3rd yr. of project, of aerial photo mosaics and enlargements to those panchayats planning and managing forests or agroforests.
- F. Availability, to FOD, of forest survey and land data needed for transfer of forest land to 5 districts at end of year 1 of project, to 12 districts in year 2 and 3 each, to 16 districts in year 4 and year 5, and to 14 districts in year 6.
- G. A Cartography and Photogrammetry Section of FSRO fully staffed, equipped, and capable of providing RFDs, DFCs, and panchayats with sufficient information to eliminate delays in transfer of forest lands to panchayats and preparation of management plans as needed. This section will maintain close working relationships with the Integrated Survey Section in the Ministry of Land Reform and with the Nepal Remote Sensing Center.
- H. FSRO maintaining a current supply of land survey data to all requesting field units and panchayats.
- I. Decentralization of the forest survey, mapping, and planning functions to the RFD level.

6. **Monitoring and Evaluation of Inputs for Components I and II**

There is a need of establishing a uniform and combined system for monitoring and evaluation of Components I and II because they are inter-twined and complementary to each other. Achievement of Component II is a pre-requisite for strengthening management information processing and planning capability within the Planning Division. Decentralization of the survey and mapping functions and the setting of MFSC targets on a regional basis by both the Master Plan for Forestry and the Five year National Development Plan requires effective involvement of the RDF's in the GIS and MIS systems and in the monitoring and evaluation of program activities. The following procedures are suggested for this propose:

- A periodic reporting system will be established between the Planning Division and FOD of MFSC and USAID. FOD will include FSRO and the FRDs in the internal reporting system. Chief of Planning will be responsible for reporting on Component I. FOD will report on Component II, but will rely on FSRO and the FRDs for providing current

data. USAID will report for the parts of both components handled by them.

- Periodic reviews and monitoring will be done in accordance with the procedures already established between USAID and HMG to monitor progress achievement of the project.
- A Coordination Committee chaired by Secretary, Ministry of Forest and Soil Conservation (by Chief of Planning, if Secretary is not available) including representatives of USAID, Ministry of Finance, Foreign Aid Coordination Division, National Planning Commission, and the Department of Forests, Forest Resource and Survey Office will be established for the coordination and decision making necessary for implementation of their components.
- To assess progress towards the purpose and goal of the project, USAID, in consultation with MFSC Planning Division, will undertake a mid-term evaluation during the fourth year of the project. Groundwork for this evaluation will be prepared jointly by the Planning Division of MFSC, FSRO of the Forest Department, and USAID. Guidelines and criteria for evaluation will be prepared as agreed jointly. Necessary corrections and modification will be made based on the recommendation of mid-term evaluation. Pre-final evaluation will be undertaken jointly during the seventh year of Project implementation and need for follow-up phase will be assessed and submitted to USAID and HMG.
- A Project completion report will be prepared and submitted to USAID by the Planning Division of MFSC and FSRO of the Department of Forest on their respective components after the termination of the project and submitted to USAID within one year of its completion.

III. Expanding and Improving Training at All Levels to Expedite the Improvement of Forest and Agroforest Land Management.

1. Training Capabilities Currently Available in Nepal

- A. Academic Training At Tribhuvan University: The Institute of Forestry, established in 1941 within DOF to provide training for Rangers and Foresters in Nepal, was incorporated along with other technical institutes into the Tribhuvan University system in 1972. In response to the growing challenge of managing Nepal's diverse natural resources, the Institute has recently undertaken a program of expansion and development. With funding from the World Bank and USAID, IOF began classes in temporary facilities at Pokhara in 1981 and new campus has since been established there.

IOF now offers two programs of study, namely the Proficiency Certificate training in Natural Resource Management or Forestry and the more advanced degree (B.Sc) in Forestry, Soil and Water Conservation or Wildlife Management. The Hetauda campus offers a 2-year Certificate Level program in Forestry, accepting 110 students per year.

Students who have completed the Proficiency Certificate program and have three years of experience, can also be accepted for the degree course. Students entering with a B.SC in General Science may complete the course. The Pokhara campus also offers a new Proficiency Certificate program in Natural Resource Management for 110 students per year. Students applying to IRNR for certificate training may choose to attend either campus. As a consequence of these improvements there has been an increase in the number of trained forestry staff available for field operations.

