

ANNEX 3: SILVICULTURAL GUIDELINES

Main activities	Technical measures	Detail description of Works
I. Forest plantation	1. Vegetation clearing	<p><u>Recommended season: From January to February</u></p> <p><i>(1) Planting on bare land:</i></p> <p><u>a. Site with only grass and shrub with the height of <1m:</u> Dig holes while clearing vegetation. Leave vegetation along contour lines.</p> <p><u>b. Site with very bushy vegetation with the height of >1m:</u> Remove all vegetation, cut them into small pieces and leave debris along contour lines.</p> <p><u>c. Site with very steep (>20°) and high soil erosion potential:</u> Remove vegetation partially along contour lines with one meter width belts.</p> <p><i>(2) Rehabilitation of Eucalyptus forest:</i> Clear cut Eucalyptus stands. Minimize soil erosion by leaving debris along contour lines.</p>
	2. Digging holes	<p><i>(1) Hole size for A hybrid and A.mangium:</i> 40 cm (diameter) x 40 cm (depth).</p> <p><i>(2) Prepare holes line along contour lines.</i></p> <p><i>(3) Spacing:</i></p> <ul style="list-style-type: none"> - Line to line (along contour lines): 3m; tree to tree: 2m - Density: 1660 trees/ha <p><i>(4) When digging holes, set aside top soils (A-layer) and sub-layer soils (B-layer).</i></p>
	3. Refilling holes and fertilizing	<p><i>(1) Refilling of holes should be carried out 15 to 20 days prior the planting.</i></p> <ul style="list-style-type: none"> - Refill the holes with the separated A-layer soils and add 190 g of NPK per hole. - Put the B-layer soils on the top of the holes. Do not refill the holes with roots of grasses and rocks.

Main activities	Technical measures	Detail description of Works
	4. Transporting seedlings and planting	<p><i>(1) Planting seasons:</i></p> <ul style="list-style-type: none"> - First planting season: April to May (Depending on the moisture conditions of soils, first planting season may continue to mid June). - Second planting season: August to September - Do not plant seedlings immediately at the beginning of the rainy season due to the lack of soil moisture. - It is ideal to plant seedling when the bottom of the refilled holes are wet enough and it is cloudy. - Avoid planting under a strong wind condition. <p><i>(2) Transporting seedlings:</i></p> <ul style="list-style-type: none"> - At least 7 days prior planting, ensure seedlings remain vigorous from transportation of seedlings. <p><i>(3) Planting:</i></p> <ul style="list-style-type: none"> - Dig holes small enough to fit the size of the plastic bags (pot). - Remove the plastic bags. - Place gently the seedling into the middle of the hole. - Refill with the soils around the seedling. - compress down (stumping with feet) to firm soil around seedlings, but avoid making damages to the seedlings.
	5. Beating up	<ul style="list-style-type: none"> - About 10 to 20 days after the planting, identify deceased/ damaged seedlings and then replace these (beating up).
II. Tending	1. First year	<p><i>(1) First time (about 3 months after the planting):</i></p> <ul style="list-style-type: none"> - Weeding (1-1.2 m around tree) and removal of coppices from the un-removed Eucalyptus roots. <p><i>(2) Second time (October or November):</i></p> <ul style="list-style-type: none"> - Weeding including eucalyptus shoots and hoeing around trees.
	2. Second year	<p><i>(1) First time (March to April)</i></p> <ul style="list-style-type: none"> - Weeding including Eucalyptus coppices. - Fertilize 100g NPK/hole - Hoeing 1-1.2 m around trees <p><i>(2) Second time (October or November)</i></p> <ul style="list-style-type: none"> - Weeding around trees - Hoeing 1-1.2 m around trees
	3. Third year	<p><i>(1) First time (March or April)</i></p> <ul style="list-style-type: none"> - Weeding including Eucalyptus coppices. - Hoeing 1-1.2 m around trees <p><i>(2) Second time (October or November)</i></p> <ul style="list-style-type: none"> - Weeding including Eucalyptus coppices. - Hoeing 1-1.2 m around trees.
III. Protection	From the first year to harvesting year	<p>Protection:</p> <ul style="list-style-type: none"> - Regular observation on any damage caused by pests and diseases - Prevent forest fire and cattle grazing.

Main activities	Technical measures	Detail description of Works
IV. Harvest (year 8th)	1. Cutting	<p>It is expected that harvest would be carried out by buyers. However, it is important that the forest owners know the volume of wood that they are selling. Prior to harvest, project extension workers together with owners will estimate the volume.</p> <p><i>(1) Cutting process:</i></p> <ul style="list-style-type: none"> - Felling. - Removal of branches. - Cutting into logs. <p><i>(2) Felling direction:</i></p> <ul style="list-style-type: none"> - easy for skidding. <p><i>(3) Debris</i></p> <ul style="list-style-type: none"> - It is recommended to leave leaves and branches at sites for soil protection.
	2. Skidding	<p>Skidding would also be carried out by buyers. In Phu Binh District, people mainly use buffalos or human labour in skidding logs.</p> <ul style="list-style-type: none"> - Avoid soil erosion.

**ANNEX 4: TERMS OF REFERENCE FOR
PROJECT STAFF**

1. Project Management Board staff

(1) Project Director

Duties and responsibilities

- Overall project implementation, management and supervision, and coordination with other relevant agencies and other important stakeholders.
- Provide overall guidance for project implementation and ensuring that realistic targets are set and met;
- Undertake regular supervision of project progress and implement midterm and final evaluation of the project;
- Ensure timely access to project performance information for decision making to all levels; and
- Carry out other duties as directed by the higher authorities.

Qualifications

- University degree, preferably in the field of forestry;
- At least 3 years of working experience in forestry related project;
- Knowledge of rural administration.

(2) Staff in charge of Finance & Planning

Duties and responsibilities

- Prepare an annual work plan and annual budget;
- Prepare procedures for accounts, maintenance of records and accounting for funds;
- Provide reports to financing agencies on the suitability of each application for participation and assist financing agencies to prepare loan contracts with participating households, and facilitate decisions by financing agencies on ongoing releases of funds to participating household;
- Assist PIUs for preparing annual work plans and maintenance to participating households;
- Conducting market survey and provide market information on wood to PIUs;
- Set up an M&E system and conduct M&E, and report on the project progress;
- carry out other duties as directed by the project director.

Qualifications

- University degree in the field of finance;
- At least 5 years of working experience in similar position;
- Knowledge of rural administration is preferable.

(3) Staff in charge of Technical & Extension

Duties and responsibilities

- Prepare an annual work plan;
- Prepare community based extension meetings for disseminating project information to households in order to facilitate participation to the project and for grasping intension of participating households on plantation;
- Provide technical assistance on afforestation/agroforestry to PIUs and participating households;
- Assist PIUs to organize participating households to form groups and organize groups formed by PIUs to Production Forest Association;
- Assist financing agencies with the silvicultural aspects of appraising sub-loans to participating households;
- Coordinate procurement and distribution of seedling and fertilizer;
- Carry out other duties as directed by the project director.

Qualifications

- University degree in Forestry;
- At least 5 years of working experience in similar position;
- Knowledge of rural administration is preferable.

(4) Accountant

Duties and responsibilities

- managing project accounts such as entering accounting data, preparing, reviewing and checking accounting vouchers, filing financial records, making bank transaction, cash management;
- provide reports to the financing agency on the suitability of each application for participation and assist the financing agencies to prepare loan contracts with participating households;
- prepare and update a project procurement plan, prepare procurement documents, and manage procurement process, including negotiating the term of price and delivery of seedlings and fertilizer with local suppliers.

Qualifications

- At least 5 years of working experience in similar position;
- Knowledge of accounting and procurement procedures, and computer skills.

2. Project Implementation Unit staff

(1) Communal Coordinator

Duties and responsibilities

- Project implementation, management and supervision within the communal level;
- prepare and adjust annual work plans within the communal level;
- facilitate formation and cohesion of groups of participating households as Production Forest Associations and assist them in afforestation and wood sales activities, and in loan applications;
- undertake activities as a liaison at commune level; and
- carry out other duties as directed by PMB.

Qualifications

- University degree in rural development is preferable;
- At least 5 years of working experience in similar position;
- Knowledge of rural administration and rural community.

(2) Extension Worker

Duties and responsibilities

- Carry out community based extension meetings for disseminating project information to households in order to facilitate participation to the project and for grasping intension of participating households on plantation;
- Provide wood market information to participating households and facilitate the selling of the wood;
- Plan and prepare extension activities for afforestation, and carry out silvicultural training and provide technical assistance for afforestation such as preparation of planting sites and planting seedlings;
- Undertake regular inspections and carry out M&E to monitor the project progress;
- Carry out other duties as directed by Communal Coordinator.

Qualifications

- University degree in Forestry is preferable;
- At least 5 years of working experience in similar position;
- Knowledge of rural administration is preferable;
- Good knowledge of rural community.

**ANNEX 5: PRELIMINARY SAMPLE
FORMS FOR IMPLEMENTATION
PLANNING**

1. List of Potential Project Participating Households

Code- No.	Name	Address	Total Area	Forest	Current Cover	Forest	Red Book	Labour	Wish for loan
BD-1				ha		ha	Y / N		Y / N
BD-2				ha		ha	Y / N		Y / N
BD-3				ha		ha	Y / N		Y / N
BD-4				ha		ha	Y / N		Y / N
BD-5				ha		ha	Y / N		Y / N
BD-6				ha		ha	Y / N		Y / N
BD-7				ha		ha	Y / N		Y / N
BD-8				ha		ha	Y / N		Y / N
BD-9				ha		ha	Y / N		Y / N
BD-10				ha		ha	Y / N		Y / N
BD-11				ha		ha	Y / N		Y / N
BD-12				ha		ha	Y / N		Y / N
BD-13				ha		ha	Y / N		Y / N
BD-14				ha		ha	Y / N		Y / N
BD-15				ha		ha	Y / N		Y / N

Code: Ban Dat: BD, Tan Khanh : TKH, Tan Kim: TKM, Tan Hoa: THA

2. Pre Assessment Form on Household and Site

Name		Code Number	
Village		Address	
Forest Area	ha	Agricultural Area	ha
Status of Land Use		Est. Eucalyptus Vol.	m ³
Block No.		Plot No.	
Total Labour		Last yr. Income	VND
Map of the forest land (Evaluate access)			
<p>Land Classification</p> <div style="background-color: #e0e0e0; padding: 10px; min-height: 200px;"> <p style="margin-left: 20px;">I-1</p> <p style="margin-left: 20px;">I-2</p> <p style="margin-left: 20px;">II-1</p> <p style="margin-left: 20px;">II-2</p> <p style="margin-left: 20px;">III-1</p> <p style="margin-left: 20px;">III-2</p> <p style="margin-left: 40px;">ha</p> <p style="margin-left: 40px;">ha</p> <p style="margin-left: 40px;">ha</p> <p style="margin-left: 40px;">ha</p> <p style="margin-left: 40px;">ha</p> <p style="margin-left: 40px;">ha</p> </div>			
Proposed Total Area	ha	Proposed First Yr Area	ha
		Second Yr	ha

Total Estimated Hired Labour	man/day	Proposed First Yr Area	man/day	Second Yr	man/day
Observation					
Signature of Household				Signature of PIU staff	
PIU Approval		Approved		Not Approved	
PMB Approval		Approved		Not Approved	

3. List of PIU Approved Potential Households

Code- No.	Name	Address	Total Forest Area	Current Forest Cover	Red Book	Year of Plantation		Land Form (ha)							External Required Labour	Income
						1st yr	2nd Yr	I-1	I-2	II-1	II-2	III-1	III-2	Total		
BD-1			ha	ha	Y / N	ha	ha									
BD-3			ha	ha	Y / N	ha	ha									
BD-7			ha	ha	Y / N	ha	ha									
BD-8			ha	ha	Y / N	ha	ha									
BD-9			ha	ha	Y / N	ha	ha									
BD-10			ha	ha	Y / N	ha	ha									
BD-12			ha	ha	Y / N	ha	ha									
BD-14			ha	ha	Y / N	ha	ha									
BD-16			ha	ha	Y / N	ha	ha									
BD-17			ha	ha	Y / N	ha	ha									
BD-19			ha	ha	Y / N	ha	ha									
BD-20			ha	ha	Y / N	ha	ha									
BD-21			ha	ha	Y / N	ha	ha									
BD-22			ha	ha	Y / N	ha	ha									
BD-30			ha	ha	Y / N	ha	ha									

Code: Ban Dat: BD, Tan Khanh : TKH, Tan Kim: TKM, Tan Hoa: THA; Use the same given code of 1. List of Potential Project Participating Households)

4. List of PMB Approved Potential Households

Code-No.	Name	Red Book	Year of Plantation			Land Form (ha)							Seedlings				Fertilizer			Hired Labour (days)	Hired Labour (VND)	Estimated Loan Amount		
			1st yr	2nd yr	Total	I-1	I-2	II-1	II-2	III-1	III-2	Total	Spp	1st yr	2nd yr	Total	VND	1st yr	2nd yr				Total	
BD-1		Y / N											Hybrid											
													Mangium											
BD-3		Y / N											Hybrid											
													Mangium											
BD-9		Y / N											Hybrid											
													Mangium											
BD-10		Y / N											Hybrid											
													Mangium											
BD-12		Y / N											Hybrid											
													Mangium											
BD-14		Y / N											Hybrid											
													Mangium											
BD-16		Y / N											Hybrid											
													Mangium											
BD-20		Y / N											Hybrid											
													Mangium											
BD-21		Y / N											Hybrid											
													Mangium											
BD-30		Y / N											Hybrid											
													Mangium											

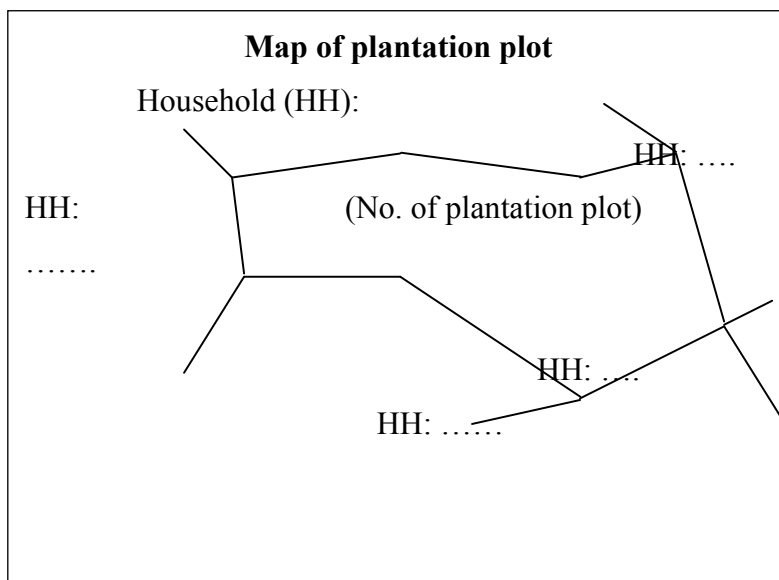
Code: Ban Dat: BD, Tan Khanh : TKH, Tan Kim: TKM, Tan Hoa: THA; Use the same given code of 1. List of Potential Project Participating Households)

5. Plantation Plot Design Sheet

Plot No.:	Forest compartment:	Forest district:
Commune:	District:	Province:
Owner:	Village:	Contiguity: North
Tây: West	Nam: South	Đông: East

Description of plot:

Area: ha
 Slope: độ
 Rock: %
 Alope aspect:
 Thickness of soil layer: ...
 cm
 Distance to the road:
 Soil type:
 Vegetation (shrub) type:



Height of shrub: m Fresh vegetation (grass) type: Height of grass: m

Planting design

Site preparation Theo băng toàn diện
 Partial

Hole size: ...cm x ... cm x ...cm Digging time: month...

Refilling time: month NPK basal fertilizing: ... Total fatilizer
 kg/hole requiremennt: kg

Planting species: Planting density: Planting time: month...

