

AMENDMENT NO 1

A.I.D. Project No. ~~XXXXXXXXXX~~

Nepal Coppice Reforestation Project

The Project Grant Agreement No. 367-0156, dated February 11, 1987, between His Majesty's Government of Nepal ("HMG/N" or "Grantee") and the United States of America, acting through the Agency for International Development ("A.I.D.") is hereby amended on September 6, 1990 as follows:

1. The Life of Project (LOP) Funding for this project was \$2,280,000. This Project Grant Agreement Amendment hereby increases the LOP funding by \$130,000 or to a total of \$2,410,000, subject to availability of funds. All references to the LOP funding in the Project Grant Agreement will be changed to the new LOP funding of \$2,410,000 in lieu of any other sum.
2. The Project Assistance Completion Date (PACD) of this Project was June 30, 1990. This Project Grant Agreement Amendment hereby extends the PACD by two years to June 30, 1992. All references to the PACD in the Project Grant Agreement will be changed to the new PACD of June 30, 1992 in lieu of any other date.
3. The Project was being managed through a Participating Agency Service Agreement (PASA) with Argonne National Laboratory (Argonne). This Project Grant Agreement Amendment hereby changes the managing organization to United Mission to Nepal (UMN). All reference to the managing organization shall be changed to UMN in lieu of Argonne.
4. Annex I of the Project Grant Agreement contains an amplified description of Phase I's project purpose and objectives. This Project Grant Agreement Amendment hereby substitutes the existing Annex I with the attached new Annex I.
5. Accordingly, this Project Grant Agreement Amendment changes the following in the original Project Grant Agreement:

Preamble

...Whereas, in consequence of that agreement, A.I.D. has obligated grant funds to finance the project through a grant to the United Mission to Nepal (UMN);

Section 2.1 Definition of Project

...The description of the project is amplified in the project description prepared by UMN in consultation with HMG/N....

Section 3.1. Amount

A.I.D. will provide up to Two Million Four Hundred and Ten Thousand United States (U.S.) Dollars (\$2,410,000) in grant funds to finance the the foreign exchange and local currency costs of the project subject to availability of funds...

Section 3.2 Project Assistance Completion Date.

The activities financed under the project will be completed over a six year period, ending June 30, 1992, unless the completion date is extended by the parties in writing.

Article 7: Disbursement

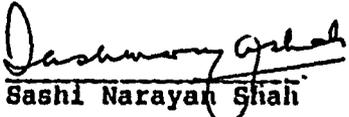
Disbursement of Grant funds in support of project activities will be made by A.I.D. to UMN pursuant to the A.I.D./UMN Grant Agreement or in such other manner as the Parties may agree.

Annex I

(The new Annex I attached to this document shall be inserted to replace the current Annex I.)

4. All other terms and conditions of the Project Grant Agreement dated February 11, 1987, shall remain in full force and effect.

ON BEHALF OF HIS MAJESTY'S
GOVERNMENT OF NEPAL

BY: 
Sashi Narayan Shah

TITLE: Acting Secretary
Ministry of Finance

ON BEHALF OF THE UNITED
STATES OF AMERICA

BY: 
Kelly C. Kummerer

TITLE: Director
USAID/Nepal

ANNEX I NEPAL REFORESTATION PROJECT NO. 367-0156

AMPLIFIED DESCRIPTION OF PROJECT PURPOSE AND OBJECTIVES

1. Introduction

1.1 Program Background

The Nepal Coppice Reforestation Program (NCRP), phase I, was a 3.3 year project designed to conduct research, demonstration and training in the use of multipurpose tree species (MPTS) in Nepal. Total project funding was \$2,280,000. Argon National Laboratory (ANL) was the contractor. The in-country project office was in Kathmandu and the field nurseries and demonstration areas were located at three sites. Nisikot (Dhading Dist), Rasnalu (Ramechhap Dist.) and Bhilman (Sinduli Dist) (see figure 1)

