

Guideline for tackling the decrease in forest resources using the CDM programmes of activities

The decrease in forest resources is a pressing problem in Paraguay. One proposed solution to tackle this problem nationwide was to promote reforestation through the implementation of a Clean Development Mechanism (CDM) project. JIRCAS established Paraguay's first CDM project, which was successfully conducted in Paraguari Department in the eastern part of the country. In order to apply the results of the CDM project to other areas in Paraguay, JIRCAS conducted similar CDM projects in five departments under a Programme of Activities¹, which is a CDM support structure, and tried to form an extendable reforestation programme CDM with governmental bodies in Paraguay. However, specific methodologies and techniques for forming a reforestation programme CDM have yet to be established because there had been no previous registration or track record with the United Nations CDM Executive Board.

Consequently, JIRCAS developed a guideline describing the following: 1) the preparation of a Project Design Document, which is essential for forming the programme CDM; 2) the establishment of a coordinating and managing entity in Paraguay; and 3) the calculation of the volume of greenhouse gases (GHGs) absorbed by planted trees (Table 1).

The guideline also included JIRCAS's recommendations for small-scale farmers on conducting reforestation activities appropriately and efficiently, such as the reduction of seedling weight by changing the planting method from "old-style pot type" to "tube type", and the establishment of a reforestation promotion method consisting of a series of progressive reforestation activities (Fig. 1). Furthermore, to improve the livelihood of small-scale farmers, JIRCAS evaluated the profitability of eucalyptus planting and developed indicators for nurturing forests to ensure the profitability (Fig. 2). The feasibility of the reforestation promotion method has already been verified by officials of the National Forestry Institute of Paraguay.

The guideline is expected to be utilized for the preparation of Nationally Appropriate Mitigation Actions (NAMAs), which promote GHG emissions reduction in developing countries and whose national target for GHG emissions reduction in Paraguay was submitted for compulsory action to the 21st Conference of the Parties (COP21) of the United Nations Framework Convention on Climate Change (UNFCCC). To ensure the accuracy and reliability of GHG emission reduction calculations, they need to follow a series of actions such as measurement, report, and verification when they create a NAMA. Accordingly, this guideline, which is based on CDM methodologies and in line with the strict rules of the United Nations, has satisfied the appropriate standard.

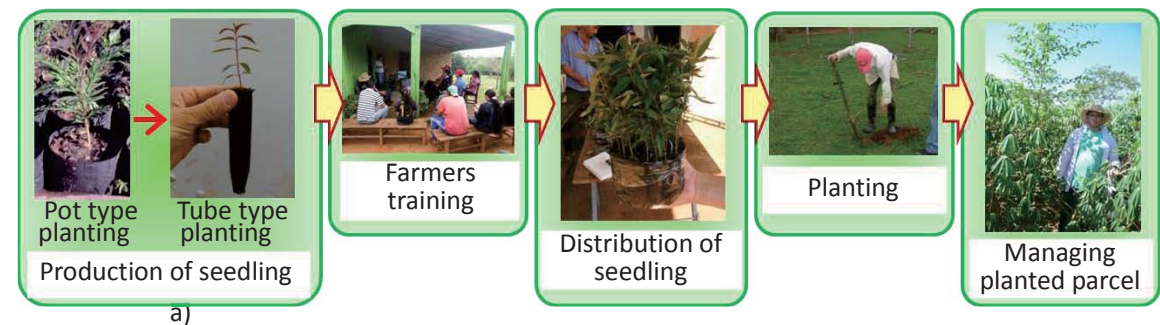
It is possible for surrounding countries to utilize the guideline because Spanish, Portuguese, and English versions have also been prepared. This guideline can be viewed and downloaded from the JIRCAS website through http://www.jircas.affrc.go.jp/english/manual/manual_index.html

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¹ The CDM Programmes of Activities (the programmes CDM) has a property such that component project activities adapting the same technology and methodology during the project period can be added to the programmes CDM.

