

PREFACE

In response to a request from the Government of Vietnam, the Government of Japan decided to conduct the Development Study on Capacity Building for Preparing Feasibility Studies and Implementation Plans for Afforestation Projects in the Socialist Republic of Vietnam and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA selected and dispatched a study team, which was headed by Mr. Yasuhiro Motoyama of the Japan Forest Technology Association (JAFTA) and consisted of JAFTA and OPMAC Corporation between March 2005 and December 2007.

The team held discussion with the officials concerned of the Government of Vietnam, conducted field surveys at the study area, and conducted OJT and series of seminars/workshops to counterparts. Upon returning to Japan, the team conducted further studies and prepared this Training Package.

I hope that this Training Package will contribute to the forestry sector in Vietnam and to the enhancement of friendly relationship between our two countries.

Finally, I wish to express my sincere appreciation to the officials concerned of the Government of Vietnam for their close cooperation extended to the Study.

March 2008

Hiroaki NAKAGAWA,
Resident Representative
Vietnam Office
Japan International Cooperation Agency

LETTER OF TRANSMITTAL

March, 2008

Mr. Hiroaki NAKAGAWA
Resident Representative
Vietnam Office
Japan International Cooperation Agency

Dear Mr. NAKAGAWA

The Development Study on Capacity Building for Preparing Feasibility Studies and Implementation Plans for Afforestation Projects in the Socialist Republic of Vietnam has now been completed and the training package on the study is submitted herewith. The training package has been formulated based on the findings of various surveys and analysis conducted in the period from March, 2005 to December, 2008 by a joint venture formed by the Japan Forest Technology Association and OPMAC Corporation in accordance with the contract concluded with the Japan International Cooperation Agency.

Through the study, exchanging ideas and views between JICA study team (JST) and selected members of Department of Forestry (DoF) on a daily basis was carried out in pursuance of better outputs and outcome of the training program, and the training package in order to enhance capacities of the selected members. The local sub-contractor prepared a draft feasibility study (F/S) report and implementation plan (IP) under the guidance and supervision of JST during Phase 1. In the process of preparing F/S and IP, JST conducted the OJT to the local sub-contractor and Provincial Study Team (PST) of Thai Nguyen Province. During Phase 2, JST proceeded with the training program in Core Province (CoP) and Participating Provinces (PPs), collaborated with DoF in preparing and organizing various workshops in order to enhance capacities of PST of CoP and PPs. The monitoring and evaluation (M & E) method of the technical training for F/S and IP was developed through the M & E of the actual training program during Phases 1 and 2. The Training Package has been prepared as the output of the study in order to support the implementation of the training program. The tailor-made training package has been developed through the interactive process among JST and parties concerned with the forestry sector in Vietnam. JST considered that the preparation of the F/S and IP

manuals specific to the forestry sector was the first attempt in the Vietnamese forestry sector.

It is sincerely hoped that the Training Package will be put into practice with the conscious efforts of the Government of Vietnam and others concerned in Vietnam, thereby contributing to the enhancement of capacity for preparing feasibility studies and implementation plans for afforestation projects in the country. On behalf of the JST members, I would like to express my heartfelt gratitude for the useful guidance and assistance provided to the JST by officials of the Japan International Cooperation Agency, the Ministry of Foreign Affairs and the Ministry of Agriculture, Forestry and Fisheries throughout the study period. The JST members greatly appreciate the valuable advice and assistance they received in Vietnam from officials of the JICA-Vietnam Office and the Department of Forestry of the Ministry of Agriculture and Rural Development of Vietnam.

Yoshihiro MOTOYAMA

Team Leader

The Study Team for the Development Study on
Capacity Building for Preparing Feasibility
Studies and Implementation Plans for
Afforestation Projects in the Socialist Republic of
Vietnam



DEPARTMENT OF FORESTRY

Training Plan on Capacity Building for Preparing Feasibility Studies and Implementation Plans for production forest/agroforestry development projects in Vietnam

Book 1: Training Plan



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

Preface

“Training Plan (Book 1)” 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 (hereafter 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 other training materials 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 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

In collaboration with MARD, the above training package is expected to be utilized by interested training institutes or any other management bodies of the training program for capacity building of preparing F/S and IP for afforestation projects.

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Abbreviations

5MHRP	Five Million Hectare Reforestation Programme
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
EIA	Environmental Impact Assessment
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
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
M & E	Monitoring and Evaluation
MARD	Ministry of Agriculture and Rural Development
MPI	Ministry of Planning and Investment
NPV	Net Present Value
NTFPs	Non-Timber Forest Products
OJT	On-the-Job Training
PAM	WFP's Programme Alimentaire Mondial
PC	People's Committee
PFA	Production Forest Association
PFD	Production Forest Development
PFEP	Production Forest Establishment Project
PIU	Project Implementation Unit
PMB	Project Management Board
PMME	Project Management, Monitoring and Evaluation
PMU	Project Management Unit
PPs	Participating Provinces
PRA	Participatory Rural Appraisal
PST	Provincial Study Team
RRA	Rapid Rural Appraisal
SFFD	Support for Production Forest Development
Sub-DoF	Sub-Department of Forestry at province level
SWOT	Strengths, Weaknesses, Opportunities, and Threats
VBARD	Vietnam Bank for Agriculture and Rural Development
VBSP	Vietnam Bank for Social Policies

VDB
WTO
WU

Viet Nam Development Bank
World Trade Organization
Work Unit

Summary

1. Objective of the training plan

The training plan aims to introduce the contents, schedule and institutional arrangements of the training program to concerned organizations and potential participants from the organizations, in order to strengthen capacities of the participants for preparation of the feasibility studies (F/S) and implementation plans (IP) in the forestry sector.

2. Target level of the training program

The target level of the training program is set at a level which will enable participants to prepare a proposal incorporating the information that government authorities need for examination of the project for approval and also that financial institutions and investors require in order to prepare their possible funding for the project.

3. Target beneficiary and sending agency

The target beneficiary of the training program is primarily those who are directly involved in the preparation of F/S and IP. They, among others, include selected members of provincial government offices, management boards, forest enterprises and the local consultants. These offices, which wish to send participants to the training program are referred to as the “sending agency” in this training plan.

As the preparation of F/S and IP requires multidisciplinary expertise, it is recommended that the sending agency form a team consisting of a relatively small number of personnel, ideally four to five who can collaborate to work.

4. Training program

4.1 Classification of the planning capacities for preparation of F/S and IP

Planning capacities, which are required for conducting the feasibility study and implementation planning, can be classified into the six categories in accordance with the staged preparation process of the F/S report and IP. In accordance with the classification of the planning capacities, the training program is structured into the following six training modules called Work Units (WUs):

- WU 0: Project identification;
- WU 1: Field survey and analysis;
- WU 2: Project planning;
- WU 3: Project justification;
- WU 4: F/S report drafting; and
- WU 5: IP drafting.

Each WU is comprised of the Off-the-Job intensive training session (Step 1), On-the-Job training session (Step 2), and submission of the assignments undertaken during the OJT period (Step 3).

4.2 Work Units and curriculum

Characteristics of each work unit are summarized as follows:

(1) Work Unit 0 (WU 0): Project identification

WU 0 aims to train participants to identify a project to be formulated and the target beneficiary of the project. It is to prepare a basis for the field survey and analysis (WU 1) through the pre-site assessment and the project option evaluation.

(2) Work Unit 1 (WU 1): Field survey and analysis

WU 1 aims to provide participants with the skills and knowledge for collection and analysis of data and information which explain the necessity of the project and lead to the rationale behind the implementation of the project identified and its design. The outputs of the WU1 will form a basis of describing “project background” of the F/S report.

(3) Work Unit 2 (WU 2): Project planning

In WU 2, participants are requested to prepare and elaborate the project plan based on the draft PDM developed through WUs 0 and 1, and data and information collected so far.

(4) Work Unit 3 (WU 3): Project justification

WU 3 aims to assist participants in examining justification of the project.

(5) Work Unit 4 (WU 4): F/S report drafting

The objective of WU 4 is to train participants to draft an F/S report in accordance with

the proposed structure¹ of the F/S report, which will be adjusted with the local conditions.

(6) Work Unit 5 (WU 5): IP drafting

The objective of WU 5 is to train participants to draft an implementation plan (IP) in accordance with the proposed IP structure.²

4.3 Training schedule

The schedule of the training program will be determined by taking into consideration the availability of staff members, priorities and natural conditions in the project area on the side of the sending agency as well as the availability of the instructors and facilities on the side of the PMU.

The standard duration of the entire training program from WU 0 to WU 5 is 12 months with each WU lasting about two (2) months: however, this can be shortened or prolonged depending on the capacity and intentions of the sending agency and availability of instructors and facilities at the PMU. Standard time schedules of intensive training sessions last from five (5) to seven (7) days in the respective Work Units.

4.4 Proposed implementation arrangements of the training program

The implementation structure of the training program is based on the following proposed institutional arrangement which is still subject to discussions as of December 2007.

MARD/DoF establishes a Project Management Unit (PMU) to organize and manage the training program, and monitor and evaluate the progress of capacity building during both the Off-the-Job training and the On-the-Job Training (OJT) sessions. PMU's tasks will include logistic arrangements of the training program, preparation of a list of instructors for the training program and assignment of instructors. Instructors are required to have not only academic but also practical experience in formulating afforestation projects in Vietnam.

¹ The proposed structure of the F/S report is shown in Volume II of F/S Manual (Book 2).

² The proposed structure of the IP is shown in Volume I of IP Manual (Book 3).

Department of Agriculture and Rural Development (DARD) or any other sending agencies which wish to assign participants to the training program will send their applications to participate in the training program to the PMU. Prior to the training program, the PMU and the sending agencies will discuss and agree on the conditions of training program, roles and responsibilities of respective parties.

4.5 Monitoring and Evaluation (M&E) and Feedbacks

In order to monitor and evaluate the progress of the capacity building, quizzes and assignments will be given and evaluated by the PMU during and after the intensive training session. At the end of each intensive training session and the entire training program, participants of the sending agency will evaluate the suitability of the training program for improvement.

5. Training package as reference materials

The training package, which has been prepared as the outputs of FICAB, will be used as the main reference materials of the training program.

6. Revision of the training plan

The training plan is to be revised and updated as a result of the monitoring and evaluation. The revised training plan is expected to contribute further to enhancement of planning capacity in the forestry sector of Vietnam.

Introduction

1. Objective of the training plan

The training plan aims to introduce the contents, schedule and institutional arrangements of the training program to concerned organizations and potential participants from the organizations, in order to strengthen capacities of the participants for preparation of the feasibility studies (F/S) and implementation plans (IP) in the forestry sector.

2. Training program

2.1 Target level of the training program

The target level of the training program is set at a level which will enable participants to prepare a proposal incorporating the information that government authorities need for examination of the project for approval and also that financial institutions and investors require in order to prepare their possible funding for the project. This is the level at which participants of the training program, where having understood the basic concepts behind the F/S and IP and the special circumstances of the project area, are able to accomplish the surveys, analyses, and writing of reports without looking to others for assistance. In a more concrete manner, the training program aims to pursue the level shown in the F/S reports (Book 8) and IPs (Book 9) prepared in the participating provinces.

2.2 Target beneficiary and sending agency

The target beneficiary of the training program (a group of participants in the training program) is primarily those who are directly involved in the preparation of F/S and IP. They, among others, include selected members of provincial government offices, management boards, forest enterprises and the local consultants. These offices, which wish to send participants to the training program are referred to as the “sending agency” in this training plan.

2.3 Required skills and knowledge level of participants from the sending agency

It is important that participants demonstrate a high level of the ownership of the project that they are to prepare, and strong motivation to identify issues relevant to the project.

Furthermore, it is desirable that participants have already acquired basic skills and knowledge of conducting natural resource surveys in the forest sector and/or the socio-economic survey, and basic computer skills for report writing and analysis using spreadsheets. However, these requirements could be softened if participants have strong motivation to acquire relevant

skills and knowledge for preparation of F/S and IP.

As the preparation of F/S and IP requires multidisciplinary expertise, it is also recommended that the sending agency form a team consisting of a relatively small number of personnel, ideally four to five who can collaborate to work. The team is called “an F/S team” in this training package.

2.4 Management body of the training program

The Project Management Unit (PMU) is to be set up as a management body to organize, monitor, and evaluate the progress of capacity building and the training program, during both the Off-the-Job training session and the On-the-Job Training (OJT) session.

2.5 Qualification of the instructors and assistants of the training program

Instructors who will assist participants in developing their planning capacity during the training program are required to have not only academic but also practical experience in formulating afforestation projects in Vietnam. It will be more desirable if candidates have experience in preparing privately-funded and/or donor-assisted afforestation projects. Assistants who will assist instructors during the training program are required to have practical experience in developing afforestation projects in Vietnam.

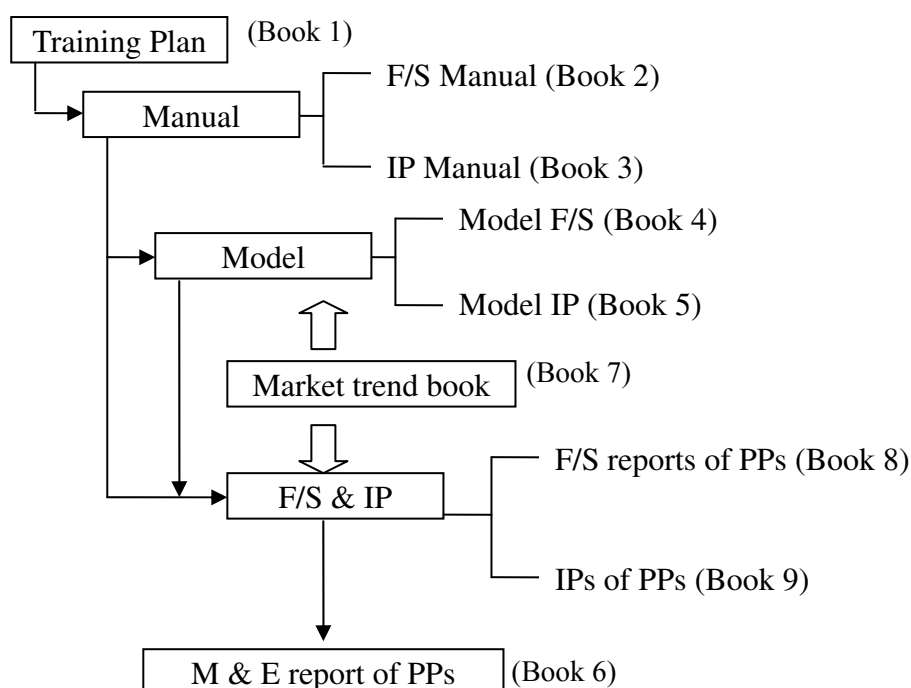
2.6 Structure of the training plan

This training plan begins with the description of the planning capacities that are required for preparation of the feasibility study and implementation planning together with the structure and the general methodology of the training program (Part 1). It is followed by the description of Work Units under the training program and curricula of the respective training courses in the Work Units (Part 2), and the training schedule (Part 3). In the next Part 4, the institutional arrangements are explained, such as the implementation structure of the training program and responsibilities of key parties concerned. The monitoring and evaluation are described in the last Part 5.

3. Training package as reference materials

The training package, which has been prepared as the outputs of FICAB, will be used as the main reference materials of the training program. It is structured as in the following figure in order to support the implementation of the training program.

Figure 1: Structure of the Training Package



Training plan (Book 1) is to introduce the contents, schedule, and institutional arrangements of the training program to concerned organizations and participants. F/S Manual (Book 2) and IP Manual (Book 3) take the position of principal reference documents of the training program. Model F/S (Book 4) and Model IP (Book 5), which were prepared in Thai Nguyen Province, serve as a case study to show how the manuals and methodologies described in the manuals could be applied in the demonstrated case. These documents are called "model" in the sense that models help participants of the training program understand more deeply the contents and procedures required for preparation of the F/S and IP, and subsequently apply them to actual preparation of the F/S and IP in respective provinces. F/S reports (Book 8) and IPs (Book 9), which the Provincial Study Teams (PSTs) prepared in the four participating provinces with the assistance from the local sub-contractor or the project office of FICAB, will also serve as an example of F/S reports and IPs. In the process of studying the sales and marketing aspect, the market trend reference book has been referenced. The preparation process of the F/S reports and IPs in the participating provinces has been monitored and evaluated in the Monitoring and Evaluation (M & E) report (Book 6) to improve the training plan as well as the manuals.

4. Revision of the training plan

The training plan is to be revised and updated as a result of the monitoring and evaluation.

The revised training plan is expected to contribute further to enhancement of planning capacity in the forestry sector of Vietnam.

Part 1 Classification of Planning Capacities, Structure and Methodology of the Training Program

1.1 Classification of the planning capacities for preparation of F/S and IP

Planning capacities, which are required for conducting the feasibility study and implementation planning, can be classified into the following six categories in accordance with the staged preparation process of the F/S report and IP:

- Project identification;
- Field survey and analysis;
- Project planning;
- Project justification;
- F/S report drafting; and
- IP drafting.

This classification of the planning capacities is referred to as “Level 1” category in this training plan. Each group of planning capacities at Level 1 will be further broken into smaller sub-categories called Level 2, 3, and 4. For example, the four levels of planning capacity are shown in Table 1 below for the “planting site selection.” The planning capacity for the “planting site selection” is classified under the “project implementation plan” of “project activities” in the “project planning.”

**Table 1: Classification of planning capacities by level
(Example of “Planting site selection”)**

Classification of capacities	Level I	Level II	Level III	Level IV
Code 0: Project identification				
Code 1: Field survey and analysis				
Code 2: Project planning		Code 2-3 Project activities	Code 2-3-2 Project implementation plan	Code 2-3-2-1 Planting site selection
Code 3: Project justification				
Code 4: F/S report drafting				
Code 5: IP drafting				

Note: As the classification goes from Level I to Level IV, the classification of the planning capacities is broken into smaller categories.

The full structure of the planning capacities is shown in Table 2 at end of Part 1 of this training plan.

1.2 Planning capacities to improve at the training program

While the planning capacity is relatively well-developed in some areas, focus of the training program is placed on other areas of the planning capacity, which are deemed necessary to improve for preparation of the F/S and IP in Vietnam. Shaded code numbers of the planning capacity in Table 2 indicate planning capacities which are deemed necessary to strengthen. Thus, those areas with the shaded code numbers will be taken up in the training program.

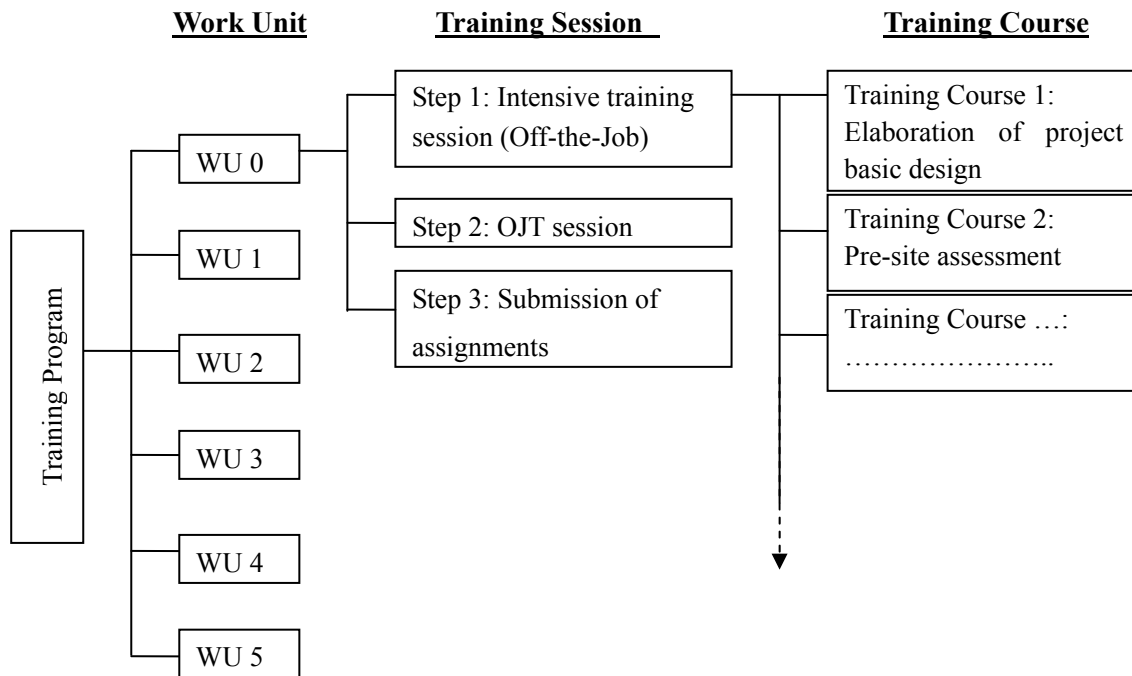
1.3 Structure of the training program with Work Units

In accordance with the process of the F/S and IP preparation and with the classification of the planning capacities, the training program is structured into the following six training modules called Work Units (WUs):

- WU 0: Project identification;
- WU 1: Field survey and analysis;
- WU 2: Project planning;
- WU 3: Project justification;
- WU 4: F/S report drafting; and
- WU 5: IP drafting.