The Institute of Agriculture and Animal Science (IAAS) also is a part of the Tribhuvan University system. Located at Rampur, 10 km. west of Bharatpur, IAAS has two farms spreading over 235 hectares and consisting of land for research orchards, agronomy study, a vegetable block, livestock and pasture lands. Two branch campuses, located in the Hills zone and another in the Terai, provide one year training for Junior Technical Assistants. The main campus at Rampur is base for 98 permanent faculty members organized in eleven departments which provide a five-year B.SC.(Ag.) degree program in thirteen different curricula including Botany, Ag Economics, Horticulture, Animal Sciences, Soil Science, and Ag.Extension/Rural Sociology.

The IAAS staff is reported to average 10 hours of classroom instruction time per week as compared with a 21 hr./wk. for Tribhuvan University staff at Pokhara. Capacity for additional related involvement by IAAS staff is available according to the IAAS Assistant Dean. Some of this available staff time currently is involved in development and operation of a demonstration farm on the IAAS grounds. The Assistant Dean also confirmed interest in IAAS participation in integrated forestry/agroforestry land use planning at the District and panchayat levels.

- B. In-Service Training:- The Training Wing of the MFSC is responsible for all forestry related in-service training programs within Nepal. The TW aims to establish a framework for the development of an effective country-wide in-service training system that will operate through and for the benefit of the departments, corporations and offices that fall within the purview of the MFSC. It aims to provide training as a continuous service to all grades of professional staff within the Ministry, and to develop the required training materials and courses for field training activities such as those carried out for Naikes and Heralus by the Motivation and Education Unit(MedU) of CFAD.

The TW is located in Kathmandu. Its professional staff includes a Chief Training Officer and three other Training Officers. Lacking adequate staff, TW employs, on an ad hoc basis, part-time lecturers from other agencies. TW's physical facilities, strengthened under World Bank funded Forestry I project, are satisfactory and provide classroom capacity for about 700 trainees a year. There are no dormitory facilities to accommodate the trainees. The allowances being paid for the trainees are below the expenses required for their stay elsewhere in Kathmandu and , therefore , do not encourage them to undergo the training offered by TW. Due to these constraints the utilization of the physical facilities is far below their capacity. TW also lacks adequately trained trainers, and staff specialized in the development of training courses and preparation of training materials. HMG recognizes the need for regular training staff, and for the construction of a hostel for TW to complement the available physical training facilities at Kathmandu.

- C. Specialized Training and Staff Services:- The Nepal Administrative Staff College (NASC) at Jawalakhel provides training courses at various level in the careers of HMG gazetted officers, including new entrants to Civil Service Class 3, and In-Service training to Class 2 and 3 officers. Courses, seminars, workshops and conferences are provided in a variety of subjects such as Human Resources Management, Financial Administration and Management, Planning, Decentralization, etc. In addition to its basic program at the training center, NASC is developing a special consultancy capacity available to departments and projects on a payment basis. To date, small-scale, re-payment consultancy services have been provided to UNDP , World Bank, GTZ and ODA. Such services could also be made available to USAID. Although only in its embryo stage, consultancy service is to be expanded during the next few years so as to (1) provide incentives for high quality staff and (2) provide the college with an independent source of income. NASC consultancy capability includes a "Training Trainers" program and a "Training Needs Analysis" service.

The Agricultural Projects Service Center (APROSC) has considerable experience in organizing training for Planning in the national context with emphasis on such topics as:

- Role of forestry in Nepal's overall development,
- Planning process under decentralization,
- Peoples participation in planning,
- Project approach to planning,
- Project formulation and preparation,
- Project appraisal, monitoring and evaluation.

APROSC has premises for training and seminars plus the necessary logistical support needed to implement such training.

2. Training Support Proposed By The Master Plan For Forestry Sector, the UNDP/ FAO, And The World Bank, to Address Forestry Development Need in Nepal.

A. The Master Plan For Forestry Sector recommends:

- Retraining of entire MFSC staff for their new role as adviser and extensionist to the local people.

- Training of MFSC field staff and local people in agro-forestry practices.
- Training of local people in tree planting and management, tree harvest, and utilization and marketing of forest products.
- Training of MFSC staff in preparation and use of job descriptions and workload analysis.
- Training of trainers in MFSC and organization of a systematic and continuous training program.
- Mass education and information dissemination through extension and use of demonstration areas.
- Introduction of compulsory nature conservation subjects into public school curricula.
- Education of teachers, NGO's, politicians, journalists, and public officials about conservation through publications, radio, television, field trips, workshops, etc.