The three major components of NCRP were:

1. A permanent, multipurpose tree nursery primarily for the production of planting stock, but also as a facility to conduct applied experimental work on plant propagation, nutrient and water requirements, nursery practices, out planting techniques, and species provenance and clone trials
2. A research and demonstration programme that would evaluate and demonstrate several high-yield production systems for tree products, methods for the maintenance and management of these systems, and their economics and cost-effectiveness
3. A programme of technology transfer and technical assistance aimed at increasing employment and income in the forestry sector through the training of technicians, farmers and students in the use and management of multipurpose tree production systems

ANL successfully accomplished component 1 in that permanent nursery facilities have been established at all three sites. Some progress was made in initiating work under component 2, but this was very limited. Transfer of technology, as outlined in component 3, was also limited.

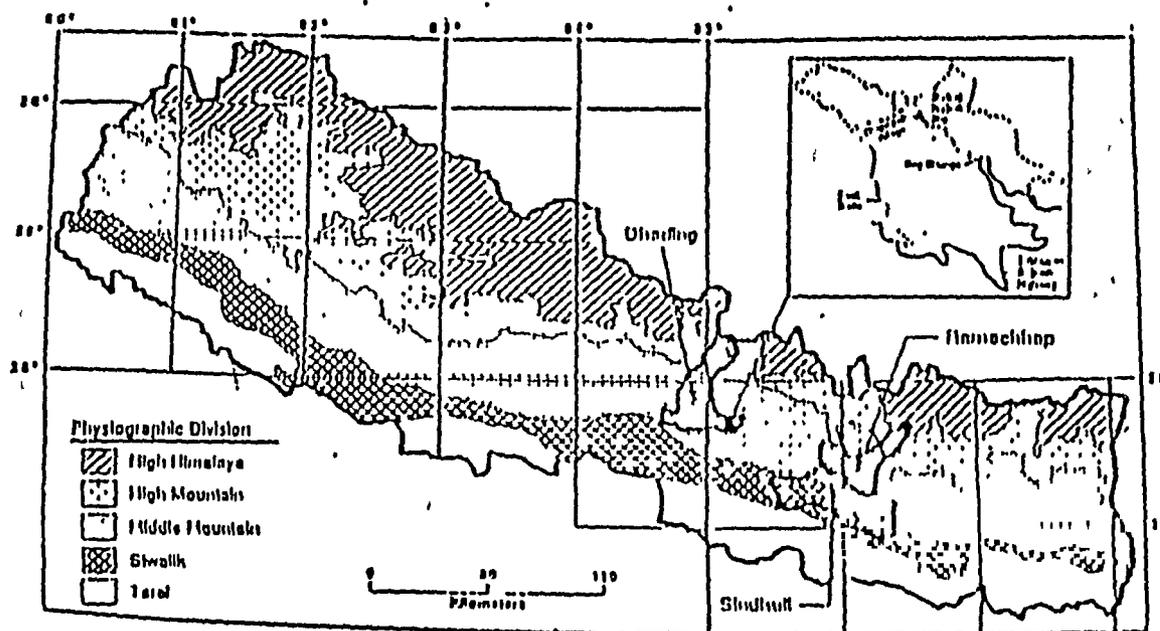


Figure 1. Map of Nepal

Major project outputs from phase I include:

- establishment of field sites for nursery, research and demonstration purposes.
- collection, propagation and planting of a rich variety of multi-purpose tree species.
- collection of socio-economic data characterizing the local residents at each site.

UMN intends to expand and elaborate on these outputs at the Nisikot site during phase II. UMN was formed in 1953. It is a non governmental organization which works only in Nepal. It is made up of over 40 international organizations from 18 different nations which have agreed to work in unity under one administration and common purpose. Its headquarters are located in Kathmandu, providing central administration and support services since 1959. Its initial development focus was health care, however, since 1980, UMN began a forestry program including activities at seven different sites throughout the country. One of these sites,

at Butwal, has forestry research as its primary focus. At Butwal, UMN has developed an effective working relationship with the British Overseas Development Agency supported Forestry Research Project.

