

6. El propósito de este proyecto es identificar y preparar el diseño de un proyecto masivo de reforestación, que involucre la participación de agricultores y comunidades rurales en áreas críticas del país. CATIE, a través del programa de Fuentes Alternas y Renovables de Energía y el proyecto Madeleña posee una gran experiencia y ha generado muchos conocimientos en investigación silvocultural y socio-económica, así como en la disseminación de información en diferentes regiones del país. Este proyecto constituirá un importante mecanismo para proteger y preservar los Recursos Naturales, especialmente el suelo y las fuentes de agua que garantizan la práctica de agricultura intensiva. Las actividades detalladas en este convenio serán ejecutadas y coordinadas por el equipo profesional de CATIE.

The purpose of this project in Guatemala, is to identify and prepare a massive reforestation project which includes the participation of farmers and communities in priority regions. CATIE, through the Fuelwood and Alternative Energy Sources and Tree Crop Production (Madeleña) Project has gained a wide range of knowledge and experience in silvicultural and socio-economic research and the dissemination of information in different regions within Guatemala. This reforestation project will be an important mechanism to protect the natural resources, specially soils and water sources for intensive agriculture practices. The activities described within this Limited Scope Grant will be coordinated and carried out by CATIE.

7. POR EL DONATARIO
FOR THE GRANTEE

POR LA AGENCIA PARA EL DESARROLLO
INTERNACIONAL (AID)
FOR THE AGENCY FOR INTERNATIONAL
DEVELOPMENT

Rodrigo Tarté

Anthony J. Cauterucci

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Director, CATIE

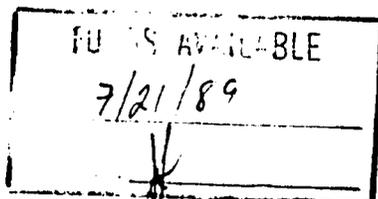
USAID/Guatemala Director

FECHA - DATE

FECHA - DATE

8/15/89

8/11/89



PROJECT DESCRIPTION

A. PROJECT PURPOSE:

CATIE, through the Fuelwood and Alternative Energy Sources and Tree Crop Production (Madeleña) Projects in Central America, and particularly in Guatemala, has gained a wide range of experience in silvicultural and socio-economic research and the dissemination of information in different regions within Guatemala. Technical personnel within the CATIE's Area of Forestry and Agroforestry Production have the necessary experience and capability to design and formulate forestry projects with a social orientation contributing to the improvement of the living conditions of rural inhabitants, in particular, and to increasing national development, in general.

The activity proposed here intends to coordinate, organize and prepare, with the support and participation of the national institutions within the public agricultural sector and especially those involved in forestry development, a large scale reforestation project involving the participation of the national forestry development institutions.

CATIE foresees the formulation of a project designed to solve problems at the level of the small and medium farmers, in agreement with Guatemala's national development priorities, and to promote the sustained use of natural resources.

Tentatively planned is the formulation of a project with goals sufficiently ambitious to solve problems in a definitive form related to social reforestation.

B. BACKGROUND:

1. Definition of the problem

Guatemala, with a total land area of 108,889 km², has 82% of its territory classified as mountainous and high elevation areas. Around 51% of this has shallow soils, 14% has deep but poor soils and 35% deep and fertile soils. Under traditional land-use classifications, 51% of the total area is classified for forestry production and protected areas, 21% for perennial crops associated with forestry plantations and the remainder for intensive agriculture and annual crops (Leonard, 1986).

Forested areas in Guatemala show widespread deforestation. Each year forests are being reduced by 600 Km², leaving at this time only 40% of the country with dense natural forests. A massive degradation of forest ecosystems is also occurring in conjunction with this decrease in forested areas.

Around 80% of the population utilizes more than 7.8 million m³ of fuelwood each year to cook their food. Rural industries also utilize around 2 million m³ of fuelwood as the principal energy source for the production of salt, lime, bread, bricks, tobacco, coffee and other products.

At this moment the small and medium farmer is risking his long-term agricultural productivity through the adoption of agricultural practices that cause ever greater degradation of the natural resource base on which he depends. The tree, which has always formed a part of the traditional agricultural system, has practically disappeared. This situation has promoted environmental degradation and hurt the family economy by making it necessary for the farmer to spend increasingly more time collecting fuelwood or even more scarce cash resources to purchase it.