B. UNDP/FAO Project for Community Forestry will Provide :

- Strengthening of training capabilities of MFSC through training of trainers, curricula development, and preparation of manuals and teaching materials.
- Support for use of publications, mass media, films, videotapes, etc. in educating the public about land use and resource conservation.
- Initiation of regular training courses for local leaders, FOMUCA members, NGO's and women.
- Initiation of in-service training courses for MFSC field staff on community forest management, agroforestry, and national forest management, etc.
- 6 man-years of fellowships in forestry planning, forest economics, and agroforestry, etc.
- Training and extension materials.

C. World Bank Proposed Forestry III Project would provide any construction required to fulfill the MFSC training component. However details about specific inputs by the Forestry III Project, for training, are still under consideration by the W.B.

3. **Training Activities and Inputs to be Provided by USAID in the Proposed Forestry Development Project:**

Technical Assistance:

- A. Contracts with the appropriate national institutions (NASC, APROSC, etc.) to provide consultancy services that will:
1. Assist MFSC (TW) in conjunction with PD to update annually the training needs nationwide, at all levels in MFSC, to meet targets in the Master Plan for Forestry Sector (12 person-months consultants)
 2. Assist MFSC (TW) to set annual priorities for providing the training needed. (6 person-months consultant)
 3. Identify and analyze the training inputs proposed by all donor projects in forestry and indicate their relevance to the priorities identified in (2). (12 person-months consultants)
 4. Assist MFSC (TW) to monitor, evaluate, and adjust ongoing activities to ensure that high priority training targets are being met effectively. (12 person-months consultants)
 5. Provide consultant support to MFSC (TW) training teams (see D). (6 person-months consultants)
- B. An expatriate consultant (Instructor Training Specialist) from Forest Service, USDA, to organize and conduct two, one-week Instructor Training Courses (ITC) for selected, top-level MFSC staff. Course graduates to assist conducting subsequent courses with follow-up guidance by consultant. (12 person-months). See Annex V for description of ITCs).

Training

- C. Provide funding to MFSC (TW) for organization and support of one, two-man "Mobile Training Team" in each of five regions to provide training in multi-resource planning and management, communication, and technical skills to field staff in the districts on a continuing basis for 6 years (US\$ 750,000).
- D. Provide funding to MFSC (TW) for employment of two permanent staff to organize and implement training courses in multi-resource planning for MFSC staff at the national level and prepare technical guidelines (US\$ 50,000)
- E. Third-country and/or regional training for new staff (D) in training methods and multi-resource planning and management. (US\$ 15,000).

Commodities:

- F. Purchase of appropriate means of transport (vehicles, motor bikes, horses) for the Mobile Training Teams and the Multi-Disciplinary Teams (US\$ 200,000).

Operating Support:

- G. Providing funding for operating costs of MFSC (TW) training teams, selected from graduates of the Instructor Training Courses annually over 6 years to conduct in each of the five regions a minimum of two Instructor Training Courses for regional staff and selected LDO's and DFC's (US\$ 60,000).

Other:

- H. Contract with Tribhuvan University for services of the Institute of Forestry (IOF) and Institute of Agriculture and Animal Sciences (IAAS) to organize and support five multi-disciplinary teams consisting of a forester, agriculturalist, horticulturalist, and livestock specialist on a year-round basis for 6 years that will assist selected

farmers in different parts of five regions annually to assess their farm resources and prepare alternative plans for integrated land use management of each farm. Cooperating farmers will agree to use their farms as "Agroforestry Demonstration Farms" and receive, in turn, appropriate technical assistance to optimize the productivity of their resources. Empirical data collected will be used for land-use planning elsewhere in the panchayat. Experience gained in the planning and management stages of this process will be used as the basis for extension work in the panchayat. The overall objective will be to help farmers optimize the combined productivity of their resources. Gradual successes of each farmer will help to motivate his neighbors to follow his example. Benefits will also accrue to IOF and IAAS from the important experience gained by their staff members comprising the multi-disciplinary teams. IOF and IAAS will monitor, evaluate, and adjust the team activities to insure their effectiveness in improving land use. (US\$ 320,000 for 1440 person-month consultants.-See note 5 in RELATED POLICY ISSUES AND FOLLOW-UP.)