1.2 Forestry in Nepal

AID has made a commitment to work with HMG and other international assistance organizations to address the well-documented deterioration of Nepal's natural resource base, particularly its forest resources. Participants at a joint HMG/donor meeting on forestry in 1984 decided that an in-depth analysis of forestry programmes and policies was required to both rationalise and prioritise investments in forestry on a nation-wide basis over a 25 year time frame. As a result, the Asian Development Bank and the Finnish Overseas Development Agency, FINNIDA, funded a project to prepare a plan for the forestry sector. The resulting Forestry Master plan (FMP) is a multidonor effort developed over the last three years to better coordinate and focus the estimated 60 projects and 40 organisations active in the forestry sector. The plan represents a concerted approach over the next 21 years at an estimated cost of \$1.74 billion. Among the key components of the plan is development of a national community forestry programme involving substantial policy and institutional change. The role of NGO's was contemplated in the Master Plan, but was never clearly defined.

The FMP lists some 23 donor organisations involved in the forestry sector in Nepal. Of these, eight are listed as having one of more initiatives in the program category entitled, "Forestry Research and Extension". The U.K.'s Overseas Development Administration (ODA) has the largest forestry research program of any donor, with ten years of experience in forestry research in Nepal. ODA is designing a major follow-on to its existing project. One of the findings of the project evaluation was that the research component of NARP during Phase I, was not sufficiently tied into the forestry research activities of ODA. In this proposal UMN proposes a formal and effective linkage with ODA through the project's proposed Research Guidance Committee. Through this mechanism, ODA will provide direct technical assistance and direction. The project findings, in turn, will be funneled directly into ODA's research data base and network of scientists engaged in forestry research.

2. Program Objectives: UMN proposes to develop the forestry program at Nisikot which builds on the successes of phase I, while at the same time responds to criticisms raised in the project evaluation of November 1989 by bringing project activities more into line with the needs of the local community and making the research component more responsive to the national forestry research agenda.

The UMN program is intended to meet three objectives: community forestry, sustainability and research. These objectives are completely consistent with the objectives during phase I which were to establish nurseries, to conduct research and demonstration and to extend program findings through a program of technology transfer. The only new objective discussed below is program sustainability which is an appropriate and indeed necessary objective to include in the project's second phase.

2.1 Community Forestry: The first objective is to bring the project more into line with the forestry needs of the local community through community organization and transfer of forestry technology and techniques as they are developed. Under this objective the UMN program will:

- 1) Establish user-groups and land transfer. Under the Forestry Master Plan and Guidelines for Community Forestry, the first step in ultimately transferring land from the national level of government to local farmers is the formation of user-groups. Often these groups are already in place and have functioned on an informal basis for some time in managing communally nearby forest resources. In other cases, even an informal association of users does not exist. UMN's first step will be to canvass the area surrounding the program site to determine the degree of user-group formation. In those cases where user-groups have already been formed, UMN will work with these groups and the DFO in helping them to become registered. In those cases where groups do not exist, UMN will, again working through the local DFO, facilitate effective group formation through an education and motivation program. An initial focus of this activity will be in the ward immediately surrounding the nursery and research site. Once a user-group has been formed and registered, and once the site management plan has been drawn up and the users trained in nursery management, the site will be turned over to this group and be managed on a sustainable, self-sufficient basis. Other groups in neighboring areas have already approached the project for assistance in user-group formation and development of forest management plans, UMN will provide this technical assistance to user-groups as

needed. The previous contractor did not respond to these requests, however, UMN believes that user-group formation is one of the bases of forest management in Nepal and is committed to assist in their formation. User-groups are also the foundation of the Community Forestry programme under the Master Plan Forestry Sector.