Each WU is comprised of the Off-the-Job intensive training session (Step 1), On-the-Job training session (Step 2), and submission of the assignments undertaken during the OJT period (Step 3). Each intensive training session (Step 1) will be organized by a set of training courses such as “elaboration of project basic design” and “pre-site assessment.” Figure 2 below illustrates the structure of the training program.

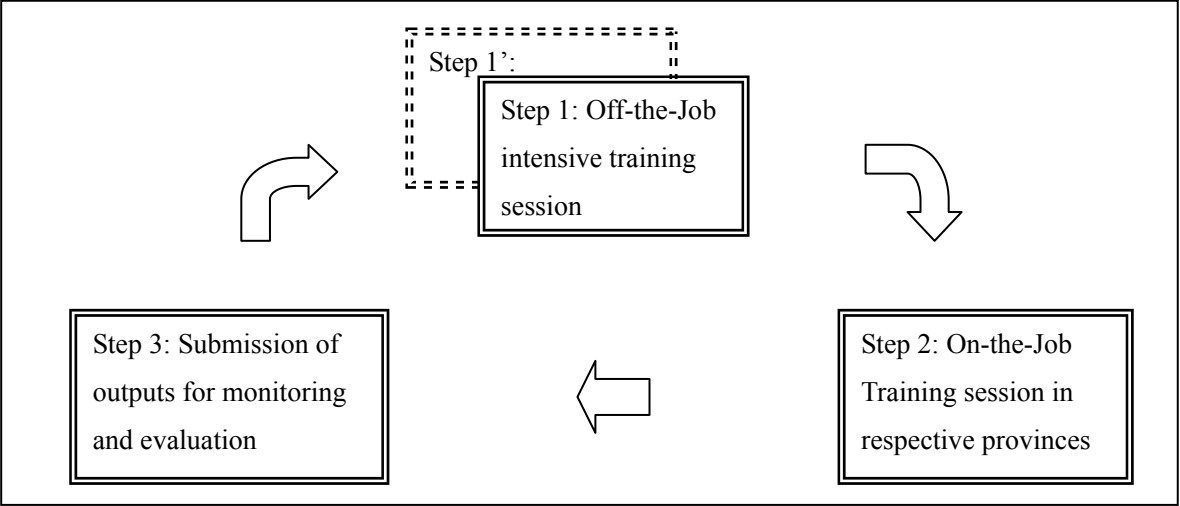
Figure 2: Structure of training program



1.4 Training session through three steps

Each WU in the training program is carried out by alternating the Off-the-Job training session and the On-the-Job Training (OJT) session. During the intensive training session, participants will be initially trained on the theoretical aspects of preparation of F/S and IP in consideration of the practical application of them in the field (Step 1). During the OJT session after the intensive training session, participants are requested to apply what has been learned through actual preparation of F/S and IP in their respective home provinces (Step 2). Outputs of the OJT session will be sent to the PMU in the form of the assignments for their monitoring and evaluation of the progress of the capacity building (Step 3). Depending on needs of participants and necessities of the training program, instructors will visit the project area to directly assist participants in the field. After completion of the WU concerned, the feed-back of the M & E results will be given to the participants who attended the intensive training session of the succeeding WU (Step 1’). Figure 3 below describes the general pattern of the training program from Step 1 to Step 1’ through Step 2 and Step 3.

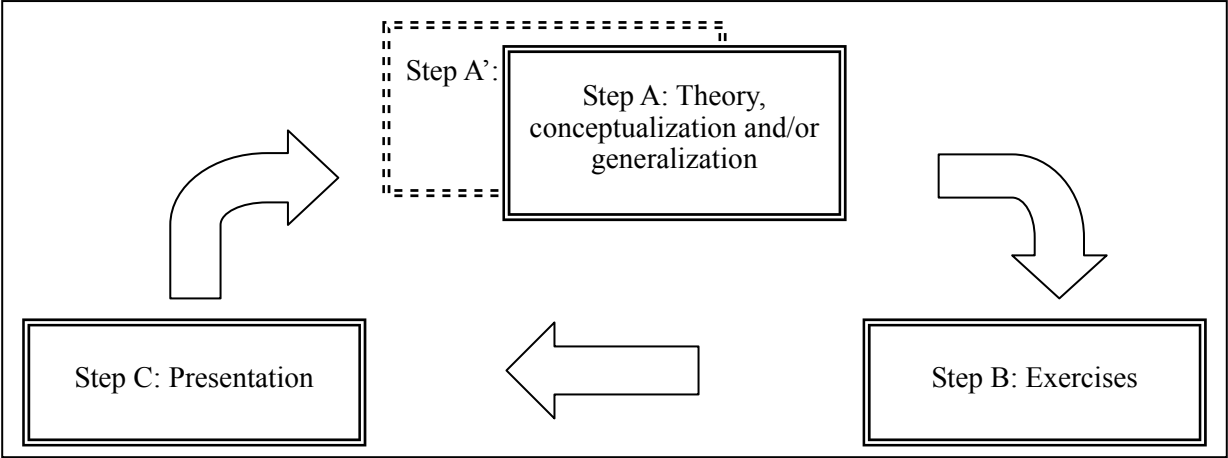
Figure 3: General pattern of the training session



1.5 Training course through three steps

The methodology to be adopted in the respective training courses of each WU is dependent on the instructor in charge. However, in general, the training course will be carried out by repeating a cycle of Step A: presentation of theory, conceptualization, and/or generalization of subjects by the instructor; Step B: exercises relating to the subjects by participants; Step C: presentation of results of exercises by participants; and Step A': conceptualization or generalization of what participants have done. These steps can be illustrated as in Figure 4 below.

Figure 4: General methodology of the training course



Step A: To begin with, the instructor in charge of the training course will explain the theoretical aspect of the subjects. Clear and concise explanation will be given in consideration

of the practical application.

Step B: The theoretical explanation will be followed by the practical exercises. Participants will be asked to apply the theory for the exercises. It is done either through an individual exercise or in group work.

Step C: After the exercises are completed, participants will be requested to present the results of the exercises in front of other participants and instructors. Presentation of the results and questions & answers session will provide participants with a chance to re-examine their application process of the theory and outputs of such applications.

Presentation (Step C) will be followed again by the theory, conceptualization and generalization stage (Step A'). The generalization or conceptualization at Step A' can be assisted by an instructor in the form of comments on the presentation and discussions done by participants. This step (Step A') will give participants a chance to think back on the theoretical aspects and meaning behind the application process.

The cycle from Step A to Step C through Step B and again to Step A' in the training course will be repeated within the respective training courses in the training session.

Table 2: Map of planning capacities for preparation of F/S and IP with curriculum codes

	Level I	Level II	Level III	Level IV	WU	Page ²⁾				
Code 0	Project identification	0-1	Elaboration of project basic design		0	28				
		0-2	Pre-site assessment			29				
		0-3	Project option evaluation			30				
		0-4	Preparation of draft PDM		0 to 5	31				
		0-5	Legal framework		0	32				
Code 1	Field survey and analysis	1-1	Context of project formulation			1 & 4	33			
		1-2	Natural and socio-economic conditions	1-2-1	Natural conditions		1-2-1-1	Geographical location and area	34	
							1-2-1-2	Topography		
							1-2-1-3	Soil conditions		
							1-2-1-4	Climate		
							1-2-1-5	Hydrology		
							1-2-1-6	Geographical location and area		
		1-2-2	Socio-economic conditions	1-2-2-1	Population, ethnics and labour		35			
					1-2-2-2			Household economy		
					1-2-2-3			Major economic activities		
					1-2-2-4			Financial sources		
					1-2-2-5			Infrastructure		
		1-2-3	Land use and forest resource use	1-2-3-1	Current situation of forest land		37			
					1-2-3-2			Productivity of forest land		
		1-2-4	Sales and marketing	1-2-4-1	Demand and supply of forest/agro-forestry products		38			
					1-2-4-2			Price and transportation of forest/agro-forestry products		
					1-2-4-3			Target markets		
		1-2-5	Lessons learned	1-2-5-1	On-going and completed projects					
					1-2-5-2			Lessons learned from on-going and completed projects		
		1-2-6	Opportunities and challenges	1-2-6-1	Opportunities					
					1-2-6-2			Challenges		
Code 2	Project planning	2-1	Project rationale			4	39			
		2-2	Project objectives and outputs				2, 4 & 5	40		
		2-3	Project activities	2-3-1	Project activities and components		41			
					2-3-2	Project implementation plan		2-3-2-1	Planting site selection	42
								2-3-2-2	Species selection	
								2-3-2-3	Afforestation / agro-forestry plan	
								2-3-2-4	Seedling supply plan	
								2-3-2-5	Tending and protection plan	
2-3-2-6	Harvesting plan									

Level I	Level II	Level III	Level IV	WU	Page ²⁾			
Code 3			2-3-2-7	Labour requirements	5			
			2-3-2-8	Training plan		44		
			2-3-2-9	Infrastructure plan		42		
			2-3-2-10	Consulting service plan				
			2-3-2-11	Procurement arrangement		45		
		2-3-3	Project implementation schedule	2-3-3-1	Overall schedule for project implementation	2, 4 & 5	46	
				2-3-3-2	Preparation period			
				2-3-3-3	Operation period			
		2-4	Project cost				47	
		2-5	Financing plan and financial management	2-5-1	Financing sources for the project			49
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				2-5-3	Fund flow of the project			
				2-5-4	Arrangement for accounting, financial reporting, and auditing			
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Note:

- 1) Shaded areas of the planning capacities indicate those deemed necessary to strengthen under the training program.
- 2) Page numbers indicate page numbers for curriculum in Attachment 1.

Part 2 Work Units and Curriculum

The training program aims to assist participants in formulating and developing an initial project idea into a feasible project design. Preparation of the project design needs to be done in a persuasive manner to target users of the F/S report and IP.

One of the focal points in the training program is identification and maintenance of the logical consistency between “causes” and “effects” during the identification and analysis stage of the development issues, and “means” and “ends” of how to deal with the issues at the design stage of the project. The pursuance and examination of logical consistency are done through preparation and continuous refinement of the Project Design Matrix (PDM or Logical Framework) throughout the six (6) WUs. Characteristics of each work unit are summarized as follows:

2.1 Work Units

2.1.1 WU 0: Project identification

WU 0 aims to train participants to identify a project to be formulated and the target beneficiary of the project. It is to prepare a basis for the field survey and analysis (WU 1) through the pre-site assessment and the project option evaluation.

(1) Intensive training session (Step 1) of WU 0

The intensive training session of WU 0 is composed of the five (5) major training courses:

- 1) Elaboration of project basic design (Curriculum Code 0-1);
- 2) Pre-site assessment (Curriculum Code 0-2);
- 3) Project option evaluation (Curriculum Code 0-3);
- 4) Preparation of a draft PDM (Curriculum Code 0-4); and
- 5) Legal framework (Curriculum Code 0-5).

1) Elaboration of project basic design is to examine existing resources, demand potentials, and social needs for the project and identify project key elements such as a possible implementing agency, target products, and financial sources. As basic idea, the project to be elaborated may have already existed when the sending agency applied for the training program. Or it may be an idea that needs to be identified during WU 0. In the latter case, an idea can be identified through the stakeholders analysis, problems analysis, and objectives

analysis in the participatory planning process. This will accompany the preliminary diagnosis of the project area and the SWOT (Strength, Weakness, Opportunities, and Threats) analysis. Elaboration of project basic design is followed by the pre-site assessment. 2) The pre-site assessment (more specifically, the pre-assessment of the project area selection in the F/S of the production forest / agro-forestry development project) is to eliminate, at the time of the project area selection, the alternative projects that are expected to encounter difficulties in implementation and to select projects which seem to have a higher possibility of implementation. 3) The project option evaluation is a process to screen various project options and then select the most feasible project option. It will help an F/S team identify the most feasible option out of a number of possible options at the early planning stage of the project. 4) A draft PDM will be prepared for the most feasible project option. 5) Training course on the legal framework is to provide participants with opportunities to learn the necessity of having a good understanding of government plans, guidelines, and any other requirements for preparation of F/S and IP.

The standard time schedule of the intensive training session of six (6) WUs is shown in Attachment 2.

(2) OJT session (Step 2) of WU 0

Assignments to be given on the last day of the intensive training session aim to improve the ability of participants to conduct the pre-site assessment and the project option evaluation, and prepare a draft PDM based on the most feasible project. Before the draft PDM is prepared, the logical consistency will be examined between causes and effects in the problems analysis as well as means and ends in the objectives analysis. The policy relevance is pursued not only with the needs of the target beneficiary but also with the policies of the governments and potential funding sources. Participants of the training program are expected to complete the assignments during the OJT session and submit them to the PMU by the deadline agreed. The outcome of WU 0 will provide a framework and study perspective for the field survey and analysis to be conducted in WU 1.

Sample assignments during the OJT session of six (6) WUs are shown in Attachment 3.

2.1.2 WU 1: Field survey and analysis

WU 1 aims to provide participants with the skills and knowledge for collection and analysis of data and information which explain the necessity of the project and lead to the rationale behind the implementation of the project identified and its design. The outputs of the WU1

will form a basis of describing “project background” of the F/S report.

(1) Intensive training session (Step 1) of WU 1

In line with the scope of the data and information to be collected, WU 1 is comprised of the following five major training courses:

- 1) Context of project formulation (Curriculum Code 1-1);
- 2) Soil conditions (Curriculum Code 1-2-1-3);
- 3) Socio-economic conditions (Curriculum Code 1-2-2);
- 4) Land use and forest resource use (Curriculum Code 1-2-3); and
- 5) Sales and marketing (Curriculum Code 1-2-4).

1) The training course on the context of project formulation will cover the project context at both national and local levels, and the necessity of the project. 2) As for the natural conditions, focus is placed on soil conditions during the training session. This training course will teach participants how to examine soil types and the relationship between soil productivity and sustainable tree species. 3) In the training course on socio-economic conditions, various tools for the rural socio-analysis will be taught to conduct the data analysis and survey on socio-economic conditions of the project area. 4) Course on land use and forest resource use will provide a tool for understanding the current situation of land and forest resource utilization in the project area. 5) Sales and marketing course is to overview the market prospects for forest/agro-forestry products including target products of the projects.

(2) OJT session (Step 2) of WU 1

Assignments to be given on the last day of the intensive training session aim to improve the ability of participants to conduct data collection and analysis for the project context, soil conditions survey, land use and forest resource use, the rural socio-analysis for socio-economic conditions in the project area, and sales and marketing survey.

Depending on the outputs of WU 1, the preliminary PDM drafted during WU 0 may also need to be modified.

2.1.3 WU 2: Project planning

In WU 2, participants are requested to elaborate the project plan based on the draft PDM developed through WUs 0 and 1, and data and information collected so far.

(1) Intensive training session (Step 1) of WU 2

The following specific topics will be covered in the training courses under WU 2:

- 1) Improvement of draft PDM (Curriculum Code 0-4);
- 2) Elaboration of project objectives and outputs (Curriculum Code 2-2);
- 3) Project rationale (Curriculum Code 2-1);
- 4) Elaboration of project activities and components (Curriculum Code 2-3-1);
- 5) Project implementation plan (Curriculum Code 2-3-2);
- 6) Project implementation schedule (Curriculum Code 2-3-3);
- 7) Project cost (Curriculum Code 2-4);
- 8) Financing plan (Curriculum Code 2-5);
- 9) Organization of project management and implementation (Curriculum Code 2-6); and
- 10) Monitoring and evaluation (Curriculum Code 2-7).

In 1) and 2) above, the project plan will be elaborated in such a way that the project design supports achievement of the project objective and overall goal. The logical consistency between means and ends is a basis for designing project activities toward the realization of the outputs, the project objective, and ultimately, the overall goal. 3) The project rationale will be re-examined with the SWOT analysis and the draft PDM. 4) The training course on the project activities and components helps participants identify necessary inputs, activities, and components based on the objectives analysis and refinement of the draft PDM. 5) 6) Based on project inputs, activities and components, the project implementation plan will be developed to completion together with the schedule. 7) 8) Training courses on the project cost and the financing plan are to provide ways to set up basic conditions of the cost estimates, the expenditure plan, the disbursement and repayment plan, and three types of cost tables. 9) Training course on the organization of project management and implementation will deal with how to set up institutional arrangements for project implementation by describing responsibilities of concerned organizations/entities and the inter-relationship among them. 10) The training course on the monitoring and evaluation plan is to prepare an M & E plan and ways to implement the M & E plan.

(2) OJT session (Step 2) of WU 2

Assignments to be given on the last day of the intensive training session aim to strengthen the ability of participants to improve the draft PDM with the clear logic of the project rationale, identify the project inputs, activities and components, prepare project implementation plan and schedule, and estimate the project cost and financing plan based on the project plan. The

institutional arrangement will be described in the form of the organization chart and M & E indicators will be proposed.

The output of WU 2 will be relayed to WU 3 by means of the revised PDM for the justification of the project.

2.1.4 WU 3: Project justification

WU 3 aims to assist participants in examining justification of the project.

(1) Intensive training session (Step 1) of WU 3

In consideration of the project objective and overall goal to be realized, justification of the project implementation will be made in terms of the following aspects:

- 1) Financial and economic analyses (Curriculum Code 3-1);
- 2) Evaluation of environmental impacts (Curriculum Code 3-2);
- 3) Evaluation of social impacts (Curriculum Code 3-3);
- 4) Sustainability (Curriculum Code 3-4); and
- 5) Project risks and mitigating measures (Curriculum Code 3-5).

In 1) above, the training course to examine the financial and economic feasibility of the project focuses on construction of the financial cash flow statement and the application of the investment criteria using an Excel spreadsheet. 2) 3) Training courses on the evaluation of the environmental and social impacts will deal with ways to identify expected effects of the project on the environment and social aspects, respectively. 4) Sustainability issues will be discussed from various viewpoints such as technical, economic, environmental and social aspects. 5) Training course on the project risks and mitigating measures is to identify possible project risks and mitigating measures based on the PDM and results of the objectives analysis.

(2) OJT session (Step 2) of WU 3

Assignments to be given on the last day of the intensive training session aim to improve the ability of participants to conduct the analysis for the project justification in terms of the financial and economic analyses, environmental and social impacts, sustainability, and risks and mitigating measures.

Depending on the results of the analyses, the project plan may need to be adjusted or redesigned. The modification of the design will be reflected in the revised PDM.

2.1.5 WU 4: F/S report drafting

The objective of WU 4 is to train participants to draft an F/S report in accordance with the proposed structure³ of the F/S report, which will be adjusted with the local conditions.

(1) Intensive training session (Step 1) of WU 4

Based on the assignments of the previous WUs, the intensive training session of the F/S drafting will be comprised of the following courses:

- 1) Structure of feasibility study reports (Curriculum Code 4);
- 2) Compilation of the assignments of the previous WUs in accordance with the F/S structure (Curriculum Code 4);
- 3) Drafting of Part 1: Project background (Curriculum Code 4);
- 4) Drafting of Part 2: Project contents (Curriculum Code 4);
- 5) Drafting of Part 3: Project justification (Curriculum Code 4); and
- 6) Drafting of Part 4: Conclusions and recommendations (Curriculum Code 4).

A preliminary draft F/S report will be prepared in accordance with the structure of the F/S by incorporating all the outputs of the feasibility study and assignments of WUs so far. Elaboration will be made to the description such as a project rationale to describe the necessity of the project. Preparation will be done in consideration of target users of the F/S report (i.e. government authority to approve the project, potential funding agencies, and so on). Logical consistency should be maintained between the main points and supporting arguments throughout the report. Conclusions and recommendations will be drafted during this intensive training session. In the process, the draft PDM is to be further refined.

(2) OJT session (Step 2) of WU 4

During the OJT session of WU 4, participants are supposed to complete the F/S report that they started drafting during the intensive training session. They are expected to supplement the data and information in light of their analysis of the local conditions.

2.1.6 WU 5: IP drafting

The objective of WU 5 is to train participants to draft an implementation plan (IP) in accordance with the proposed IP structure.⁴

(1) Intensive training session (Step 1) of WU 5

³ The proposed structure of the F/S report is shown in Volume II of F/S Manual (Book 2).

⁴ The proposed structure of the IP is shown in Volume I of IP Manual (Book 3).