4. **Technical and Administrative Analysis of the Proposed Training Inputs by USAID's Forestry Development Project**

They Address Important Problems in a Logical and Systematic Way: The proposed activities and inputs attempt to put order into the presently chaotic involvement of over 60 donor projects and many agencies of HMG in some aspect of training and motivating people. Coordination of these many efforts is needed. HMG must determine a priority for its support of them. Cadres of competent trainers and communicators must be developed, then assigned to high priority training activities. Ongoing activities need to be monitored, evaluated and adjusted periodically to insure that highest priority training targets are being met first and in an efficient and effective way. HMG direction of newly proposed donor inputs into training is necessary to insure that they complement on-going and planned high priority programs. USAID's proposed activities and inputs, if implemented in the order given, will be a step-by-step solution to the present disorderly array of well-intended initiatives.

These Proposals are Feasible within the Constraints of Competent Manpower, Money and Time: Competent forestry manpower in HMG Nepal is limited. For example, staffing at only half the approved and planned levels has prevented the Community Forestry Project in Terai from meeting targeted objectives. Staffing of forestry instructors at IOF in Pokhara is not up to prescribed level. These realities require a different more enterprising approach to implementing USAID's Forestry Development Project. The attractions of private enterprise, profits, freedom from bureaucratic constraints, etc. are recognized as providing the only feasible way of drawing competent manpower from all relevant quarters of the agricultural and natural resource professional community into the high priority training and management tasks to be undertaken in this project.

NASC is developing a consultancy capability and is interested in contractual arrangements. IOF and IAAS also are interested in developing consultancy capabilities for contract to HMG and donor agencies. They need to expand their opportunities for financial independence and professional competence in integrated land use.

The proposal to use "Mobile Training Teams" is intended to serve as an interim step to the long range objective of establishing permanent Regional Training Centers. The feasibility and specific design of such Centers and their programs need further study before financial commitments are made. Such study by MFSC(TW) with the help of consultants if needed, will be funded by USAID.

These Proposals are Compatible with the Five Year National Development Plan and the Master Plan for Forestry Sector and They Complement Ongoing Activities and Assistance Proposed by Other Donors: The National Development Plan and the Master Plan emphasize the importance of involving people voluntarily, at the local level, in managing and protecting forest lands. The incentives to motivate such involvement are the transfer of forest lands to community panchayats and the provision of free technical advice and tree seedlings to the people. While some progress has already been made in doing this, HMG wants to speed up the process of getting local involvement. Thus, in addition to directing assistance to

community panchayat groups as HMG, WB, UNDP/FAO, ODA, CIDA, GTZ and USAID are now doing and will continue, there is increasing need to direct such assistance right to the individual farmer who is the land owner and land user. He can be helped to improve his benefits from his land by his personal involvement with multi-disciplinary teams that will assess his resources and prepare alternative management plans for increasing production of all his resources. He will be free to choose the management plan that best fits his personal situation. He will then be assisted by the team on a continuing basis to manage his land and resources accordingly. As he becomes more independent in such management the team will divert their attention to other farmers wanting help. In return for such assistance the farmer will be expected to use his farm to demonstrate agro-forestry practices to his neighbors who should be able to relate directly to such example. Subsequently, the experience gained in each case can be used to improve the planning process and serve as an information base for extension work in the area. The production of simple, pocket-size, technical guides and distribution of them to farmers and field staff is already funded but should be intensified because such guides will aid in the practical transfer of technology to the land manager. The inputs proposed for USAID funding will support these efforts.

5. Costs of USAID's Proposed Inputs.

USAID inputs for the Training Components (III) of the proposed 7 year Forestry Development Project total:

Technical Assistant:- 48 person months of local consultant and 12 person months expatriate consultants.

Training: US\$ 815,000.

Commodities: US\$ 200,00.

Operation Support: US\$ 60,000.

Other: US\$ 320,000.