- 2) **Education/training and Motivation:** UMN has a strong record and extensive experience in forestry education, training and motivational techniques. UMN intends to include a forestry education and training component within this program, covering the technical areas of nursery management and agroforestry techniques, and the social/cultural areas of user-group formation and local empowerment in the management of forest resources. The education program will be used to build awareness of forest problems and possible solutions. A curriculum for this programme has been developed using an adult education method. UMN will take advantage of its extensive audio-visual materials in successfully implementing the training and education component.
- 3) **Develop Forest Management Plans:** The third step under the community forestry objective will be to assist user-groups to develop effective forest management plans which can be expected to include techniques developed through the research program as these evolve. Under the regulations governing Community Forestry, unless a plan has been formulated and approved by the District Forest Officer (DFO), the official transfer of forest land to the user-group can not take place.

2.2 Sustainability - Community involvement/ownership: The second objective will be to make the program sustainable, so that as external funding phases out, program activities will continue on a self sustaining basis. The program is designed to meet the objective of sustainability on three fronts.

- 1) **Community organisations:** The goal here will be to establish local user-groups, develop nursery and forest management plans and facilitate the transfer of forest lands and nursery sites to local user groups. This is consistent with the Forestry Master Plan and will be done in close cooperation with the DFO.
- 2) **Nursery on sustainable basis:** One of the first user-groups to be formed will manage the Nisikot site which includes the nursery and surrounding hectares. Villagers in Ward 3, where the site is located, already

supply labor for weeding, watering and otherwise managing the nursery and the site. These laborers are currently paid by the program. Thus, when program funding ends, the work of managing the nursery would presumably also end. The intention is to see that this does not happen by putting the nursery and other productive or potential income producing parts of the site on a self sustaining basis. The user-group would develop the market potential for the seedlings and grasses produced at the site for sale to surrounding farmers and adjacent projects. A second source of income would be derived from the sale of seedlings to the research component. An annual contractual arrangement would be developed setting out the quantities of different species to be produced for research purposes. A third source of income could be the introduction of fruit trees and other cash crops, on those parts of the site not reserved for research, for sale down in the valley and to the Kathmandu market.

- 3) **Research Transfer to Department of Forestry and Plant Research (DFPR) -research site turned over per IIPFS:** The program will eventually transfer the research function to the DFPR. The program's goal is that by project end, the analysis unit will officially become part of the Department. Assuming that salaried positions will have been established by the IIPR, program employees will be transferred into these positions. The research sites will be maintained and new seedlings provided through a contractual arrangement with the local user-group and DFPR.

2.3 Forestry Research: The major focus of the initial project was coppice research. Test plots were established at the Nisikot site in 1988 and again in 1989. UMN fully intends to continue to monitor these plots and measure the response of the one and two year old seedlings to various coppicing techniques. The Research Guidance Committee, described below, will evaluate the site and will narrow the wide range of present research plots to those which support a valid scientific research design. New plots may be established when advised by the RGC and when there is the capacity to handle it.

- 1) **Establish Research Guidance Committee (RGC):** A Research Guidance Committee will be established which will include proposed representation from the program staff, the DFPR, ODA, USAID and the DFO. The RGC will provide technical assistance in drawing up research plans, applying appropriate research protocol and designing future research. Research during Phase I

focused on coppicing techniques for up to 30 multi-purpose tree species. Many of the test plots, however, were badly designed so that results were scientifically questionable. Thus the first step for the RGC will be to take a close look at what has already been planted and decide which plots need to be continued. The RGC will also review existing research plans and data collection, storage and analysis techniques. The second step will be to provide guidance on establishing new plots.