A preliminary IP will be drafted. It will be built upon the results of the F/S and further elaboration will be made to the description, such as explaining the project implementation aspects to focus more on how and when the project is to be implemented. More detailed planning will be given, for example, to the institutional arrangements, training plan, and monitoring and evaluation. In addition, subjects which have not been covered during the F/S preparation stage will be explained. They are procurement arrangements and arrangement for the financial management. The intensive training session of the IP drafting will be comprised of the following courses:

- 1) Structure of implementation plan (Relation between F/S report and IP);
- 2) Summary of the project (Curriculum Code 5);
- 3) Institutional arrangement (Curriculum Code 2-6);
- 4) Implementation schedule (Curriculum Code 2-3-3);
- 5) Arrangement for financial management (Curriculum Code 2-5);
- 6) Procurement arrangement (Curriculum Code 2-3-2-11);
- 7) Sales and marketing (Curriculum Code 1-2-4);
- 8) Training plan (Curriculum Code 2-3-2-8); and
- 9) M & E (Curriculum Code 2-7).

The report will be prepared in consideration of its target users of an IP (i.e. implementing agency, potential funding agencies, and so on) and logical consistency should be maintained between the main points and supporting arguments throughout the report. In the process, the draft PDM is to be further refined.

(2) OJT session (Step 2) of WU 5

During the OJT session of WU 5, participants are supposed to complete the IP that they started drafting during the intensive training session. They are expected to supplement the data and information in consideration of the local conditions and practices.

2.2 Training curriculum during the intensive training session

The training curriculum during the intensive training session has been prepared in accordance with the classification of the planning capacities as in Attachment 1 of this training plan. The curriculum includes:

- (1) Course title
- (2) Course objective
- (3) Curriculum code (same as the capacity code)
- (4) Topics (contents) of lecture

- (5) Topics of group/individual exercises
- (6) Topics of presentation
- (7) Relevant parts of F/S and IP Manuals
- (8) Other references
- (9) Monitoring indicators

2.3 Submission of assignments at Step 3

The sending agency is responsible for submission of the assignments by the deadline to be agreed with the PMU.

Part 3 Training Schedule

3.1 General

The schedule of the training program will be determined by taking into consideration the availability of staff members, priorities, and natural conditions in the project area on the side of the sending agency as well as the availability of the instructors and facilities on the side of the PMU.

3.2 Training schedule from Work Unit 0 to Work Unit 5

The standard duration of the entire training program from WU 0 to WU 5 is 12 months as shown in Table 3 below with each WU lasting about two (2) months: however, this can be shortened or prolonged depending on the capacity and intentions of the sending agency and availability of instructors and facilities at the PMU. Standard time schedules of intensive training sessions last from five (5) to seven (7) days in the respective Work Units. The details of the time schedule are shown in Attachment 3.

Prior to WU 0, a training needs survey will be conducted and an agreement will be reached between the sending agency and the PMU in terms of the schedule and conditions of the training program, including roles and responsibilities of respective parties. The sending agency could choose which Work Unit to begin with in consideration of the existing capacity level of their participants and availability of instructors and facilities at the PMU.

Table 3: Standard Schedule of the Training Program

WU	Agreement for training	Until 3rd month	Until 5 th month	Until 8 th month	Until 9 th month	Until 10 th month	Until 12 th month
Duration		2.5 months	2.5 months	2.5 months	1 month	2 months	1.5 month
Agreement	*						
WU 0		I-----O					
WU 1			I-----O				
WU 2				I-----O			
WU 3					I-----O		
WU 4						I-----O	
WU 5							I-----O

Note: “I” means the intensive training session, “---” refers to the OJT session, and “O” stands for the submission of outputs.

Part 4 Proposed Implementation Arrangements of the Training Program

4.1 Proposed implementation structure

The implementation structure of the training program is based on the proposed institutional arrangement which is still subject to discussions as of December 2007. The following outlines the tentative implementation structure.

MARD/DoF establishes a Project Management Unit (PMU) to coordinate and monitor the training program, both intensive training and OJT sessions. The PMU will organize and manage the training program, including logistic arrangements of the training program, preparation of a list of instructors for the training program and assignment of instructors.

Department of Agriculture and Rural Development (DARD) or any other sending agencies which wish to assign participants to the training program will send their applications to participate in the training program to the PMU. Prior to the training program, the PMU and the sending agencies will discuss and agree on the conditions of training program, roles and responsibilities of respective parties. The conditions of the training program include (1) contents of the training program,⁵ (2) target level, (3) staff to be trained, (4) submission date of the assignments and M & E criteria, (5) cost sharing, (6) schedule, and (7) project basic idea.⁶ After the agreement, the sending agency will engage their staff in the training program to be organized by the PMU. In accordance with the agreement, the sending agency will send the outputs (assignments including draft F/S and IP reports) to the PMU. The sending agency will also fill out the M & E questionnaire to evaluate the training program for review by the PMU and MARD/DoF.

4.2 Main tasks and responsibilities

(1) MARD/ DoF

Main tasks and responsibilities of MARD / DoF include:

⁵ While the Work Units are arranged so as to offer a complete training program from the project identification to the drafting of the IP, the sending agency and participants, through discussions with PMU, may choose the specific training courses and Work Units they wish to attend, depending on the needs of participants and necessity of the training program in respective provinces.

⁶ The sending agency may have already had a project basic idea when it applied for the training program. If not, participants will identify the idea during WU 0.

- 1) Establishment of a PMU to coordinate, monitor, and evaluate the progress of capacity building and the training program, during both intensive training sessions and OJT sessions;
- 2) Appropriation of budgets to cover part or whole of the training expenses in the initial year of the training program if sending agencies are not able to timely appropriate their budgets for the OJT activities in respective provinces;
- 3) M & E of the progress of the capacity building and the training program based on the feed-back from the sending agencies, and results of M & E conducted by the PMU;
- 4) Holding dialogues with sending agencies and other concerned agencies, based on the M & E results of the progress of capacity building and the training program, for improvement of training program; and
- 5) Informing the PMU and sending agencies of any changes in government laws, regulations and guidelines relating to the subjects being taught at the training program.

(2) Project Management Unit (PMU)

The PMU will play a vital role in organizing the training program. Their main tasks and responsibilities include:

- 1) Agreement with the sending agencies on (i) contents, (ii) target level, (iii) staff to be trained, (iv) submission date of assignments and M & E criteria, (v) cost sharing, (vi) schedule, and (vii) basic idea of a project for which a plan will be developed;
- 2) Organization of the Off-the-Job intensive training sessions;
- 3) Preparation of a long-list of instructors/assistants who can be mobilized for the training program;
- 4) Organization of supporting services to the OJT session in the participating provinces after intensive training session at each WU is completed (depending on the needs and necessities of the sending agencies);
- 5) M & E of the progress of the capacity building, including the evaluation of assignments, and the training program for submission to MARD/DoF;
- 6) Feed-back of the M & E results to the sending agencies;
- 7) Submission of assignments including F/S reports and/or IP to

MARD/DoF for their reference; and

- 8) Informing sending agencies of any changes in government laws, regulations and guidelines relating to the subjects being taught at the training program.

(3) Sending agencies (DARD and any other interested entities)

Main tasks and responsibilities of the sending agencies include:

- 1) Agreement with the PMU on (i) contents, (ii) target level, (iii) staff to be trained, (iv) submission date of assignments and M & E criteria, (v) cost sharing, (vi) schedule, and (vii) basic idea of a project for which a plan will be developed;
- 2) Sending appropriate personnel to the intensive training session;
- 3) Appropriation of budgets for the OJT sessions in the respective participating provinces;
- 4) Engagement of the staff in OJT activities and completion of assignments in the respective provinces;
- 5) Submission of assignments by the deadlines having been agreed with the PMU; and
- 6) Submission of responses to M & E questionnaires to the PMU.

For smooth and efficient implementation of the training program, it is important that the sending agency form an F/S team, being comprised of members in different fields of expertise who can continue to participate in the training program throughout the period agreed with the PMU.

Part 5 Monitoring and Evaluation (M&E) and Feedbacks

5.1 Monitoring and evaluation of the capacity building

In order to monitor and evaluate the progress of the capacity building, quizzes and assignments will be given and evaluated by the PMU during and after the intensive training session. The PMU will hand over assignments that are scheduled to be completed by the deadline having been agreed between the sending agency and the PMU. Assignments are designed to assess what participants have learned and developed through the respective WUs. An F/S report will be compiled based on results of assignments in WUs 1 to 3 and IP will be prepared based on the F/S report and results of additional survey. The F/S report and IP, part of assignments, are also subject to monitoring and evaluation. Monitoring and evaluation is undertaken in relation to the course objectives, and M & E indicators described in the respective curricula.

Following are general criteria and scale of evaluation, which will be applied to evaluate F/S reports and IPs prepared as part of the assignments. The draft evaluation criteria are shown in Attachment 4.

General evaluation criteria

F/S report

- (1) Maintenance of logical consistency between the main point described and supporting data and information
- (2) Quality and sufficiency of data and information
- (3) Proper application of methodologies

Implementation Plan

- (1) Practical aspect
- (2) Clarity (ease of understanding)

Table 4: General scale of monitoring and evaluation of assignments

Criteria (Point)	Remarks
Good (More than 80)	Can go to the next stage of preparation processes of the F/S report or IP
Fair (More than 60 up to 80)	
Need improvement (More than 30 up to 60)	Need to have further supports to complete the current stage of F/S or IP
Substantial efforts required (30 or below)	

Assignments will be submitted to MARD/DoF with the results of the monitoring and evaluation by the PMU.

5.2 Monitoring and evaluation of the training program

At the end of each intensive training session and the entire training program, participants of the sending agency will evaluate the suitability of the training program for improvement. The PMU will prepare the questionnaire form (Attachment 5 for a sample M & E questionnaire form of the training program). The sending agency will compile and submit the responses of the participants to the questionnaire to the PMU. The PMU will compile all the responses and submit the M & E report to MARD/DoF with the analysis. The results of the report will provide a basis for improving the training program in the future.

Attachments

- 1. Training curriculum**
- 2. Standard time schedule for the intensive training sessions**
- 3. Assignments for respective WUs**
- 4. Evaluation criteria of F/S and IP**
- 5. Sample monitoring and evaluation form of training program**

Attachment 1: Training curriculum

Course Title	Elaboration of project basic design	Curriculum Code	0-1
Course Objective	To examine existing resources, demand potentials, and social needs for the project and identify project key elements such as possible implementing agency, target products of the project, and financial resources.		
Item	Contents	Minutes	
1. Topics of lecture			
(1) Introduction of basic project design	(1) Explanation of the basic project design that includes possible implementing agency, target products of the project, and financial sources for the project	15	
(2) Method to conduct preliminary analysis	(2) Preliminary analysis 1) Explanation of method to conduct preliminary analysis on the natural and socio-economic conditions, development issues, and possible stakeholders in the project area and neighboring areas 2) Preparation of a simple format for the preliminary survey (Note 1) 3) Preparation of a survey schedule and a survey team 4) Preparation of a simply reporting format of the preliminary analysis (Note 1) A simple format can be developed from the format to be used for the pre-site assessment. (Note 2) For the purpose of the identification of the project basic design, the participatory planning process can be used (See Curriculum Code 0-4: Preparation of the draft PDM).	30	
(3) Preparation of project basic design	(3) Based on the preliminary analysis, key project elements (i.e., implementing agency, target products of the project, and financial resources for the project) will be listed up.	15	
2. Topics of group exercises	The group exercise is to train participants in elaborating a project basic idea that they brought from respective provinces. (1) Describe ways to conduct a preliminary analysis on the natural and socio-economic conditions (2) Identify the nature of the project (production forest/agro-forestry, etc.) and the target beneficiary of the project.	60	
3. Topics of presentation	(1) Describe ways to conduct the preliminary analysis. (2) Explain the nature of the project and the target beneficiary of the project	60	
Total during the intensive training session		180	
4. Relevant parts of F/S and IP Manuals	(1) F/S manual (Book 2) Method of pre-site-assessment of project area selection for F/S for forestation project [Volume IV Part I Chapter 1]		
5. Other references	(1) Foundation for Advanced Studies on International Development [2004], Project Cycle Management – management tool for development assistance – Participatory Planning. (2) Foundation for Advanced Studies on International Development [2004], Project Cycle Management – management tool for development assistance- Monitoring & Evaluation (M & E).		
6. Monitoring indicators	(1) Able to develop a simple format for the preliminary survey and analysis on natural and social conditions in the project area. (2) Able to list up possible key project elements (implementing agencies, target products of the project, and financial sources for the project)		

Course Title	Pre-site assessment	Curriculum Code	0-2
Course Objective	To select a project area by applying the pre-site assessment criteria.		
Item	Contents	Minutes	
1. Topics of lecture			
(1) Introduction of pre-site assessment	(1) Objective of the pre-site assessment, its overall procedures, and types of afforestation/agro-forestry projects to be applied	10	
(2) Setting-up of site selection criteria	(2) Evaluation items: indispensable conditions and aptitude conditions	10	
(3) Procedures of pre-site assessment	(3) Procedures 1) Examination of pre-site assessment criteria with indicators 2) Entry in forms such as synopsis sheet and forms of pre-site assessment 3) Examination of indispensable conditions using the form of pre-site assessment 4) Evaluation of aptitude conditions 5) Synthesis judgment from a comprehensive standpoint	30	
(4) Application of the criteria	(3) Selection of suitable project area by applying the pre-site assessment criteria with indicators. (Note) The above procedures will be taken in consideration of the local conditions.	10	
2. Topics of group exercises	(1) Preparation of pre-site assessment criteria with indicators in consideration of the local conditions (2) Selection of suitable project area by applying the pre-site assessment criteria (this exercise can be done in the field).	60	
3. Topics of presentation	(1) Pre-site assessment criteria	60	
		Total during the intensive training session	
		180	
4. Relevant parts of F/S and IP Manuals	(1) F/S manual (Book 2) Method of pre-site-assessment of project area selection for F/S for forestation project [Volume IV Part I Chapter 1]		
5. Other references			
6. Monitoring indicators	(1) Able to revise the pre-site selection criteria and indicators in consideration of the local conditions (2) Able to apply the pre-site selection criteria to eliminate areas and projects that are expected to encounter difficulties in the implementation		

Course Title	Project option evaluation	Curriculum Code	0-3
Course Objective	To learn how to set up different project options and select the most feasible project option among different options.		
Item	Contents	Minutes	
1. Topics of lecture			
(1) Introduction of project option evaluation	(1) Basic idea of project option evaluation (setting-up of different project options and selection of the most feasible project option among different options)	10	
(2) Explanation of procedures	(2) Procedures of project option evaluation 1) Review of method to conduct preliminary analysis on the natural and social conditions of the project area 2) Identification of possible key project elements 3) Preparation of a long-list of project concept alternatives 4) Preparation of a short-list of project options 5) Elaboration of project option 6) Set-up of evaluation criteria and indicators for evaluation 7) Option assessment and selection of the most feasible option	40	
(3) Application of project option evaluation	(3) Use of an example to demonstrate the procedures	30	
2. Topics of group exercises	(1) Preparation of a draft long list of project concept alternatives (2) Evaluation criteria and indicators	60	
3. Topics of presentation	(1) Draft a long-list of project concept alternatives (2) Evaluation criteria and indicators	40	
Total during the intensive training session		180	
4. Relevant parts of F/S and IP Manuals	(1) F/S Manual (Book 2) 1) Method of project option evaluation [Volume IV Part I Chapter 2] 2) Rural socio-analysis [Volume IV Part I Chapter 4]		
5. Other references			
6. Monitoring indicators	(1) Able to explain the steps of the project option evaluation. (2) Able to prepare a long-list of project concept alternatives. (3) Able to prepare a short-list of the project options. (4) Able to select the most feasible project option.		

Course Title	Preparation of draft PDM	Curriculum Code	0-4
Course Objective	To prepare PDM whose elements demonstrate logical relationship among them.		
Item	Contents	Minutes	
1. Topics of lecture			
(1) Introduction	(1) Introduction of Project Cycle Management 1) PCM method and its characteristics 2) Workshop and participatory planning process	30	
(2) Procedures of the participatory planning	(2) Steps for the participatory planning 1) Stakeholders analysis 2) Problems analysis 3) Objectives analysis 4) Project selection 5) Preparation of PDM (Steps should be explained by using an example)	90	
2. Topics of group exercise	With the supports of facilitators, conduct the participatory planning covering the following analyses: 1) Stakeholders analysis 2) Problems analysis 3) Objectives analysis 4) Project selection 5) Preparation of draft PDM (Note) These exercises can be applied to identify a project basic idea in case no specific project basic idea is found at the beginning of the training program.	420	
3. Topics of presentation	(1) Explanation of the objectives tree (2) Explanation of the draft PDM	120	
Total during the intensive training session		660	
4. Relevant parts of F/S and IP Manuals	(1) F/S manual (Book 2) Project objectives and outputs [Volume III Part II Chapter 2 and Annex 1]		
5. Other references	(1) Foundation for Advanced Studies on International Development [2004], Project Cycle Management – management tool for development assistance – Participatory Planning. (2) Foundation for Advanced Studies on International Development [2004], Project Cycle Management – management tool for development assistance-Monitoring & Evaluation (M & E). 3) Model F/S (Book 4-1)		
6. Monitoring indicators	(1) Able to identify stakeholders of the project with their specific features (2) Able to prepare a problems tree (3) Able to prepare an objectives tree (4) Able to prepare a draft PDM that shows the logical relationship among the elements (inputs, activities, outputs, project objective, and overall goal).		

Course Title	Legal framework	Curriculum Code	0-5
Course Objective	To list up guidelines & requirements for preparation of F/S and IP for appropriate and efficient application.		
Item	Contents	Minutes	
1. Topics of lecture			
(1) Introduction	(1) Importance of legal framework: 1) Legal framework for project formulation 2) Legal documents relating to the application in the project case	30	
(2) Legal documents	(2) Study of the existing guidelines and requirements for preparation of the project.	30	
Total during the intensive training session		60	
4. Relevant parts of F/S and IP Manuals	(1) F/S manual (Book 2) Legal framework (Beginning of Volume II and Volume III)		
5. Other references	(1) Model F/S (Book 4-1) (2) Sample guidelines		
6. Monitoring indicators	(1) Able to point out guidelines & requirements relevant to preparation of F/S and IP of the project		

Course Title	Context of project formulation	Curriculum Code	1-1
Course Objective	To provide a background of the project from both national and local contexts.		
Item	Contents	Minutes	
1. Topics of lecture			
(1) Introduction	(1) Introduction for the analysis of the project context at national and local levels 1) Analysis of government policies at national and local levels. 2) The analysis can be expanded to cover the policy of assistance agencies such as foreign donors and domestic financial institutions, and also needs of the people in the project area.	30	
(2) Analysis of policy and other project context	(2) Analysis of policy and other project contexts 1) Analysis of specific features of the current government policies relevant to the project by studying on socio-economic development and forestry sector development policies at the national and local levels. The analysis can be also conducted on the policy of assistance agencies. 2) Analysis of the extent of matching with needs of the people 3) Analysis of the contribution of the project to the achievement of the policy objective in consideration of the project objective and overall goal of the PDM 4) Analysis of the indicators to measure the policy relevance 5) Analysis of necessity of project formulation	30	
2. Topics of group exercises	(1) List up documents relating to the policy and other project contexts at the national and local levels. (2) List up agencies to collect relevant information, such as People's Committee, DONRE, and DPI. (3) Prepare questions to analyze policies and other project contexts. (4) Use PDM to show the policy relevance and indicators. (5) Discuss the necessity of project formulation	90	
3. Topics of presentation	(1) Explanation of the background of the project (brief analysis of opportunities and threats surrounding the project and the extent of the contribution that the project is likely to make in consideration of the policy and other project contexts)	30	
Total during the intensive training session		180	
4. Relevant parts of F/S and IP Manuals	(1) F/S manual (Book 2) 1) Context of project formulation (Volume III Part I Chapter 1) 2) SWOT Analysis (Volume III Part I Sub-chapter 2.6 for an example of the SWOT Analysis) 3) Monitoring and evaluation of the project results [Volume IV Part I Chapter 8]		
5. Other references	(1) Foundation for Advanced Studies on International Development [2004], Project Cycle Management – management tool for development assistance – Participatory Planning. (2) Foundation for Advanced Studies on International Development [2004], Project Cycle Management – management tool for development assistance-Monitoring & Evaluation (M & E).		
6. Monitoring indicators	(1) To explain the objective and contents of the government policies and plans at national and local levels, which are relevant to the project (2) Able to explain the project background in line with the overall government policy and plan		

Course Title	Soil conditions	Curriculum Code	1-2-1-3
Course Objective	To have a fair understanding about how to examine soil types and how to formulate land units, and relationship between land units and sustainable afforestation/agro-forestry species in a practical way		
Item	Contents	Minutes	
1. Topics of lecture			
(1) Planning of soil survey	(1) Planning of soil survey 1) Overall idea on soil survey and analysis of the result 2) Set up of survey plan - number and size of survey plot	10	
(2) Land unit	(2) Land unit 1) Formulation of land units - Methodology for formulation of land unit 2) Data collection for formulation on land unit - Topography, soil type, mother rock, slope class, soil depth 3) Potential species - Examination of potential afforestation/agro-forestry species suitable to respective land units	30	
2. Topics of group exercises	(1) Formulation of land unit (2) Selection of potential afforestation/agro-forestry species	60	
3. Topics of presentation	(1) Land units formulated	20	
Total during the intensive training session		120	
4. Relevant parts of F/S and IP Manuals	(1) F/S Manual (Book 2) 1) Natural conditions in the project area [Volume III Part 1 Sub-chapter 2.1] 2) Overview of field survey and analysis (natural environmental outline survey, forest resource assessment, mapping and survey on landownership and its use [Volume IV Part I Chapter 3]		
5. Other references			
6. Monitoring indicators	(1)Able to examine data to judge soil productivity in planning afforestation technologies (e.g. selection of tree species) (2)Able to classify soil types for establishment of land units		