6. Expected Outcomes

Although it will be impossible to measure precisely, the benefits resulting from the prescribed USAID Training inputs, it is reasonable to expect that they will contribute, in part, to attainment of the following objectives, by the end of the proposed projects:

- A national summary, updated annually, of training needs and priorities in the forestry sector of Nepal in general, and of the MFSC in particular.
- A national summary, updated annually, of training inputs by donor indicating how they relate to the established training priorities and when, where, and to what extent they will be applied jointly by HMF and the donors.
- Completion of the one week Instructor Training course by all gazetted officers of MFSC and HMG agencies participating in the planning and extension aspects of forestry, community forestry, and agroforestry at all levels of HMG.
- The continuous correlation, coordination, monitoring and control by the Planning Division of MFSC, of all ongoing and proposed donor assistance for training in the forestry sector to ensure conformance to national priorities defined in the National Five Year Development Plan and in the Master Plan for Forestry Sector.
- Continuing operation of the Mobile Training Team in each region on a systematic, scheduled basis to conduct the training in planning, management, communication and technical skills, according to established training priorities, at the district and panchayat levels.
- Continuous Implementation of regularly scheduled training courses, seminars, workshops, field trips, etc. by MFSC (TW) for MFSC staff at central level according to the established training priorities.
- The establishment and continuing operation of a total 120 Agroforestry Demonstration Farms in five regions,

resulting from performance of the multi- disciplinary technical teams (forester, agriculturalist, livestock specialist, and horticulturalist) contracted by USAID through the IOF and IAAS of Tribhuvan University.

- Continuous, systematic monitoring and evaluation of the performance of the multi- disciplinary teams of technical specialists.
- Distribution to all districts in the Terai, Siwalik, and Middle Mountain physiographic zones, of printed technical guidelines, in pocket book form, for integrated management of agroforestry lands.
- Fulfillment of planned targets for community, panchayat, and private forests as established in the National Five Year Development Plan (1991-95).
- It is apparent that fulfillment of these outputs will require high quality as well as the indicated quantity of inputs.

7. Monitoring and Evaluation of Inputs for Component III:

In addition to the ongoing monitoring/evaluation activities described in the training inputs (3.A.4 and 3.E.). The USAID Project Director shall make an annual assessment of the Project's inputs/outputs for the training component. Such assessment shall be included in his periodic project evaluation reports to the USAID Mission and to the MFSC (TW).

9

TOTAL COSTS OF INPUTS FOR USAID'S FORESTRY DEVELOPMENT PROJECT

ITEM	COMPONENT I	COMPONENT II	COMPONENT III	TOTAL
Technical Assistance:				
Consultants Expatriate (p.m.)	53	168	12	233
Consultants Local (p.m.)	77	4	48	129
Training:	\$300,000	\$400,000	\$815,000	\$1,515,000
Commodities:	\$450,000	\$900,000	\$200,000	\$1,550,000
Operating Support:	\$295,000	\$150,000	\$60,000	\$505,000
Other:	0	\$450,000	\$320,000	\$770,000
			Total:	\$4,340,000

(*p.m. = person months)

RELATED POLICY ISSUES AND FOLLOW-UP

1. HMG has scheduled, for March 1988, a Donor Conference to review with present and prospective donors HMG priorities for development. Prior to this, USAID should make a careful, comparative analysis of the inputs proposed, herein, for USAID's Forestry Development Project with those being proposed for funding by World Bank, UNDP, FAO, and ADB (Master Plan for Forestry Sector). Some consideration has already been given, but more is needed to insure all the inputs are complementary and consistent with HMG priorities.
2. Recommendations for reorganization of the MPSC have been made by Master Plan for Forestry, by USAID's Forestry Private Sector Study, by FAO's "A Long-Term Programme for the Department of Soil Conservation and Watershed Management" and others. These recommendations should be considered in terms of their relationship with the proposed USAID Forestry Development Project.
3. In-service training is one of the requirements for career development and promotion of HMG personnel. However, in-service training provided by the TW of MFSC has not been recognized and counted for career development and promotion within FOD. This needs to be changed if TW is to be strengthened as an institution.
4. Tribhuvan University's IOF is the only institute in Nepal producing base-level (i.e. professional and technical) Forestry Manpower. IOF is under the Ministry of Education. There is need to establish closer co-orelation and coordination between IOF and MFSC concerning needed adjustments in the forestry curricula, the student intake, and the production of graduates in relation to MFSC's needs for foresters.
5. The pricing mechanism for contracting with Tribhuvan University to develop multi- disciplinary teams (Component III, Inputs C.) need further study. Proposed funding of US\$ 320,000 is based on declining USAID input and an increasing input by HMG so as to establish by the end of the project HMG self reliance in conducting this program of technical assistance for the development of Agroforestry Demonstration Teams.

