Technology development and demonstration on reforestation using tropical hardwood species in Yunnan Province of China

Final Report

PD 38/98 Rev. 2 (F)

I. Introduction

The project was approved during the 25th Session of the Council and fully financed by the Governments of Japan, Switzerland, The Netherlands and Australia during the same Session. The agreement regulating the implementation of the project was signed on 3 October 2000 and the first disbursement of funds was made on 1 December 2000.

II. Project Objective

The project aimed to contribute to the sustainable social and economic development of the tropical mountain forest areas in Yunnan Province through development and demonstration of sustainable reforestation technologies with active participation of forestry related research and development agencies and local communities, especially the indigenous forest dwellers and resettled populations. Its specific objectives were to: i) establish the sustainable technologies for different reforestation management models with tropical hardwood species at both large and small scales, ii) create a genetic improvement base of selected hardwood species for further development, and iii) transfer the established technologies and working experiences to forestry officials and extension workers and local communities in Yunnan Province.

III. Project Strategy and Activities

The project design planned two phases. The first phase that has been completed consisted of three basic components, i.e. investigation and development of reforestation technologies including nursery and study on the socio-economic impacts of different reforestation models, trials on tree genetic improvement, and demonstration of and training on the developed technologies. There were 59 planned project activities and all of them have been completed successfully.

IV. Project Achievements and Outputs

Achievements and outputs of the Project Phase I can be summarized as follows:

- A one-hectare central nursery was established and operational;

- Nursery and planting techniques for selected tree species were identified and disseminated;
- Strategic plan for genetic improvement of selected hardwood species was developed;
- Genetic pool of promising tree species was established;
- Two provenance-family combined trials of Paramichelia baillonii and Betula alnoides with a total area of 20 Ha were established;
- A total of 100 Ha of household-based forest plantation was established in three Counties;
- A manual on tropical reforestation techniques using selected hardwood species was developed, published and disseminated;
- An international symposium on tropical reforestation using hardwood species was held in Guangzhou, Kunming;
- Three training courses each for local forestry officials, forestry extension workers and community leaders were completed with ninety trainees; and
- Six key Project Staff had participated in different international and regional workshops on tropical reforestation.

V. Target Beneficiaries Involvement

The local farmers and forestry workers of the Simao, Jiangcheng and Menglian Counties were employed as appropriate to implement various project activities in the field. Through their participation in the project operations they had directly learned the reforestation technologies that are also applicable to their own lands. The project activities were conducted by the project team members comprising scientists and staff of the Yunnan Academy of Forestry and Research Institute of Tropical Forest (RITF) and by the professionals recruited from other institutions. Government Forestry Agencies at different levels have also benefited through the information generated by the project which is useful in policy-making regarding selection of suitable native tree species, application of mixed planting technologies and adoption of superior propagation of planting materials.

VI. Lessons Learnt

Lessons learnt from the implementation of the project include:

- In selecting the species for reforestation priority should be given to native species with due attention to the benefits accruable to local communities;
- Species-site matching is crucial to successful reforestation thus must be carried out accurately;
- It is imperative to clearly define the roles and responsibilities of each of the parties involved in the project implementation prior to commencing the project operations in order to avoid confusion and inefficiency at later stage; and
- The establishment of the Project Steering Committee (PSC), Project Management Office (PMO) and the Guangzhou Liaison Office (GLO) was proved to be contributing substantially to the smooth implementation of the project.

VII. Dissemination of Results

The project results have been disseminated through the various discussions, workshops and trainings conducted during the course of the project and through the publications both in Chinese and in English. The Completion Report and Technical Report are available from the ITTO Secretariat upon request.

VIII. Recommendations Related to Future Work

- Using the indigenous tropical hardwood species for future reforestation is highly recommended. They can facilitate the development of diversified forest structure and plant community layers, thus conserve biodiversity and soil fertility;
- For a project of the kind, sufficient resources should be allocated for identification studies;
- Demonstration plots for the application of the reforestation technologies developed are essential for local farmers and other stakeholders to improving their awareness on forest conservation, sustainable utilization and income generation through tree planting and should be included in the project design;
- For a phased project, time gap between phases should be as short as possible in order to sustain achievements of the completed Phase and preserve established momentum; and
- It is essential to establish a Project Management Office (PMO) with clearly defined SOP (standard operating procedures) based on the project agreement and the rules and procedures applying to ITTO projects.

IX. Concluding Remarks

As the ITTO Secretariat has received the Project Completion Report, Technical Report and Final Financial Audit Report, the project can be considered as completed.