Course Title	Socio-economic conditions	Curriculum Code	1-2-2
Course Objective	To collect data and information on socio-economic conditions in the project area and evaluate socio-economic potentials for sustainable implementation of the project.		
Item	Contents	Minutes	
1. Topics of lecture			
(1) Introduction	(1) Purpose of the rural socio-analysis and specific methodologies: 1) socio-economic survey, 2) household socio-economic survey, 3) communal consultation meeting, 4) stakeholders analysis, and 5) social impact survey.	30	
(2) Socio-economic survey	(2) Socio-economic survey: 1) introduction, 2) socio-economic analysis, 3) farm income, 4) loan schedule	30	
(3) Household socio-economic survey	(3) Household socio-economic survey 1) introduction, 2) descriptive statistics and inferential statistics, 3) instruction to interviewers, 4) sampling method, 5) data input and analysis of quantitative data, 6) data worksheet, and 7) data analysis (Note) It is important to grasp an image of an “average” household in the project area.	50	
(4) Communal consultation meeting	(4) CCM 1) introduction, 2) pre-meeting preparation, 3) contents of CCM, and 4) analysis of CCM results	30	
(5) Stakeholders analysis	(5) Stakeholders analysis 1) introduction, 2) steps to conduct the stakeholders analysis	20	
(6) Social impact survey	(6) Social impact survey 1) definition of impact and social impact analysis, 2) identification of the impacts, 3) social impact analysis based on the FICAB study in Thai Nguyen province (Note) Training course for the social impact survey may be put in WU 4.	20	
2. Topics of group exercises			
(1) Socio-economic survey	(1) List up the documents and agencies to collect relevant information.	30	
(2) Household socio-economic survey	(2) Household socio-economic survey 1) Preparation of questionnaire survey sheet for household socio-economic survey and social impact analysis 2) Exercises of PRA/RRA techniques such as seasonal calendar	50	
(3) Communal consultation meeting	(3) Preparation of CCM (preparation of draft letter to offices concerned)	30	
(4) Stakeholders analysis	(4) Group exercise for the stakeholders analysis	20	
(5) Social impact survey	(5) Group discussion on the possible social impact	20	
3. Topics of presentation	(1) Questionnaire survey sheets for the household socio-economic survey	30	
Total during the intensive training session		360	
4. Relevant parts of F/S and IP	(1) F/S manual (Book 2) 1) Socio-economic conditions [Volume 3 Part I Sub-chapter 2.2]		

Manuals	2) Rural socio-analysis [Volume IV Part I Chapter 4]
5. Other references	(1) Model F/S (Book 4-1) (2) Statistics documents at national, provincial, district, commune, and village levels. (3) Financial reports of financial institutions
6. Monitoring indicators	(1) Able to arrange secondary data and information on socio-economic conditions in the appropriate formats for the analysis. (2) Able to prepare a questionnaire survey sheet for the household socio-economic survey. (3) Able to explain procedures for the Communal Consultation Meeting. (4) Able to list up major stakeholders that will be possibly involved in the implementation of the project. (5) Able to explain expected/intended impacts (both positive and negative) of the project.

Course Title	resource use	Curriculum Code	3
Course Objective	To clarify the current situation of forest land in the project area and estimate accurately land productivity of forest land based on the data collected.		
Item	Contents	Minutes	
(1) Current situation of forest land	(1) Current situation of forest land	20	
	1) Overall situation of the project area - the size of the project area by land classification and by administrative unit 2) Current status of the forest land - the size of area of the forest land by land use situation, by land ownership	20	
(2) Productivity of forest land	(2) Productivity of forest land	10	
	1) Estimation of area of land units	30	
	2) Estimation of stand volume and increment of land units 3) Formation of the land productivity class and prediction of land productivity	30	
(3) Preparation of maps	(3) Preparation of maps 1) Base map - administrative boarder, forest plot, land unit and current land use status 2) afforestation/agro-forestry planning map - administrative boarder, forest plot, planting tree species / agro-forestry model	10	
2. Topics of group exercises	(1) Examination and preparation of current forest land situation	60	
	(2) Examination and prediction of land productivity of respective land productivity class	90	
3. Topics of presentation	(1) Current situation of forest land of project area	30	
	(2) Land productivity of forest land of project area		
Total during the intensive training session		300	
4. Relevant parts of F/S and IP Manuals	(1) F/S Manual (Book 2) 1) Status of land and forest resource use [Volume III Part 1 Sub-chapter 1.3] 2) Overview of field survey and analysis (natural environmental outline survey, forest resource assessment, mapping and survey on landownership and its use) [Volume IV Part I Chapter 3]		
5. Other references	(1) Model F/S (Book 4-1) (2) Statistics on land registration (3) Related maps such as Soil map		
6. Monitoring indicators	(1) Able to analyze and compile properly data related to forest land area		
	(2) Able to examine data to estimate land productivity		

Course Title	Sales and marketing	Curriculum Code	1-2-4
Course Objective	To study the market prospects for forest/agro-forestry products in terms of: demand and supply conditions; product specifications and prices as well as delivery methods.		
Item	Contents	Minutes	
1. Topics of lecture			
(1) Overview of wood product industry/industry dealing with agro-forestry products	(1) Overview 1) Introduction (including definition of key words used), 2) Overview of current nation-wide wood product industry/ industry dealing with agro-forestry products for both domestic and export/import markets, 3) Overview of wood product industry/industry dealing with agro-forestry products in the province and neighboring provinces. (Note) Refer to Volume III Part I Chapter 2.4 of F/S manual (Book 2) for definition of terms such as target markets, potential market, wood materials, and wood products, and forest/agro-forestry products.	30	
(2) Use of forest /agro-forestry products by manufacturing enterprises, construction companies, and others	(2) Use of forest/agro-forestry products 1) Demand and supply of forest/agro-forestry products 2) Industrial organizations relating to wood products (i.e. outputs produced from wood materials) and forest/agro-forestry products. 3) Major processing enterprises, construction companies and others that use forest/agro-forestry products in the province and neighboring provinces within the potential market	30	
(3) Price and transportation	(3) Sales prices and transportation costs of forest/agro-forestry products	15	
(4) Target markets	(4) Characteristics of the target markets of the project	15	
2. Topics of group exercises	(1) Discussion about potential market and target markets (2) List up types of data and information to be collected with possible data sources (3) Preparation of interview survey forms (4) Discussion about ways to aggregate the data	90	
3. Topics of presentation	(1) Potential market of the target products of the project (2) Draft interview survey forms	60	
Total during the intensive training session		240	
4. Relevant parts of F/S and IP Manuals	(1) F/S manual (Book 2) Sales and marketing [Volume III Part I Sub-chapter 2.4])		
5. Other references	(1) Market trend reference book on wood-based and agro-forestry products (Book 7)		
6. Monitoring indicators	(1) Able to explain supply and demand conditions of forest/agro-forestry products in the potential market. (2) Able to explain product specifications and price as well as delivery methods of the target products of the project. (3) Able to explain the target markets of the project (specifications of target products, market size, sales prices, and delivery methods).		

Note: Part of this curriculum should be elaborated for use of WU 5.

Course Title	Project rationale	Curriculum Code	2-1
Course Objective	To analyze and describe why the project has been selected for implementation.		
Item	Contents	Minutes	
1. Topics of lecture			
(1) Introduction	(1) Introduction 1) Explanation about the role of this chapter “project rationale.” 2) Explanation of the SWOT analysis. 3) Review of the results of the field survey and analysis, particularly analysis of the project context at national and local levels and necessity of the project.	45	
(2) Explanation of examples	(2) Explain the logic behind the description using examples	15	
2. Topics of group exercises	(1) Conduct the SWOT analysis (2) Discussion about how to construct the logic for the necessity of the project.	60	
3. Topics of presentation	(1) Results of the SWOT analysis (2) Necessity of the project	30	
Total during the intensive training session		150	
4. Relevant parts of F/S and IP Manuals	(1) F/S manual (Book 2) 1) Project rationale [Volume III Part II Chapter 1] 2) SWOT analysis [Volume III Part I Sub-chapter 2. 6 for an example of the SWOT Analysis] 3) Monitoring and evaluation of the project results [Volume IV Part I Chapter 8]		
5. Other references	(1) Model F/S (Book 4-1) (2) Foundation for Advanced Studies on International Development [2004], Project Cycle Management – management tool for development assistance – Participatory Planning. (3) Foundation for Advanced Studies on International Development [2004], Project Cycle Management – management tool for development assistance- Monitoring & Evaluation (M & E).		
6. Monitoring indicators	(1) Able to explain strengths and weaknesses of the implementing agency, and opportunities and threats surrounding the project.		

Course Title	Project objectives and outputs	Curriculum Code	2-2
Course Objective	To set the overall goal of the project and project objective in consideration of the PDM		
Item	Contents	Minutes	
1. Topics of lecture			
(1) Project cycle management	(1) Review of Project Cycle Management 1) PCM Method and its characteristics	30	
(2) Project selection and preparation of PDM	(2) Project selection and preparation of PDM 1) Methodology 2) Process of conducting the analysis using an example	30	
2. Topics of group exercise	(1) Re-examine target beneficiary, inputs, activities, components, outputs, project objective and overall goal (2) Discuss the possible indicators to monitor the progress of the project and evaluate the achievement of the project objective and overall goal.	30 60	
3. Topics of presentation	(1) Revised PDM with explanation of reasons (2) Indicators to monitor and evaluate the project	60	
		Total during the intensive training session	
		210	
4. Relevant parts of F/S and IP Manuals	(2) F/S manual (Book 2) Project objectives and outputs [Volume III Part II Chapter 2]		
5. Other references	(1) Model F/S (Book 4-1) (2) Stakeholders analysis, problems analysis, objectives analysis, project selection, preparation of PDM under Project Cycle Management (3) Foundation for Advanced Studies on International Development (FASID) [2004], Project Cycle Management – management tool for development assistance – Participatory Planning		
6. Monitoring indicators	(1) Able to explain the vertical logical relationship among different elements of the PDM		

Course Title	Project activities and components	Curriculum Code	2-3-1
Course Objective	To identify the project components including activities and inputs in order to achieve the project objective.		
Item	Contents	Minutes	
1. Topics of lecture			
(1) Introduction	(1) Introduction 1) Explanation of definitions: project component, activities, and inputs 2) Review of the project selection based on the objectives analysis	30	
(2) Explanation of the example	(2) Example 1) Explain how to identify components by grouping activities and inputs. Reference materials will be used for the explanation.	30	
2. Topics of group exercises	(1) Review of the objective analysis (2) Project selection based on the objectives analysis (3) Identify necessary activities and inputs, and project components	30 20 30	
3. Topics of presentation	(1) Project components, activities, and inputs identified.	40	
		Total during the intensive training session	
		180	
4. Relevant parts of F/S and IP Manuals	(1) F/S Manual (Book 2) Project components [Volume III Part II Sub-chapter 3.1]		
5. Other references	(1) Model F/S (Book 4-1) (2) Foundation for Advanced Studies on International Development [2004], Project Cycle Management – management tool for development assistance – Participatory Planning.		
6. Monitoring indicators	(1) Able to define project activities and inputs. (2) Able to set up project components by grouping project activities. (3) Able to explain each of the project components in relation to outputs of the project and achievement of the project objective.		

Course Title	Project implementation plan	Curriculum Code	2-3-2-1 to 2-3-2-10
Course Objective	To learn how to prepare implementation plans in the respective fields taking into consideration the consistency among respective implementation plans (e.g. afforestation / agro-forestry plan, seedling supply plan, etc.)		
Item	Contents	Minutes	
1. Topics of lecture			
(1) Planting site condition	(1) Procedure of planting site selection 1) Set up the selection criteria 2) Confirm intension of participants on planting / cultivating	20	
(2) Species selection	(2) Species selection 1) Criteria for selecting tree species / agro-forestry crops 2) Explanation of the reason for selection	10	
(3) Afforestation / Agro-forestry plan	(3) Afforestation / agro-forestry plan 1) Procedure to prepare afforestation / agro-forestry plan in consideration of the results (1) and (2) mentioned above 2) Description and format of respective plans	30	
(4) Seedling supply plan	(4) Seedling supply plan 1) Seedling demand and supply capacity 2) Procedure for procurement of seedlings 3) Seedling production plan	10	
(5) Tending and protection plan	(5) Tending and protection plan 1) Method of tending and protection 2) Estimation of quantity of tending and protection activities	10	
(6) Harvesting plan	(6) Harvesting plan 1) Method of harvesting 2) Estimation of standing volume for harvesting 3) Estimation of area and quantity for harvesting	10	
(7) Labor requirement	(7) Labor requirement 1) Examination of labor cost norm 2) Estimation of labor requirement for project activities	10	
(8) Training plan	(8) Training plan 1) Identification of training needs 2) Examination of training course contents	20	
(9) Infrastructure plan	(9) Infrastructure plan 1) Identification of infrastructure for project activities 2) Examination of quantity and specification	10	
(10) Consulting service plan	(10) Consulting service plan 1) Identification of expertise required 2) Examination of volume of consulting services	10	
2. Topics of group exercise	(1) Fundamental data and conditions for preparing respective implementation plans (2) Maintain consistency among implementation plans (3) Elaboration of respective implementation plans	120	
3. Topics of presentation	(1) Key project implementation plans	40	
Total during the intensive training session		300	
4. Relevant parts of F/S and IP Manuals	(1) F/S Manual (Book 2) Project Implementation Plan [Volume III Part III Sub-chapter 3.2]		

5. Other references	(1) Model F/S (Book 4-1)
6. Monitoring indicators	(1) Able to prepare project implementation plans in respective fields (2) Able to maintain consistency among respective implementation plans

Course Title	Training plan	Curriculum Code	2-3-2-8
Course Objective	To prepare the capacity building program for those involved in the project implementation in order to strengthen their abilities to implement the project as planned.		
Item	Contents	Minutes	
1. Topics of lecture			
(1) Overview of the project	(1) Review of the PDM Project objective, overall goal, outputs, activities, inputs, pre-conditions	10	
(2) Needs identification	(2) Identification of training needs through survey tools for the needs assessment at both field and implementing agency level 1) Interview survey 2) Questionnaire survey 3) Focus group discussion 4) Others	10	
(3) Preparation of Training plan	(3) Preparation of a training plan [1) title of training course, 2) objective, 3) training contents, 4) targeted participants, 5) number of participants, 6) duration, 7) timing, and 8) cost]	10	
(4) Review of training costs	(4) Review and incorporation of training costs estimated in the project cost	10	
(5) Training plan in the overall project activities	(5) Review and incorporation of the training plan in the project activities and implementation schedule.	20	
2. Topics of group exercises	(1) Preparation of training needs survey instruments (2) Preparation of a training plan (3) Review of training costs and schedule	30 40 30	
3. Topics of presentation	(1) Training plan	30	
Total during the intensive training session		190	
4. Relevant parts of F/S and IP Manuals	(3) F/S manual (Book 2) Training plan [Volume III Part II Section 3.2.7] (4) IP Manual (Book 3) Training plan [Volume II Part II Chapter 6]		
5. Other references	(1) Model F/S (Book 4-1) (2) Model IP (Book 5-1)		
6. Monitoring indicators	(1) Able to explain training needs at the field and implementing agency levels. (2) Able to prepare a training plan based on the assessment results of the training needs		

Note: This curriculum shows details of the training plan which is also described in the curriculum “project implementation plan ” (Curriculum Code 2-3-2-1 to 2-3-2-10). This curriculum is used for WU 5 in principle.

Course Title	Procurement arrangement	Curriculum Code	2-3-2-11
Course Objective	To prepare arrangements for the procurement that aim to ensure efficient and transparent procurements of goods and services within the required legal framework.		
Item	Contents	Hours	
1. Topics of lecture			
(1) Review of the implementation plan and schedule	(1) Overview of the project implementation plan and schedule such as: 1) Afforestation / agro-forestry plan 2) Seedling supply plan 3) Infrastructure plan 4) Consulting service plan	20	
(2) Procurement guidelines	(2) Procurement guidelines to be applied 1) Presentation of sample guidelines with specific points to be considered 2) Objectives, methods and conditions of the guidelines to be applied, etc.	10	
(3) Procurement flow	(3) Procurement flows 1) Identification of parties to undertake procurements, approval of evaluation results, and monitor the process. 2) Identification of suppliers, supporting groups, and so on.	30	
2. Topics of group exercises	(1) List up relevant procurement guidelines to be applied (2) Classify items to be procured and arrange the information in the table format for the procurement plan (3) Draw procurement flow chart	30 30 90	
3. Topics of presentation	(1) Procurement flow chart	30	
Total during the intensive training session		240	
4. Relevant parts of F/S and IP Manuals	(1) IP Manual (Book 3) Procurement arrangement [Volume II Part II Chapter 4]		
5. Other references	(1) Model IP (Book 5-1)		
6. Monitoring indicators	(1) Able to explain relevant parts of procurement guidelines applicable to the procurement of goods and services concerned (2) Able to list up parties to be involved in the process and their roles. (3) Able to describe the flow chart for the procurement of major inputs.		

Note: This curriculum is used for WU 5 in principle.

Course Title	Project implementation schedule	Curriculum Code	2-3-3
Course Objective	To prepare the project implementation schedule of undertaking production forest / agro-forestry development components and other relevant components.		
Item	Contents	Minutes	
1. Topics of lecture			
(1) Overview of the project	(1) Review of the PDM Project objective, overall goal, outputs, activities, inputs, pre-conditions	20	
(2) Definition	(2) Definition Preparation period and operation period, and assistance period and project period (Note) Refer to Volume III Part II Sub-chapters 3.1 and 3.3 of F/S manual (Book 2) for definition of relevant terms used here.		
(3) Overall schedule	(3) Preparation of the overall schedule for project implementation 1) Listing-up of all the project activities by component 2) Set up the schedule by arranging sequences of the project activities and approval processes. Timing of budget approval and loan disbursement needs to be well taken into account.	30	
(4) Preparation period	(4) Preparation of the implementation schedule during the preparation period	50	
(5) Operation period	(5) Preparation of the implementation schedule during the operation period, and a model patter for establishing plantation / cultivation plots.	50	
2. Topics of group exercises	(1) Preparation of the implementation schedule during the preparation period	40	
	(2) Preparation of the implementation schedule during the operation period, and a model patter for establishing plantation / cultivation plots.	40	
3. Topics of presentation	(1) Implementation schedule during the preparation period (2) Implementation schedule during the operation period, and a model patter for establishing plantation / cultivation plots.	40	
Total during the intensive training session			270
4. Relevant parts of F/S and IP Manuals	(1) F/S manual (Book 2) Project implementation schedule [Volume III Part II Sub-chapter 3.3] (2) IP Manual (Book 3) Implementation schedule [Volume II Part II Chapter 2]		
5. Other references	(1) Model F/S (Book 4-1) (2) Model IP (Book 5-1)		
6. Monitoring indicators	(1) Able to construct implementation schedules during both preparation and operation periods, which reflect local conditions (natural conditions, local resources, etc.), sequences of respective project activities during the assistance period. (2) Able to prepare a model pattern for establishing plantation / cultivation plots.		

Note: Part of this curriculum should be elaborated for use of WU 5.

