ITTO PD 386/05 Rev.1 (F)

TECHNOLOGICAL DEVELOPMENT FOR THE PRODUCTION OF PLANTING MATERIALS TO SUPPORT SUSTAINABLE PLANTATION OF BALI INDIGENOUS SPECIES THROUGH COMMUNITY PARTICIPATION

REPORTING ACTIVITY 6.4 MAINTENANCE OF DEMONSTRATION PLOTS OF 4 SPECIES (Fagara rhetsa, Manilkara kauki, Alstonia scholaris, and Wrightia pubescens) 150 Ha

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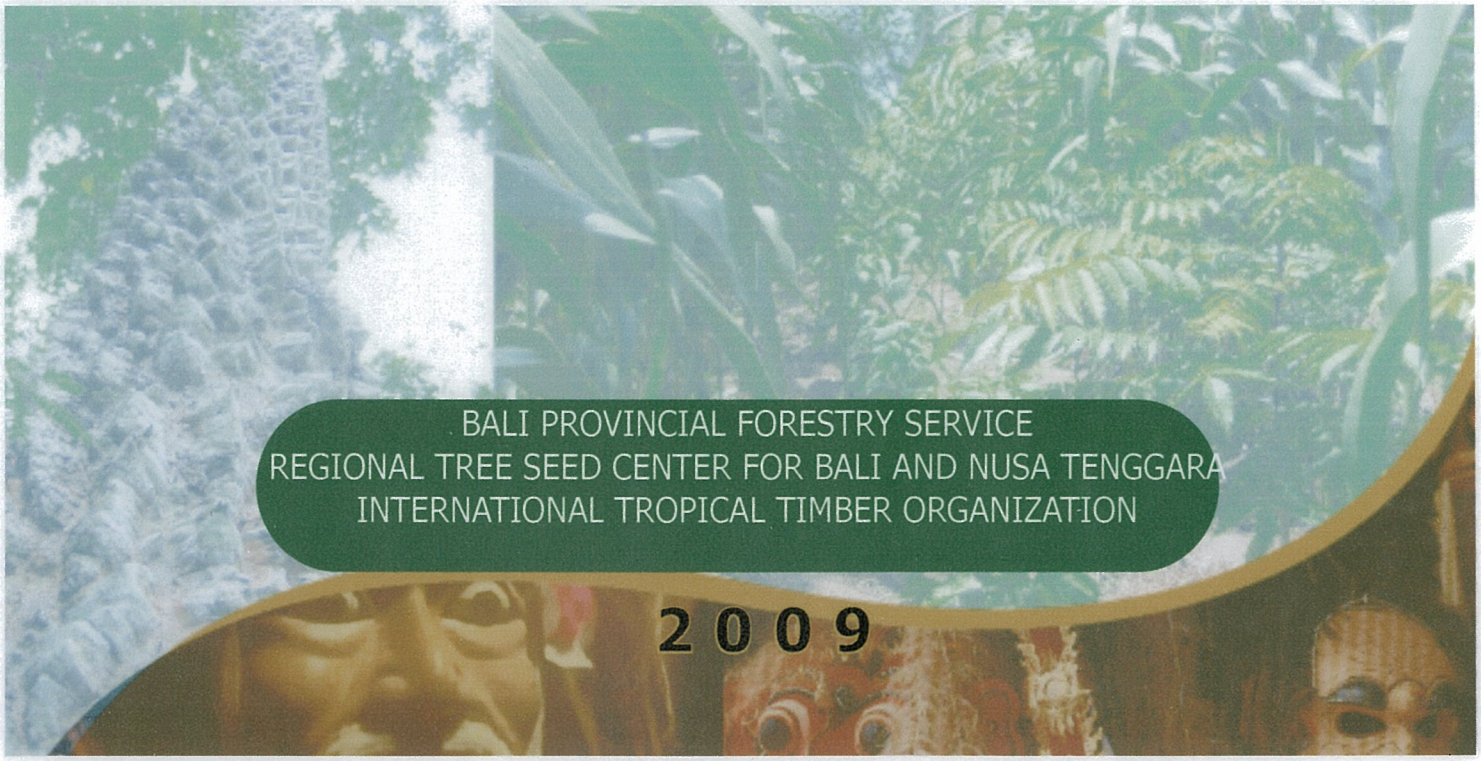
PROJECT EXECUTING TEAM