Currently, there exists an inadequate understanding of the importance of reforestation. In Guatemala, traditional reforestation projects have had a commercial orientation with long-term rotations of timber species. Because of this past commercial orientation, and also because many farmers still do not fully understand the function of trees within the farm, many farmers believe the production of tree products is a long-term goal in conflict with their short-term needs. Other factors that have acted as disincentives for reforestation are restrictive forest laws, the lack of knowledge of fast-growing tree species and their different characteristics, and the lack of knowledge of potential markets for the forest products from small farms.

At this time there is great interest in forestry activities in Guatemala, evident in the Vice-President of the Republic's declaration that the management of forest resources is of national interest. He has instructed national institutions to increase forestry programs and projects that generate employment, income and help rehabilitate the environment.

Many areas of Guatemala have land needing social forestry programs; these include areas in the south coast, the southwest, and the central and west altiplano. One advantage to the development of participative reforestation projects in these same areas is past experiences with this type of activity.

2. Current projects

As an initial step to finding a solution to problems of deforestation and the decreasing supply of forest products, several forestry/reforestation type projects have been implemented or are currently being carried out. These include the Fuelwood and Madeleña Projects, carried out by CATIE and the national forestry institution DIGEBOS, that have

contributed technical solutions based on the utilization of multipurpose tree species (MPTS) within agricultural systems in different sites and socio-economic conditions; the DIGEBOS-CARE-Peace Corps sponsored reforestation projects in various communities; and AID supported activities in the management of forests and reforestation with indigenous communities in the central and west altiplano. There are also non-governmental institutions (NGOs) such as the Corporation Guatemalan-German Food for Work, Friends of America, CEMAT, the Penny Foundation, and other agencies that support and carry out reforestation with specific communities. However, despite the efforts of these discrete activities, it has not been possible with the limited resources of these institutions to achieve reforestation on the scale needed, given the magnitude of the problem.

C. PROJECT DESIGN PLAN:

CATIE, through the professional personnel of the Madeleña Project and the support of the national forestry institutions, will formulate a large scale reforestation project which will introduce massive tree planting in priority regions in Guatemala. Essential to the development of this project will be a mandate to solve problems of small and medium sized farms through a reforestation program that also will satisfy the farmer's forest products needs (wood for construction and energy), help protect the soil, increase employment, better the environment and contribute to rural development.

The point of departure for the design process will be the project profile entitled "Reforestación Agroforestal" which was prepared for the Office of the Vice President of Guatemala by a team including staff from USAID/Guatemala, ROCAP, DIGEBOS and other Guatemalan institutions. The profile, attached to this Grant Agreement, provides further detail on the characteristics of the project to be implemented resulting from the design work to be conducted by CATIE under the Agreement. This project to be designed by CATIE will receive the support of the Vice President, who has committed himself to looking for the financial resources to carry it out on a national level. (CATIE, under this Grant Agreement, will implement the project in pilot areas.) This proposed project is to be carried out by NGOs which will organize and carry out an incentive scheme that encourages farmers to plant multi-purpose trees on their own land. The project plan and preparatory work resulting from this design process will be the foundation for the financial agreements and implementation of this ambitious project.

The process of designing the project includes the following stages:

1. Development and approval of a detailed work plan.

As a first step CATIE will prepare a detailed work plan for the design of the project. The plan will be formulated in

collaboration with DIGEBOS, the Office of the Vice Presidency and other entities which will be directly involved in the design. It will be submitted to USAID for approval whereupon it becomes a binding attachment to this agreement.

The work to be carried out under this agreement will not be limited only to preparation of a project document, but to the extent possible will include implementation of some preparatory and start-up activities, such as training and the initiation of pilot operations.

These activities will be conducted by the Madeleña Project and will be defined during the preparation of the detailed work plan and will include:

- A course for the training of promoters.
- Planning and execution of actions to complete the demonstration farms and units, in order to show to the farmers the possibilities of Multiple Purpose Trees production.

2. Identification and deployment of international consultants.

CATIE will identify and assign the international consultants who will develop the project. Initially contemplated for this effort is the participation of the silviculturists Héctor Martínez and Rodolfo Salazar, the economists Carlos Reiche and Manuel Gómez. The Madeleña Project will contribute without charge the participation of the extensionist Carlos Rivas, anthropologist Stanley Heckadon and the General Project Coordinator Ronnie de Camino.