Course Title	Project cost	Curriculum Code	2-4
Course Objective	To estimate project costs to provide a basis for planning its funding and also examining the project's financial and economic viability.		
Item	Contents	Minutes	
1. Topics of lecture			
(1) Assumption and preparation of parameter table	(1) Definition of terms and basic assumption for cost estimates 1) Project cost and cost during the assistance period 2) Physical and price contingencies 3) Exchange rate 4) Current price and constant price 5) Opportunity costs 6) Terms and conditions of loan 7) Taxes 8) etc.	10	
(2) Table of index	(2) Preparation of table of index		
(3) Operation plan	(3) Preparation of operation plan	10	
(4) Sales plan	(4) Preparation of receipt (sales) plan 1) One ha model 2) Total project		
(5) Expenditure plan	(5) Expenditure plan 1) One ha model 2) Total project including other project components		
(6) Cost tables	(6) Preparation of cost tables	10	
(7) Cash flow table	(7) Preparation of cash flow table	10	
(8) Disbursement and repayment plan	(8) Preparation of the disbursement and repayment plan (Note) Disbursement and repayment plan will be taught together with "financing plan" (Curriculum Code 2-5)	10	
(9) Cost tables	(9) Preparation of three types of cost tables 1) Cost table by financing source 2) Cost table by year 3) Cost table by expenditure category	10	
2. Topics of group exercises	(1) Data collection and assumptions (2) Preparation of the following tables 1) Parameter table 2) Index table 3) Expenditure plan for one ha model 4) Expenditure plan for the entire planting sites 5) Supporting service plan and expenditure plan 6) Expenditure plan for the project management 7) Repayment plan 8) Total cost 9) Total cost by financing source	30 210	
3. Topics of presentation	(1) Project cost by financing source	60	
Total during the intensive training session		360	
4. Relevant parts of F/S and IP Manuals	(2) F/S manual (Book 2) 1) Project cost [Volume III Part II Chapter 4] 2) Financing plan [Volume III Part II Chapter 5]		

	3) Financial and economic analyses [Volume IV Part I Chapter 7] 4) Case study “Is Acacia a good option?” and Excel spreadsheets [Volume IV Annex 3] (3) IP Manual (Book 3) Summary of the project [Volume II Part I]
5. Other references	(1) Model F/S (Book 4-1)
6. Monitoring indicators	(1) Able to prepare a cost table by financing source

Course Title	Financing plan and financial management	Curriculum Code	2-5
Course Objective	To describe arrangements for the financial management that aim to ensure effective management and monitoring of the financial resources of the project.		
Item	Contents	Minutes	
1. Topics of lecture			
(1) Project cost	(1) Review of the project cost 1) Three types of table formats of the project costs 2) Review of the definitions: cost during the assistance period and project cost	10	
(2) Cost by financial source	(2) Different financial sources with guidelines 1) Different types of financial sources with different disbursement guidelines 2) Objectives of the disbursement guidelines of the donor/financial institutions, government budget guidelines	10	
(3) Loan	(3) Presentation of example of loans with specific points to be considered 1) Loans from financial institutions, a loan cycle from appraisal to collection, and terms and conditions of loans 2) Identification of parties to be involved in respective processes 3) Drawing of fund flows of loans 4) Reporting and auditing arrangements	20	
(4) Government budgets	(4) Presentation of example of governments budgets with specific points to be considered 1) Budgets from governments, a cycle from budget preparation to settlement 2) Identification of parties to be involved in respective processes 3) Drawing of fund flows of budgets 4) Reporting and auditing arrangements	20	
2. Topics of group exercises	(1) List up relevant disbursement regulations and guidelines to be applied (2) Draw a loan cycle and parties to be involved in (3) Draw a budget cycle of the governments and parties to be involved in	30 30 30	
3. Topics of presentation	(1) Fund flow of loans (2) Budget cycle of the governments	30	
Total during the intensive training session		180	
4. Relevant parts of F/S and IP Manuals	(4) F/S manual (Book 2) Financing plan [Volume III Part II Chapter 5] (5) IP Manual (Book 3) Arrangement for financial management [Volume II Part II Chapter 3]		
5. Other references	(1) Model F/S (Book 4-1) (2) Model IP (Book 5-1)		
6. Monitoring indicators	(1) Able to explain relevant parts of donors' disbursement/government budget guidelines applicable to the procurement of goods and services concerned. (2) Able to list up parties to be involved in the process and their roles. (3) Able to prepare the flow chart for the disbursement/release of the government budgets and loans.		

Note: Part of this curriculum should be elaborated for use of WU 5.

Course Title	Organization of project management and implementation	Curriculum Code	2-6
Course Objective	To learn how to set up institutional arrangements by describing responsibilities of the entities, which will be involved in various aspects of the project implementation, and the inter-relationship among the entities for the project implementation.		
Item	Contents	Minutes	
1. Topics of lecture			
(1) Overall description of the project implementation	(1) Overall description of the project implementation Classification of stakeholders by management group, implementation group, and supporting group	30	
(2) Implementing agency	(2) Implementing agency 1) Definition of the implementing agency and community-based organizations (CBOs) 2) Description of the roles and responsibilities of the implementing agency including the internal organizational structure and the relation with other major stakeholders 3) Example of the implementing agency and CBOs	40	
(3) Other stakeholders	(3) Other stakeholders 1) Coordination among different stakeholders 2) Involvement of the local people in the project 3) Formation of farmers' groups 4) Example of formation of farmers' groups and a Production Forest Association	30	
2. Topics of group exercise	(1) Stakeholders analysis Discussion about possible stakeholders involved in the project implementation and their roles and responsibilities (2) Discussion about roles and responsibilities of the implementing agency (3) Drawing structural organization chart for project implementation (4) Discussion about possible coordination structure/mechanism among different stakeholders(Note) Results of the stakeholders analysis conducted during WU 0 can be used as a basis to conduct the above analysis.	20 30 30 30	
3. Topics of presentation	(1) Structural organization chart for project implementation	40	
Total during the intensive training session			250
4. Relevant parts of F/S and IP Manuals	(1) F/S manual (Book 2) Organization of project management and implementation [Volume III Part II Chapter 6] (2) IP Manual (Book 3) Institutional arrangement [Volume II Part II Chapter 1]		
5. Other references	(1) Model F/S (Book 4-1) (2) Model IP (Book 5-1)		
6. Monitoring indicators	(1) Able to explain roles and responsibilities of the implementing agency and other organizations classified in the management, implementation, and supporting groups of the project. (2) Able to draw a structural organization chart showing stakeholders that will be involved in the project implementation. (3) Able to design appropriate arrangements for internal units of the implementing agency when preparing an implementation plan (IP)		

Note: Part of this curriculum should be elaborated for use of WU 5.

Course Title	Monitoring and Evaluation	Curriculum Code	2-7
Course Objective	To prepare detailed M & E plans together with ways to implement the M & E.		
Item	Contents	Minutes	
1. Topics of lecture			
(1) Overview of the project	(1) Review of the PDM Project objective, overall goal, outputs, components, activities, inputs, pre-conditions, critical assumptions	10	
(2) Definition	(2) Methodology and difference between monitoring and evaluation	10	
(3) Review of indicators	(3) Review of the M & E indicators and critical assumptions, and how to identify causes of problems if any	20	
(4) Monitoring mechanism	(4) Monitoring mechanism and information flow 1) Presentation of an example 2) Method to encourage participation of the beneficiaries in the monitoring of the project progress.	20	
(5) Evaluation mechanism	(5) Evaluation of the project Presentation of an example	10	
2. Topics of group exercises	(1) Discussion about monitoring indicators and mechanism (2) Discussion about evaluation indicators and mechanism (3) Preparation of Table of M & E plan	30 30 30	
3. Topics of presentation	(1) Table of M & E plan	40	
Total during the intensive training session		200	
4. Relevant parts of F/S and IP Manuals	(6) F/S manual (Book 2) 1) Monitoring and evaluation [Volume III Part II Chapter 7] 2) Monitoring and evaluation of the project results [Volume IV Part I Chapter 8] (7) IP Manual (Book 3) Monitoring and evaluation [Volume II Part II Chapter 7]		
5. Other references	(1) Model F/S (Book 4-1) (2) Model IP (Book 5-1)		
6. Monitoring indicators	(1) Able to explain appropriate indicators, means of verification, and critical assumptions for the monitoring and evaluation using Project Design Matrix. (2) Able to explain the method and institutional arrangements for data collection, reporting and feedback systems. (3) Able to prepare a table for M & E.		

Note: Part of this curriculum should be elaborated for use of WU 5.

Course Title	Financial and economic analyses	Curriculum Code	3-1
Course Objective	To explain objectives and differences of financial and economic analyses, and conduct the financial analysis.		
Item	Contents	Minutes	
1. Topics of lecture			
(1) Introduction	(1) Introduction of financial and economic analyses 1) Objective of the financial and economic analyses 2) Basic steps to conduct financial analyses	30	
(2) Price	(2) Data collection, current price and constant price 1) Difference between current and constant prices	30	
(3) Incremental analysis	(3) Incremental analysis and without-project case 1) With-and without-case comparison	30	
(4) Model development	(4) Model development and identification of expected costs 1) Model development based on the project implementation plan 2) Farm gate price and stumpage price	30	
(5) Estimation of costs	(5) Estimation of costs 1) Farm gate price of inputs 2) Opportunity cost of labor	30	
(6) Cash flow statement and investment criteria	(6) Cash flow statement and application of investment criteria 1) Construction of pro forma cash flow statement 2) Incremental analysis 3) Discounting 4) Application of investment criteria 5) Results of financial analysis from a total investment viewpoint 6) Sensitivity analysis 7) Risk analysis	60	
(7) Financing	(7) Financing and results of financial analysis from an owner's viewpoint	30	
(8) Difference between financial and economic analyses	(8) Difference between financial and economic analyses	30	
(9) Economic analysis	(9) Economic analysis	30	
2. Topics of group exercises	(1) Data collection, current price and constant price	60	
	(2) Model development and identification of expected costs (farm gate price and stumpage price)	150	
	(3) Estimation of costs (farm gate price of inputs and opportunity cost of labor)	90	
	(4) Construction of pro forma cash flow statement, incremental analysis, discounting, application of investment criteria, results of financial analysis from a total investment viewpoint sensitivity analysis and risk analysis	240	
	(5) Financing and results of financial analysis from an owner's viewpoint	60	
	(6) Conversion of economic prices	120	
3. Topics of presentation	(1) Cash flow statement	60	
	(2) Results of financial and economic analyses		
Total during the intensive training session			1,080

4. Relevant part of the F/S and IP manual	(1) F/S Manual (Book 2) Financial and economic analyses [Volume Part III Chapter 1] Financial and economic analyses [Volume IV Part I Chapter 7] Case study “Is Acacia a good option?” and Excel spreadsheets [Volume IV Annex 3]
5. Methodology and reference	(1) Model F/S (Book 4-1)
6. Monitoring indicators	(1) Able to explain the differences between the economic and financial analyses. (2) Able to prepare the cash flow statement. (3) Able to explain the results of the financial analysis.

Course Title	Evaluation of environmental impacts	Curriculum Code	3-2
Course Objective	To examine and identify environment impacts of the project and measures to mitigate negative impacts, if any, on the environment.		
Item	Contents	Minutes	
1. Topics of lecture			
(1) Introduction	(1) Overall idea on environmental impacts 1) Guidelines and regulations on Environmental Impact Assessment (EIA) 2) Examples on EIA	10	
(2) Identification of environment impact	(2) Identification of environmental impacts 1) Review of project activities 2) Examination of environmental factors - Soil, surface water, endangered species, etc. 3) Assessment of type and degree of impacts	20	
(3) Examination of mitigating measures	(3) Examination of mitigating measures 1) Examine possibilities to mitigate negative impacts depending on types and degrees of the impacts 2) Set up the mitigating measures	20	
2. Topics of group exercises	(1) Identification of environment impacts (2) Examination of mitigating measures	40	
3. Topics of presentation	(1) Environmental impacts identified and possible mitigating measures to be taken (Note) Presentation can be combined with that of “evaluation of social impacts” (Curriculum Code 3-3)	30	
Total during the intensive training session		120	
4. Relevant parts of F/S and IP Manuals	1) F/S Manual (Book 2) Evaluation of environmental impacts [Volume III Part III Chapter 2]		
5. Other references	1) Model F/S (Book 4-1) 2) Guideline for EIA		
6. Monitoring indicators	1) Able to identify impacts on the environment 2) Able to set up mitigating measures to negative impacts, if any.		

Course Title	Evaluation of social impacts	Curriculum Code	3-3
Course Objective	To examine possible impacts created among households and communities, as well as changes that would be brought to ethnic minority groups and women.		
Item	Contents	Minutes	
1. Topics of lecture			
(1) Introduction	(1) Review of the PDM 1) Project objective, overall goal, outputs, components, activities, inputs, pre-conditions, critical assumptions 2) Possible impacts on the social aspects	10	
(2) Social impact survey	(2) Social impact survey 1) Definition of impact and social impact analysis, 2) Identification of the impacts - Cross cutting viewpoint - Stakeholders analysis (review of the stakeholders that the project possibly has social impacts on, classification of the stakeholders depending on types of impacts from the project) - Impact matrix - Possible mitigation measures to be incorporated in the project plan if negative impacts are expected 3) Social impact analysis based on the FICAB study in Thai Nguyen province (incorporation of results of the household socio-economic survey, CCM, stakeholder analysis)	20	
2. Topics of group exercises	(1) Possible methods to identify social impacts (2) Possible measures to enhance positive impacts from the project (3) Possible mitigating measures to be taken by the project, including monitoring method	60	
3. Topics of presentation	(1) Impact matrix	30	
Total during the intensive training session		120	
4. Relevant parts of F/S and IP Manuals	(1) F/S manual (Book 2) 1) Evaluation of social impacts [Volume III Part III Chapter 3] 2) Rural socio-analysis [Volume IV Part I Chapter 4]		
5. Other references	(1) Model F/S (Book 4-1)		
6. Monitoring indicators	(1) Able to prepare an impact matrix (expected positive and negative impacts) (2) Able to explain possible mitigating measures to be incorporated in the project design if negative impacts are expected.		

Course Title	Sustainability	Curriculum Code	3-4
Course Objective	To examine the sustainability of the project on technical, economic, environmental and social aspects		
Item	Contents	Hours	
1. Topics of lecture			
(1) Introduction	(1) Review of the PDM and sustainability 1) Review of the project objective, overall goal, outputs, components, activities, inputs, pre-conditions, critical assumptions from a viewpoint of enhancing sustainability of the project 2) Definition of sustainability	10	
(2) Sustainability of technical aspect	(2) Sustainability of technical aspect in light of: 1) Technical standards of the governments 2) Existing technical practice of afforestation/agro-forestry in the project area 3) Harvesting productivity, etc.	20	
(3) Sustainability of economic aspect	(3) Sustainability of economic aspect in light of: 1) Financial supports from the governments/financial institutions 2) Availability of the self-funding capital 3) Contributions to improvement of household's economy 4) Prospect of the long-lasting demand of target products of the project 5) Technical and managerial capacities to maintain the project 6) Appropriateness of the institutional form	20	
(4) Sustainability of social and environmental aspects	(4) Sustainability of environmental and social aspects in light of: 1) Impacts on environment 2) Extent to which the social environment is expected to be improved 3) Creation of employment opportunities 4) Improvement of the awareness of the people in the project area	20	
2. Topics of group exercises	(1) Discussion about possible measures to enhance sustainability of the project	40	
3. Topics of presentation	(1) Possible measures to be taken in the project in order to enhance its sustainability.	40	
Total during the intensive training session		150	
4. Relevant parts of F/S and IP Manuals	(8) F/S manual (Book 2) 1) Project risks and mitigating measures [Volume III Part III Chapter 5] 2) Overview of field survey and analysis (natural environmental outline survey, forest resource assessment, mapping and survey on landownership and its use [Volume IV Part I Chapter 3] 3) Rural socio-analysis [Volume IV Part I Chapter 4]		
5. Other references	(1) Model F/S (Book 4-1)		
6. Monitoring indicators	(1) Able to define sustainability of the project in terms of the technical, economic, environmental and social aspects. (2) Able to propose measures to enhance the sustainability of the project.		

Course Title	Project risks and mitigating measures	Curriculum Code	3-5
Course Objective	To find out possible negative impacts on the project if risks occur and mitigating measures to minimize them.		
Item	Contents	Minutes	
1. Topics of lecture			
(1) Introduction	(1) Definition of risks	20	
(2) Identification of risks and possible measures	(2) Identification of risks and possible measures 1) Review of critical assumptions in the PDM 2) Measures to monitor risks 3) Possible measures to mitigate / minimize risks	30	
2. Topics of group exercise	(1) Re-examine pre-conditions, inputs, activities, components, outputs, project objective and overall goal, and critical assumptions. (2) Discuss the possible risks and ways to monitor and mitigate/minimize risks.	30	
3. Topics of presentation	(1) Types of risks and risk minimizing/mitigating measures	40	
Total during the intensive training session		150	
4. Relevant parts of F/S and IP Manuals	(1) F/S manual (Book 2) 1) Project risks and mitigating measures [Volume III Part III Chapter 5] 2) Monitoring and evaluation of the project results [Volume IV Part I Chapter 8]		
5. Other references	(1) Foundation for Advanced Studies on International Development [2004], Project Cycle Management – management tool for development assistance – Participatory Planning. (2) Foundation for Advanced Studies on International Development [2004], Project Cycle Management – management tool for development assistance-Monitoring & Evaluation (M & E).		
6. Monitoring indicators	(1) Able to explain possible risks associated with the project implementation. (2) Able to explain monitoring methods of risks identified. (3) Able to explain risk mitigating/minimizing measures.		

Course Title	F/S reporting	Curriculum Code	4
Course Objective	To prepare respective parts and chapters of F/S report in accordance with the structures of the F/S report (the structure may be adjusted in light of the specific local conditions in the project area)		
Item	Contents	Minutes	
1. Topics of lecture			
(1) Introduction	(1) Structure of F/S report and PDM 1) Explanation of the structure of F/S report 2) Relation of the F/S report and PDM 3) Uniform use of terminologies	150	
(2) Part I - IV	(2) The objective of describing the relevant parts, sub-chapters, and description of input data – analysis – output tables for the following Part I to IV:		
Part I	1) Project background - Context of project formulation - Natural conditions - Socio-economic conditions - Status of land and forest resource use - Sales and marketing	60	
Part II	2) Project contents - Project rationale - Project objectives and outputs - Project activities - Project costs - Financing plan - Organization of project management and implementation - Monitoring and evaluation	60	
Part III	3) Project justification - Financial and economic analyses - Evaluation of environmental impacts - Evaluation of social impacts - Sustainability - Project risks and mitigation measures	60	
Part IV	4) Conclusions and recommendations	60	
2. Topics of group exercises	(1) Arrangement of previous assignments in accordance with the F/S structure (2) Part I: Project background (2) Part II: Project contents (3) Part III: Project justification (4) Part IV: Conclusions and recommendations	180 270 270 270 270	
3. Topics of presentation	(1) Explanation of the project plan and justification of the project with conclusions and recommendations.	150	
Total during the intensive training session			1,800
4. Relevant parts of F/S and IP Manuals	(1) F/S Manual (Book 2)		
5. Other references	(1) Model F/S (Book 4-1)		
6. Monitoring indicators	(1) Able to draft an F/S report in accordance with the structure of the F/S report, which will be adjusted with the local conditions in the project area.		

Note: Evaluation criteria of F/S report in Attachment 4-1 of this training plan should be referred when conducting this training course.

Course Title	IP Reporting	Curriculum Code	5
Course Objective	To prepare respective parts and chapters of IP in accordance with the structures of the IP (the structure may be adjusted in light of the specific local conditions in the project area)		
Item	Contents	Minutes	
1. Topics of lecture			
(1) Introduction	(1) Structure of IP and PDM 1) Explanation of the structure of IP 2) Relation of the F/S report and IP 3) Uniform use of terminologies	100	
(2) Part I - II	(2) The objective of describing the relevant chapters and description of following Part I and Part II:		
Part I	1) Summary of the project	30	
Part II	1) Institutional arrangement	30	
	2) Implementation schedule	30	
	3) Arrangement for financial management	60	
	4) Procurement arrangement	60	
	5) Sales and marketing	60	
	6) Training plan	30	
	7) Monitoring and evaluation	30	
2. Topics of group exercises	(1) Summary of the project (2) Institutional arrangement (3) Implementation schedule (4) Arrangement for financial management (5) Procurement arrangement (6) Sales and marketing (7) Training plan (8) Monitoring and evaluation	120 150 150 150 150 150 130 130	
3. Topics of presentation	(1) Explanation of the draft implementation plan to highlight possible issues relating to the implementation.	240	
Total during the intensive training session			1,800
4. Relevant parts of F/S and IP Manuals	(1) IP Manual (Book 3)		
5. Other references	(1) Model IP (Book 5-1)		
6. Monitoring indicators	(1) Able to draft an IP in accordance with the IP structure, which will be adjusted with the local conditions in the project area.		

Note: Evaluation criteria of IP in Attachment 4-2 of this training plan should be referred when conducting this training course.

Attachment 2: Standard time schedule for the intensive training sessions

Work Unit 0: Project identification

Objective: WU 0 aims to train participants to identify a project and the target beneficiary. It is to prepare a basis for the field survey and analysis (WU 1) through the pre-site assessment and the project option evaluation.

Main outputs: Most feasible project option and draft PDM based on the most feasible option

Training courses:

- 1) Elaboration of project basic design (Curriculum Code 0-1);
- 2) Pre-site assessment (Curriculum Code 0-2);
- 3) Project option evaluation (Curriculum Code 0-3);
- 4) Preparation of a draft PDM (Curriculum Code 0-4); and
- 5) Legal framework (Curriculum Code 0-5).