2) Set Research Management - Structure and Approach: Management and monitoring of the research plots will be conducted by the field unit located on the site. The field unit will take technical direction from the RGC and be under the daily supervision of the program manager. The analysis unit, to be located within the DFRP, will be responsible for putting the data received from the field unit and analyzing this data under the technical direction from the RGC and under the supervision of the DFRP. Over the life of the program, the field unit will eventually be subsumed within the local user-group and the analysis unit will become part of the DFRP.

a) Field unit --> Report on plots and data collection: the field unit will maintain the research plots and collect data on seedling growth and response to various coppicing techniques.

b) DFRP Data unit --> Data Analysis: the analysis unit will take the data from the field unit and put it into appropriate computer format using D-BASE4. This unit will work closely with the DFRP and will work to integrate its data base with the departments forestry research data. The unit is already staffed with a computer operator trained during phase I and equipped with hardware and software, also obtained during phase I.

c) RGC -- technical assistance: The RGC will provide technical assistance in assigning treatment of existing plots and in establishing new plots. The Committee will also provide the linkage between research findings from this program and research from other parts of the country and region.

d) Community input into future research: One of the failings of phase I, as pointed out in the Project Evaluation Report, was that the project was too isolated, both in terms of not being tied into the national program of forestry research and in terms of

not responding to the needs of the local people for fodder, fuelwood and biomass for animal bedding. UMN intends to elicit input from local farmers along the lines of the Nepal Australian Forestry Project which has been effective in applying an interactive research approach where the needs of the local communities for forest products are characterized through Rapid Rural Appraisal and other communication techniques. These needs are then incorporated into the research program with various approaches and trials demonstrated through out plantings on farmers fields. These out plantings are closely monitored to assess their effectiveness in meeting forestry needs and are further refined in a continuing circle of interactive research and communication between the farmers, the site managers and the research scientists. The approach can be broken down into the following five steps:

1. Diagnosis: common definition of Problem
2. Identify possible solution
3. Field testing (applied research)
4. Better definition of Problem
5. Evaluation

Any new areas uncovered through the interactive dialogue will be screened by the RGC before being before being incorporated into the research program.

3. WHO WILL BENEFIT: Program beneficiaries will be, first the local farmers in the area directly adjacent to the site and eventually the local user-group members who will take on responsibility for managing the nursery and site. Second, beneficiaries will be members of additional user-groups formed with assistance from the program. Third will be surrounding farmers who obtain seedlings or training from the program. Next will be those in other parts of the country who receive the benefits from the program s technical findings.

4. What this Activity will accomplish

4.1. Community Forestry

- a. User-group formation initially around the site and then expanding out into surrounding areas;
- b. Forest and nursery management plans which will include applied technologies developed through the research component;
- c. Improved biomass production for fodder, fuelwood and composting as a direct result of coppice and other forest management techniques applied on community and private land;
- d. Increased awareness of forestry issues and problems will result as farmers work together in the

user-groups and undergo training at the program site;
e. A better natural resource base of both water, soil and nutrients will be the result of more forest cover. With hilltop cover we would expect dried up springs to reestablish, reduced sheet and gully erosion, and higher soil fertility.

4.2. Sustainability

- a. self sufficient nursery and research site managed by a user-group under an approved management plan;
- b. additional user-groups formed with approved forest management plans in surrounding area;
- c. A transfer and incorporation into local farming systems appropriate coppice and forest management techniques.

4.3. Research

- a. proven techniques for coppice management;
- b. Identification and resolution of community forestry problems as defined by community interactive research process explained above.

5. Implementation Strategies

5.1. Short Term - from July through November, 1990: The program will undertake the following short term objectives:

- a. Appoint a Program Manager: The Program Manager needs to have 'ownership' of the program much as the community user-groups need an 'ownership' of their community forests.
- b. Transfer of management responsibilities to UMN: The site will be transferred by 30 June, 1990. This will include data, key people, including an expatriate facilitator, equipment and infrastructure.
- c. Conduct orientation to site and local community.
- d. Develop community dialogue. A lot of things will need to be talked through. What are the communities expectations? What can UMN offer? What are the immediate needs and resources available in the area? What is the long term vision of the community for it's self and for the program? We need to know each other!
- e. Establish the Research Guidance Committee.
- f. Develop work plans for the nursery, research, community forestry, and other e pressed local needs.
- g. Develop HMG/NGO relationships, especially with the District Forestry Officer and with other surrounding projects.