Seedling quanlity: Supplemental planting:
 month

Labor requirement

Site preparation: ... man-day Digging: ... man-day Refilling: ... man-day

Seedling transportation: ... Supplemental planting: ...
 man-day man-day

Design date

Designer

6. Seedling Order Form

Code- No.	Name	Address	Block No.	Plot No.	Seedling Species		
					A.hybrid	A.mangium	Total
BD-1							
BD-3							
BD-9							
BD-10							
BD-12							
BD-14							
BD-16							
BD-20							
BD-21							
BD-30							

7. Fertilizer Order Form

Code-No.	Name	Address	Block No.	Plot No.	Fertilizer
BD-1					kg
BD-3					kg
BD-9					kg
BD-10					kg
BD-12					kg
BD-14					kg
BD-16					kg
BD-20					kg
BD-21					kg
BD-30					kg

8. Sample Wood Supply Contract

(In case Thai Nguyen Particle Board Factory as the Buyer)

Vietnam Forest Corporation

Socialist Republic of Vietnam

Thai Nguyen Particle Board Factory

Independence – Freedom - Happiness

No.:...../HDKT-KH

ECONOMIC CONTRACT

Based on the Decree of economic contract dated 28-09-19XX of the Council of Government and Decision No. 17HDBT dated 10-01-19XX of the Council of Ministers (now known as the Government) regulates in detail on the implementation of the Economic Contract;

Based on the functions and rights of the 2 organizations

Based on the agreement between the 2 sides

Today/...../200..... at the Thai Nguyen Particle Board Factory

(Date should be one year to 6 months prior to the commencement of Harvesting or as per agreement between Party A and Party B)

We are

Party A: Thai Nguyen Particle Board Factory

Address;

Telephone;

Fax;.

Account No.

At (bank)...

Representative: Mr.:Position.....

Party B: Households

Address;

Telephone;

Fax;.

Account No..

At (bank)....

Representative: Mr.:Position.....

After negotiation, the 2 Parties agree to sign this Contract, relating to supply of raw material based on the following article:

Article1: Contents of the contract and time for completion

- Side B agrees to sell wood to the Particle Board Mill
- Types of products: A.hybrid and A.mangium

- Quantity: 35,000 – 40,000 m³/year
or 3,000 – 3,200 m³ / month

Wood Material Specification

Wood type	Specification (L: Length)	Unit price (VND)
Grade I	Samll End Diameter > 16 cm, L => 2 m	470,000
Grade II	Samll End Diameter > 12.1 - 16 cm, L => 2 m	430,000
Grade III	Samll End Diameter > 8.1 – 12 cm, L => 2 m	390,000
Grade IV	Samll End Diameter > 15.1 – 8 cm, L => 0.5 m	350,000

(Price per Ton: as of December 2005)

- Quality Requirement: Usable Value, Not rotten, Pests/Disease, not coppice stems;
- If Wood Materials is of the short length of 0.5 – 2 m (L < 0.5M is not accepted) , such Wood Materials shall be clacified as Grade IV;
- Wood Mtaerials must be legally Certified;
- Place of delivery: The Wood Yard of Customer;
- Duration supply: 10 years supply From Year 1 to Year 10
- When the market price changes the 2 Parties shall review the price.

Article 2: Contract value and time of accounting

Total Ccontract Values shall be VND XXX million per year at the price of XXX with Payment in cash for Quantity actually delivered to the factory yard.

Article 3: Rights of Party A

- Accepting Wood Materilas as per the Contract;
- Payment should be made and shall be paid in 15 days in cash to Parety B;
- To provide Delivery Receipt of Wood Materials as a proof of Delivery.

Article 4: Rights of Party B

- Supplying Party A with the quantity and the quality as per the Contract;
- To issue the invoice for Full Payment to Party A;

Article 5: Mutual commitment

- The 2 Parties commit to fully realize all articles stated in the contract, no cancel an happen during the time of the contract. During the implementation of the contract both side should inform each other timely of what is (are) happening to the contract for timely discussion to solve problem if it (they) ever happen (s) on the basic of mutual interests;
- If conflict happen and not been settled, then the matter shall be taken to the court at the relevant

- level for final settlement;
- The contract comes into force on the date of signature;

The contract consists of 06 copies of the same value, each side keeps 03 copies.

Side A Representative

(Signature and stamp)

Side B Representative

(Signature and stamp)

The contract shall be in full forces if and when Project Management Board authorized and signed.

Training Package

Book 1:	Training Plan on Capacity Building for Preparing Feasibility Studies and Implementation Plans for Production Forest/Agroforestry Development Projects in Vietnam
Book 2:	Manual for Preparation of Feasibility Study Reports for Production Forest/Agroforestry Development Projects in Vietnam
Book 3:	Manual for Preparation of Implementation Plans for Production Forest/Agroforestry Development Projects in Vietnam
Book 4:	Model F/S of Thai Nguyen Province
Book 4-1:	Model Feasibility Study Report for Smallholder Production Forest Development Project in Thai Nguyen Province
Book 4-2:	Model Feasibility Study Report for Agroforestry Development Project in Thai Nguyen Province
Book 5:	Model IP of Thai Nguyen Province
Book 5-1:	Model Implementation Plan for Smallholder Production Forest Development Project in Thai Nguyen Province
Book 5-2:	Model Implementation Plan for Agroforestry Development Project in Thai Nguyen Province
Book 6:	Monitoring and Evaluation Report on Technical Training of Participating Provinces
Book 7:	Market Trend Reference Book on Wood-based and Agroforestry Products
Book 8:	Feasibility Study Reports of Participating Provinces
Book 8-1:	Feasibility Study Report on Agroforestry Project in Ta Hoc Commune, Mai Son District, Son La Province
Book 8-2:	Feasibility Study Report on Production Forest Establishment Project in Nui Thanh District, Quang Nam Province
Book 8-3:	Feasibility Study Report on Treatment of Exhausted Natural Forest and Production Forest Establishment Project in Da Teh District, Lam Dong Province
Book 8-4:	Feasibility Study Report on Afforestation Project for Serving Biodiversity Conservation in Long An Province
Book 9:	Implementation Plans of Participating Provinces
Book 9-1:	Implementation Plan on Agroforestry Project in Ta Hoc Commune, Mai Son District, Son La Province
Book 9-2:	Implementation Plan on Production Forest Establishment Project in Nui Thanh District, Quang Nam Province
Book 9-3:	Implementation Plan on Treatment of Exhausted Natural Forest and Production Forest Establishment Project in Da Teh District, Lam Dong Province
Book 9-4:	Implementation Plan on Afforestation Project for Serving Biodiversity Conservation in Long An Province



DEPARTMENT OF FORESTRY

**Model Implementation Plan
for agroforestry development project
in Thai Nguyen Province**

Book 5-2: Model IP Agroforestry

THE DEVELOPMENT STUDY ON CAPACITY BUILDING
FOR PREPARING FEASIBILITY STUDIES AND IMPLEMENTATION PLANS
FOR AFFORESTATION PROJECTS IN THE SOCIALIST REPUBLIC OF VIETNAM

---FICAB---

Preface

“Model Implementation Plan for agroforestry development project in Thai Nguyen Province (Book 5-2)” is part of the training package prepared under the development study on capacity building for preparing feasibility studies (F/S) and implementation plans (IP) for afforestation projects in the Socialist Republic of Vietnam (hereinafter referred to as “FICAB”).

The immediate objective of FICAB is to strengthen capacities for the preparation of afforestation projects through practical On-the-Job-Training (OJT), seminars, and workshops. Five provinces have been selected as targeted provinces for FICAB (Thai Nguyen, Son La, Quang Nam, Lam Dong, and Long An Provinces).

FICAB was divided into two phases. Phase I was to prepare Model F/S and IP as well as a training package in Thai Nguyen, a Core Province (CoP). The second phase was to implement technical training for staff members of four other provinces as Participating Provinces (PPs), i.e. Son La, Quang Nam, Lam Dong, and Long An Provinces. The training was implemented using Model F/S, IP and other training materials.

Through conducting FICAB, four forms of output are to be generated. The first is an enhanced capacity for MARD personnel. Selected staff members of MARD develop administrative and coordination capacity for supervising the quality of F/S and IP. The second is an enhanced capacity for CoP and PPs personnel. Selected staff members of CoP and PPs enhance the capacity for preparing F/Ss and IPs. The third is the development of a monitoring and evaluation method for the technical training for preparation of F/S and IP. The fourth is the development of a training package for conducting the technical training for preparing F/S and IP for afforestation projects.

The training package is prepared as one of the four above forms of output of the FICAB. The entire training package comprises the following nine (9) books:

Book 1: Training plan

Book 2: Manual for preparation of feasibility study reports for production forest / agroforestry development projects in Vietnam

Book 3: Manual for preparation of implementation plans for production forest / agroforestry development projects in Vietnam

Book 4: Model F/S of Thai Nguyen Province

Book 5: Model IP of Thai Nguyen Province

Book 5-1: Model implementation plan for smallholder production forest development project in Thai Nguyen Province

Book 5-2: Model implementation plan for agroforestry development project in Thai Nguyen Province

Book 6: Monitoring and evaluation report on technical training of PPs

Book 7: Market trend reference book of wood-based and agroforestry products

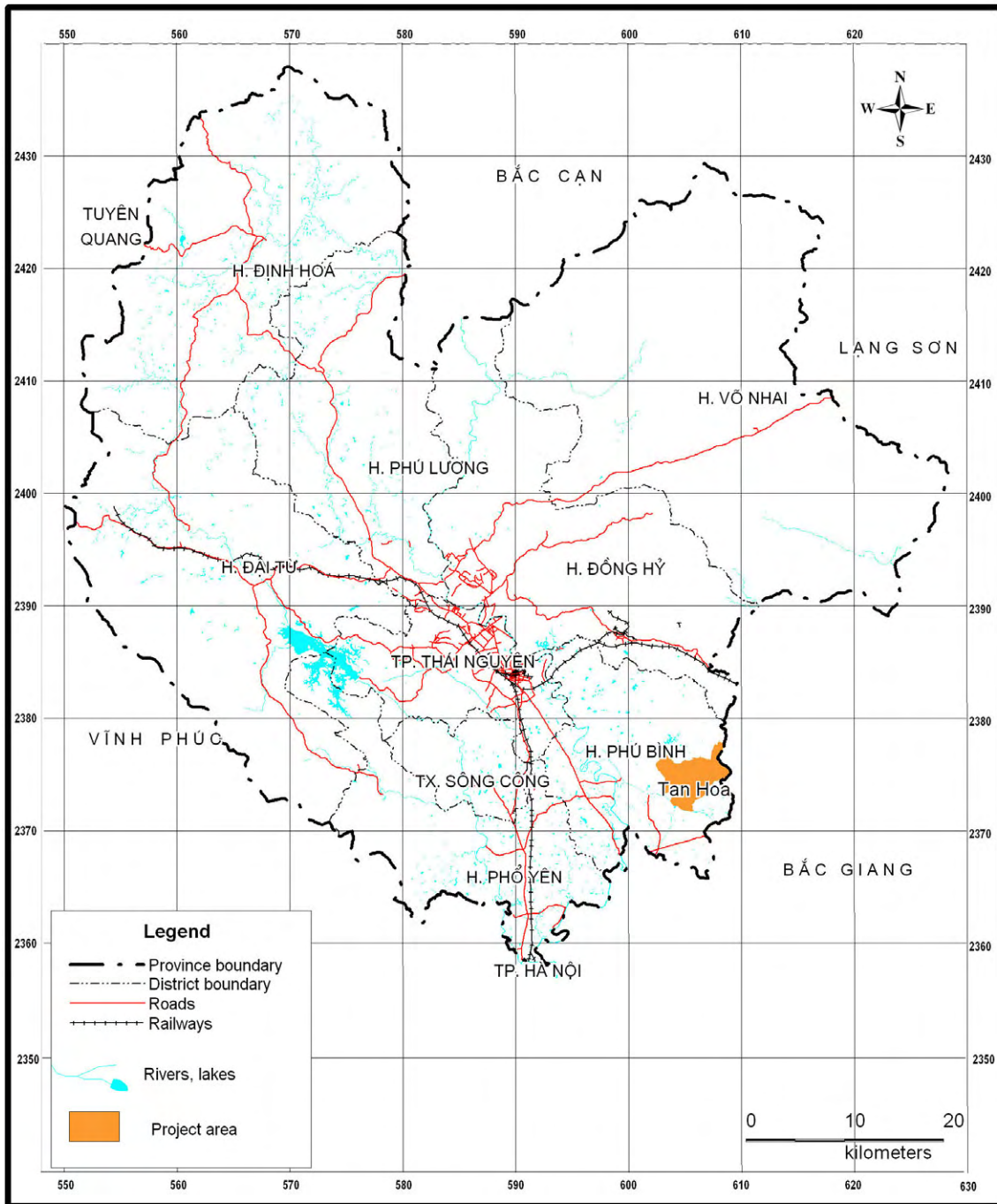
Book 8: F/S reports of Son La, Quang Nam, Lam Dong, and Long An Provinces

Book 9: IPs of Son La, Quang Nam, Lam Dong, and Long An Provinces

Map 1 Location of Thai Nguyen Province



Map 2 Tan Hoa commune in Phu Binh District, Thai Nguyen Province



Map 3 Tan Hoa commune in Phu Binh District

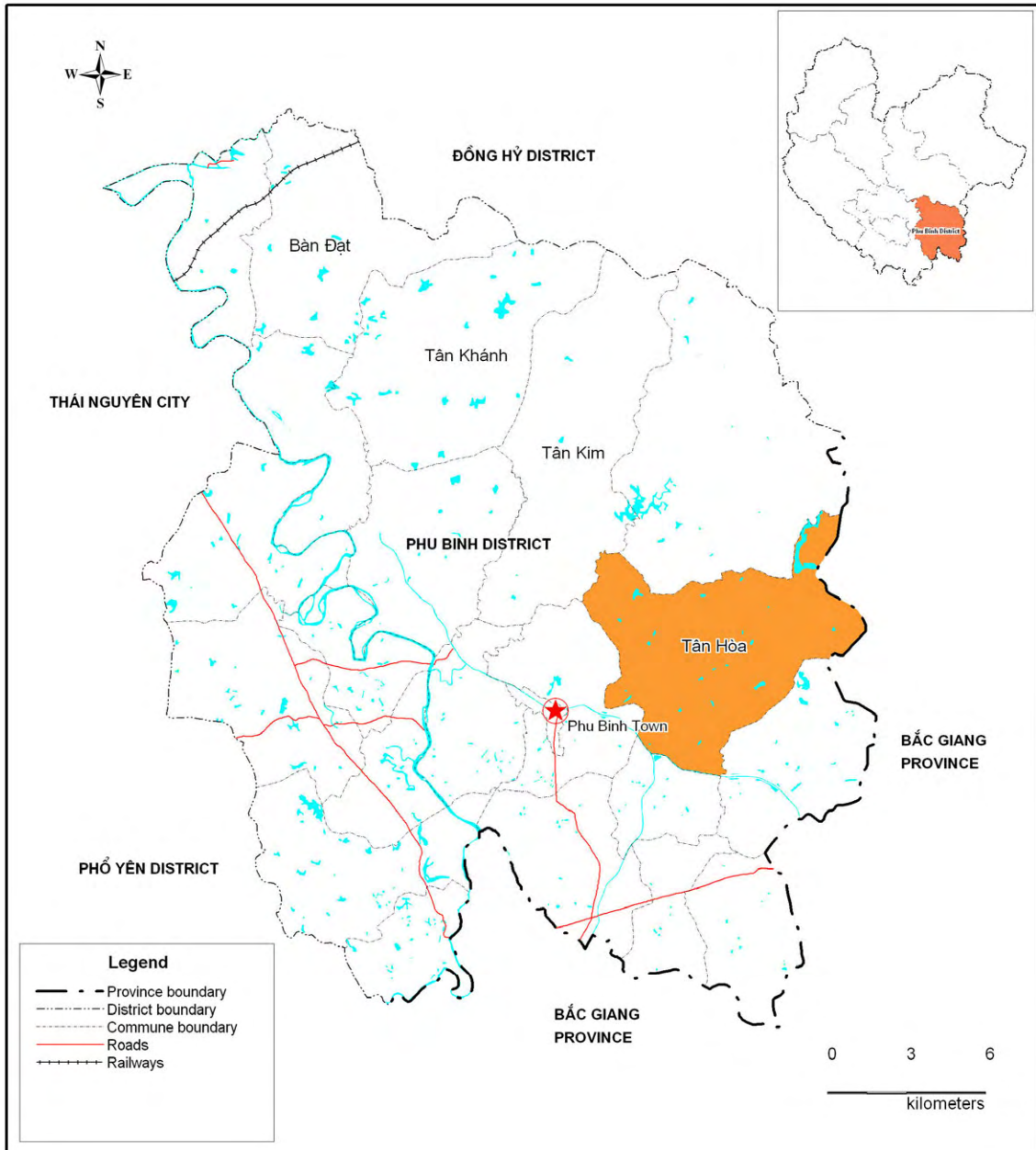


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Abbreviation

5MHRP	Five Million Hectare Reforestation Programme
ASEAN	Association of Southeast Asian Nations
B/C ratio	Cost-Benefit ratio
CoP	Core Province
CCM	Communal Consultation Meeting
DARD	Provincial Department of Agriculture and Rural Development
DoF	Department of Forestry
DOF	Department of Finance
DPI	Department of Planning and Investment
EIRR	Economic Internal Rate of Return
FAO	Food and Agriculture Organization of the United Nations
FICAB	The Development Study on Capacity Building for Preparing Feasibility Studies and Implementation Plans for Afforestation Projects in the Socialist Republic of Vietnam
F/S	Feasibility Study
FIPI	Forest Inventory and Planning Institute
FIRR	Financial Internal Rate of Return
FSDP	Forest Sector Development Program
GOV	Government of Vietnam
IA	Implementing Agency
IP	Implementation Plan
IRR	Internal Rate of Return
JICA	Japan International Cooperation Agency
JST	JICA Study Team
LUR	Land Use Right
LUC	Land Use Right Certificate
MARD	Ministry of Agriculture and Rural Development
MPI	Ministry of Planning and Investment
NPV	Net Present Value
PAM	WFP's Programme Alimentaire Mondial
PC	People's Committee
PFA	Production Forest Association
PFD	Production Forest Development
PFEP	Production Forest Establishment Project
PIP	Project Implementation Plan
PIU	Project Implementation Unit
PMB	Project Management Board
PMME	Project Management, Monitoring and Evaluation
PPs	Participating Provinces
PST	Provincial Study Team
RRA	Rapid Rural Appraisal
SFE	State Forest Enterprise
SFFD	Support for Production Forest Development
SOE	State of Environment
Sub-DoF	Sub-Department of Forestry at province level
TNPBF	Thai Nguyen Particle Board Factory
VBARD	Vietnam Bank for Agriculture and Rural Development
VBSP	Vietnam Bank for Social Policies
VDB	Viet Nam Development Bank
WTO	World Trade Organization

Summary

Part I Summary of the project

In this part, in order to clarify contents of the project which is targeted at implementation planning, among the content of F/S report, project location and area, project objectives, project outputs, project components, main activity plan and project cost are summarized, and PDM which shows the project framework, is attached.