Day	Time	Contents/training courses
Day 1	8:30 – 11:30	Introduction of the training program, training package and WU 0 Objectives and structure of F/S and I/P
	13:30 – 16:30	Code 0-1] Elaboration of project basic design
Day 2	8:30 – 11:30	Code 0-2] Pre-site assessment
	13:30 – 16:30	Code 0-3] Project option evaluation M&E Questionnaire 0-1
Day 3	8:30 – 11:30	Code 0-5] Legal framework Code 0-4] Preparation of PDM 1 (Stakeholders analysis)
	13:30 – 16:30	Code 0-4] Preparation of PDM 2 (Problems analysis)
Day 4	8:30 – 11:30	Code 0-4] Preparation of PDM 3 (Objectives analysis)
	13:30 – 16:30	Code 0-4] Preparation of PDM (Project selection and preparation of preliminary PDM) M&E Questionnaire 0-2

Work Unit 1: Field survey and analysis

Objective: WU 1 aims to provide participants with skills and knowledge for collection and analysis of data and information which explain the necessity of the project and lead to the rationale behind the implementation of the project identified and its design. The outputs of the WU1 will form a basis of the project background of the F/S report.

Main outputs: Data and information collected through the field survey and analysis

Training courses:

- 1) Context of project formulation (Curriculum Code 1-1);
- 2) Soil conditions (Curriculum Code 1-2-1-3);
- 3) Socio-economic conditions (Curriculum Code 1-2-2);
- 4) Land use and forest resource use (Curriculum Code 1-2-3);
- 5) Sales and marketing (Curriculum Code 1-2-4); and
- 6) Review and improvement of PDM (Curriculum Code 0-4).

Day	Time	Contents/training courses
Day 1	8:30 – 11:30	Introduction of WU 1 Feedback of the M & E results of WU 0 assignments Code 0-4 Review of PDM
	13:30 – 16:30	Code 1-1 Context of project formulation M&E Questionnaire 1-1
Day 2	8:30 – 11:30	Code 1-2-1-3 Soil conditions Code 1-2-3 Land use and forest resource use 1
	13:30 – 16:30	Code 1-2-3 Land use and forest resource use 2
Day 3	8:30 – 11:30	Code 1-2-3 Land use and forest resource use 3 Code 1-2-2 Socio-economic conditions 1 (Socio-economic survey and Household socio-economic survey)
	13:30 – 16:30	Code 1-2-2 Socio-economic conditions 2 (Household socio-economic survey and CCM)
Day 4	8:30 – 11:30	Code 1-2-2 Socio-economic conditions 3 (Stakeholders analysis) Code 1-2-4 Sales and marketing 1
	13:30 – 16:30	Code 1-2-4 Sales and marketing 2 Code 0-4 Improvement of PDM M&E Questionnaire 1-2

Work Unit 2: Project planning

Objective: In WU 2, participants are supposed to elaborate the project plan based on the draft PDM developed through WUs 0 and 1, and data and information collected so far.

Main outputs: Project plan with the revised PDM

Training courses:

- 1) Improvement of draft PDM (Curriculum Code 0-4);
- 2) Elaboration of project objectives and outputs (Curriculum Code 2-2);
- 3) Project rationale (Curriculum Code 2-1);
- 4) Elaboration of project activities and components (Curriculum Code 2-3-1);
- 5) Project implementation plan (Curriculum Code 2-3-2);
- 6) Project implementation schedule (Curriculum Code 2-3-3);
- 7) Project cost (Curriculum Code 2-4);
- 8) Financing plan (Curriculum Code 2-5);
- 9) Organization of project management and implementation (Curriculum Code 2-6); and
- 10) Monitoring and evaluation (Curriculum Code 2-7).

Day	Time	Contents/training courses
Day 1	8:30 – 11:30	Introduction of WU 2 Feedback of the M & E results of WU 1 assignments Code 0-4 Review of PDM Code 2-2 Elaboration of project objectives and outputs 1
	13:30 – 16:30	Code 2-2 Elaboration of project objectives and outputs 2 M&E Questionnaire 2-1
Day 2	8:30 – 11:30	Code 2-1 Project rationale Code 2-3-1 Elaboration of project activities and components 1
	13:30 – 16:30	Code 2-3-1 Elaboration of project activities and components 2 Code 2-3-2 Project implementation plan 1
Day 3	8:30 – 11:30	Code 2-3-2 Project implementation plan 2
	13:30 – 16:30	Code 2-3-2 Project implementation plan 3 Code 2-3-3 Project implementation schedule 1 M&E Questionnaire 2-2
Day 4	8:30 – 11:30	Code 2-3-3 Project implementation schedule 2
	13:30 – 16:30	Field trip
Day 5	8:30 – 11:30	Code 2-4 Project cost 1
	13:30 – 16:30	Code 2-4 Project cost 2

Day	Time	Contents/training courses
Day 6	8:30 – 11:30	Code 2-5 Financing plan
	13:30 – 16:30	Code 2-6 Organization of project management and implementation 1
Day 7	8:30 – 11:30	Code 2-6 Organization of project management and implementation 2
		Code 2-7 Monitoring and evaluation 1
	13:30 – 16:30	Code 2-7 Monitoring and evaluation 2
		Code 0-4 Review of PDM
		M&E Questionnaire 2-3

Work Unit 3: Project justification

Objective: WU 3 aims to train participants to examine justification of the project.

Main outputs: Results of the financial analysis

Training courses:

- 1) Financial and economic analyses (Curriculum Code 3-1);
- 2) Evaluation of environmental impacts (Curriculum Code 3-2);
- 3) Evaluation of social impacts (Curriculum Code 3-3);
- 4) Sustainability (Curriculum Code 3-4); and
- 5) Project risks and mitigating measures (Curriculum Code 3-5).

Day	Time	Contents/training courses
Day 1	8:30 – 11:30	Introduction of WU 3 Feedback of the M & E results of WU 2 assignments Code 0-4 Review of PDM
	13:30 – 16:30	Code 3-1 Financial and economic analyses 1 (Objective and basic steps of the analyses)
Day 2	8:30 – 11:30	Code 3-1 Financial and economic analyses 2 (Price and incremental analysis)
	13:30 – 16:30	Code 3-1 Financial and economic feasibility 3 (Model development and estimation of costs) M&E Questionnaire 3-1
Day 3	8:30 – 11:30	Code 3-1 Financial and economic feasibility 4 (Cash flow statement and application of investment criteria)
	13:30 – 16:30	Code 3-1 Financial and economic feasibility 5 (Cash flow statement and application of investment criteria)
Day 4	8:30 – 11:30	Code 3-1 Financial and economic feasibility 6 (Financing)
		Code 3-1 Financial and economic feasibility 7 (Economic analysis) 1
	13:30 – 16:30	Code 3-2 Evaluation of environmental impacts Code 3-3 Evaluation of social impacts 1
Day 5	8:30 – 11:30	Code 3-3 Evaluation of social impacts 2 Code 3-4 Sustainability 1
		Code 3-4 Sustainability 2 Code 3-5 Project risk and mitigating measures M&E Questionnaire 3-2
	13:30 – 16:30	

Work Unit 4: F/S drafting

Objective: The objective of WU 4 is to train participants to draft an F/S report in accordance with the structure of the F/S report, which will be adjusted with the local conditions in the project area.

Main outputs: Draft Feasibility Study (F/S) Report

Training courses:

- 1) Structure of feasibility study reports (Curriculum Code 4);
- 2) Compilation of the assignments of the previous WUs in accordance with the F/S structure (Curriculum Code 4);
- 3) Drafting of Part 1: Project background (Curriculum Code 4);
- 4) Drafting of Part 2: Project contents (Curriculum Code 4);
- 5) Drafting of Part 3: Project justification (Curriculum Code 4); and
- 6) Drafting of Part 4: Conclusions and recommendations (Curriculum Code 4).

Day	Time	Contents/training courses
Day 1	8:30 – 11:30	Introduction of WU 4 Feedback of the M & E results of WU 3 assignments Structure of F/S report Code 0-4 Review of PDM Code 4 Compilation of the previous assignments in accordance with the F/S structure 1
	13:30 – 16:30	Code 4 Compilation of the previous assignments in accordance with the F/S structure 2
Day 2	8:30 – 11:30	Code 4 Description of Part I: Project background 1
	13:30 – 16:30	Code 4 Description of Part I: Project background 2 M&E Questionnaire 4-2
Day 3	8:30 – 11:30	Code 4 Description of Part II: Project contents 1
	13:30 – 16:30	Code 4 Description of Part II: Project contents 2
Day 4	8:30 – 11:30	Code 4 Description of Part III: Project justification 1
	13:30 – 16:30	Code 4 Description of Part III: Project justification 2
Day 5	8:30 – 11:30	Code 4 Description of Part IV: Conclusions and recommendations 1
	13:30 – 16:30	Code 4 Description of Part IV: Conclusions and recommendations 2 M&E Questionnaire 4-2

Work Unit 5: I/P drafting

Objective: The objective of WU 5 is to train participants to draft an Implementation Plan in accordance with the IP structure, which will be adjusted with the local conditions in the project area.

Main outputs: Draft Implementation Plan (IP)

Training courses:

- 10) Structure of implementation plan (Relation between F/S report and IP);
- 11) Summary of the project (Curriculum Code 5);
- 12) Institutional arrangement (Curriculum Code 2-6);
- 13) Implementation schedule (Curriculum Code 2-3-3);
- 14) Arrangement for financial management (Curriculum Code 2-5);
- 15) Procurement arrangement (Curriculum Code 2-3-2-11);
- 16) Sales and marketing (Curriculum Code 1-2-4);
- 17) Training plan (Curriculum Code 2-3-2-8); and
- 18) M & E (Curriculum Code 2-7).

Day	Time	Contents/training courses
Day 1	8:30 – 11:30	Introduction of WU 5 Feedback of the M & E results of WU 3 assignments Structure of IP and PDM
	13:30 – 16:30	Code 5 Summary of the project
Day 2	8:00 – 11:30	Code 2-6 Institutional arrangement
	13:30 – 17:00	Code 2-3-3 Implementation schedule M & E questionnaire 5-1
Day 3	8:30 – 11:30	Code 2-5 Arrangement for financial management 1
	13:30 – 16:30	Code 2-5 Arrangement for financial management 2
		Code 2-3-2-11 Procurement arrangement 1
Day 4	8:30 – 11:30	Code 2-3-2-11 Procurement arrangement 2
		Code 1-2-4 Sales and marketing 1
	13:30 – 16:30	Code 1-2-4 Sales and marketing 2
Day 5	8:20 – 11:30	Code 2-3-2-8 Training plan
	13:20 – 16:30	Code 2-7 Monitoring and evaluation M & E questionnaire 5-2

Attachment 3: Assignments for respective WUs

Possible assignments for respective WUs

The following tables show possible contents of assignments to be provided after the intensive training session of each Work Unit is completed. The contents of the assignments will be adjusted in order to reflect specific conditions in the project area. Participants are expected to complete and submit these assignments by the deadline agreed with the Project Management Unit (PMU).

Assignments during WU 0

The following are the possible assignments that participants are expected to complete and submit as outputs of the OJT session during WU 0. These assignments aim to improve the abilities of participants to conduct the pre-site assessment to identify the project area and then, proceed with the project option evaluation to find out the most feasible project option out of various alternatives. Participants are expected to prepare a draft PDM based on the most feasible project option, which is subject to the feasibility study during the succeeding WUs.

Curriculum Code	Work Unit 0 Assignments		Relevant parts of the F/S report
0-1	Identification of a project basic idea	Describe the nature of the project that the sending agency and participants plan to formulate as a project including the target beneficiary.	
0-2	Pre-site assessment	Summarize the results of the pre-site assessment with the justification of the project area.	
0-3	Project option evaluation	(1) Explain short-listed project options including analysis of needs of people. (2) Brief report on the reason to select the most feasible option	
0-4	Preparation of draft PDM	Draft PDM with the result of stakeholders analysis, problems and objectives analyses.	Part II. Chapter 2 Objectives and outputs Annex 1: PDM
0-5	Legal framework	List up the legal documents relating to the project implementation.	Legal framework

Assignments during WU 1

The following are the possible assignments that participants are expected to complete and submit as outputs of the OJT session during WU 1. These assignments aim to improve the abilities of participants to conduct the data collection and analysis for the project context, the survey on the soil conditions, land use and forest resource use, the rural socio-analysis for studying the socio-economic conditions in the project area, and the sales and marketing survey. They are intended to help participants explain the necessity of the project and the rationale behind the implementation of the project identified. Depending on the outputs of WU 1, the PDM drafted during WU 0 will be modified.

Curriculum Code	Work Unit 1 Assignments		Relevant parts of the F/S report
1-1	Forest sector issues and government measures	Describe the forest sector issues and government measures in respective provinces and districts. Description should be focused in consideration of the project identified during WU 0.	Part I. Chapter 1 Context of project formulation
1-2-1 1-2-3	Natural conditions/ land and forest resource use in the project area	(1) Prepare a summary report of natural conditions in the project area using the existing statistical data and information, and the result of supplementary field survey (land use situation, soil condition, stand volume ownership and farmers' intentions on plantation, etc). (2) Printed base map with legend and explanatory note. The scale of the base map is at least as follows: Commune level: 1/10,000 to 1/25,000 District level: 1/25,000 to 1/50,000 Provincial level: 1/50,000 to 1/100,000.	Part I. Sub-chapter 2.1 Natural conditions Part I. Sub-chapter 2.3 Status of land use and forest resource use
1-2-2	Socio-economic conditions	(1) Prepare a summary report of socio-economic conditions in the project area by administrative unit such as commune based on the socio-economic survey (use of the existing statistical data and information) and household socio-economic survey (interview survey). For the household socio-economic survey, the report should be accompanied by: a note explaining a sampling method; questionnaire form; and Excel data sheets (input data). Tables and graphs will be utilized to summarize the numerical data and information collected. Pay attention to socio-economic resource potentials for the project implementation. (2) Analyze the people's needs based on the results of the CCM including a summary report of the CCM results, an attendance list, collected questionnaire sheets with responses, materials used at the meetings.	Part I. Sub-chapter 2.2 Socio-economic conditions
1-2-4	Market and distribution channels of forest products	(1) Describe the potential market of the project by administrative unit, and the demand and supply conditions of the potential market by type of forest/agro-forestry products (i.e. wood materials, NTFPs, and agricultural crops). Statistical data as well as data and information collected through the interview survey will be utilized for the description. (2) Summarize data on the prices of the forest/agro-forestry	Part I. Sub-chapter 2.4 Sales and marketing

Curriculum Code	Work Unit 1 Assignments		Relevant parts of the F/S report
		<p>products and transportation costs that will be used to determine the target markets at the later stage. (3) Make a comparison of expected sales prices and costs to be incurred.</p> <p>Copies of several interview memos will be submitted.</p>	
0-4	Modification of PDM	Based on the findings through the field survey and analysis, the draft PDM prepared during WU 0 will be adjusted.	Part II. Chapter 2 Objectives and outputs Annex 1: PDM

Assignments during WU 2

The following are the possible assignments that participants are expected to complete and submit as outputs of the OJT session during WU 2. These assignments aim to improve the abilities of participants to elaborate the project plan based on the draft PDM, data and information collected during WU 0 and WU 1. The assignments during WU 2 cover the four main areas: project implementation plan and schedule; project cost and financing plan; organization of project management and implementation; and monitoring and evaluation. Depending on the outputs of WU 2, the PDM drafted during WU 1 will be improved.

Curriculum Code	Work Unit 2 Assignments		Relevant parts of the F/S report
2-3-2	Project implementation plan	(1) Explanatory note of planting site selection. Result and reason on selection of planting site is briefly explained, including methodologies to incorporate land owner's intension on planting. (2) Afforestation / agro-forestry plan. (3) Technical guideline and man-day cost norm for afforestation /agro-forestry activities.	Part II. Section 3.2.2 Project implementation plan
2-3-3	Project implementation schedule	(1) Explanatory note of overall implementation schedule A table which shows schedule by project component should be attached to the note	Part II. Section 3.2.3 Project implementation schedule
2-4	Project cost and financing plan	(1) Parameter table (2) Expenditure plan (1 ha model) using the actual data (3) Project cost by financing source (including costs estimated for the supporting services, if any, and project management)	Part II. Chapter 4 Project cost
2-5		Loan repayment schedule based on the terms and conditions of loans possibly offered by financial institutions for the project. Participants are expected to interview with the financial institution to obtain relevant information.	Part II. Chapter 5 Financing plan
2-6	Organization of project management and implementation	(1) Description of roles and responsibilities of the implementing agency with the structural organization chart for the project implementation (2) Description of the system and structure of organization of the people in the project area	Part II. Chapter 6 Organization of project management and implementation
2-7	Monitoring and evaluation	(1) Fill out indicators and means of verification in the corresponding columns of the PDM (2) Brief description on how to conduct M&E	Part II. Chapter 7 Monitoring and evaluation
0-4	Modification of PDM	Based on the findings through WU 2, the draft PDM prepared during WU 1 will be improved.	Part II. Chapter 2 Objectives and outputs Annex 1: PDM

Assignments during WU 3

The following are the possible assignments that participants are expected to complete and submit as outputs of the OJT session during WU 3. The assignments aim to improve the abilities of participants to conduct the analysis for the project justification in terms of the financial and economic analyses, evaluation of environmental and social impacts, sustainability, and risks and mitigating measures. Depending on the outputs of WU 3, the PDM drafted during WU 2 will be improved.

Curriculum Code	Work Unit 3 Assignments		Relevant parts of the F/S report
3-1	Financial and economic analyses	(1) Description of the without project case. (2) Analysis of the results of the financial analysis (incremental cash flow) with Excel spreadsheet (3) Explanation of conversion of financial prices to economic prices, and other qualitative explanation on economic aspects of the project	Part III. Chapter 1 Financial and economic analyses
3-2	Environmental impacts	Describe the expected impacts of the project on the environment.	Part III. Chapter 2 Evaluation of environmental impacts
3-2	Social impacts	Describe the expected impacts of the project on the social aspect.	Part III. Chapter 3 Evaluation of social impacts
3-2	Sustainability	Describe the sustainability of the project on technical, economic, environmental and social aspects.	Part III. Chapter 4 Sustainability
3-2	Risks and mitigating measures	(1) Describe the possible negative impacts on the project and mitigating measures. (2) Examine critical assumptions of the PDM in consideration of risks.	Part III. Chapter 5 Project risks and mitigating measures
0-4	Modification of PDM	Based on the findings through WU 3, the draft PDM prepared during WU 2 will be further elaborated.	Part II. Chapter 2 Objectives and outputs Annex 1: PDM

Assignments during WU 4

The following is the possible assignment that participants are expected to complete and submit as outputs of the OJT session during WU 4. The assignment aims to train the participants to complete the F/S report that they start drafting during the intensive training session of WU 4. In drafting the F/S report, the logical consistency needs to be maintained between the main points and supporting arguments throughout.

Curriculum Code	Work Unit 4 Assignments		Relevant parts of the F/S report
4	Drafting F/S report	Draft the F/S report based on the assignments completed during previous WUs and additional inputs during WU 4.	All the parts and chapters of F/S

Assignments during WU 5

The following is the possible assignment that participants are expected to complete and submit as outputs of the OJT session during WU 5. The assignment aims to train the participants to complete the IP that they start drafting during the intensive training session of WU 5. In drafting the IP, participants are expected to supplement the data and information in consideration of the local conditions and practice.

Curriculum Code	Work Unit 5 Assignments		Relevant parts of the IP
5	Drafting IP	Draft the IP report based on the F/S report drafted during WU 4.	All the parts and chapters of IP

Attachment 4: Evaluation criteria of F/S and IP

Attachment 4-1: Evaluation criteria of F/S report

No	Item	Evaluation perspectives	Point*	Sending agency			
				A	B	...	
General aspect			30				
1	Logical consistency	Logical relation of PDM (5 points) and logical construction of the report (5 points)	10				
2	Data quality and quantity	Quality (5 points) and quantity (5 points)	10				
3	Right application of method	Appropriate use of the method (5 points) and application (5 points)	10				
Specific aspect			70				
Part I			15				
1	Context of the project	How does the description show the policy relevant of the project?	2				
2	Natural/socio-economic conditions	Assessment of data quality and quantity	4				
2.1	Natural conditions	In terms of natural resources in the project area	2				
2.2	Socio-economic	In terms of human resource potentials (1 point) In terms of socio-economic environment such as household economy, major economic activities, financial sources and infrastructure (1point)	2				
2.3	Land use and forest resources	- Description of current situation of forest land (2 point) - Description of land productivity (3 point)	5				
2.4	Sales and marketing	- Description of existing market (2 points) and future market prospects (1 point) (target products, specifications, prices, quantities, delivery methods)	3				
2.5	Lessons learned	Has any lesson been referred in relation to the project? (0.5 point)	1				
2.6	Opportunities and challenges	Assessment of opportunities and challenges is done? (0.5 point)					
Part II			25				
1	Project rationale	Description of issues (1 point) and presentation of the project as an appropriate counter-measures (2 points)	3				
2	Project objective/outputs	Consistency with the PDM	3				
3	Project components/Key design consideration/ or projects implementation plan	Sufficiency and appropriateness of project components (2 points)/implementation plan (2 points)/ schedule (1 point) in light of achievement of the objective	5				

No	Item	Evaluation perspectives	Point*	Sending agency			
				A	B	...	
4	Project cost	Description of baseline costs, physical and price contingencies, assumptions in tables	3				
5	Financing plan	Description of cost table by financing sources Loan repayment schedule	4				
6	Organization of project management and implementation	Description of the roles and responsibilities of the implementing agency to achieve the objective Appropriateness of stakeholder analysis	3				
7	Training plan	Have training needs been identified for the project implementation?	2				
8	Monitoring and Evaluation	Realistic indicators are being set for M & E?	2				
Part III			20				
1	Financial/economic analysis	Appropriateness of data used for the analysis (2 points), and appropriateness of methodologies (5 points) and analysis of results (3 points)	10				
2	Environmental impact	Appropriateness of data used for the analysis (1 point), and methodologies and analysis of results (1 point)	2				
3	Social impact		2				
4	Sustainability	Any factors being described that are critical to the sustainability of the project?	3				
5	Risk and mitigating measures	Any risks and mitigating measures being mentioned?	3				
Part IV			10				
1	Conclusion	Persuasive statement of conclusion	5				
2	Recommendation	Recommendations for actions being addressed?	5				

Note: (*) For each of the items, 100% of the point is given when description is evaluated as “good,” 70% when it is evaluated as “fair,” 40% when relevant items of the F/S structure are at least mentioned, 0% when nothing is mentioned for the relevant items of the F/S structure.