Terms of Reference

Title : Forestry Project Design Specialist.

Objective : A three person team composed of an expatriate Forestry Project Design Specialist and two local forestry experts will prepare the Project Analysis for the proposed USAID Forestry Development Project (367-0158) in the areas of (a) planning, policy analysis, monitoring and evaluation, (b) district and panchayat level land-use planning, and (c) in-service training.

Reports : The final technical report of the contractor is to be prepared in Nepal. It will be reviewed by USAID and revisions will be made prior to the departure of the expatriate consultant from Nepal.

Duty Post : Kathmandu, Nepal.

Work Week : Contractor is authorized up to six-day work week with no premium pay.

Duration : Work Days Ordered for Forestry Project Design Specialist - 35, Local Forester #1-26, Local Forester #2-26.

Background:

The Forestry Development Project will constitute one component of a multi-donor program designed to develop a comprehensive national policy and program for the development of community forestry including private tree farming. Other key donors at this point are the World Bank and UNDP/FAO. DANIDA has also expressed an interest in possible collaboration. The project will be implemented through the Ministry of Forest & Soil Conservation, with primary focus on the Department of Forests. Specific sub-activities to be proposed for USAID funding will be identified during PID preparation in close consultation with the GON and the other donors. Several areas that have been tentatively identified include a) planning, policy analysis and monitoring & evaluation, b) in-service training, c) the improved stove program, d) district and panchayat level land-use planning, e) integration of WID concerns into the national

program, and I lected support to private forest - based industries.

The design of the project will need to carefully review implementation of the government of Nepal's policies in the forestry sector, as well as the institutional base established to date in order to determine how to best structure the project to achieve the desired objectives. In addition, the project will need to conform with overall Mission strategy as outlined in the Country Development Strategy Statement (CDSS) and with guidance provided by AID/Washington on the Forestry Development Project.:

Policy concerns to be addressed by the project may include those raised by the CFAD Special Studies (prepared under the auspices of the HMG/UNDP/FAO Community Forestry Development Project), USAID's Forestry Private Sector Study, the IBRD/IMF Structural Adjustment Credit, the HMG/ADB Forestry Sector Master Plan, and the HMG/IUCN Nepal National Conservation Strategy.

The Forestry Development Project Design will rely strongly upon the knowledge base and experience gained from implementation of USAID's forestry field programs in the RCUP and Rapti Districts, the work of the Phase I HMG/UNDP/FAO Community Forestry Development Project, as well as the experience of other rural forestry programs across the country. It will also rely explicitly on the Concept Paper and draft Project Document prepared by UNDP in close consultation with USAID and other donors as well as on World Bank design documents prepared for their Forestry III project.

Persons Consulted :

In Kathmandu :

1. Mr. G.R.B. Mathema, Chief Conservator of Forests
2. Mr. R.B. Bista, Chief Planning Division, MFSC
3. Mr. M.D. Rajbhandari, FSRO
4. Mr. D.B. Bista, Ministry of Agriculture
5. Mr. L.B.S. Tuladhar, Chief Training Wing, MFSC
6. Mr. Rauno Laitalainen, Team Leader, MPFS
7. Mr. Bal Ram Bhatta, MPFS
8. Mr. George Taylor, USAID
9. Dr. Donald A. Messerschmidt, USDA/USAID
10. Mr. Batuk Upadyha, USAID

In Field Offices :

1. Mr. A.B. Thapa, DFC, Dang
2. Attached Officer, District Forestry Office, Dang
3. District Livestock Officer, Dang
4. District Agriculture Officer, Dang
5. Field Officer, District Panchayat Secretariate, Dang
6. Dr. K.P. Sharma, Assistant Dean, Institute of Agriculture & Animal Sciences

7. Mr. K.P. Prajapati, Dean, Institute of Forestry, Hetauda
8. Dr. R.B. Mathur, Institute of Forestry, Hetauda
9. Mr. Jaiswal, Campus Chief, Institute of Forestry, Hetauda Campus, Hetauda
10. Mr. M.K. Bajracharya, Chief Terai Community Forestry Development Project
11. Mr. Suraj Shrestha, Terai Community Forestry Development Project
12. Mr. Brouny, PCV, Dang
13. Dr. Creighton Peet, PADCO Office, Dang
14. Mr. Ben Stoner, USAID