Part II Implementation Plan in Respective Fields

Chapter 1 Institutional arrangement

PIU is responsible for implementing the project and achieving the project objective, and carry out daily field activities and provide supports to participating farmers. PIU is staffed with a director, a vice-director, a financing staff and two technical staffs. These staff will be selected from Tan Hoa CPC, Agriculture and Rural Development Division and Forest Protection Unit of Phu Binh district. The tasks of other stakeholders such as Thai Nguyen PPC, DARD/Sub-DoF and so on are explained as well.

Chapter 2 Implementation schedule

In the first year, which is regarded as a preparation period, the preparation works for conducting agro-forestry activities is carried out. The monthly implementation schedule during the preparation period is shown in six steps from step 1: Agro-forestry models establishment to step 8: Training. During the operation period from the second to the fifth year, activities directly related to the agro-forestry are undertaken in the field. A series of agro-forestry activities in a model rotation cycle which is comprised 12 steps is repeatedly carried out in the respective planting sites.

Chapter 3 Financial management arrangement

There will be three financial sources for the implementation of the project that are loans, government budget and farmers' fund. The loan is used for buying materials such as seedling and fertilizers, the government budget is used for agro-forestry plots design, training, quality check and management fee, and farmers' fund is calculated for their labor costs.

It is envisaged that Vietnam Bank for Social Policies (VBSP) will implement the loan program for agro-forestry development. To ensure transparent fund management, a special account will be set up at the district branch office of VBSP. The loan contracts will be concluded between respective farmers and VBSP. Detailed loan procedures based on the loan manual of VBSP.

The financial and budgetary procedures and reporting system relating to the government budgets will follow the state management budgetary system. These procedures permit the disbursement of funds, on the basis of an approved annual implementation plan and budget, from the provincial government to a project account through the district treasury.

Chapter 4 Procurement arrangement

In the project, it is planned to buy goods such as seedlings and fertilizers and so on, and also to employ consultants for various services such as agro-forestry plot design, training and so on. The items to be procured under respective component together with the packages, procurement method, and organizations responsible are described. As for procurement of goods, there are four stakeholders who are farmers, PIU, suppliers and Sub-DoF. There are six steps of actions to be taken for conducting procurement. As for services, as well as goods, there are three stakeholders who are PIU, Consultancy Company and Sub-DoF and there are five steps of actions to be taken for conducting procurement.

Chapter 5 Sales and marketing

Four stakeholders have been identified; farmers, PIUs, Intermediate agent and Thai Nguyen Particle Board Factory (TNPBF). There are two stages on sales and marketing activities in the project. First stage is the activities relating to arrangement of sales and marketing information. At the second stage, concrete activities relating to selling and purchasing are conducted among stakeholders. 12 steps are identified for sales and marketing activities over these two stages. As for respective steps, roles and functions that respective stakeholders play and relationships among the stakeholders are examined. The results of examination are incorporated into the table of Sales and Marketing Flow as follows: Farmers produces wood materials, PIU conducts coordination works, such as exchange of information on demand and supply of wood materials. TNPBF buys wood materials for chips. In order to procure wood materials, TNPBF concludes a purchasing agreement with Intermediate agent.

Chapter 6 Training plan

In the project, it is planned to conduct two level of training, one is training at the field level and the other is training at the level of implementing agency. As for training at the field level, there are two training course. One is training for trainers who are expected to be trainers for farmers' training. The other is farmers' training course that is training for farmers who conduct field work on agro-forestry. As for training at the level of implementing agency, in order to strengthen the capacity of the project staff on project management, training in the field of finance & planning skills, technical and coordination skills as well as the accounting skills are conducted.

Chapter 7 Monitoring and evaluation

Monitoring aims to check the progress of the project and to take actions for modification of the plan if necessary. The four steps are set as the tentative monitoring mechanism and information flow from extension workers to the decision-making body of the project and the feedback system. Evaluation aims to make recommendations on the future course of the project and draw lessons for other projects. It will be carried out during or after the assistance period of the project by using all the results of the project.

Introduction

This report has been prepared as a model Implementation Plan, which aims to be broadly applicable to the whole area of the country, based on the findings of a feasibility study conducted during a period from July 2005 to March 2006 in Phu Binh District of Thai Nguyen Province, Vietnam.

This feasibility study and implementation plan is conducted as a part of the Development Study on Capacity Building for Preparing Feasibility Studies and Implementation Plans for Afforestation Projects in the Socialist Republic of Vietnam which is agreed between the Government of Vietnam and Japan International Cooperation Agency (JICA) in December 2004.

The target project for the feasibility study and implementation planning is an agro-forestry development project in Tan Hoa communes of Phu Binh district. The general outline of the project is as follows:

- The implementing agency is a Project Implementing Board (PIU) which is established by the Peoples' committee of Phu Binh district and farmers conduct agro-forestry activities, who have forest land for plantation in four communes.
- In order to promote economic utilization of degraded forest lands, it is planed to convert Eucalyptus plantations to high productivity agro-forestry plots and through converting from Eucalyptus to agro-forestry plots, it is also planed to improve livelihood of farmers. And the target products are wood material, Fruit, NFTP and agro-forestry products.
- As regarding the financial resource for afforestation activities, the Vietnam Bank of Social Policy (VBSP) provides loans to farmers, and as for project management, the government of Vietnam provides subsidy to the Project Implementing Unit (PIU).

The Forest Inventory and Planning Institute of Vietnam (FIPI) conducted the feasibility study under the guidance and supervision of the JICA Study Team (JST) and in process of the feasibility study, technology transfer from JST to FIPI on feasibility study is executed. And the provincial study team of Thai Nguyen province also participates to the feasibility study. In order to enhance the capacity for preparing F/S, OJT for the provincial study team is carried out during the feasibility study.

PART I SUMMARY OF THE PROJECT

1 PROJECT LOCATION AND AREA

1.1 Location

Phu Binh district is a midland district, located in the South of Thai Nguyen province. The district center is 28 km away from Thai Nguyen City and 30 km away from Bac Ninh town. The project area covers four villages of Tan Hoa commune, Phu Binh district, namely U, Gian, Ngo and Vau village.

The district is bordered in the North by Tan Thanh commune, in the South by Luong Phu commune and in the West by Huong Son town of Phu Binh district, Thai Nguyen province. In the East, it is bordered by Hiep Hoa district, Bac Giang province.

1.2 Area

The total natural area of Phu Binh district is 25,000 ha while the project area covers 534 ha, including 485 ha of agricultural land and 292 ha of forest land.

The project area is 534 ha, including 292 ha of forest land, accounting for 55 % of the project area. The forest land of respective village is as follows: The Vau village: 52 ha. U village: 71 ha. Gian Village: 108 ha. Ngo village: 61 ha. Non-Agricultural land and Un-use land is 49 ha and one ha respectively.

Table 1.1 Land classification by administrative unit

Unit: ha

Land classification	Size of area by commune				
	Total in the Project area	Vau village	U village	Gian village	Ngo village
Total area	534	110	134	170	120
1. Agricultural land	485	100	119	158	108
(Out of which: Forest land)	(292)	(52)	(71)	(108)	(61)
2. Non-Agricultural land	48	10	15	10	13
3. Un-use land	1			1	

Source: Cadastral office of Tan Hoa commune

Note: The numbers do not necessarily sum up due to rounding.

2 PROJECT OBJECTIVE AND OUTPUTS

2.1 Overall Goal

The overall goal of the project is to improve livelihood through development of agro-forestry plot in the project area.

2.2 Project Objective

The project objective is to increase the production value of the forest land in the project area by establishing the agro-forestry plots.

The objective of the assistance is to establish agro-forestry plots with 5 models in the project area.

2.3 Project outputs

1. The degraded Eucalyptus forest is converted to a high productive agro-forestry plot.
2. Agro-forestry development project is managed properly together with monitoring and evaluation.
- 3-1. Agro-forestry plot designing is conducted properly.
- 3-2. Institutional capacity for managing the agro-forestry development project and capacity for conducting agro-forest activities is enhanced.

3 PROJECT COMPONENTS

3.1 Project component

The project objective is to be achieved through implementation of three project components and two sub-components under the Component 3.

Component 1: Agro-forestry model Development

Component 2: Project management and Monitoring and Evaluation

Component 3: Technical service

Component 3-1: Agro-forestry plot design

Component 3-2: Training and Institutional Development

3.2 Main activity plan

There are two main activity plans. One is the agro-forestry plan and the other plan is the harvesting plan.

Agro-forestry plan is as shown in the table below.

Table 1.2 Agro-forestry plan

Unit: ha

Model	Area	Year			
		2007	2008	2009	2010
Total	140	20	30	80	10
Model 1	43	5	10	28	0
Model 2	20	5	5	10	0
Model 3	22	5	5	12	0
Model 4	38	3	5	20	10
Model 5	17	2	5	10	0

Harvesting plan for wood, fruit and NFTP is shown in the table below.

Table 1.3 The area and volume of harvesting by products

Year		8th	9th	10th	11th	12th	13th	14th	Total
Product		(2014)	(2015)	(2016)	(2017)	(2018)	(2019)	(2020)	
Area for harvesting (ha)		20	50	130	140	140	140	140	
Canarium fruit (ton)		25	60.5	180	224.7	246.6	246.6	246.6	1,248
D. duperreanum fruit (ton)		25	60.5	180	224.7	246.6	246.6	246.6	1,248
Rattan (kg)		300	600	600	1,200	1,200	1,200	1,200	6,300
Acacia.sp.	area (ha)	20	30	80	10	-	-	-	140
	volume (m3)	2,600	3,900	10,400	1,271	-	-	-	18,171

Harvesting volume of agricultural crop (cassava) is three tons per ha and the harvesting plan is as follows;

Year 1 (2007): 3 tones x 20 ha = 60 tons

Year 2 (2008): 3 tones x 30 ha = 90 tons

Year 3 (2009): 3 tones x 80 ha = 240 tons

Year 4 (2010): 3 tones x 9.78 ha = 29 tons

Total = 419 tons

4 PROJECT COST

Project costs during the assistance period have been calculated over a period of five years in which all the planting works are scheduled to be completed. Total project cost over this period, including physical and price contingency is estimated at VND 2,271 million.

1) Component 1: Agro-forestry Model Development

About 140 ha of forest land will be afforested. The average cost for agro-forestry of one ha is around VND 10.972 million and the total baseline cost of this component will be VND 1,534 million. Some 48% of cost for this component is for unskilled labor, valued at VND 25.000 per day. Cost of purchased input and services is VND 804 million for the project (52%).

2) Component 2: Project management and M&E

Cost of this component is estimated at VND 206 million. The largest part of this cost, VND 176 million, will be for providing support for management fee, equipment and stationary, and for quality check (VND 30 million).

3) Component 3: Technical service

Cost for this component is estimated at VND 67 million, which is about 3% of the project cost during the assistance period.

4) Contingencies:

Physical contingencies have been added at the rate of 5% on the baseline cost (VND 90 million). Inflation has been assumed at 5 % and price contingencies are based on this projection (VND 151 million).

Table 1.4 Summary cost of the project by component

Unit: VND 1,000

Project component	%	Total	Loan	State	Household
1. Agro-forestry Model Development	68	1,533,707	804,042		729,66
2. Project management and M&E	9	205,745		205,745	
3. Technical service	3	67,377		67,377	
3-1 Agro-forestry plot design		22,041		22,041	
3-2 Training and Institute Development		45,336		45,336	
(A) Total baseline cost	80	1,806,829	804,042	273,122	729,664
(B) Physical contingency (5%)	4	90,341	40,202	13,656	36,483
(C) Price contingency (5%)	16	373,399	166,163	56,443	150,792
Total (A+B+C)	100	2,270,569	1,010,407	343,221	916,940

5 PROJECT DESIGN MATRIX

Project Name: Agro-forestry Development Project in Thai Nguyen Province
Project Area: Four villages, Tan Hoa commune, Phu Binh district, Thai Nguyen province
Assistance Period: 2006 – 2010
Project period: 2006 – 2019
Target Beneficiary: Farmers who have red books for forest land in the project area

Version 1 Date: November 2007

Narrative Summary	Indicators	Means of Verification	Critical Assumption
<u>Overall objective</u> Livelihood is improved through development of agro-forestry plots in the forest land.	Poverty rate is reduced.	Poverty statistics of province/district	The government support for agro-forestry development continuously.
<u>Project objective</u> The production value of the forest land is increased.	Around 130 m3/ha/year of commercial wood, 3 tons/ha/year of agricultural product and 1.8 tons/ha/year of fruit are harvested	Record of the forest protection office and the DARD	Payment is promptly done as agreed between household and buyers.
<u>Objective of assistance</u> Agro-forestry plot is established in forest land.	Around 140 ha of degraded Eucalyptus forest is converted to agro-forestry plot by 2010.	Project implementation report	Demand and sales price remain buoyant.
<u>Project Outputs</u> 1. The degraded Eucalyptus forest is converted to a high productive agro-forestry plot. 2. Agro-forestry development project is managed properly together with monitoring and evaluation. 3-1. Agro-forestry plot designing is conducted properly. 3-2. Institutional capacity for managing the agro-forestry development project and capacity for conducting agro-forest activities is enhanced.	1. Five model of agro-forestry (around 140 ha) are established by 2010. 2. A PIU is established in 2006. 3-1. Agro-forestry plot design is conducted properly in around 140 ha forest land by 2010. 3-2. About 9 training courses for household and 2 training courses for project management staff is conducted.	Project implementation report	There is not any natural disaster. No major pest and disease outbreak is occurred.
<u>Activities</u> 1. Facilitate agro-forestry activities by farmers. 2. Establish a Project Implementation Unit (PIU) in Tan Hoa commune. 3-1. Conduct an agro-forestry plot design. 3-2. Provide training courses for project management and agro-forestry activities to project management staff and participating farmers.	<u>Inputs</u> Total project cost (2006-2019): VND 3,477 million (US\$ 2,173 million) (1) Agro Forestry Model Development VND 2208 million (US\$ 1380 million) (2) Project Management and, Monitoring and Evaluation VND 244 million (US\$ 152.5 million) (3) Technical Service VND 67 million (US\$ 41.8 million)		Adequate number of experienced staff and budget is allocated by the government throughout the assistance period. Interest of participants on agro-forestry is maintained. Technical service is conducted adequately.
			<u>Pre-condition</u> The local government approves the project. Loan scheme is agreed with VBSP on interest rate, grace period and repayment period

**PART II IMPLEMENTATION PLAN IN
RESPECTIVE FIELDS**

1 INSTITUTIONAL ARRANGEMENT

1.1 Overall Implementation Structure

The current government staff and facilities will be utilized for the implementation of the project. Consultants, assistants and workers will be recruited on demand.