To increase the probability of acceptance of the project by an international funding agency, CATIE will make a special effort to invite potential donors to participate on the design team once promising donors have been identified by the Government of Guatemala. CATIE will also inform potential donors at periodic intervals of the advances in the project design, through appropriate meetings.

3. Identification of collaborators in the national institutions concerned with forestry development.

The purpose of this activity is to identify, in consultation with the various agencies identified below, whom among their professional staff should be involved in the definition of priority areas, surveys, contacts with institutions and communities and other design activities.

Given the fact that Guatemala is about to embark on preparation of the Tropical Forestry Action Plan with financing from USAID, the design process will coordinate closely with and contribute to this effort.

Following is a tentative list of institutions to be consulted: DIGEBOS, USPADA, SEGEPLAN, Vice-president of the Republic, IGN, CONAMA, ASINDES, Amigos del Bosque, CARE, IICA, AID, ROCAP, Guatemalan university faculties, Forestry School, and the School of Silviculture at the University of San Carlos in the Northwest University Center, independent technical personnel and other institutions to be identified during the planning stage of the project.

Because it is foreseen that the resulting project will be implemented primarily by NGO's, a special effort will be made to identify and work with those NGO's with the potential to participate in social reforestation projects. Part of the design process will be to screen potential NGO's and assist them to take the steps needed to become effective participants in the project.

4. Identify and define the priority working areas for the Project.

In this stage the priority areas for the execution of the Project will be defined through consultations with the previously mentioned technical personnel and in agreement with the strategic plans of the Ministerio de Agricultura, Ganadería y Alimentación, and with the priorities established by the Dirección General Forestal y de Vida Silvestre. Tentatively three regions with potential for development under the Project have been identified: central and western highlands, agrarian settlements on the south coast and the southeastern region. However, the regions still need to be prioritized in the order in which they will be the focus of project activities now and in the future and within the regions communities where tree planting will begin need to be identified.

5. Collection and presentation of background information on the priority areas identified.

During this stage technical teams will collect socio-economic and ecological data for the identified priority areas. This base-line information will permit the definition of the scope of the Project, assist in identifying the priority species to be used, and identify what additional technical information is needed for these same species. The information to be compiled will include climatic and soils data needed to match species to sites. Such information should help determine the expected seed demand with the identification of possible seed sources, the production of plants in nurseries, the planting systems to be used with emphasis on agroforestry systems, and the maintenance of these plantations.

The collection of socio-economic information will focus on the following variables: location, size and other characteristics of possible target communities, potential markets for forest products, experience with the tree component on the farm, employment, income and social organization. Among other uses, this information will serve to determine the technical assistance and extension needs for the project.

6. Development of sub-projects in the identified areas.

The definition of the sub-projects will be made in strict collaboration with the national authorities, the NGO's, the communities involved and the farmers in the selected areas. It is expected that the sub-projects be carried out by different NGO's.

In order to obtain community and farmer participation, field days with a motivational orientation will be organized in areas where there has been prior experience with fast growing multi-purpose trees. Afterwards, work sessions utilizing the method "Planning for Objectives" (ZOOP) will identify and develop the following elements: identification of the participants, analysis of the problem, analysis of the objectives, design of the project (including specific products and activities).

7. Integration of the final project document.

With this information the design team will have the necessary elements for development of the sub-projects and the overall project paper, including a description of the project, the needed information, the recommended organizational structure, the budget and financial analysis, and the monitoring and evaluation plan. Intermediary products as well as the final document will be presented to USAID and the main participating institutions for review, according to a schedule laid out in the work plan.

In this stage it is planned to identify the NGO's that will execute the Project and the organization responsible for coordination and supervision. Once this coordinating organization is defined, the evaluation and follow-up program will also be designed.

8. Implementation of activities to facilitate start-up.

The team will help initiate certain actions needed to accelerate start-up and progress:

- As stated in 1. a short course for teaching technicians to train promoters will be held with the corresponding teaching materials.

- Establishment of demonstration plots with multiple purpose trees in "Centros de Diversificación" of the Ministry of Agriculture and in private farms in order to have a network of demonstration units to support promotion and extension activities.

Both activities will be closely linked to activities of the Madeleña Project.

