CENTRO AGRONOMICO TROPICAL DE INVESTIGACION Y ENSEÑANZA
(CATIE)

Programa de Recursos Naturales ~~Renovables~~

"DEVELOPMENT OF ADAPTED METHODOLOGIES AND TECHNIQUES FOR FIREWOOD PRODUCTION"

Summary of Project Proposal

Turrialba, Costa Rica
September 1979

DEVELOPMENT OF ADAPTED METHODOLOGY AND TECHNIQUES FOR FIREWOOD PRODUCTION

1. Introduction

The sharp rise in oil prices and the products derived from it by the shortage of this non-renewable energy source leads to the necessity to increase our knowledge about the production and consumption of other energy types. The Central American low-income population uses fuelwood and charcoal as its principal energy source. Due to the increase in population density and, consequently, the reduction of the area under forest cover, the supply of fuelwood and charcoal becomes more and more critical, especially in the densely populated rural areas in the Central American Isthmus, Fuelwood and charcoal are the main energy suppliers for home-use, however, very little reliable data exist about the sources, their relative importance within the communities. The scarcity of this simple energy source has resulted in increased prices, in some cases to such a level that families spend as much as 15% or more of their income (or time) for the purchase of firewood, or dedicate much time in carrying it from long distances to their homes.

Moreover, Central America is confronted with a constantly rising demand for timber and other forest-derived products. Even theoretically, natural forests could barely fulfill this demand, but the fact that these forests are found mainly in remote areas, far from consumption centers, implies that these natural forests do not offer a practical solution to the problem. A promising alternative is the intensification of wood production in areas close to consumption centers, using fast growing species. Some trials have already been carried out in different areas in Central America, but a number of promising firewood species still has to be tested in certain ecological zones. A limiting factor in the implementation of species trials in the reduced availability of seed of high quality and known origin. The development of national seeds banks and an improvement in the cooperation between them will be beneficial for other forestry projects in the Central American countries. To find a solution to these problems, a regional approach is urgently needed and CATIE is in a particularly favorable position to deal with them on the basis of his past experience and development in the area.

2. Objectives

1) Develop a methodology which makes it possible to determine the fuel balance in rural communities.

2) Increase the knowledge about the growth of potential promising tree species in different ecological zones in the Central American countries.

3) Improve the supply of the same countries with viable well processed and adequately stored seeds, harvested from selected parent trees.

4) Improve training at different levels and promote the dissemination of the project results.

3. Strategy

In order to fulfill the objectives the following project phases are foreseen:

re 1. a) Select areas with high rural population density and identify the existing farming systems.

b) Collect data and quantify energy (especially fuel) flows in the production systems.

c) Develop a hypothetical fuel balance methodology; select technologies that influence the fuel balance within specific critical areas.

d) Implement technologies (under 2), and analyze the evaluation.

e) Refine the methodology based on data resulting from the evaluacion phase.

re 2. f) Select species for production of trees of the potentially promising species in nurseries.

g) Select trial sites; follow up with species introduction trials in critical and potentially critical areas.

h) Analyze the performance of the species throughout the project period.

re 3. i) Set up and strengthen forestry seed banks at the country level.

j) Improve seed collection, processing, and storage methods for the most important tree species.

re 4. k) Organize training at different levels and apply known information techniques for the dissemination of project results.

4. Actual Status

This project will take advantage of the flow of information generated by the project called "Fuelwood and development of alternative energy sources" to be implemented by CATIE and ICAITI. This project will start in January, 1980, and will cover a period of 6 years. The outputs which are foreseen in this project, as far as the CATIE component is concerned, are the following:

1. Identification of critical and potentially critical areas.

2. Identification of promising fuelwood species already tested in the Central American countries, collection of growth data and determination of social acceptability to these species.

3. Selection and adoption of adequate management practice for fuelwood plantations.

4. Promotion of fuelwood demonstration units (farm woodlots, village woodlots, fuelwood plantations, small farm agroforestry plots.

5. Strengthening of CATIE's and national institutions' capabilities in the field of fuelwood production.

In turn, the proposed project, which should be regarded as complementary to the fuelwood project, will produce improved technologies and other results directly applicable to this and to other Central American forestry projects.

5. Gross budget

	US$
Personnel Costs	550,000,00
Operational Costs	759,000,00
Administration	225,000,00
TOTAL/6 YEARS	US$1,534,000,00