A Project Implementation Unit (PIU) is established as an implementing agency of the project. It will be placed under the Phu Binh DPC and PIU receives technical supports from the Agriculture and Rural Development Division (ARDD) of Phu Binh district and DARD of Thai Nguyen province. PIU do not have financial responsibilities for loan repayment.

Sub-DoF of Thai Nguyen province sets a policy direction of the project, mainly in the technical field through close collaboration with MARD and the provincial government.

The financial institution conducts all necessary paper-work for making loan contracts based on information provided by PIU. The financial institution will be responsible for managing the loan contracts and handle cash transactions.

1.2 Project Implementation Unit

1.2.1 Organization of PIU

The Vice Chairman of Tan Hoa commune in charge of commune forestry activities is proposed to be a director of the PIU. The agro-forestry staff at the Tan Hoa Commune will act as a vice director of PIU and an accountant and some other staff are dispatched from relevant divisions of the commune, district office.

PIU will receive the policy directions and control from Phu Binh DPC mainly in the non-technical field and from Sub-DoF mainly in the technical field. Specifically, PIU expected to coordinate provision of services to participating farmers and upon requests from the financial institution, PIU supports the financial institution in implementing loan arrangements. Specific structure and tasks of PIU is shown as follows:

- (1) Set up annual financial plan for activities as planting, tending, protection of plantation and crops
- (2) Mobilize labor force
- (3) Technical support, coordination of procurement
- (4) Support in sales and marketing, in getting loans from financial agencies for farmers
- (5) Supervise the project implementation of farmers in the commune and the use of loans
- (6) Report on periodic results of project activities

1.2.2 Staffing level

When the project budget for agro-forestry model is approved, personnel for implementation of this model will be selected from different units, such as Tan Hoa Commune People Committee, Agriculture and Rural Development, and Forest Protection units of Phu Binh District. The staff of PIU is recruited as follows:

- One director (Vice-chairman of Tan Hoa commune PC)
- One vice-director (agro-forestry staff of Tan Hoa commune PC)

One accountant staff (financing staff of Tan Hoa commune PC)

Two technical staff (one from ARDD and one from forest protection unit of Phu Binh district)

1.3 Other relevant stakeholders

1) Thai Nguyen PPC

Thai Nguyen PPC approves the establishment of PIU and provides the policy guidance and direction to PIU through DARD/Sub-DoF. Thai Nguyen PPC also supervises overall project implementation, and reviews and approves the annual work and budget plan, and release annual budget for the government portion of the project costs during the assistance period. Thai Nguyen PPC takes lead in discussion with the financial institution for the establishment of the loan program and ensures effective liaison with relevant agencies and stakeholders, and resolves problems that may arise from the project implementation, especially those beyond control of PIU and the Phu Binh DPC.

2) DARD/Sub-DoF

The role and responsibility of DARD/Sub-DoF are as follows: i) Provide the policy guidance and directions to PIU mainly in the technical field in collaboration with the Phu Binh DPC. ii) Supervise the project implementation and address issues and concerns in collaboration with the Phu Binh DPC, iii) Work with MARD and the local government authorities to establish the loan program and work with the PIU to propagate the project in the project area and other districts, iv) Review and approve the annual work plan of the project, v) Ensure effective liaison with relevant agencies and stakeholders, particularly resolve problems that may arise in project implementation, especially those beyond control of the PIU and the district office, vi) Provide supports and information to the PIU including staff if necessary, and vii) Arrange the evaluation of the project by a third party.

3) Phu Binh District PC

Role and responsibility of Phu Binh DPC are as follows; i) Establish PIU according to the instruction of Thai Nguyen PPC and appoint staff to manage the project, ii) Provide the policy guidance and directions to PIU mainly in the non-technical field, iii) Provide supports to PIU in terms of the financial and human resources, and iv) Oversee the project implementation and address issues and concerns in collaboration with the Sub-DoF.

4) Phu Binh District Agriculture and Rural Development Division (ARDD)

ARDD provides all necessary supports to PIU in terms of the financial and human resources.

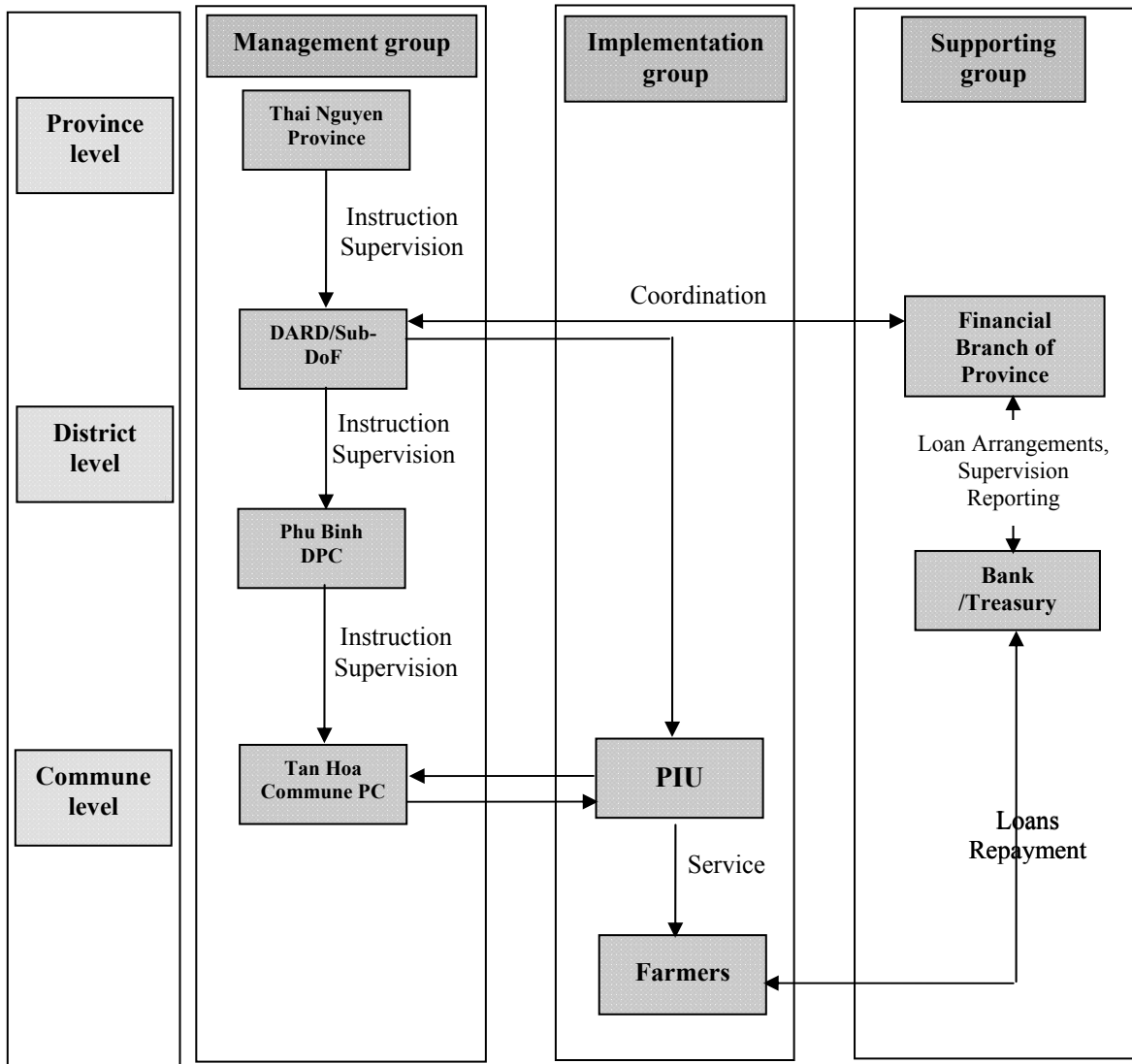
5) Tan Hoa Commune PC

Tan Hoa CPC provides supports to PIU human resources as project staffs and office space and provides supports to PIU for making financial and implementation plans.

6) Vietnam Bank of Social Policy (VBSP)

The bank creates chance for farmers get loans for project implementation. Based on a loan scheme established, the bank provides funds to farmers. The bank conducts loan appraisal, and administration and coordinate with PIU to prepare short and medium-term operation plans, and monitor the financial performance of the project.

Figure 1 Structural Organization Chart for Project Implementation



2 IMPLEMENTATION SCHEDULE

2.1 Overall Schedule for Project Implementation

The assistance period of the agro-forestry project will be five years. It is including preparation period and operation period. The overall schedule of the respective components and sub-components during the assistance period are summarized in the table below. It covers a period from 2006 to 2010. The overall schedule may be subject to revision over the course of the project implementation.

In the first year, which regarded as a preparation period, the preparation works for conducting agro-forestry activities will be carried out. During the operation period from the second to the five year, activities directly related to the agro-forestry undertaken in the field.

Table 2.1 Overall Schedule of Project Implementation during the Assistance Period

Calendar Year	2006	2007	2008	2009	2010
Implementing Year	1	2	3	4	5
Component \ Period	Preparation period	Operation period			
1 Agro- forestry model development.					
2 Project management and M&E					
3 Technical Service					
3-1 Agro-forestry plot design					
3-2 Training and Institutional Development					

2.2 Preparation period

There are four critical points in the preparation period:

1) Agro-forestry plot selection and species selection for agro-forestry models. It is concern with suitable agro-forestry model design for each local region and for each soil type. 2) Establishment of a financing mechanism to provide credits to participating farmers 3) Establishment of project management and operational structure, including (i) establishment of PIU, (ii) provision of training for the project staff, and (iii) establishment of strategic partnerships with other relevant stakeholders such as provincial agencies and private sectors in securing political/technical supports, supplying quality planting materials (seedlings, fertilizer), and promoting linkages with markets and 4) Preparation of fifth-year implementing plan and budget plan, during the operation period as well as tools and manuals to be used in community mobilization and training.

The implementation schedule during the preparation period is shown in Table 2.2 below.

Table 2.2 Implementation schedule of preparation period

Step	Activities	Month											
		1	2	3	4	5	6	7	8	9	10	11	12
1	1-1 Agro- forestry models establishment.						■	■					
	Agro-forestry species selection						■	■					
	Agro-forestry Plot selection								■	■			
	Fertilizer and seedling contract												
	Eucalyptus harvesting										■	■	■
	Sites preparation										■	■	■
2	2-1. Establishment of PIU						■	■					
	Office set up						■	■					
	Materials procurement						■	■					
	Preparation implementing plan						■	■					
3	2-2. Establishment of a Loan Scheme with a Bank									■	■	■	
4	2-3. Monitoring and evaluation.						■	■	■	■	■	■	
5	3-1 Agro- forestry model of plots design									■	■	■	
6	3-2. Training									■	■	■	

Note: Strategic Partners include seedling centers, fertilizer distributors, providers of training services, design contractors of the Agro-forestry plots, and timber buyers.

Table 2.3 Implementation schedule of Seedling

Activities	Month											
	9	10	11	12	1	2	3	4	5	6	7	8
Seedling contracts	■											
A. mangium, A. hybrid					■	■	■	■				
Duperreanum	■	■	■	■	■	■	■					
Canarium	■	■	■	■	■	■	■					
Rattan	■	■	■	■	■	■	■					
Transportation									■	■		

Note: The project do not produce seedling. This table is reference for project implementation plan.

2.3 Operation period

2.3.1 Model rotation cycle of agro-forestry activities

The agro-forestry activities carried out in a staggered manner in the project area during the operation period. Model rotation cycle of agro-forestry activities is shown in the following table and this rotation cycle will be repeated in the different locations of the project area during the operation period.

It is considered that the first two to three years will be the most intensive period in carrying out the project. The work load will be easing in the fourth year.

Table 2.4 Model rotation cycle of agro-forestry activities

Step	Activities	1 st year	2 nd year	3 rd year	4 th year	5 th year	6 th year	7 th year
1	Village meetings							
2	Preparation of Detail Agro-forestry Plan							
3	Timber Harvesting and Site Cleaning							
4	Agro-forestry Plot Design							
5	Delivery of Seedlings and Fertilizer							
6	Refilling							
7	Planting							
8	Supplementary planting							
9	Tending							
10	Protection							
11	Wood, fruit and rattan harvesting and sale products							
12	Monitoring and Evaluation							

2.3.2 *Monthly schedule of agro-forestry activities*

Table 2.5 Monthly Schedule of Steps 2 to 11 for Wood and Fruit tree

Activities	Month											
	1	2	3	4	5	6	7	8	9	10	11	12
Step 2: Preparation of Detail Implementing and financial Plan												
Implementing Plan												
financial Plan												
Step 3: Timber Harvesting and Site Cleaning												
Timber Harvesting												
Site Cleaning												
Step 4: Agro-forestry Plots Design												
Area measurement												
Identify land forms												
Placement of Planting Marking Stake												
Species distribution for each plots												
Plot design reporting												
Step 5: Delivery of Seedlings and Fertilizer												
Fertilizer												
Seedlings												
Step 6: Refilling												
Step 7: Planting												
Step 8: Supplementary planting												
Step 9: Tending												
Step 10: Protection												
Step 11: Wood, fruits harvesting and sale products												
Step 12: Monitoring and Evaluation												

Table 2.6 Monthly Schedule for NFTP and Agricultural Crop

Items	Month											
	1	2	3	4	5	6	7	8	9	10	11	12
Rattan					Planting				Tending		Protection	
Cassava		Planting		Tending					Tending			Harvesting

3 ARRANGEMENT FOR FINANCIAL MANAGEMENT

3.1 Financial sources

There will be three financial sources for the implementation of the project that are loans, government budget and farmers' fund. Total loan amount is 804 million VND, accounting about 45% of total investment of 1,807 million VND.

The loan is used for buying materials such as seedling and fertilizers, the government budget is used for agro-forestry plots design, training, quality check and management fee, and farmers' fund is calculated for their labor costs.

3.2 Loan for development of agro-forestry plots

Necessary financial sources to establish agro-forestry plots will be channeled to farmers in the form of loans. It is envisaged that Vietnam Bank for Social Policies (VBSP) will implement the loan program for agro-forestry development. Reporting system and financial procedures will follow the existing regulations and policies of VBSP in general.

To ensure transparent fund management, a special account will be set up at the district branch office of VBSP to receive the fund transferred from the provincial branch or the head office of VBSP. Fund disbursement and repayment of the original loan between VBSP and farmers will be made through the special account.

The loan contracts will be concluded between respective farmers and VBSP. Each participating farmers are expected to prepare a loan application with the help of PIU. As one of the eligibility criteria for the loan, farmers are required to participate in the training course to be organized by PIU. Tan Hoa CPC may involve in this process as well. After approval of loan application, farmers are able to withdraw money in accordance with the approved documents and the confirmation letter of the commencement of the work by PIU. Fund disbursement will be made once during the 1st year of the rotation cycle.

Farmers are responsible for payment for seedlings, fertilizers. PIU will extend supports for farmers in their finding quality materials and services at reasonable costs. VBSP will extend necessary financial services including site visits, loan delivery, and collection of interests and principals in coordination with PIU. The quality and performance monitoring of the project activities by PIU is proposed to link with the loan disbursement.

Annual loan demands are estimated according to the progress of the agro-forestry activities and are shared with VBSP. PIU will monitor the project by close cooperate with Tan Hoa CPC as well as VBSP. Regular monitoring is to be done by PIU. The monitoring can be conducted by an inter-sectoral group consisting of PIU, VBSP, and representatives of farmers' groups.