5.2. Two Year

- A. Community Forestry: Initially the program will concentrate on awareness raising about forestry:

community rights and responsibilities, community needs and requests will be considered within the constraints of the program. The program will develop and organize training on the basis of user-group needs/requests. Technical assistance in development of management plans will be given. The program will support community empowerment and ownership of forest resources.

B. Nursery: The program will facilitate community dialogue on the development of a plan for sustained management of the nursery and site by community. Training will be organized where technical assistance in management techniques is needed. Preferred species desired by local community, research, and other groups will be raised on a contract basis.

C. Research: The RGC will provide direction to the research site, UMN will provide the management. The program will provide access to and facilitate community input into future research. Dissemination of research findings to community and the wider HMG/NGO community will be facilitated.

6. Time frame for Activities

- | | |
|-------------------|--|
| 30 June, 1990 | - UMN assume program responsibility. |
| 20 November, 1990 | - A two year plans is approved by the UMN Executive Committee. |
| November, 1991 | - Evaluation is made of the program, either an extension proposal is made or planned withdrawal will take place. |
| 30 June, 1992 | - Termination of UMN involvement or extension of agreement. |

7. Assumptions

- 7.1. Acceptance of objectives as a base for program operations
- 7.2. The community wants this program to continue and will become actively involved in its planning and implementing.
- 7.3. The Research Guidance Committee will be actively address the research aspects of the program.
- 7.4. HMG will allow the nursery site to be handed over to a community user-group when an acceptable management plan is submitted.
- 7.5. Required equipment from Phase I will be available on a continued basis in Phase II.
- 7.6. The granting of 1 expatriate visa to fill the post of Team Facilitator (International travel and field support is not to be a part of the budget).
- 7.7. Acceptable reporting arrangements to USAID
 - a. monthly statement of accounts
 - b. annual audit report by HMG authorized auditor

- c. quarterly narrative and budget status reports
- d. summary annual report

UMN NCRP BUDGET (\$1 = Rs29)

YEAR 1

Salaries: research unit field unit, extension unit and administration	414,000
TA/QA	30,000
Maintenance/Rent	80,000
Office Supplies/Equip	56,000
Training Materials	30,000
Community Support: field visits, training, nursery costs, extension cost and forest plan development	400,000
Staff Training	38,000
Research Support: data analysis, training, publications.	100,000
Contingencies	13,000
Sub-Total	<u>1,169,000</u>
Admin Support (5%)	58,400
Rasnalu Site (Appendix I)	468,300
TOTAL	<u>(Rs) 1,695,700</u>

GRAND TOTAL YEAR 1

(US\$) \$58,472

YEAR 2

Year 1 plus 5% for inflation	61,396
International Travel and PerDiem	3,000
Computer Equipment	5,000
GRAND TOTAL YEAR 2	<u>\$69,396</u>
GRAND TOTAL YEARS 1 AND 2	\$127,868

ANNEX I

RASNALU SITE

UMN has agreed to include in this budget provisions for the Rasnalu site for an initial six month period. During this time, UMN will send a review team to Rasnalu to conduct a feasibility study to determine possible UMN involvement with this site. When the decision is made to proceed, the budget itemized below, will be utilized. During this interim period, through this budget, UMN will pay salaries and provide guidance to the Rasnalu site manager and staff but will not provide local management oversight.

Rasnalu Budget for Year I

Salaries	156,000
TA/DA	30,000
Maintenance/rent	40,000
Office supplies/equipment	20,000
Training materials	20,000
Community support	100,000
Staff training	20,000
Research support	50,000
Contingencies	10,000
Sub-total	446,000
Admin support (5%)	22,300
TOTAL	Rs 468,300