BALI PROVINCIAL FORESTRY SERVICE
REGIONAL TREE SEED CENTER FOR BALI AND NUSA TENGGARA
INTERNATIONAL TROPICAL TIMBER ORGANIZATION

2009

Reporting
Activity 6.4. Maintenance of demonstration plots of 4 species (*Fagara rhetsa, Manilkara kauki, Alstonia scholaris,* and *Wrightia pubescens*), 150 Ha

Project Executing Team ITTO PD 386/05 Rev.1(F)

Bali Provincial Forestry Service and
Regional Tree Seed Center for Bali and Nusa Tenggara and
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CONTENTS

LIST OF TABLE

LIST OF FIGURE

SUMMARY

In general, maintenance of demonstration plot of *Fagara rhetsa, Manilkara kauki, Alstonia scholaris*, and *Wrightia pubescens* have been done as scheduled. However, due to insufficient funding, maintenance of around 129 Ha of demonstration plots have been carried out by farmer group who working on the plots with no financial support from the project. Intercropping by farmers has made the plots well maintained. The rest of the area (21 Ha) where the farmers declined to participate in the agroforestry scheme has been maintained by the project comprising shrubs cleaning and replanting the death trees with new seedlings.

1. INTRODUCTION

Since 2003, under the ITTO project PD 137/02 Rev. 2 (F) : Demonstration Plantation of *Fagara rhetsa*, *Manilkara kauki*, *Alstonia scholaris* and *Wrightia pubescens* to Promote Sustainable Bali Natural Forest, the establishment demonstration plot of Bali's potential forest tree species was conducted. The project was done under the scheme of cooperation between ITTO, Ministry of Forestry and Bali Provincial Forestry Service. The project was designed to address the issue of restoring the supply of indigenous timber species used in handicraft home industry of Bali. The demonstration plantation plot model has been established on 2004. The plots were planted with crops such as corn, peanut, and chili in agroforestry model.

Sustainability maintenance of demonstration plots have been conducted by farmer groups who working on the plots as shrubs cleaning and fertilizing. While the Provincial Forestry Service have been done monitoring of the area.

In 2006, through the ITTO project PD 386/05 Rev.1 (F) "Technological Development for the Production of Planting Materials to Support Sustainable Plantation of Bali Indigenous Species through Community Participation" the maintenance of the plots would be continued comprising shrubs cleaning and replacing the death trees with new seedlings.

2. MAIN TEXT

The maintenance of demonstration plot for 4 species (*F.rhetsa, M.kauki, A.scholaris*, and *W.pubescens*), 150 ha have been conducted in collaboration between the project and 3 groups of farmer who working in the plots, namely, Munduk Sari, Kepah Lengkong, and Bajul Jaya farmer groups. Intercropping by farmers has made the plots well maintained because they conducted maintenance such as shrubs cleaning and fertilizing during planting the crops. The crops that planted were corn, peanut, and chili

Regarding to insufficient funding, the project just maintained the area of 21 ha where the farmers declined to participate in the agroforestry scheme comprising shrubs cleaning and replacing the death trees with new seedlings, whereas the others maintained by farmer groups involved.