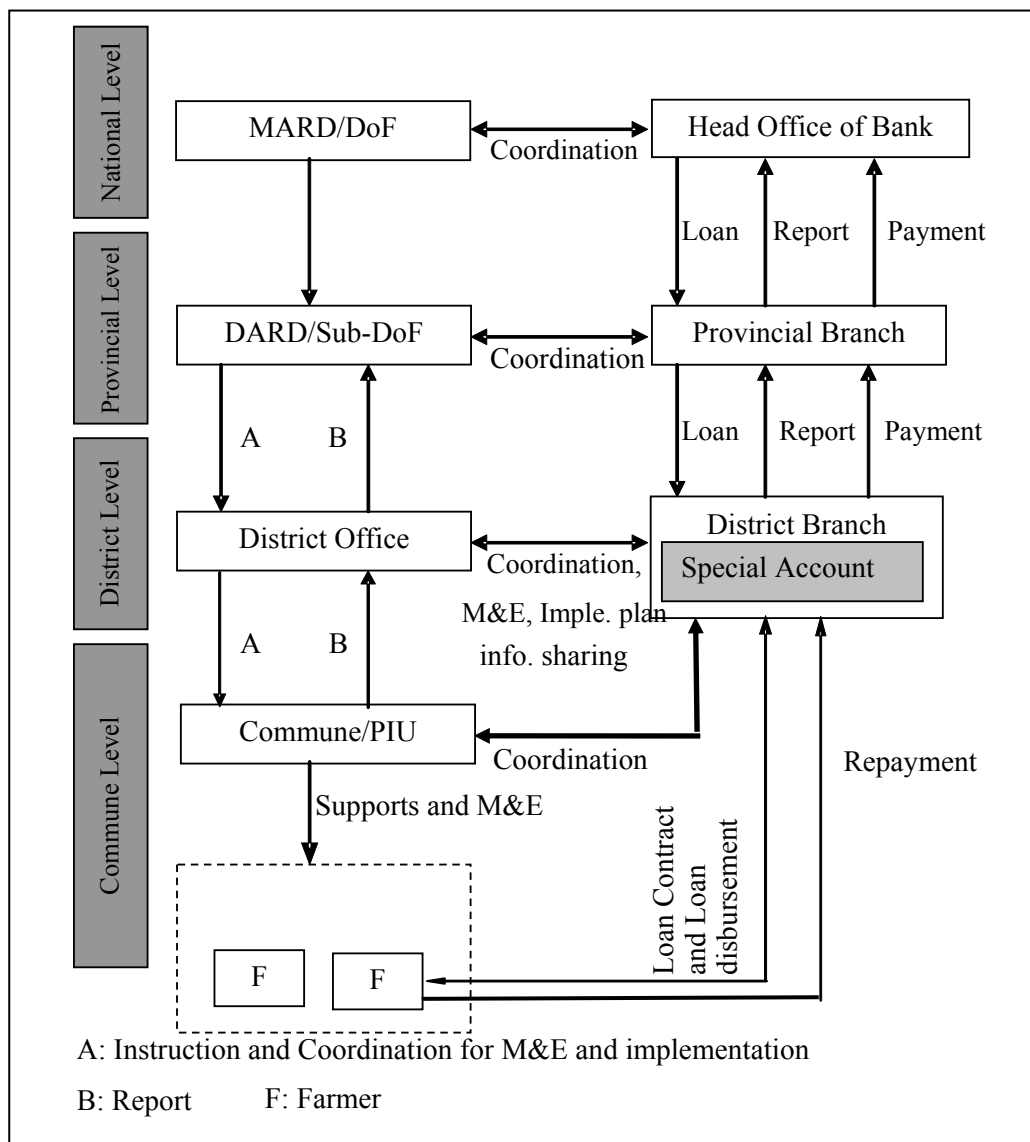
Financial reports prepared by VBSP as part of their routine activities on a monthly, quarterly and yearly basis. An annual report is prepared at end of January every year. Reporting data based on loan data recorded as of end of December in the previous year. Reporting procedures and tables are prepared in a uniform way applied by the banking system. The chief accountant of the district financial branch office will be responsible for

report preparation, which signed by the director and submitted to the higher authority of the institution. Through the existing reporting system of VBSP, the PIU will receive information related to loan disbursement and repayment concerning the project.

According to the State’s auditing procedures, by end of each year, the State auditing mission may visit the project although their auditing is done on a selected basis. Depending on the needs, auditing can be unexpectedly carried out at any time in the year.

Detailed loan procedures based on the loan manual of VBSP, which includes collateral requirements and procedures in the event of default.

Figure 2 Funds Flow for Agro-forestry Development



3.3 Government budgets for project management and technical assistance

It is planned that the management and operation of the project, employment of local consultants, and organization of training courses are funded with the Vietnamese government budgets at the provincial and district levels.

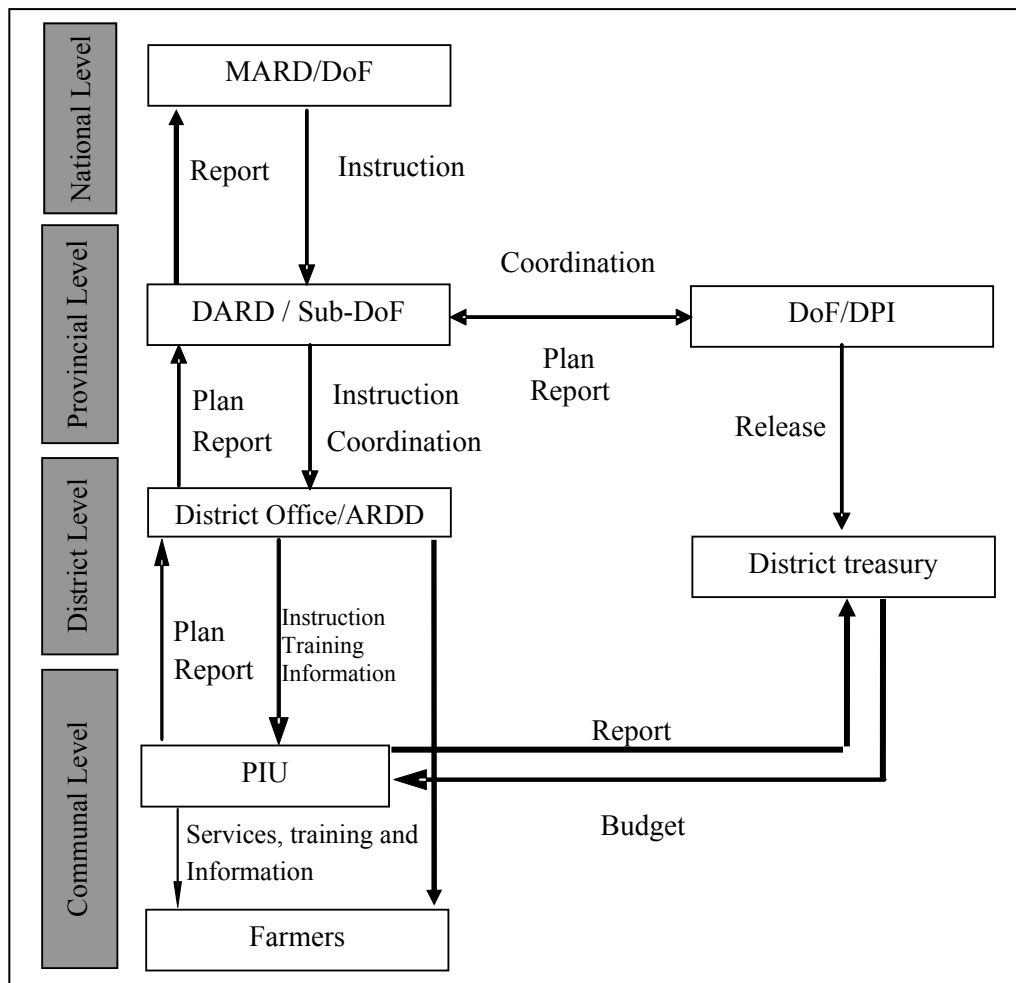
The financial and budgetary procedures and reporting system relating to the government budgets will follow the state management budgetary system.

Department of Planning and Investment (DPI) and Department of Finance (DoF) at the provincial office and Division of Finance and Planning and Treasury Division at the district office will be mainly involved in the process. Relevant government decrees and circulars are shown as follows:

- (i) State budget law in 2002
- (ii) Decree Nr. 60/2003/CP dated 6/6/2003 of the Government stipulating detailed regulations and guidance on implementation of the State budget law
- (iii) Circular Nr. 59/2003/TT-BTC dated 23/6/2003 of Ministry of Finance guiding implementation of Decree Nr. 60/2003/CP dated 6/6/2003 of the Government stipulating detailed regulations and guidance on implementation of the State budget law;
- (iv) Decision documents from the Thai Nguyen PPC.

These procedures permit the disbursement of funds, on the basis of an approved annual implementation plan and budget, from the provincial government to a project account through the district treasury.

Figure 3 Fund Flow for Project Management Component and Technical Service



The district treasury division sets up a project account for PIU in order to administrate the project management budgets in accordance with the progress of the project implementation. All the expenditures of PIU are monitored and inspected by the finance and planning division of the district office as part of the settlement procedures of annual budget accounts during the first quarter of the year.

It is planned that the budget for the project management and M&E component is originated from the provincial budget (partly from district budget), channeled through functional sections and PIU. The annual schedule of the budget preparation is described in the table 2.8 below.

Table 2.7 Annual Budget Cycle at District People’s Committee

	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Annual Planning												
Submission to PPC												
Development of detailed estimation												
Appraisal												
PPC's decision												
Budget release to communes												
Settlement of accounts for the previous year and submit it to DoF												

PIU prepares and sends the project implementation report on monthly, quarterly and annual basis in accordance with the existing regulations on state budget management to district and provincial governments. Annually, PIU has to prepare and submit reports on account balance to the district and provincial governments in the regulated tables and format.

At the completion of the project (i.e. end of the assistance period), PIU prepares and submits the account balance to competent authorities for approval. PIU synthesizes and balances between financial and implementation progress reports to see if there is any issues to be supplemented for further reporting to district and provincial governments.

Similar to the general auditing procedures, the State auditing committee will audit all financially-related aspects on annual or several years basis. Depending on the necessity, unexpected auditing can be taken place at any time of the year.

4 PROCUREMENT ARRANGEMENTS

4.1 Procurement Plan

In the project, it is planned to buy seedlings and fertilizers for the agro-forestry development and to buy office equipment for PIU. It is also planned that consultants are employed for provision of various services such as agro-forestry plot design and capacity building for project staff and farmers.

For the procurement of these goods and services, there are government procurement procedures and documentation that the provincial government of Thai Nguyen and district government of Phu Binh have to follow. PIU is also required to comply with these government procurement guidelines.

The following table shows the procurement plan under the project, which shows the items to be procured under respective component together with the packages, procurement method, and organizations responsible for the procurement of goods and services concerned.

Table 2.8 Procurement plan

Item Comp	Item to be procured	Lot/Package for procurement	Procurement method	Responsible organization	Remarks
Comp 1	Seedlings	One package in each year	Local shopping	Farmers	
	Fertilizer	One package in each year	Local shopping	Farmers	
Comp 2	Office equipment (Note)	One package	Local shopping	PIU	
Comp 3-1	Consultancy service for planting plot designing	Individual basis	Direct contracting	PIU	
Comp 3-2	Consultancy service for training and institutional capacity building	Individual basis	Direct contracting	PIU	

Note: Materials for training are included in the office equipment.

4.2 Procurement flow with approval process
















4.2.1 Procurement of Goods

In the Component of agro-forestry models development, participating farmers purchase seedlings and fertilizers with the assistance of PIU. Detailed procurement flow is shown in Table 2.10. PIU requests several suppliers, which recommended by Sub-DoF, to present price quotations together with quality and delivery schedules. Based on comparing the price quotations, PIU recommended the most suitable supplier to farmers. PIU assists farmers in procurement, for example, by helping them prepare an order form and by examining quality of goods delivered. PIU purchases directly office equipments based on comparing quotations of several traders.

4.2.2 Procurement of Services

Regarding the technical services for agro-forestry plot design, and training and institutional development, PIU will select consultancy companies through the direct contracting. Based on information of Sub-DoF, PIU selects a proper consultancy companies, which is able to conduct services in the project area. A detailed procurement flow of a consultancy company is shown in Table 2.10.

Table 2.9 Procurement Flow of Seedlings and Fertilizer

No	Expected Schedule	Action	Farmers	PIU	Supplier	Sub-DoF	Remarks
1	Nov-Dec (Previous year)	Estimate and inform quantity of seedlings and fertilizer					Farmers estimate a number of seedlings and amount of fertilizers needed and inform PIU, of the quantity for their technical review. Sub-DoF office recommends the suppliers for PIU and farmers for selecting the most appropriate suppliers based on the quotations.
2	January	Selection of suppliers					PIU aggregates the number of seedlings and amount of fertilizer required in the project area for the year. Based on the aggregated quantity, PIU requests several suppliers, which recommended by the Sub-DoF office to present their price quotations together with the quality and delivery schedule.
3	Feb-March	Confirm quantity of seedlings and fertilizer					Farmers confirm the quantity of seedlings and fertilizer to be procured together with the suppliers to purchase from.
4	April	Placing orders of seedlings and fertilizer					Farmers order seedlings and fertilizers. PIU collect order forms of farmers in the Tan Hoa commune and aggregates the number of seedlings and amount of fertilizers, and place a purchasing order with the suppliers concerned.
5	May-June	Delivery and inspection of seedlings and fertilizer					The supplier informs farmers of delivery points and schedules through PIU in advance. It directly delivers seedlings or fertilizers to farmers. PIU conduct on-site inspection of the quality of seedlings and fertilizer. Farmers confirm quantity of seedlings and fertilizers delivered. Farmers sign the receipts of materials delivered and send them to suppliers through PIU.
6	July	Payment for seedlings and fertilizer					Household directly pays a bill for seedlings and fertilizer to respective suppliers based on their request for payment.

Note: In case of the office equipment, PIU procures the equipment by direct contracting. The procurement follows PIU's internal procedures.

Table 2.10 Procurement procedure for consultancy service

No	Expected Schedule	Action	PIU	Consultancy company	Sub-DoF	Remarks
1	Jan-Feb	Confirmation of service contents to be ordered	⊙		⊙	PIU re-examines necessary consultancy services to be procured and prepares Terms of Reference (TOR) of the services. PIU submits their plan to the Sub-DoF for approval through Phu Binh PC.
2	March	Approval of service contents by Sub-DoF			⊙	Sub-DoF/ DPC examines and approves the TOR. If they find it necessary to revise it, it holds meetings with PIU for revision.
3	April	Selection of consultancy company and request for proposal	⊙	⊙		After approval by Sub-DoF/DPC, PIU selects consultancy company in accordance with the procurement guidelines and request the selected consultancy company to prepare proposals for the consultancy services.
4	May	Evaluation of proposal of consultancy company	⊙	⊙		Consultancy company proposes a plan of services. PIU examines the plan. When a proposal is found appropriate, PIU approves and inform to Sub-DoF/DPC that PIU has approved a proposed plan of service.
5	Dec	Payment for consultancy services	⊙	⊙		PIU pays a bill for services to the consultancy company based on their request for payment as they proceed with the services.

Note: Consultants provide services for a period of six months in the above case.

5 SALES AND MARKETING

5.1 Overview of sales and marketing conditions

There is high demand of wood materials in Thai Nguyen province for processing, construction and furniture, and demand for chips is increased as well. The total value of wood production in Thai Nguyen province is around 40 billion VND. Non Timber Forest Products (NTFP) has also been contributing greatly for the export, though it is not very big.

Phu Binh town to Thai Nguyen city is 45 Km, to Hanoi is 80 Km. There is good road system, so that local people can be use many means of transport to take products to the market.

There are number of factories located in and outside of the Thai Nguyen province, among which Thai Nguyen Particle Board Factory is one of the major target markets. Target markets of agro-forestry products are domestic markets such as Thai Nguyen city and Hanoi, and also been contributed greatly for the export, though it is not very big.

5.2 Sales and marketing flow

5.2.1 Identification of stakeholders

The four stakeholders have been identified that are involved in the sales and marketing activities of the project. They are farmers, PIU, intermediate agent and Thai Nguyen Particle Board Factory. Farmers are major actors in the project. They conduct agro-forestry activities. PIU conducts coordination works as an implementation agency from a viewpoint of attaining the project objectives, such as exchange of information on demand and supply of wood materials. Thai Nguyen Particle Board Factory is an important stakeholder in the process of sales and marketing. TNPBF, a target market of the project, buys wood materials for chips from farmers. In order to procure wood materials, TNPBF concludes a purchasing agreement of wood materials with intermediate agents.