Attachment 4-2: Evaluation criteria of IP

No	Item	Major perspectives for evaluation	Point*	Sending agency			
				A	B	...	
General aspect			20				
1	Practical aspect	Is the IP practical enough to put in implementation?	10				
2	Clarity (easy of understanding)	Is the IP clear enough to guide the staff members of the implementing agency to implement the project?	10				
Specific aspect			80				
Part I							
1	Summary of the project	Concise summary of F/S report by incorporating any revision made over the report.	10				
Part II							
1	Institutional arrangement	Clear description of the roles and responsibilities of the implementing agency including the internal organizational structure and the relation with other major stakeholders	10				
2	Implementation schedule	Realistic schedule in consideration of the timing and sequencing of respective project activities at both preparation and operation periods	10				
3	Arrangement for financial arrangement	Clear explanation of the channels through which the funds be delivered from providers to users for all the financial sources	10				
4	Procurement arrangement	Clarification of parties that will be in charge of major actions, particularly those who are authorized to approve the award and contract, and how long the procedures take (preparation of procurement flow)	10				
5	Sales and marketing	Clarification of parties to be involved in major processes, their actions and time sequences of the actions to be taken (preparation of sales and marketing flow)	10				
6	Training plan	Preparation of the table for training plan in consideration of the training needs	10				
7	M & E	Preparation of the table for M & E plan by clarifying respective parties to collect data and information, to aggregate them, and to make a decision.	10				

Note: (*) For each of the items, 100% of the point is given when description is evaluated as “good,” 70% when it is evaluated as “fair,” 40% when relevant items of the IP structure are at least mentioned, 0% when nothing is mentioned for the relevant items of the IP structure.

Attachment 5: Sample monitoring and evaluation form of training program

4. After completing WU 5 intensive training session, how do you think of the proposed structure of the Implementation Plan introduced during the intensive training session? Is the structure practical enough to put your project proposed in the F/S report into implementation?

Not practical		Somewhat not practical	Neither		Somewhat practical	Very practical
1	2	3	4	5	6	7

5. Methodologies adopted during the intensive training session (explanation of the IP contents, group works, and presentation) will help you prepare the Implementation Plan for the project in your province.

Strongly disagree		Rather disagree	Neither		Rather agree	Strongly agree
1	2	3	4	5	6	7

6. Handouts and exercises provided during the intensive training session will help you transfer to other colleagues in your province what you learned after you go back to your province.

Strongly disagree		Rather disagree	Neither		Rather agree	Strongly agree
1	2	3	4	5	6	7

7. Lecture/presentation of the instructors was concise and clear.

Strongly disagree		Rather disagree	Neither		Rather agree	Strongly agree
1	2	3	4	5	6	7

8. The instructors organized the sessions by integrating the lecture/presentation with discussions, Q & A, handouts, and exercises.

Strongly disagree		Rather disagree	Neither		Rather agree	Strongly agree
1	2	3	4	5	6	7

9. Assistants of the training intensive sessions from the Project Management Unit (PMU) were helpful.

Strongly disagree		Rather disagree	Neither		Rather agree	Strongly agree
1	2	3	4	5	6	7

10. Sharing of experiences among participants from other provinces were helpful.

Strongly disagree		Rather disagree	Neither		Rather agree	Strongly agree
1	2	3	4	5	6	7

2. If you are asked to evaluate the training program (intensive training session and On-the-Job Training session of WU 1 to WU 5), what do you think as strengths and weaknesses of the training program?

Strengths	Weaknesses

3. Do you recommend others to participate in the training program in the future?

1. Yes

0. No

If your answer to the above is yes, to whom do you recommend first?

Thank you for your cooperation.

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

Manual
for Preparation of Feasibility Study Reports
for production forest/agroforestry
development projects in Vietnam

Book 2: F/S Manual

Volume I : Process of a Feasibility Study

**Volume II : Structure and Contents of a Feasibility
Study Report**

**Volume III : Procedure for Preparing of a
Feasibility Study Report**

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

---FICAB---

Preface

“Manual for Preparation of Feasibility Study Reports for production forest / agroforestry development projects in Vietnam (Book 2: F/S Manual)” 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 (hereafter 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 other training materials 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 plan 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 6: Monitoring and evaluation report on technical training of PPs

Book 7: Market trend reference book on 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

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Abbreviations

5MHRP	Five Million Hectare Reforestation Programme
ASEAN	Association of Southeast Asian Nations
ARDD	Agriculture and Rural Development Division
B/C ratio	Cost-Benefit ratio
CBO	Community-Based Organization
CoP	Core Province
CCM	Communal Consultation Meeting
DAF	Development Assistance Fund
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
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
NTFPs	Non-Timber Forest Products
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
PSIA	Poverty and Social Impact Analysis
PST	Provincial Study Team
RRA	Rapid Rural Appraisal
SFFD	Support for Production Forest Development
SIA	Social Impact Assessment
Sub-DoF	Sub-Department of Forestry at province level
SWOT	Strengths, Weaknesses, Opportunities, and Threats
VBARD	Vietnam Bank for Agriculture and Rural Development
VBSP	Vietnam Bank for Social Policies
VDB	Viet Nam Development Bank
WTO	World Trade Organization

Summary

1. Objective of F/S Manual

F/S Manual (Book 2) is one document of a training package, which compiled the lessons learned and knowledge gained in conducting feasibility studies and implementation planning in Thai Nguyen Province and Participating Provinces (PPs). In the manual, a process and procedures for preparing F/S are explained and users of the manual will learn how to conduct a feasibility study. Users of F/S Manual are expected to use the manual along with other documents of the training package, especially Model F/S of Thai Nguyen Province for the production forest development project (Book 4-1), as these documents provide concrete examples of the F/S report.

2. Users of F/S Manual

The main users of the F/S manual will be personnel of governmental institutions who have experiences in project development or project implementation in the forestry sector. Other users include management boards, forest enterprises and local consultants.

Users of the manual should bear in mind that each project has different characteristics. Therefore, it is essential that users themselves select what is relevant for their specific project, taking into account the particular needs of the governments, financial institutions and/or investors to which an F/S report is to be submitted.

3. Structure and Contents of F/S Report

The following is the suggested structure and contents of an F/S report.

Legal Framework

This aims to demonstrate how the project meets legal requirements and follows policy directions.

Introduction

This mentions the arrangements by which the F/S report was prepared. It will also provide the general outline of the project.

Part I. Project Background

The main aim of Part I is to establish a basis to explain the necessity of the project, which leads to the project rationale and contents in Part II. The project background clarifies various aspects such as policy, natural and socio-economic conditions to establish the project framework.

Chapter 1 Context of project formulation

This chapter presents a brief background of the project from the national and local contexts.

Chapter 2 Natural and socio-economic conditions

This chapter aims to provide a comprehensive overview of natural and socio-economic conditions in and around the project area.

2.1 Natural conditions

The emphasis of this sub-chapter should be on a description and assessment of natural resources and development potential in the project area.

2.2 Socio-economic conditions

This sub-chapter should give the user of F/S report a good picture of the people in the project area, their potential as human resources in implementing the project, their current living conditions as well as their perceptions towards production forest/agro-forestry development projects as a means of improving their livelihood.

2.3 Status of land and forest resource use

This sub-chapter aims to describe the current situation and productivity of forest land. The description includes areas by legal status, the land use situation and land-use right holder, standing volume, productivity by land productivity class as well as areas by land unit.

2.4 Sales and marketing

This sub-chapter overviews the market prospects for target products of the project. It examines aspects such as demand and supply, product specifications, sales prices and delivery methods.

2.5 Lessons learned from on-going and completed projects

This sub-chapter aims to draw lessons from on-going and completed projects in order to avoid potential risks that may lead to unsuccessful implementation of the project. This sub-chapter will also examine ways to apply good experience that may lead to successful results for the project.

2.6 Opportunities and challenges

This sub-chapter summarizes assessment of opportunities and challenges in implementing the project.

Part II. Project Contents

As sequel to Part I, Part II describes and defines the project rationale and concept, the project inputs and activities, their phasing, their costs and how they would be financed, and institutional arrangements required to undertake project activities.

Chapter 1 Project rationale

Based on the information already given in Part I, the purpose of this chapter is to complete the explanation of why the project has been selected for implementation, and to define the project concept and plan.

Chapter 2 Project objectives and outputs

This chapter describes the overall goal, objective and outputs of the project. In describing them, a clear logical relationship needs to be maintained among these elements.

Chapter 3 Project activities

This chapter defines and describes in detail the project components, including activities and major inputs, and the project implementation plan and schedule.

Chapter 4 Project cost

The cost estimate provides the basis for planning the project's funding and also for determining the project's financial and economic viability. The main text of the report provides aggregate costs in three types of summary cost tables: financing source, year of disbursement and expenditure category. The summary cost table needs to specify the period for which the cost estimates are prepared: assistance period or project period.

Chapter 5 Financing plan

The financing plan should indicate main project components or expenditure categories, and the amount proposed for financing to the financier. If the project uses loans, the report describes the loan disbursement and repayment plan. If the project uses subsidies, the report shows only the disbursement plan of the subsidy program. It is important to explain how funds would be disbursed to the implementing agency and other proposed recipient(s) and in the case of loans, how they would be repaid by showing a loan repayment schedule with fund flow charts.

Chapter 6 Organization of project management and implementation

This chapter is intended to provide an overview about stakeholders involved in the various aspects of project implementation and operation, particularly the implementing agency. It will also explain what roles and responsibilities they assume, and what coordination mechanism will be established among different stakeholders.

Chapter 7 Monitoring and evaluation

This chapter aims to describe what to look at for the monitoring and evaluation (M & E) and how to implement the M & E in order to assess progress of the project for achievement of the project objective and to judge the results of the project.

PART III. Project Justification

Based on the data and information discussed in the previous parts (Part I and II), Part III aims to present the assessment of various aspects of undertaking the project.

Chapter 1 Financial and economic analyses

This chapter summarizes the results of the financial and economic analysis of the project.

Chapter 2 Evaluation of environmental impact

The main purpose of this chapter is to focus on the expected effects of the project on the environment.

Chapter 3 Evaluation of social impact

The main aim of this chapter is to examine possible impact created among households and communities, as well as changes that would be brought to ethnic minority groups and women. The F/S report also explains ways to involve the local people in the monitoring activities of the project.

Chapter 4 Sustainability

This chapter aims to describe factors that are critical to the sustainability of the project objective and overall goal, and how the project design attempts to address these factors. This chapter highlights sustainability of the project on a number of aspects such as technical aspect, economic aspect, and environmental and social aspects.

Chapter 5 Project risks and mitigating measures

This chapter aims to describe assessed results of the likely negative impact on project results if risks materialize. The chapter should also refer to the measures adopted in the design of the project to monitor and mitigate any adverse impact.

PART IV. Conclusions and Recommendations

As a result of the analysis in the previous parts (Part I, II and III), Part IV presents the conclusion and explains outstanding issues with recommendations.

Chapter 1 Conclusions

Chapter 2 Recommendations

Introduction

1 Objective of F/S Manual

The development study on capacity building for preparing feasibility studies (F/S) and implementation plans (IP) for afforestation projects in Vietnam (FICAB) aims to strengthen the capacity of the government institutions as well as their personnel for preparing afforestation projects and facilitation of investments in the Vietnamese forestry sector. A training package has been prepared as one output. This training package is utilized for conducting a technical training program for capacity development on F/S and IP preparation.

F/S Manual (Book 2) is one document of a training package, which compiled the lessons learned and knowledge gained in conducting feasibility studies and implementation planning in Thai Nguyen Province and Participating Provinces (PPs). In the manual, a process and procedures for preparing F/S are explained and users of the manual will learn how to conduct a feasibility study. Users of F/S Manual are expected to use the manual along with other documents of the training package, especially Model F/S of Thai Nguyen Province for the production forest development project (Book 4-1), as these documents provide concrete examples of the F/S report.

2 Structure of F/S Manual

The manual is divided into four main parts:

VOLUME I: PROCESS OF A FEASIBILITY STUDY

VOLUME II: STRUCTURE AND CONTENTS OF A FEASIBILITY STUDY REPORT

VOLUME III: PROCEDURE FOR PREPARING OF A FEASIBILITY STUDY REPORT

VOLUME IV: TECHNICAL GUIDE

The manual begins with the description of the overall process of a feasibility study (VOLUME I). In this VOLUME, the process of feasibility study is explained in four steps. The 1st step is project identification. The 2nd step is field survey and analysis. The 3rd step is project planning and the 4th step is project justification. It will be followed by the contents of a feasibility study (VOLUME II). The contents are explained by section. Next, the procedures on how to conduct a feasibility study are explained as a main part of the manual (VOLUME III). Issues to be addressed in an F/S report and the important points to be considered are also explained. The last part (VOLUME IV) presents the methodology for field studies such as rural socio-analysis, financial and economic analyses, and so on.

The hierarchical structure of the manual follows the pattern described below:

<u>Structure</u>	<u>Example</u>
VOLUME	VOLUME III: PROCEDURES FOR PREPARATION OF A FEASIBILITY STUDY REPORT
Part	Part I. Project Background
Chapter	Chapter 1 Natural and socio-economic conditions
Sub-chapter	Sub-chapter 2.2 Socio-economic conditions
Section	(4) Financial sources
Sub-section	(4.1) Credits

3 Users of F/S Manual

The main users of the F/S manual will be personnel of governmental institutions who have experiences in project development or project implementation in the forestry sector. Other users include management boards, forest enterprises, and local consultants. They may form a team (F/S team) in order to conduct a feasibility study.

The target level of the manual is that users can submit a report to the government authorities for approval and support. Users will be able to provide basic information and plans in the form of a proposal to financial institutions and potential investors for implementing a production forest / agro-forestry project.

Users of the manual should bear in mind that each project has different characteristics. Therefore, it is essential that users themselves select only what is relevant for their specific project, taking into account the particular needs of the governments, financial institutions and/or investors to which an F/S report is to be submitted.

4 Users of F/S report

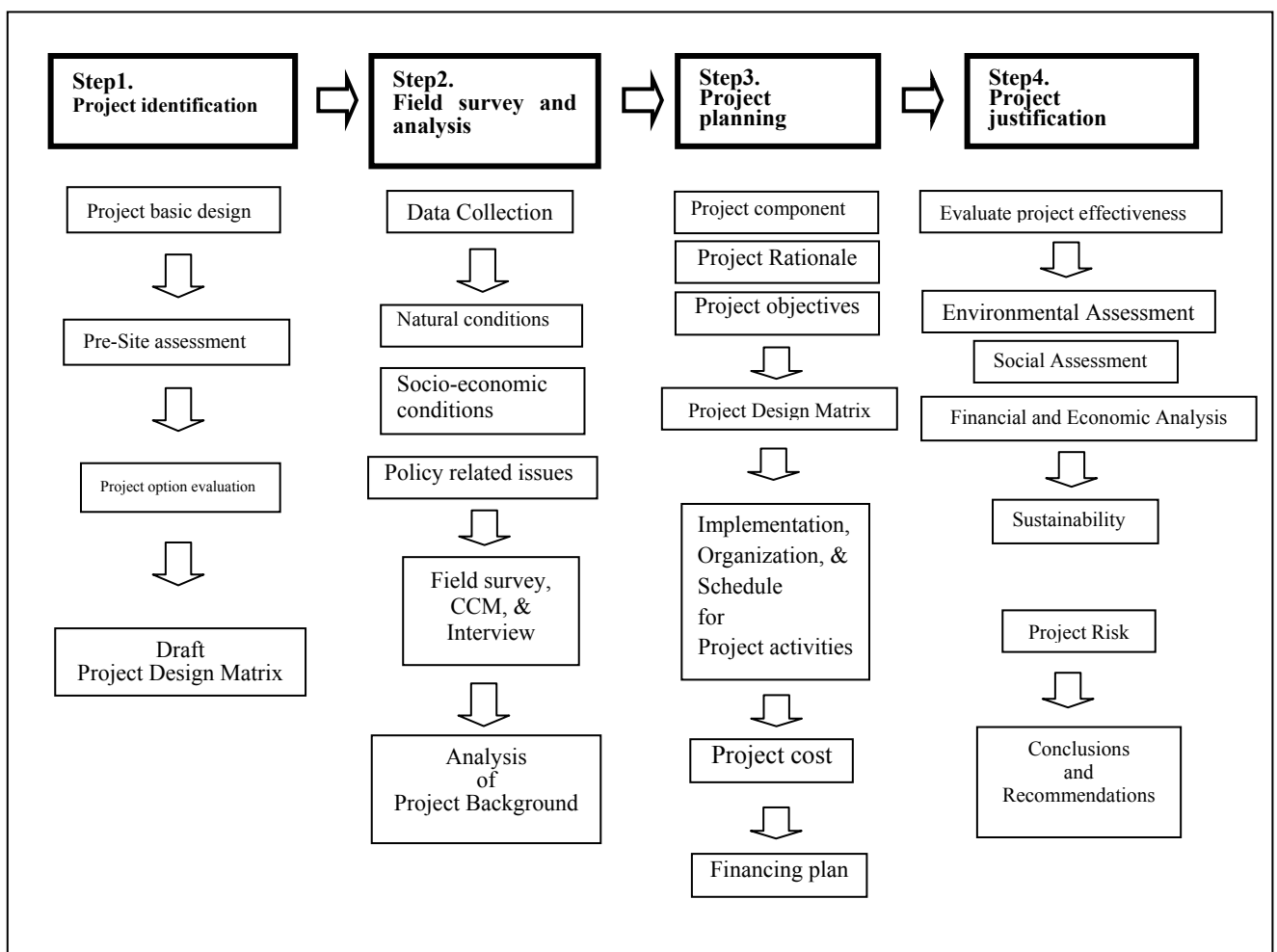
The main users of the F/S report, an output of a feasibility study, will be financial institutions or potential investors who might extend their support to the implementation of the project. F/S reports are also aimed at the government institutions that are in a position to authorize the implementation of the project in case the government approval is required and/or provide support for the implementation. The F/S report will serve a basis for them to examine and judge if their support of the project is appropriate.

**VOLUME I: PROCESS OF A FEASIBILITY
STUDY**

A. Overall process of a feasibility study

A feasibility study is generally conducted through four steps, which are project identification, field survey and analysis, project planning and project justification step. In the project identification step (Step 1), pre-site assessment and project option evaluation are conducted based on the project basic design. Through these processes, a Project Design Matrix (PDM) is drafted. The field survey and analysis step (Step 2) is conducted continuously. The result is summarized as a background for the project. In Step 2, data collection and field survey are carried out for elaboration of project plans (Step 3). Based on a project background, in Step 3, various project activities for project implementation are prepared and these project activities are compiled as project components. The Project Design Matrix is re-examined. The 4th step is the project justification step, which examines the effectiveness of the project. Financial and economic analyses, evaluation of environmental and social impacts are conducted. Sustainability of the project is confirmed, then the feasibility of a project is examined. At the end of the project justification step, conclusions and recommendations are presented.