D. OUTPUTS

Under this Limited Scope Grant Agreement, the following outputs will be produced:

1. A detailed project proposal for the Multi-Purpose Tree Reforestation Project.
2. A detailed workplan for the project design including a Gantt chart, proposed project outputs and project budget.
3. An analysis indicating the institutional viability of the project and limitations of each participating organization.
4. A map showing the proposed geographical locations for project interventions.
5. 25 promoters trained in agroforestry techniques in preparation for the project implementation.
6. A study identifying and validating tree species appropriate for each proposed project intervention location (see 4).

E. PROJECT MANAGEMENT AND TIMETABLE:

1. Estimate of Time Requirements of CATIE International Consultants

The participation of CATIE's international personnel assumes there will be professional counterparts who will work in close collaboration with the international team during the consultancy. These professional counterparts should be provided by DIGEBOS and the NGO's forseen for future implementation.

one silviculture coordinator	4 person months
one economist (full-time)	4 person months
one support silviculturist	1 person month
one support economist	1 person month

CATIE will contribute to the execution of the project by providing one person month of the Madeleña Project extensionist and one person month of the social scientist during the development stage of the sub-projects and during the integration of the sub-projects into the global project.

CATIE also will contribute with one man month of the Madeleña Project Regional Coordinator, which will be distributed throughout the duration of the consultancy.

2. Estimated Time of National Consultants

permanent technical assistant	5 person months
technical assistants (3) for collection of background information	3 person months

technical assistants (2) for development of sub-projects	2 person months
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soils consultant	2 person months
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3. Schedule

	<u>Aug.</u>	<u>Sept.</u>	<u>Weeks</u>		
			<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>
1. Development of detailed work plan	1				
2. Identification of support technicians	2				
3. Identification and definition of priority areas	3-4				
4. Collection of background information		5-8			
5. Development of sub-projects for areas			9-12	13-14	
6. Integration into global project paper			15-16	17-18	
7. Definition of monitoring and evaluation plan/system					19
8. Final presentation					20

PERSONNEL

4 p/m Silviculturist
4 p/m Economist
1 p/m Silviculturist
1 p/m Economist
5 p/m Nat. consultants
3 p/m Nat. consultants for ZOOP
2 p/m Nat. consultants Soil studies

CATIE's contribution

1 p/m sociologist
1 p/m extensionist
1 p/m regional
coordinator

TRAVEL AND PER DIEM

10 round trip tickets to Guat.	US\$ 2,000
per diem US\$ 90 x 120 days/h	US\$10,800
US\$ 45 x 228 days/h	US\$10,260

Administration costs are 30% of the total budget

F. TITLE OF PROPERTY:

Upon termination of the Grant, all studies and reports financed with funds under the Grant shall become property of USAID/Guatemala.

G. PROPOSED BUDGET:

An amount of \$ 86,333.00 is proposed as per attached budget, in order to undertake the activities described in the limited scope grant agreement.

ILLUSTRATIVE BUDGET
To Support CATIE
Under The Participative Reforestation Project in Guatemala

		<u>US\$</u>
<u>Personnel</u>	*	38,250.00
Secretarial Support	*	
Technical Support	*	
Consultants		
International Consultants		38,250.00
4 p/m Silviculturist (\$4,000/p)		
4 p/m Economist (\$4,000/p)		
1 p/m Silviculturist (\$4,000/p)		
1 p/m Economist (\$2,250/p)		
(10 person/months)		
National Consultants	*	
(10 person/months)		
Fringe Benefits	*	
 <u>Travel and Per Diem</u>		 23,260.00
In Country Travel	*	
International Travel		23,260.00
10 round trip tickets		
to Guatemala (\$ 2,200)		
per diem US\$90x120		
days/h (\$10,800)		
US\$45x228		
days/h (\$10,260)		
ZOOP Participants	*	
 <u>Communication-Materials</u>	*	
Office Material		400
Audiovisual Material		2,500
 <u>Transportation</u>	*	
Car	*	
Plane	*	
 <u>General Expenses</u>	*	
Office Rent	*	
Rental of Meeting Room	*	
Microcomputer Rental		2,000
Contingency	*	
Administration Costs US\$ (30%)		19,923.00
Administration Costs Quetzales	*	
Total US\$		86,333.00

* Funded in Limited Scope Grant Agreement in Quetzales

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