5.2.2 Examination of actions to be taken

There are two stages of activities relating sales and marketing in the project. First stage (No.1 to No.6 in the flow chart on the following page) is the one relating to arrangement of sales and marketing information for conducting activities of selling and purchasing of wood materials. In this stage, collection and dissemination of market information are conducted for sharing common understandings among stakeholders on market conditions. The exchange of information about demand and supply of wood materials between PIU and TNPBF is conducted at the end of first stage as final activities for arrangement of sales and marketing information.

Then concrete activities relating selling and purchasing of wood materials as raw materials for chips are started among stakeholders. This is the second stage (No.7 to No.12 in the flowchart). In this stage, site survey, negotiation of sales contract and harvesting are conducted. As final activity of this stage, payment of bill is conducted. 12 steps are identified for sales and marketing activities over these two stages.

5.2.3 Preparation of sales and marketing flow

As for respective steps of sales and marketing activities, examination made on roles and functions that respective stakeholders play in connection with sales and marketing activities, and relationships among the stakeholders. The results of examination are incorporated into the table of Sales Marketing Flow for wood products on the following page.

A general description of the sales and marketing flow is given as follows. In order to share information on market conditions among stakeholders, PIU exchanges information with TNPBF as user of wood materials and with farmers as producer of wood materials. After exchange of market information between PIU and TNPBF, TNPBF and an intermediate agent agree on sales and purchasing conditions of wood materials based on information exchanged. The intermediate agents, for purchasing wood materials, start to negotiate with farmers who own wood materials concerned. PIU act as a coordinator, and assist farmers during the negotiation. Finally, intermediate agents deliver wood materials to TNPBF and then a cycle of sales and marketing activities are completed. In the column for remarks of the table, detail description of each step is given.

Table 2.11 Sales and marketing flow of wood product

No	Expected Schedule	Stakeholder Action	Farmers	Project Implementation Unit	Intermediate agent	Thai Nguyen particle board factory	Remarks
1		Review the market conditions	○	○	○	○	PIU review and update the data and information collected during the preparation of F/S in terms of the demand and supply, and prices of wood materials in the target markets including Intermediate agent and TNPBF.
2		Collection of procurement plan of TNPBF		○		○	PIU requests TNPBF to provide a plan for procurement of wood materials in terms of quantity, quality, specification and price.
3		Provide market information	○	○			PIU organize the meeting with farmers. On the meeting, PIU provides market information, especially TNPBF's plan for procurement.
4		Intention of harvesting	○	○			Farmers collect data of the area and standing volume to be harvested. Then, the information is transferred to PIU.
5		Pre-assessment of site proposed	○	○		○	PIU conducts pre-assessment of conditions of sites proposed for harvesting, especially total amount of standing volume and size of standing trees are confirmed. The result of pre-assessment is transferred to TNPBF.
6		Demand and supply of products		○		○	PIU and TNPBF exchange information on the demand and supply of wood materials (such as the specifications, quantities, prices). PIU informs the result of pre-assessment. TNPBF informs his proposal on procurement of wood materials.

No	Expected Schedule	Stakeholder Action	Farmers	Project Implementation Unit	Intermediate agent	Thai Nguyen particle board factory	Remarks
7		Agreement between TNPBF and Intermediate agent					TNPBF and Intermediate agent agree on sales and purchasing conditions of wood materials.
8		Site survey on condition of forests					Intermediate agent conducts site survey on conditions of forests where farmers have shown their intention to sell their trees. PIU to coordinate and join the survey as a
9		Negotiation on sales condition					Based on the survey, Intermediate agent who is representative of farmers negotiates on sales conditions such as prices, specifications, quantity, and delivery conditions of wood materials. PIU helps Intermediate agent on negotiation if requested.
10		Sales contract					When they agree upon sales conditions, sales contract is concluded between Intermediate agent and farmers. PIU signs the contract as witness.
11		Harvest of wood materials and payment of the bill					Intermediate agent harvests standing trees and takes out wood materials. At the time of taking out wood materials, PIU participates the inspection as witness. After inspection, Intermediate agent pays a bill directly to farmers based on request from farmers.
12		Delivery and Payment					Intermediate agent delivers wood materials to TNPBF. Inspection is conducted at factory gate by TNPBF. After inspection, base on request of Intermediate agent, TNPBF pays bill directly Intermediate agent.

Note: indicates a stakeholder who are directly involved in actions concerned. indicates a direction of actions. indicates a stakeholder who coordinates actions among stakeholders who are directly involved in actions.

6 TRAINING PLAN

6.1 Training Plan at the field level

Two training course is carried out for improving the capacity of farmers for implementation of agro-forestry.

First course is training of trainers who are expected to conduct on site training for farmers. Target trainees are communal extension workers, staffs of Phu Binh forest protection office and Phu Binh agricultural and rural development division. Second course is training for farmers who have lands for the development of agro-forestry in project area and participate to the project. The brief contents of two training course is as follows and detailed plan is shown in the table below.

First course

Number of training: one times

Duration of training: one day

Number of trainees: 20 persons

Training content: Technology transfer skill and knowledge of project management

Second course

Number of training: 11 times

Duration of training: one day

Number of trainees: 200 persons

Training content: Basic Knowledge and skills on agro-forestry techniques

6.2 Training plan at the level of the implementing agency

The extension workers, a project director, finance and planning manager, technical and coordinator are required to strengthen their capacity in the field of the project management, finance and planning skills, technical and coordination skills as well as the accounting skills.

Training in the respective fields should be carried out by the experts to be employed under the project, and specialists of DARD in the respective fields. The study trips to other projects will be also organized as part of the training for them.

The following skills and knowledge are to be strengthened and to be acquired.

- (1) Preparation of annual plan;
- (2) Silvicultural skills;
- (3) Teaching skills to transfer technology/knowledge for establishing agro-forestry models;
- (4) Facilitation skills in carrying out activities, including group formation, through the participatory approach;
- (5) Basic knowledge about the proposed loan scheme, including application and repayment procedures;
- (6) Skills in preparing and managing documents and reports;
- (7) Monitoring skills of the progress of the project; and
- (8) Familiarization of recently approved laws and regulations related to agro-forestry.

Table 2.12 Training Plan

Title	Objective	Training content	No of courses	Target participants	No of participant	Duration	Timing	Cost	Instructor	Place
Training of trainers (TOT)	Increase extension capabilities of extension workers in order to select teachers for Farmers' training course	Transfer technology in Silvicultural skills Guide and co-ordinate, management PA, Preparation of annual plan , Basic knowledge about the proposed loan scheme, improvement for the project management, Forest laws.	1	Trainers (extension officers)	20	Total of 1 day	Quarter II/2006	VND 4,200 million	Extension center in the Province / Thai Nguyen Agriculture and Forestry University	Tan Hoa com. Or Phu Binh district
Leaders' training course	Increase leaders' capabilities in undertaking the project	Basic project knowledge (Including administration issues) Afforestation technique	1	Village Support Group Leader, project staff.	10	Total of 1 day	Nov -Dec	VND 4.200 million	Extension center in the Province	At commune
Farmers' training course	Increase farmers' capabilities in implementing the project	Basic project knowledge Agro- forestry technique	9	Farmers	200	Total of 1 day	Quarter I/2007, Quarter II/2008, Quarter II/2009,	VND 38,200 million	Extension officers in the District and commune level	Tan Hoa com. Or Phu Binh district
			11		230			Total VND 46,600million		

Notes: Teacher: 400.000 VND/man-day; Trainees: VND 50.000 man-day, drinking water: VND 10.000 man-day, material: VND 1,1000 million, Total of training courses: VND 4,600.000 million.

7 MONITORING AND EVALUATION

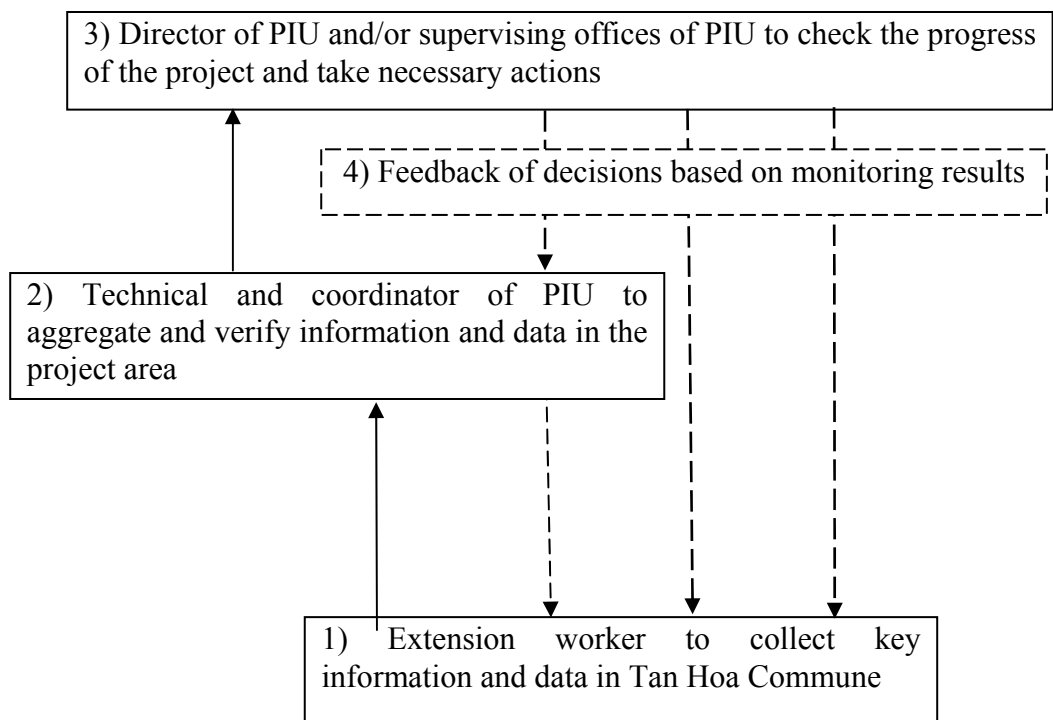
7.1 Monitoring

The monitoring aims to check the progress of the project and to take actions for modification of the plan if necessary.

The overall responsibility of the project monitoring, including reporting of the results, rests with director PIU and daily monitoring conducted by the extension workers. Monitoring activities are well integrated into a regular/routine recording and reporting system, and facilitated with simple reporting formats. Upon the completion of major events such as community meetings, group formation, conclusion of loan contracts, group training, delivery of planting materials, extension workers inform about the performance of the project to technical and coordinator of PIU in order to check the results in light of the plan, and then take appropriate actions if necessary. The technical and coordinator at PIU carries out periodical field examination to crosscheck the project performance and prepare progress reports.

The following figure illustrates the tentative monitoring mechanism and information flow from extension workers to the decision-making body of the project and the feedback system.

Figure 4 Tentative Monitoring Mechanism and Information Flow



Key information and data to be collected are called progress indicators. As shown in the PDM, the following indicators have been set to monitor the achievement of outputs. Indicators of project outputs that are specific can be set as in the following (1) to (5).

(Output 1)

140 ha of degraded Eucalyptus plantations are replaced by five agro-forestry models

(Output 2)

A PIU is established in 2006.

800 million VND of loans is disbursed to farmers.

Results of monitoring are reported regularly.

(Output 3)

Agro-forestry plot design is conducted properly in 140 ha of forest land by 2010.

9 training courses for farmers and 2 training courses for PIU staff is conducted.

7.2 Evaluation

Evaluation aims to make recommendations on the future course of the project and draw lessons for other projects. It will be carried out during or after the assistance period of the project by using all the results of the project, particularly achievement of the objective of the assistance, the project objective, and the overall goal. Together with the progress indicators mentioned in the above section, the following development indicators will be used for the evaluation of the project.

Development indicator to evaluate the achievement of the objective of the assistance period is that 140 ha of degraded Eucalyptus forest is converted to agro-forestry plot by 2010. Development indicator to evaluate the achievement of the project objective is that 130 m³/ha/year of commercial wood, 3 tons/ha/year of agricultural product and 1.8 tons/ha/year of fruit are harvested. Development indicator to evaluate the achievement of the overall goal is that Poverty rate is reduced.

An evaluation team be organized by a third party, independent from the PIU of the project, such as faculty members of Thai Nguyen University of Agriculture and Forestry. However, if it is not possible to form an independent evaluation team, the provincial government, DARD in particular, will take an initiative to evaluate the project. Representatives of the target beneficiaries will also participate in the evaluation team. The evaluation team promptly feedbacks the evaluation results to the parties involved in the project such as the provincial, district, and commune PC. In this case, as well, the provincial government may receive comments on the project performance of the project from the third party to ensure its objectivity of the evaluation.

Table 2.13 Monitoring and Evaluation Plan

Briefing	Criteria	Method of evaluation	Data collection			Report aggregation			Decision issuing		Sending Decision for implementation	
			Collector	Time & sequence	Method	Send to	Time & sequence	Method	Who	Time & sequence	Time	Method
Overall objective	To 2010, Agro-forestry for 139,78 ha implemented.	Project implementation report; Accounting book, Business report of forest product	Evaluation group	Dec. annum since year 2 (2007)	Reference of docs. and reports	Tân Hòa commune PIU	Dec. annum since year 2 (2007)	Aggregation and analysis data from collected sources	Head of PIU	Dec. annum since year 2 (2007)	January of following year	Direct
Project objective	In 2010, 139.78 ha of Eucalyptus replaced by 5 models in 4 villages Tan Hoa Commune by multipurpose species mix crop.	Business report forest product 2019. Statistic book	Evaluation group	12 - 2019	Reference of report, documents, field survey	District PIU and DPC	12 - 2019	Aggregation and analysis of data from collected sources	Head of PIU	12 - 2019		
Project results												
1-1 Agro-forestry models established	Agro- forestry models established in 4 villages Tan Hoa commune	Meeting minutes	Evaluation group	Dec. every year since 2007 to 2010	Reference of documents available in the commune filed sampling	Tan Hoa PIU and Tan Hoa CPC	Dec. every year since 2007 to 2010	Aggregation of data from information sources collected and reporting	Head of Tân Hòa PIU	Dec. annum since 2007 to 2010	Q. IV of the same year	Direct
2-1 Setting up Tan Hoa PIU	2-1 The PIU has been had a decision by Thai nguyen Province;	Decision for PIU establishment	Evaluation group	Q. II 2006	Reference of documents available in the commune	Phú Binh DPC	Q. II 2006	Copying the Decision and reports	Chairman of Phu Binh DPC	Q. II 2006	Q. II 2006	Administrative
2-2 Establishment of loan Scheme with a Bank	The stallholders loan from the Bank with total: VND 5,5 billion in 4 years	Project reports	Evaluation group	Dec. every year since 2007 to 2010	Reference of documents available in the commune filed sampling	Tan Hoa PIU and Tan Hoa CPC	Dec. every year since 2007 to 2010	Aggregation of data from information sources collected and reporting	Head of Tân Hòa PIU	Dec. annum since 2007 to 2010	Q. IV of the same year	Direct
2-3) Project management and M&E established	2-3 Every month having a project monthly report and every quarter and half of a year having a report.	Quarter and annual year reports.	Evaluation group	Dec. every year since 2007 to 2019	Reference of documents available in the commune filed sampling	Tan Hoa PIU and Tan Hoa CPC	Dec. every year since 2007 to 2019	Aggregation of data from information sources collected and reporting	Head of Tân Hòa PIU	Dec. annum since 2007 to 2019	Q. IV of the same year	Direct
3-1 Agro-forestry models plots designed	5 models of agro-forestry in the four villages in Tan Hoa commune designed.	Agro- forestry plots design doc., land use map, report on Agro- forestry results	Evaluation group	Dec. every year since 2007 to 2010	Reference of documents available in the commune filed sampling	Tan Hoa PIU and Tan Hoa CPC	Dec. every year since 2007 to 2010	Aggregation of data from information sources collected and reporting	Head of Tân Hòa PIU	Dec. annum since 2007 to 2010	Q. IV of the same year	Direct
3-2) Technical service activities implemented	9 training courses for 230 people to be trained. Farmers loan VND 6.0 million from the Bank. 139.78 of 5 agro- forestry plots designed.	Training course reports; Financial reports; Documents of agro- forestry plots design.	Evaluation group	Dec. every year since 2007 to 2010	Reference of documents available in the commune filed sampling	Tan Hoa PIU and Tan Hoa CPC	Dec. every year since 2007 to 2010	Aggregation of data from information sources collected and reporting	Head of Tân Hòa PIU	Dec. annum since 2007 to 2010	Q. IV of the same year	Direct