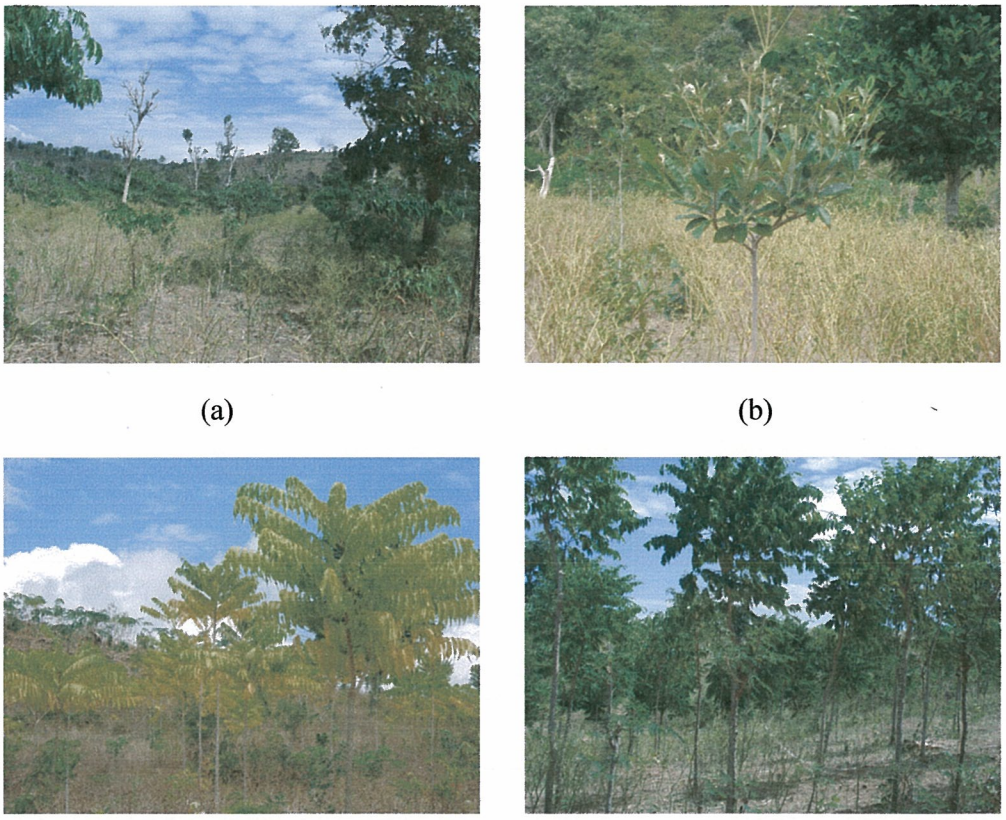
Besides maintenance, the project also have done monitoring and evaluation the plots. Measurement of the trees was implemented on July 2008, the result of the evaluation as shown in table 1. below:

Table 1. Condition of the demonstration plots on July 2008

No	Farmer Group	Area (ha)	Species	Average of Height (m)	Growth Percentage (%)	Remark
1.	Munduk Sari	25 25	*W.pubescens* *M. kauki*	3.5 1.8	76.23 66.40	Spacing 4 x 2 m
2.	Kepah Lengkong	50	*A. scholaris*	1.7	56.40	Spacing 4 x 2 m
3.	Bajul Jaya	50	*F. rhetsa*	3.8	65.04	Spacing 4 x 2 m

Fagara rhetsa have highest size than the others, while *Alstonia scholaris* have smallest size than the others. That is assumed that the farmers who working in the area of *F.rhetsa* well maintenance of the trees, the other way for the farmers who working in *A.scholaris* area. *M. kauki* have growth rate more slowly than the others, because *M. kauki* need longer time to grow comparing the other species.

Referring to criterion of growth percentage that issued by Bali Provincial Forestry Service year 2004, the plots categorized moderate-maximal in trees density with healthy growth.



(a) (b)

(c) (d)

Figure 1. Demonstration plantation plot of (a) *Alstonia scholaris*, (b) *Manilkara kauki*, (c) *Fagara rhetsa*, and (d) *Wrightia pubescens*

Figure 2. Monitoring activities of demonstration plantation plots

Figure 3. Replacing the death trees with new seedlings

Constraint during maintenance of the plots mainly is limitation of rainy season. The growth percentage of the plots was not well enough due to insufficient water for the trees.

3. CLOSING

According to evaluation, the trees was growing well enough in general with criteria as health trees, straight stem and fulfill minimal height.

The growth percentage of *Fagara rhetsa* was 65.04%; *Wrightia pubescens* was 76.23%; *Manilkara kauki* was 66.40%; and *Alstonia scholaris* was 56.40%.

Monitoring and supervision on the demonstration plots should be strengthened in collaboration with *desa pekraman* (traditional organization in village level).

In spacing of 1 m from the mean trees should not plant the crops in order to maximally growth of the trees.