Reference Documents

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2. Forestry III - Community Forestry Development Project, Preparation Mission; Report FAO/World Bank Cooperative Programme Investment Centre, September 1987.
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13. Paper for USAID Forestry Development Project (367-0158) - Prepared by UNDP in close consultation with USAID, July 1987.
14. A Long-Term Programme for The Department of Soil Conservation and Watershed Management prepared by Henry R. Stennett - Chief Technical Advisor : Watershed Management Project, July 1987.
15. Comments and Suggestions on the "Forestry Development Project (367-0158)" - By Donald A. Messerschmidt - Oct. 1987.
16. Draft Proposal for Forest Survey & Research Office.
17. Preliminary outline of FDP Project - Provided by Mr. George Taylor, USAID; Oct. 11, 1987.
18. Institutional Setting and Constraints- Provided by Mr. George Taylor, USAID: Oct. 17, 1987.

ANNEX IV

ADB	Asian Development Bank
APROSC	Agricultural Projects Service Center
ARD	Agricultural Rural Development
CFA	Community Forestry Assistant
CFAD	Community Forestry And Afforestation Division
CFDP	Community Forestry Development Project
CFO	Community Forestry Officer
CIDA	Canadian International Development Agency
DFC	District Forest Controller
FAO	Food and Agriculture Organization
FINNIDA	Finish International Development Agency
FOD	Forest Department
FOMUCO	Forest Management and Utilization Committee
FSRO	Forest Survey and Research Office
GTZ	Technical Co-operation Agency of W. Germany
ha.	Hectare
HMG	His Majesty's Government of Nepal
IAAS	Institute of Agriculture and Animal Science
IDS	Integrated Development Service
IOF	Institute of Forestry
IRNR	Institute of Renewable Natural Resources
ITC	Instructor Training Course
IUCN	International Union for Conservation of Nature and Natural Resources
LDO	Local Development Officer
LRMP	Land Resources Mapping Project
MEU	Motivation and Education Unit
MFSC	Ministry of Forest and Soil Conservation
MPFS	Master Plan for Forestry Sector
NASC	Nepal Administrative Staff College
NDC	National Development Council
NPC	National Planning Commission
ODA	Overseas Development Administration (UK)
PF	Panchayat Forest
PPF	Panchayat Protected Forest
PD	Planning Division
PU	Planning Unit
RFD	Regional Forestry Directorate
SIDA	Swedish International Development Agency
TW	Training Wing
UN	United Nations
UNDP	United Nations Development programme
WB	World Bank
WECS	Water and Energy Commission Secretariat

ANNEX V

Description of Instructor Training Course (ITC)

ITC was first developed as a two week indoctrination course for Engineer Officers by the U.S. Army. About 1960 it was adapted by the South Eastern Region, U.S. Forest Service to a one-week intensive course in communication and instruction techniques. After it was conducted on a pilot basis for the Regional Forester and staff, it was established as a mandatory course for all professional personnel in the SE Region. Subsequently most of the other ten regions of the Forest Service also used it for professional staff training.

ITC, as adapted by the Forest Service consisted of 40 hrs. of intensive training. About 10 hours instruction in public speaking techniques, theory of learning, use of audio-visual aids, and preparation of lesson plans set the stage for 30 hours of practical application. Participants were organized into groups of five so as to maximize the diversity of professional disciplines within each group. Participants selected a topic of their choice, then on each of five days, were required to make an oral presentation of their topic in such a way that the total topic was divided into five logical segments. The method of oral presentation varied daily from an initial 3 minute lecture- to the final 15 minute conference style presentation in which the message had to be developed through the responses to 20 questions stated in such a way as to get the appropriate responses. Each participant was graded and critiqued on each presentation by his fellow students. Selected graduates of each course in turn, served as instructors in subsequent courses.

For most participants the course was a memorable experience and was very effective in improving individual performance within the Forest Service. In addition to becoming more skillful in oral communication each participant also learned more about the professional activities and responsibilities of his colleagues in the Forest Service. Organizational morale and sense of professionalism were greatly enhanced by ITC.