ANNEX

ANNEX 1: Operation Plan for agro-forestry

Table A1.1: Implementation Plan by Plots in Year 1

No.	Plot	Total area (ha)	Agro- forestry plan (ha)				Other			
			Soil preparation	Digging hole	Tree planting	Supplementary planting	Tending 1	Fertilizing	Pest prevention	Fire
Total		139,78	20	20	20	20	20	20	20	
1	12	6,17								
2	43	2,6								
3	47	6,21								
4	54	1,41								
5	10b	36,96	5	5	5	5	5	5	5	5
6	22	4,37								
7	45a	1,36								
8	46	4,28								
9	48	2,24								
10	56	2,72								
11	10a	3,19								
Gian		71,51	5	5	5	5	5	5	5	5
13	122	0,86								
14	77	1,23								
15	103	3,72	1,2	1,2	1,2	1,2	1,2	1,2	1,2	12
16	23	2,5								
17	24	1,43								
18	45b	1,95								
19	53	2,16								
20	58	2,97	1,97	1,97	1,97	1,97	1,97	1,97	1,97	1,97
21	68	3,83	1,83	1,83	1,83	1,83	1,83	1,83	1,83	1,83
22	59	1,13								
Ngo		21,78	5	5	5	5	5	5	5	5
24	52	2,14								
25	57a	2,4								
26	57b	0,96								
28	114	1,2								
29	115	2,88	1,88	1,88	1,88	1,88	1,88	1,88	1,88	1,88
30	116	1,34								
31	55b	1,73								

32	55c	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3
33	60	1,7								
34	62	2,1								
35	95	1,82	1,82	1,82	1,82	1,82	1,82	1,82	1,82	1,82
36	96	4,4								
37	97	1,52								
U		25,49	5	5	5	5	5	5	5	5
38	117	1,76	1	1	1	1	1	1	1	1
39	120	1,57	1	1	1	1	1	1	1	1
40	125	1,55								
41	118	2,34	1	1	1	1	1	1	1	1
42	126	2,4								
43	133	4,22	1	1	1	1	1	1	1	1
44	134a	1,87								
45	134b	5,01	1	1	1	1	1	1	1	1
46	132	0,28								
Vau		21	5	5	5	5	5	5	5	5

Table A1.2: Implementation Plan by Plots in Year 2

No.	Plot	Total area (ha)	Planting plan (ha)				Protection					
			Soil preparations	Digging hole	Tree planting	Supplementary planting	Tending 1	Fertilizing	Pest prevention	Thinning	Fire	Pest
Total		139.78	30	30	30	30	50	50	50	50	50	50
1	12	6.17										
2	43	2.6										
3	47	6.21										
4	54	1.41										
5	10b	36.96	15	15	15	15	15	15	15	15	15	15
6	22	4.37										
7	45a	1.36										
8	46	4.28										
9	48	2.24										
10	56	2.72										
11	10a	3.19										
Gian		71.51	15	15	15	15	15	15	15	15	15	15
12	122	0.86										
13	77	1.23										
14	103	3.72	1	1	1	1	2.2	2.2	2.2	2.2	2.2	2.2
15	23	2.5										
16	24	1.43	1	1	1	1	1	1	1	1	1	1
17	45b	1.95										
18	53	2.16										
19	58	2.97	1	1	1	1	2.97	2.97	2.97	2.97	2.97	2.97
20	68	3.83	2	2	2	2	3.83	3.83	3.83	3.83	3.83	3.83
21	59	1.13										
Ngo		21.78	5	5	5	5	10	10	10	10	10	10
22	52	2.14										
23	57a	2.4	1	1	1	1	1	1	1	1	1	1
24	57b	0.96										
25	114	1.2										
26	115	2.88	1	1	1	1	2.88	2.88	2.88	2.88	2.88	2.88

27	116	1.34											
28	55b	1.73											
29	55c	1.3					1.3	1.3	1.3	1.3	1.3	1.3	1.3
30	60	1.7	1	1	1	1	1	1	1	1	1	1	1
31	62	2.1	1	1	1	1	1	1	1	1	1	1	1
32	95	1.82					1.82	1.82	1.82	1.82	1.82	1.82	1.82
33	96	4.4											
34	97	1.52	1	1	1	1	1	1	1	1	1	1	1
U		25.49	5	5	5	5	10	10	10	10	10	10	10
35	117	1.76	0.76	0.76	0.76	0.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76
36	120	1.57					1	1	1	1	1	1	1
37	125	1.55	1	1	1	1	1	1	1	1	1	1	1
38	118	2.34	1.34	1.34	1.34	1.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34
39	126	2.4	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
40	133	4.22					1	1	1	1	1	1	1
41	134a	1.87											
42	134b	5.01	1	1	1	1	2	2	2	2	2	2	2
43	132	0.28											
Vau		21	5	5	5	5	10	10	10	10	10	10	10

Table A1.3: Implementation Plan by Plots in Year 3

No.	Plot	Total area (ha)	Planting plan (ha)				Protection					
			Soil preparations	Digging hole	Tree planting	Supplementary planting	Tending 1	Fertilizing	Pest prevention	Thinning	Fire	Pest
Total		139,78	80	80	80	80	130	130	130	130	130	130
1	12	6,17	6,17	6,17	6,17	6,17	6,17	6,17	6,17	6,17	6,17	6,17
2	43	2,6	2,6	2,6	2,6	2,6	2,6	2,6	2,6	2,6	2,6	2,6
3	47	6,21	6,21	6,21	6,21	6,21	6,21	6,21	6,21	6,21	6,21	6,21
4	54	1,41	1,41	1,41	1,41	1,41	1,41	1,41	1,41	1,41	1,41	1,41
5	10b	36,96	14,96	14,96	14,96	14,96	34,96	34,96	34,96	34,96	34,96	34,96
6	22	4,37	4,37	4,37	4,37	4,37	4,37	4,37	4,37	4,37	4,37	4,37
7	45a	1,36	1,36	1,36	1,36	1,36	1,36	1,36	1,36	1,36	1,36	1,36
8	46	4,28	4,28	4,28	4,28	4,28	4,28	4,28	4,28	4,28	4,28	4,28
9	48	2,24	2,24	2,24	2,24	2,24	2,24	2,24	2,24	2,24	2,24	2,24
10	56	2,72	2,72	2,72	2,72	2,72	2,72	2,72	2,72	2,72	2,72	2,72
11	10a	3,19	3,19	3,19	3,19	3,19	3,19	3,19	3,19	3,19	3,19	3,19
Gian		71,51	49,51	49,51	49,51	49,51	69,51	69,51	69,51	69,51	69,51	69,51
13	122	0,86										
14	77	1,23	0,74	0,74	0,74	0,74	0,74	0,74	0,74	0,74	0,74	0,74
15	103	3,72	1,52	1,52	1,52	1,52	3,72	3,72	3,72	3,72	3,72	3,72
16	23	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5
17	24	1,43					1	1	1	1	1	1
18	45b	1,95	1,95	1,95	1,95	1,95	1,95	1,95	1,95	1,95	1,95	1,95
19	53	2,16	2,16	2,16	2,16	2,16	2,16	2,16	2,16	2,16	2,16	2,16
20	58	2,97					2,97	2,97	2,97	2,97	2,97	2,97
21	68	3,83					3,83	3,83	3,83	3,83	3,83	3,83
22	59	1,13	1,13	1,13	1,13	1,13	1,13	1,13	1,13	1,13	1,13	1,13
Ngo		21,78	10	10	10	10	20	20	20	20	20	20
24	52	2,14	1,14	1,14	1,14	1,14	1,14	1,14	1,14	1,14	1,14	1,14
25	57a	2,4	1,4	1,4	1,4	1,4	2,4	2,4	2,4	2,4	2,4	2,4
26	57b	0,96	0,96	0,96	0,96	0,96	0,96	0,96	0,96	0,96	0,96	0,96
28	114	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2
29	115	2,88					2,88	2,88	2,88	2,88	2,88	2,88
30	116	1,34	1,34	1,34	1,34	1,34	1,34	1,34	1,34	1,34	1,34	1,34

31	55b	1,73	1,73	1,73	1,73	1,73	1,73	1,73	1,73	1,73	1,73	1,73	1,73
32	55c	1,3					1,3	1,3	1,3	1,3	1,3	1,3	1,3
33	60	1,7	0,7	0,7	0,7	0,7	1,7	1,7	1,7	1,7	1,7	1,7	1,7
34	62	2,1	1,1	1,1	1,1	1,1	2,1	2,1	2,1	2,1	2,1	2,1	2,1
35	95	1,82					1,82	1,82	1,82	1,82	1,82	1,82	1,82
36	96	4,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4
37	97	1,52	0,52	0,52	0,52	0,52	1,52	1,52	1,52	1,52	1,52	1,52	1,52
U		25,49	12,49	12,49	12,49	12,49	22,49	22,49	22,49	22,49	22,49	22,49	22,49
38	117	1,76					1,76	1,76	1,76	1,76	1,76	1,76	1,76
39	120	1,57	0,57	0,57	0,57	0,57	1,57	1,57	1,57	1,57	1,57	1,57	1,57
40	125	1,55					1	1	1	1	1	1	1
41	118	2,34					2,34	2,34	2,34	2,34	2,34	2,34	2,34
42	126	2,4	1,4	1,4	1,4	1,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4
43	133	4,22	2,22	2,22	2,22	2,22	3,22	3,22	3,22	3,22	3,22	3,22	3,22
44	134a	1,87	1	1	1	1	1	1	1	1	1	1	1
45	134b	5,01	2,8	2,8	2,8	2,8	4,8	4,8	4,8	4,8	4,8	4,8	4,8
46	132	0,28											
Vau		21	8	8	8	8	18	18	18	18	18	18	18

Table A1.4: Implementation Plan by Plots in Year 4

No.	plot	Total area (ha)	Planting plan (ha)				Protection					
			Soil preparations	Digging hole	Tree planting	Supplementary planting	Tending 1	Fertilizing	Pest prevention	Thinning	Fire	Pest
Total		139,78	9,78	9,78	9,78	9,78	119,78	119,78	119,78	119,78	139,78	139,78
1	12	6,17					6,17	6,17	6,17	6,17	6,17	6,17
2	43	2,6					2,6	2,6	2,6	2,6	2,6	2,6
3	47	6,21					6,21	6,21	6,21	6,21	6,21	6,21
4	54	1,41					1,41	1,41	1,41	1,41	1,41	1,41
5	10b	36,96	2	2	2	2	36,96	36,96	36,96	36,96	36,96	36,96
6	22	4,37					4,37	4,37	4,37	4,37	4,37	4,37
7	45a	1,36					1,36	1,36	1,36	1,36	1,36	1,36
8	46	4,28					4,28	4,28	4,28	4,28	4,28	4,28
9	48	2,24					2,24	2,24	2,24	2,24	2,24	2,24
10	56	2,72					2,72	2,72	2,72	2,72	2,72	2,72
11	10a	3,19					3,19	3,19	3,19	3,19	3,19	3,19
Gian		71,51	2	2	2	2	66,51	66,51	66,51	66,51	71,51	71,51
13	122	0,86	0,86	0,86	0,86	0,86	0,86	0,86	0,86	0,86	0,86	0,86
14	77	1,23	0,49	0,49	0,49	0,49	1,23	1,23	1,23	1,23	1,23	1,23
15	103	3,72					2,52	2,52	2,52	2,52	3,72	3,72
16	23	2,5					2,5	2,5	2,5	2,5	2,5	2,5
17	24	1,43	0,43	0,43	0,43	0,43	1,43	1,43	1,43	1,43	1,43	1,43
18	45b	1,95					1,95	1,95	1,95	1,95	1,95	1,95
19	53	2,16					2,16	2,16	2,16	2,16	2,16	2,16
20	58	2,97					1	1	1	1	2,97	2,97
21	68	3,83					2	2	2	2	3,83	3,83
22	59	1,13					1,13	1,13	1,13	1,13	1,13	1,13
Ngo		21,78	1,78	1,78	1,78	1,78	16,78	16,78	16,78	16,78	21,78	21,78
24	52	2,14	1	1	1	1	2,14	2,14	2,14	2,14	2,14	2,14
25	57a	2,4					2,4	2,4	2,4	2,4	2,4	2,4
26	57b	0,96					0,96	0,96	0,96	0,96	0,96	0,96
28	114	1,2					1,2	1,2	1,2	1,2	1,2	1,2
29	115	2,88					1	1	1	1	2,88	2,88
30	116	1,34					1,34	1,34	1,34	1,34	1,34	1,34

31	55b	1,73					1,73	1,73	1,73	1,73	1,73	1,73
32	55c	1,3									1,3	1,3
33	60	1,7					1,7	1,7	1,7	1,7	1,7	1,7
34	62	2,1					2,1	2,1	2,1	2,1	2,1	2,1
35	95	1,82									1,82	1,82
36	96	4,4	2	2	2	2	4,4	4,4	4,4	4,4	4,4	4,4
37	97	1,52					1,52	1,52	1,52	1,52	1,52	1,52
U		25,49	3	3	3	3	20,49	20,49	20,49	20,49	25,49	25,49
38	117	1,76					0,76	0,76	0,76	0,76	1,76	1,76
39	120	1,57					0,57	0,57	0,57	0,57	1,57	1,57
40	125	1,55	0,55	0,55	0,55	0,55	1,55	1,55	1,55	1,55	1,55	1,55
41	118	2,34					1,34	1,34	1,34	1,34	2,34	2,34
42	126	2,4					2,4	2,4	2,4	2,4	2,4	2,4
43	133	4,22	1	1	1	1	3,22	3,22	3,22	3,22	4,22	4,22
44	134a	1,87	0,87	0,87	0,87	0,87	1,87	1,87	1,87	1,87	1,87	1,87
45	134b	5,01	0,3	0,3	0,3	0,3	4,01	4,01	4,01	4,01	5,01	5,01
46	132	0,28	0,28	0,28	0,28	0,28	0,28	0,28	0,28	0,28	0,28	0,28
Vau		21	3	3	3	3	16	16	16	16	21	21

Table A1.5: Aggregation of Implementation Plan by Plots in 4 Years

Village	Year	Total area (ha)	Planting plan (ha)				Protection					
			Soil preparation	Digging hole	Tree planting	Supplementary planting	Tending 1	Fertilizing	Pest prevention	Thinning	Fire	Pest
Total		139,78	139,78	139,78	139,78	139,78	319,78	319,78	319,78	319,78	319,78	319,78
Gian	Year 1	71,51	5	5	5	5	5	5	5	5	5	
Ngo	Year 1	21,78	5	5	5	5	5	5	5	5	5	
U	Year 1	25,49	5	5	5	5	5	5	5	5	5	
Vau	Year 1	21	5	5	5	5	5	5	5	5	5	
Total	Year 1		20	20	20	20	20	20	20	20	20	
Gian	Year 2	71,51	15	15	15	15	20	20	20	20	20	20
Ngo	Year 2	21,78	5	5	5	5	10	10	10	10	10	10
U	Year 2	25,49	5	5	5	5	10	10	10	10	10	10
Vau	Year 2	21,0	5	5	5	5	10	10	10	10	10	10
Total	Year 2		30	30	30	30	50	50	50	50	50	50
Gian	Year 3	71,51	49,51	49,51	49,51	49,51	69,51	69,51	69,51	69,51	69,51	69,51
Ngo	Year 3	21,78	10	10	10	10	20	20	20	20	20	20
U	Year 3	25,49	12,49	12,49	12,49	12,49	22,49	22,49	22,49	22,49	22,49	22,49
Vau	Year 3	21,0	8	8	8	8	18	18	18	18	18	18
Total	Year 3		80	80	80	80	130	130	130	130	130	130
Gian	Year 4	71,51	2	2	2	2	66,51	66,51	66,51	66,51	71,51	71,51
Ngo	Year 4	21,78	1,78	1,78	1,78	1,78	16,78	16,78	16,78	16,78	21,78	21,78
U	Year 4	25,49	3	3	3	3	20,49	20,49	20,49	20,49	25,49	25,49
Vau	Year 4	21	3	3	3	3	16	16	16	16	21	21
Total	Year 4		9,78	9,78	9,78	9,78	119,78	119,78	119,78	119,78	139,78	139,78