Table 1. The main structure and contents of the guideline

Introduction		Background and Objectives, Summary of activities, Structure and Content of Guideline and Use of Guideline
Chapter 1	Overview of the Reforestation Programme CDM	Overview of the Programme CDM, CDM flow, Role of the coordinating and managing entity, Contents and Organization of Project Design Document
Chapter 2	Efforts to form a Reforestation Programme CDM in Paraguay	Methodology and typology of the adopted CDM, Selection of Project boundaries, Formation of the Programme of Activities and Component of Project Activity (Establishment of Coordinating and Managing Entity, How to plan and implement the reforestation promotion method)
Chapter 3	Methods for Calculating Anthropogenic GHG removals	Applied CDM methodologies (AR-AMS0007ver03.1), Calculation of Anthropogenic GHG Removals
Chapter 4	Profitability Analysis	Profitability Analysis Procedures and Care Study



Box a) Pot type planting: Diameter 10cm, Height 13cm, and Volume 1000cm³
 Tube type planting: Diameter at the top (2.5cm) and bottom (1.0cm), Height 12cm, and Volume 60cm³
 * The change of planting type resulted to weight reduction, saving of production space, and improved distribution of seedlings.

Fig. 1. The Reforestation Promotion Method

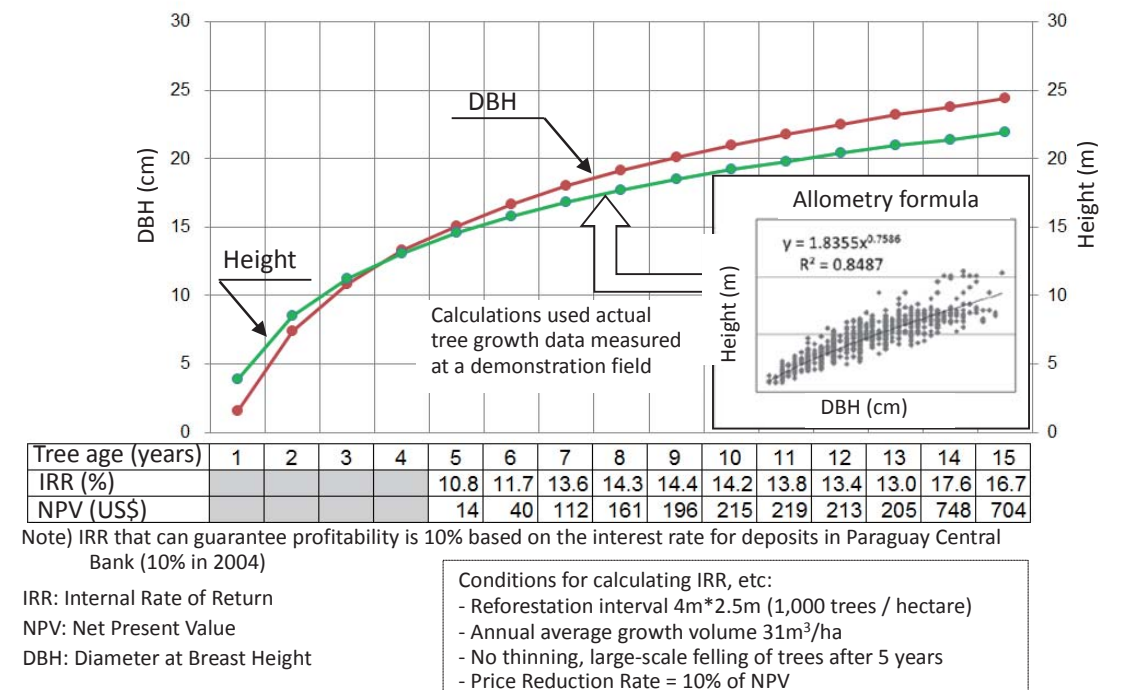


Fig. 2. Indicators for nurturing forests and desired IRR to ensure the profitability of eucalyptus planting