Table A1.6: Working Programme, before selling Agro-forestry Products

Year	Envisaged work	Notes
Year 1	Planting, tending timber and fruit trees. Inter cropping Cassava at the beginning of year and harvest at the end of the year	Cassava is first year intercrop product
Year 2	New planting + tending in year 1 + 2. + Protection of forest. Inter cropping Cassava at the beginning of year and harvest at the end of the year	Cassava is first year intercrop product
Year 3	New planting + tending in year 1 + 2. + 3 Protection of forest. Inter cropping Cassava at the beginning of year and harvest at the end of the year	Cassava is first year intercrop product
Year 4	New planting + tending in year 1 + 2. + 3 + 4 Protection of forest. Inter cropping Cassava at the beginning of year and harvest at the end of the year	Cassava is first year intercrop product
Year 5	Tending of plantations in years 2, 3, 4 + Protection of agro-forestry sites	
Year 6	Tending agro-forestry sites in years 3 + 4; harvest fruits planted in year 1 + Protection	Start harvesting Canarium, D.duperreanum(Fruit)
Year 7	Tending agro-forestry sites in year 4 + Protection of agro-forestry sites. Harvest fruits, timber from plantations planted in 2007; sell products.	Start harvesting timber planted in 2007; monitoring the scale of agro-forestry
Year 8	Protection of agro-forestry sites; Harvest fruits, timber from plantations planted in 2008; sell products	Monitoring the scale of agro-forestry. Harvest and sell products
Year 9	Harvest fruits, timber from plantations planted in 2009; sell products.	Monitoring the scale of agro-forestry. Harvest and sell products
Year 10	Harvest fruits, timber from plantations planted in 2010; sell products	Monitoring the scale of agro-forestry. Harvest and sell products

ANNEX 2: Example of Agro-forestry technical design

Model 5: A. hybrid +Canarium + D.duperreanum + Rattan + Cassava

Arrangement:

Plot size	= 50 m x 50 m
Distance for A. hybrid	= 2,5 x 2,5 m
Distance for canarium	= 5 m x 5m
Distance for D. duperreanum	= 5 m x 5 m
Distance for rattan	= 0,3 x 0,3m
Distance for cassava	= 0,3 m x 0,3 m

Unit price for agro-forestry (Model 5) S = 2,500m²

	Activity	Unit price	Man-day	Revenue
I	Direct man-day	26568	25	664200
1	Vegetation treatment	26568	6	159408
2	Digging	26568	6	159408
3	Digging hole	26568	2	53136
4	NPK	26568	2	53136
5	Seedling transport & planting	26568	2	53136
6	Vegetation clearing	26568	3	79704
7	Protection	26568	3	79704
8	Cassava harvest	26568	1	26568
II	Materials		1647	1652400
1	Seedling		1215	900000
	A. hybrid (including supplementary planting)	530	375	198750
	D. duperreanum	1000	37,5	37500
	Canarium	13000	37,5	487500
	Rattan	500	390	195000
	Cassava	50	375	18750
2	Materials		432	752400
a	NPK for agriculture crops		376	651600
	NPK	1800	313	563400
	Microorganism	1400	63	88200
b	NPK for agriculture crops		56	100800
	NPK	1800	56	100800
III	Others		3	230680
1	Agro-forestry design (level 2)	46136	2	92272
2	Quality check	46136	1	46136
3	Management fee	46136	2	92272
A	Total estimation		1675	2547280
	Tending in year 2 - 10		0	
I	Direct costs		42	1174560
1	Labor		39	1036152
	Vegetation clearing (time 1 and time 2)	26568	11	292248
	Weeding, digging around	26568	10	265680
	Protection	26568	18	478224
2	Others		3	138408
	Quality check	46136	2	92272
	Management fee	46136	1	46136
II	Cost for collection of product		31	823608
1	Canarium collection	26568	14	371952
2	Rattan collection	26568	10	265680
3	Logging in year 7	26568	7	185976
B	Total estimation		73	1998168
C = A+B	Total		1748	4545448

Aggregation of estimation of product harvested

Model 5: S = 2,500 m²

No.	Item	Unit price (VND)	Quantity (Kg)	Revenue (VND)
I	Product			6502500
1	Firewood (Unit = ster)	120000	3	360000
2	Acacia (Unit = M3)	409500	15	6142500
II	Cassava	500	750	375000
III	Canarium + D. duperreanum		0	8608500
1	Year 6 (1)	4500	266	1197000
2	Year 7 (2)	4500	319	1435500
3	Year 8 (3)	4500	372	1674000
4	Year 9 (4)	4500	425	1912500
5	Year 10 (5)	4500	531	2389500
IV	Rattan		0	2832000
1	Year 6 (1)	6000	65	390000
2	Year 7 (2)	6000	81	486000
3	Year 8 (3)	6000	98	588000
4	Year 9 (4)	6000	114	684000
5	Year 10 (5)	6000	114	684000
	Total		3153	18318000

ANNEX 3: Terms of Reference for Project Staff

1. FE staff

(1) Director of Da Teh Enterprise: 01 person

Duties and responsibilities:

- Responsible for overall planting activities and implementation of all project components.
- On behalf of FE to sign loan agreement for project activities.
- Implementing, managing and monitoring entire project activities to ensure the achievement of set objectives.
- Undertaking regular supervision of project progress and implement midterm and final evaluation of the project.
- Ensuring timely access to project performance information for decision making to all levels.
- Carrying out other duties as directed by the higher authorities.

Qualifications:

- University degree.
- At least 5 years of working experience in forestry related project.
- Having good understanding of government policies.

(2) FE vice-director: 01 person.

Duties and responsibilities:

- Assisting the director in areas assigned and authorized.
- Handling works on behalf of the director during his absence.

Qualifications:

- University degree;
- At least 5 years of working experience in forestry related project.
- Having good understanding of government policies.

(3) HR and administration function: 5 persons

Duties and responsibilities:

- Advising the director on human resource issues, staff management, administration, and other tasks as per assignment by the director.

Qualifications:

- At least 1 person holding university degree, preferably in HR, administration. The remaining 4 persons should at least have higher school/vocational school diploma.
- At least 5 years of working experience in similar position.

(4) Economic function: 2 persons

Duties and responsibilities:

- Advising the director in financial aspects of the afforestation project, monitoring planning, credit loan access, especially on loan, and business contracts with partners according to FE regulations.
- Advising the director on labor contract with farmers participating in the project.
- Accessing and undertaking business transaction with wood processing units in and outside the province, which are considered project's potential market.
- Preparing financial procedures, managing financial books and expenditures.
- Managing project accounts, entering accounting data, preparing, reviewing and checking invoices, filing financial documents, doing bank transfer and managing cash.
- Preparing and updating procurement plan and procurement document; managing procurement process including price negotiation; arranging distribution of seedlings and fertilizers with local suppliers.
- Preparing annual budget plan.
- Reporting project annual capital flow.
- Implementing other works as assigned by the director.

Qualifications:

- At least 1 staff holding university degree in economics, and finance, the other should at least possess college diploma in finance, or economics.
- Good understanding of accounting, goods procurement, and computer skills.
- At least 2 year experience in similar position.

(5) Technical and forest protection division: 6 persons

Duties and responsibilities:

Assisting director in forest planting, tending, and harvesting; executing project's forest protection and fire-prevention/control network, specifically.

- Implementing works according to project plan.
- Assisting directorate in implementing production activities timely according to approved afforestation plan.
- Monitoring and providing technical instructions for forest planting in compliance with the design.
- Selecting and controlling seedlings.
- Monitoring plantations harvesting.
- Conducting technical training for local labor.
- Cooperating with compartment staff to carry out awareness raising activities for local people on Forest Protection and Development Law, and roles of plantation forest in livelihood as well as environment improvement.
- Carrying out other works as assigned by director and line managers.

Qualifications:

- At least 2 forestry engineers, of which one is specialized in nursery and tree planting techniques. The remaining 4 staff should at least possess diploma of higher vocational school of forestry.
- 3 year working experience in similar positions.

(6) Business execution function: 3 persons

Duties and responsibilities:

- Direct and execute all production activities and technical guidance including nursery, seedling production, tree planting, tending, protection, harvesting and product processing.
- Carrying out other works as assigned by director and line manager.

Qualifications:

- At least university degree, preferably in forestry.
- At least 2 year working experience in similar position.

(7) Direct production unit: 45 people

a) Nursery: 5 people

Duties and responsibilities:

- Responsible for seedling production and supply to project; participating in forest planting activities.

- Carrying out other works as assigned by director and line manager.

Qualifications:

- At least possess diploma of higher vocational school of forestry.
- At least 5 year working experience in similar position.

b) Clusters of forest compartments: 20 people

These clusters are formed from adjacent compartment. There are heads of cluster, heads of compartments and compartment staff.

Duties and responsibilities:

- Heads of cluster and compartment are in charge of planting, tending and protection of production forest in corresponding areas of their administration.
- Compartment staff collaborate with local commune authorities to monitor and directly participate in planting, tending, protection, and harvesting activities. Following are distributions of compartment clusters:

- + Cluster 1: 6 staff in charge of compartments located in Trieu Hai, Da Kho communes
- + Cluster 4: 6 staff in charge of compartments located in Quoc Oai commune
- + Cluster 5: 8 staff in charge of compartments located in An Nhon, Huong Lam, Da Lay communes

Qualifications:

- Cluster heads should possess diploma of higher vocational school of forestry, and experienced in planting, tending, protection and harvesting.
- Others should have experience in planting, tending and protection of plantation forest.

c) Wood product processing factory: 20 people

Duties and responsibilities:

- Responsible for wood products processing.
- Preparing plan of market demand as well as production plan for local consumption and outside province market.
- Carrying out other works as assigned by director and line manager.

Qualifications:

- 01 person holds university degree preferably with specialization in wood product processing; experience in business sector.
- The remaining can be either technician or those experienced in wood product processing.

2. People participating in the project

Duties and responsibilities:

- Undertaking forest planting, tending and protection in complying with contracts signed with FE.

Qualifications:

All the farmers who sign labour contract with FE, preferably those with experience in planting, nursery and wood processing as well as those who live near project site.

ANNEX 4: Preliminary Sample Forms

Unit
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Socialist Republic of Vietnam
Independence – Freedom - Happiness

VERIFICATION AND HAND-OVER TABLE OF FOREST PLANTING PREPARATORY WORK

(Step 1 – Internal check and hand-over with compartment clusters)

1. Project title:.....

2. Location: (village, commune, district, province):.....

3. Participants:

- *Project management board:* Mr./Mrs.:

- *Compartment cluster (A, B, C ...):* Mr./Mrs.....

4. Verification results:

Contents	Location			Area (ha)		Vegetation clearing (ha)		Hole digging		Pre-planting fertilizer application		Hole fill-up		Area of 'QC pass' plot (ha)	Remark
	Compartment	Sub-compartment	Plot	Design	Operation	Satisfactory	No satisfactory	Satisfactory	No satisfactory	Satisfactory	No satisfactory	Satisfactory	No satisfactory		
1 Overall results of verification															
2 Field measurement:															
Overall measurement															
Measurements by sample plot:															
Sample plot 1															
Sample plot 2															
.....															
Total															

5. Conclusion, Recommendation:
.....

Datemonthyear

Technical staff, Party A

Compartment cluster

Unit
.....

Socialist Republic of Vietnam
Independence – Freedom - Happiness
VERIFICATION & HAND-OVER TABLE OF FOREST PLANTING WORK
(Step 1 – Internal check and hand-over with compartment clusters)

1. Project title:.....

2. Location: (village, commune, district, province):.....

3. Participants:

- *Project management board:* Mr./Mrs.:

- *Compartment cluster (A, B, C ...):* Mr./Mrs.....

4. Verification results:

Contents	Location			Area (ha)		Planting species		Planting density (trees/ha)		Good viability (trees/ha)		Area of 'QC pass' plot (ha)	% to be paid	Remark
	Compartment	Sub-compartment	Plot	Design	Operation	Right	Wrong	Design	Actual dens.	No.	%			
1 Overall results of verification														
2 Field measurement:														
Overall measurement														
Measurements by sample plot:														
Sample plot 1														
Sample plot 2														
.....														
Total														

5. Conclusion, Recommendation:

.....

Datemonthyear

Forest Enterprise

Compartment cluster

Unit

.....

Socialist Republic of Vietnam
Independence – Freedom - Happiness

VERIFICATION & HAND-OVER TABLE OF PLANTATION TENDING WORKS, YEAR TIME:

1. Project title:.....

2. Location: (village, commune, district, province):.....

3. Participants:

- Project management board: Mr./Mrs.:

- Compartment cluster (A, B, C ...): Mr./Mrs.....

4. Verification results:

No.	Compar- tment	Sub- compart- ment	Block, Sample plot	Area (ha)		Clearing, tending (ha)		Soil harrow and heaping (No.)		Fertilizer application (No. of planting hole)		No. of survival trees after additional planting		Area of 'QC pass' (ha)	Remark
				Design	Operation	As of Design	Deviation from design	As of Design	Deviation from design	As of Design	Deviation from design	trees /ha	Per. (%)		
1			Block												
2			Plot 1												
3			Plot 2												
			...												
Area designed, area implemented, area checked with 'QC pass'				

5. Conclusion, Recommendation:

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Datemonthyear

Forest Enterprise

Compartment cluster

Unit

.....

Socialist Republic of Vietnam
Independence – Freedom - Happiness

MINUTE OF VERIFICATION AND HAND-OVER

1. Component:

2. Project:

3. Location: (village, commune, district, province)

4. Participants of verification and hand-over:

- *Representative of verifying party (Party A)*

+ Mr./Mrs.

- *Representative of verified party (Party B)*

+ Mr./Mrs.

+ Mr./Mrs.

+ Mr./Mrs.

5. Verification results:

a/ Area implemented: ha, versus contract, percentage implemented : %

b/ Results of verification: (provide details of technical contents of corresponding verification tables/formats such as: planting site preparation, planting, tending accordingly).

6. Conclusion and recommendation:

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.....
.....
.....
.....
.....

Side A Representative
(names of all participants)

Side B Representative
(names of all participants)

Representative of local authorities
(if applicable)

Training Package

Book 1:	Training Plan on Capacity Building for Preparing Feasibility Studies and Implementation Plans for Production Forest/Agroforestry Development Projects in Vietnam
Book 2:	Manual for Preparation of Feasibility Study Reports for Production Forest/Agroforestry Development Projects in Vietnam
Book 3:	Manual for Preparation of Implementation Plans for Production Forest/Agroforestry Development Projects in Vietnam
Book 4:	Model F/S of Thai Nguyen Province
Book 4-1:	Model Feasibility Study Report for Smallholder Production Forest Development Project in Thai Nguyen Province
Book 4-2:	Model Feasibility Study Report for Agroforestry Development Project in Thai Nguyen Province
Book 5:	Model IP of Thai Nguyen Province
Book 5-1:	Model Implementation Plan for Smallholder Production Forest Development Project in Thai Nguyen Province
Book 5-2:	Model Implementation Plan for Agroforestry Development Project in Thai Nguyen Province
Book 6:	Monitoring and Evaluation Report on Technical Training of Participating Provinces
Book 7:	Market Trend Reference Book on Wood-based and Agroforestry Products
Book 8:	Feasibility Study Reports of Participating Provinces
Book 8-1:	Feasibility Study Report on Agroforestry Project in Ta Hoc Commune, Mai Son District, Son La Province
Book 8-2:	Feasibility Study Report on Production Forest Establishment Project in Nui Thanh District, Quang Nam Province
Book 8-3:	Feasibility Study Report on Treatment of Exhausted Natural Forest and Production Forest Establishment Project in Da Teh District, Lam Dong Province
Book 8-4:	Feasibility Study Report on Afforestation Project for Serving Biodiversity Conservation in Long An Province
Book 9:	Implementation Plans of Participating Provinces
Book 9-1:	Implementation Plan on Agroforestry Project in Ta Hoc Commune, Mai Son District, Son La Province
Book 9-2:	Implementation Plan on Production Forest Establishment Project in Nui Thanh District, Quang Nam Province
Book 9-3:	Implementation Plan on Treatment of Exhausted Natural Forest and Production Forest Establishment Project in Da Teh District, Lam Dong Province
Book 9-4:	Implementation Plan on Afforestation Project for Serving Biodiversity Conservation in Long An Province