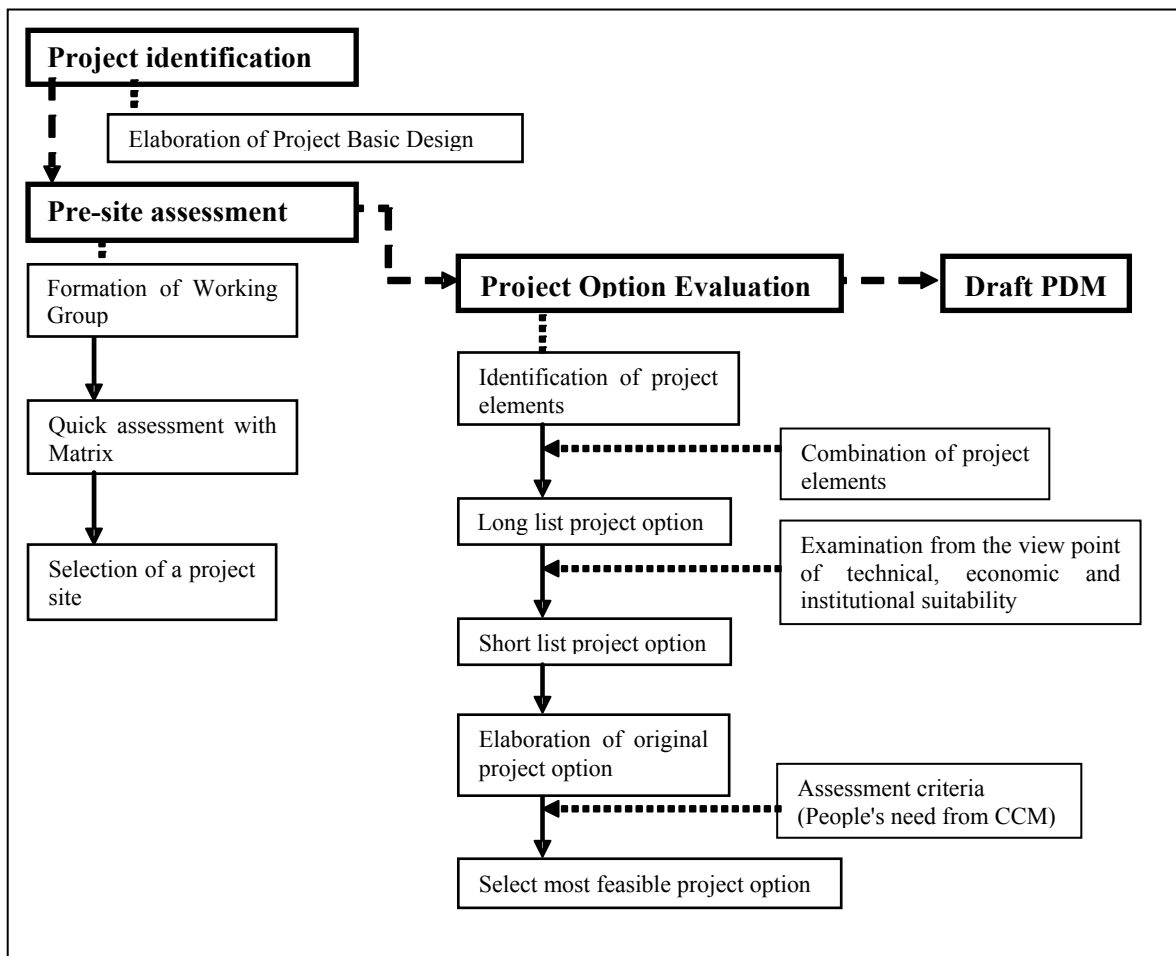
The results obtained through these four steps are summarized in four parts of an F/S report.



B. Project identification (Step 1)

In Step 1 Project identification, a project area is selected and the most feasible project option is also selected through conducting a pre-site assessment and a project option evaluation. The pre-site assessment and the project option evaluation are conducted based on a project basic design which is designed in the very early stage of Step 1. At this point, based on the most feasible project option, project objectives, outputs and activities are examined and a draft Project Design Matrix (PDM) is prepared.

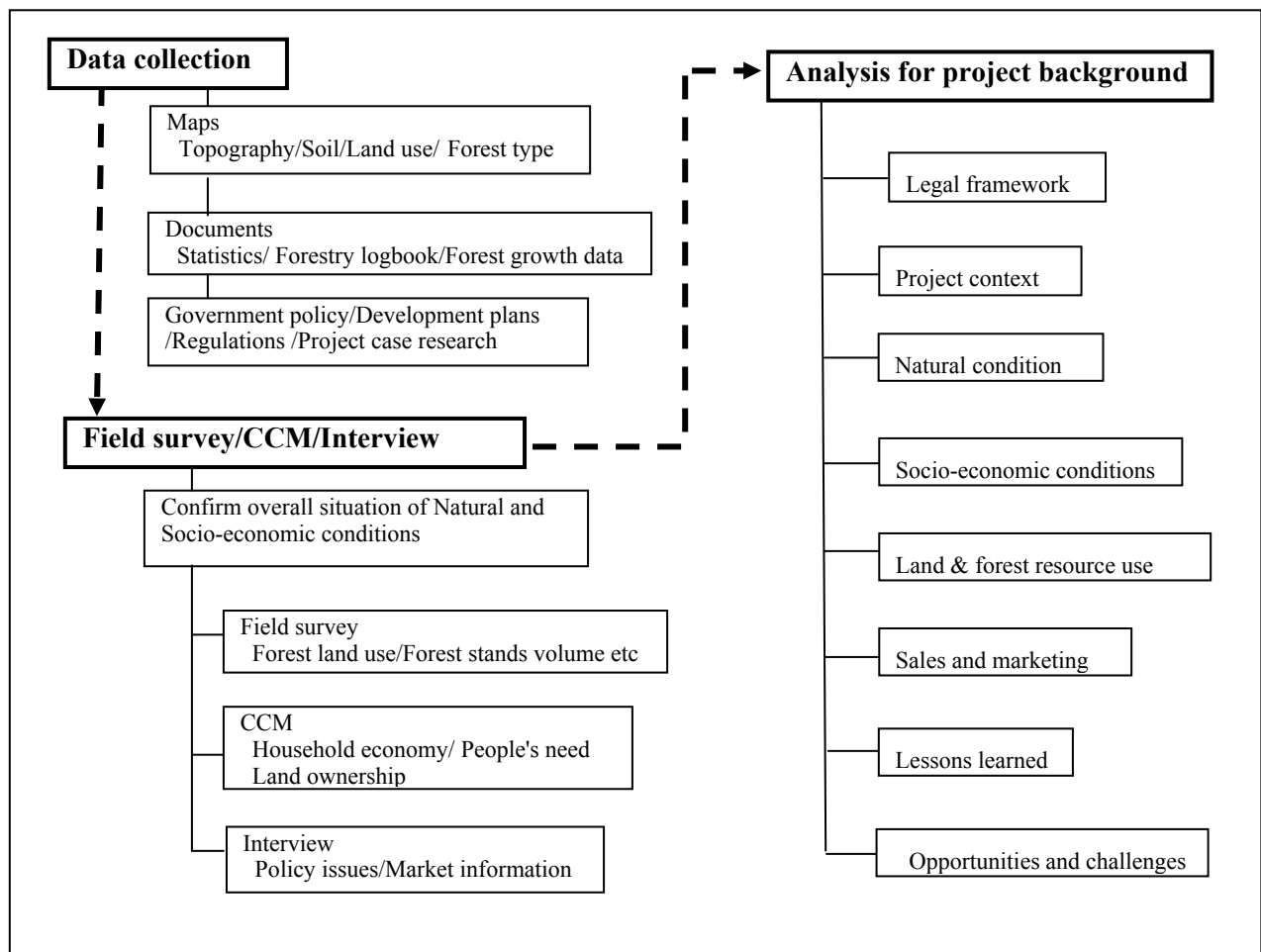
The results of the project option evaluation are compiled as an annex of F/S report.



C. Field survey and analysis (Step 2)

In Step 2 Field survey and analysis, basic data and information such as maps, statistics on natural and socio-economic settings, related policies and national development plans are collected (Data collection) in order to formulate the project. In conjunction with data collection, field surveys, communal consultation meetings and interview surveys are conducted for data verification and supplementary data collection, and the general situation on natural and socio-economic conditions in a project area is defined (Field survey/CCM/Interview). Based on analysis of information collected, such as project context (Part I, Chapter 1), natural conditions (Part I, Sub-chapter 2.1), socio-economic conditions (Part I, Sub-chapter 2.2), status of land and forest resource use (Part I, Sub-chapter 2.3), sales and marketing (Part I, Sub-chapter 2.4), a project background is compiled. Furthermore, lessons learned from other projects (Part I, Sub-chapter 2.5) are examined with opportunities and challenges (Part I, Sub-chapter 2.6) surrounding the project.

The result of this step is described in Part I. Project background of F/S report.



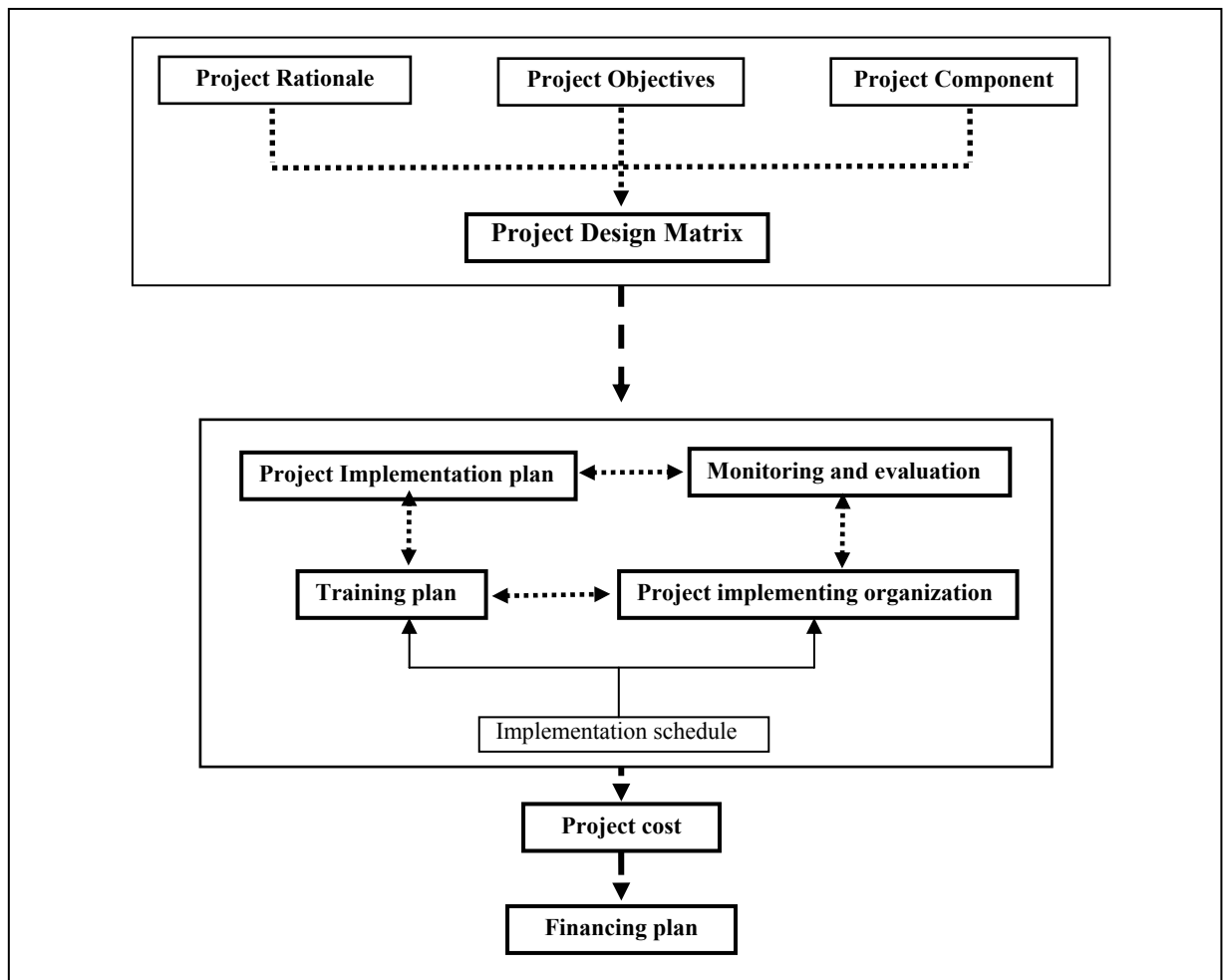
D. Project planning (Step 3)

In Step 3 Project planning, based on the project background, specific project activities are examined and developed as project plans.

Before starting examining project activities, a project rationale (Part II, Chapter 1) is examined as a connecting part between project background and project planning. Project objectives are examined corresponding to the narrative summary of the Project Design Matrix (PDM). Project activities are classified by characteristic into project components (Part II, Sub-chapter 3.1).

The afforestation/agro-forestry plan, seedling plan and so on, are compiled as a project implementation plan (Part II, Sub-chapter 3.2) with the implementation schedule (Part II, Sub-chapter 3.3). The training plan and monitoring and evaluation plan are continuously examined. Then a project implementing agency for conducting these plans is analyzed. Project costs (Part II, Chapter 4) for conducting project activities and for managing the project are estimated and the financing plan (Part II, Chapter 5), relating to financial resources, is designed.

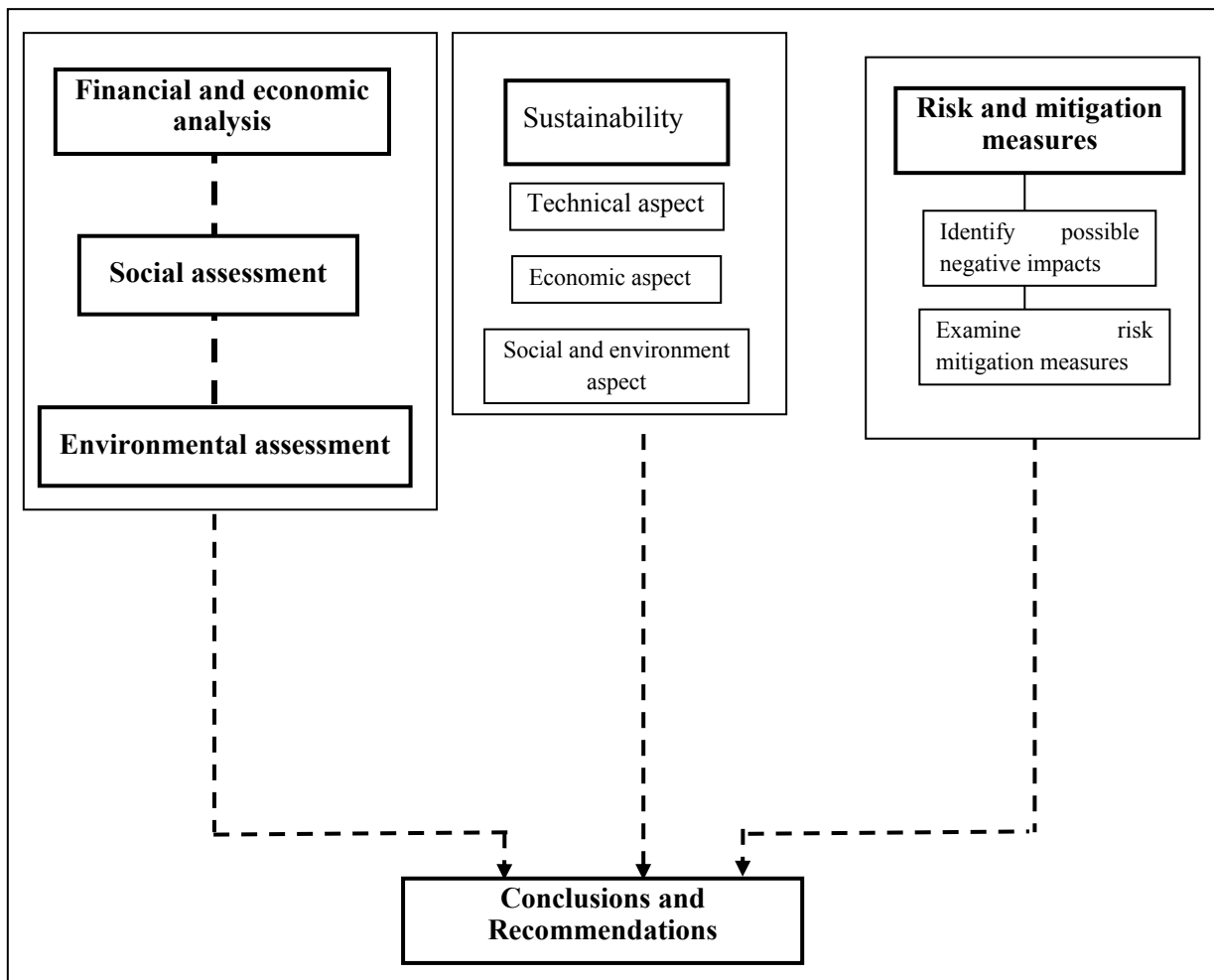
At the end of this step, the draft PDM is re-examined to determine whether project objectives, outputs and activities are coherent, and is revised, if necessary (PDM will be put in Annex 1 of F/S report).



E. Project justification (Step 4)

In Step 4 Project justification, financial and economic analyses (Part III, Chapter 1) are carried out on the project. Environmental and social impacts (Part III, Chapters 2 and 3, respectively), which project activities may influence in the project area, are subsequently evaluated. The durability of the benefits and development effects of the project are examined as sustainability (Part III, Chapter 4). Possible negative impacts on the project are analyzed as project risks and mitigating measures to minimize them are also examined (Part III, Chapter 5).

And finally, based on the entire F/S process, the feasibility of the project is confirmed by defining the major predicted project outputs and effects. Identified outstanding issues are presented. These are described as conclusions and recommendations (Part IV, Chapters 1 and 2, respectively).



F. Expected outputs of F/S (Step 5)

1. F/S report

The outputs of the F/S will be prepared in the form of an F/S report in accordance with the structure described in Volume II of this manual. The F/S report will be submitted for approval by the government and/or for use by other concerned organizations. It will provide a basis for the implementation during later stages.

2. Maps in the F/S report

Maps will be included in the F/S report. The following types of maps will be prepared as part of the F/S report:

(1) Base map

A base map is a basis for project planning and basic information on the project area is displayed visually. A base map is prepared using a topographic map with a display of the following information on forest land for the project area including administrative boundaries, main roads, rivers, residential areas, etc.:

Boundaries of forest districts, forest compartments and forest blocks

Boundaries of land units

Types of forest

(2) Afforestation/agro-forestry planning map

A topographic map is used as a basis to prepare an afforestation/agro-forestry planning map. This planning map shows the planting of tree species (for production forests) or agro-forestry models in respective planting sites or agro-forestry sites. Administrative boundaries, main roads, rivers, residential areas, etc. are displayed on the afforestation/agro-forestry planning map.

The scales of the above two maps are at least as follows:

Commune level: 1/10,000 to 1/25,000

District level: 1/25,000 to 1/50,000

Provincial level: 1/50,000 to 1/100,000.

**VOLUME II: STRUCTURE AND CONTENTS
OF A FEASIBILITY STUDY
REPORT**

A. Outline of an F/S report

The main content of a feasibility study (F/S) report is comprised of four parts: “PROJECT BACKGROUND,” “PROJECT CONTENTS,” “PROJECT JUSTIFICATION,” and “CONCLUSIONS AND RECOMMENDATIONS.” Prior to the body text, “ABBREVIATIONS,” “MAPS,” “TABLE OF CONTENTS,” “LEGAL FRAMEWORK,” and “INTRODUCTION” are presented. At end of the report, “ANNEXES” will be attached. The following is an outline of an F/S report.

Outline of an F/S report

ABBREVIATIONS
MAPS
TABLE OF CONTENTS
LEGAL FRAMEWORK
INTRODUCTION
Part I. PROJECT BACKGROUND
Part II. PROJECT CONTENTS
Part III. PROJECT JUSTIFICATION
Part IV. CONCLUSIONS AND RECOMMENDATIONS
ANNEXES

The following “Part B. STRUCTURE AND CONTENTS OF AN F/S REPORT” provides the suggested structure and contents for each part, chapter, sub-chapter, and section of the main text, together with the legal framework and introduction. The structure and contents have been prepared with the general applicability in mind. Depending on the features and scale of the project, requirements of interested donors, or methodology of the project formulation, the level of detail varies. Content may be divided into sub-contents or combined with other contents. The suggested structure and contents can be read as a checklist of items to be covered by the F/S report.

The main text of an F/S report is prepared with general users in mind while the annexes are examined by specialists. Particular attention should be drawn to the following points:

- The main text should be short but comprehensive (a relatively short main text of about 50 pages or less);
- The report should maintain a logical consistency throughout, including the logic of the project design and information that supports the rationale behind the project design;
- Constant vigilance is needed against excessive detail, wordiness, repetition or improper location of tables and figures.

B. Structure and contents of an F/S report

LEGAL FRAMEWORK

This aims to demonstrate how the project meets legal requirements and follows policy directions. Various documents described establish a legal framework within which the project has been and must be formulated.

Legal framework for project formulation

Legal documents relating to the application in the project case

INTRODUCTION

This mentions the arrangements by which the F/S report was prepared. It will also provide the general outline of the project.

PART I. PROJECT BACKGROUND (UP TO 10-15 PAGES)¹

The main aim of Part I is to establish a basis to explain the necessity of the project, which leads to the project rationale and contents in Part II. The project background clarifies various aspects such as policy, natural, and socio-economic conditions to establish the project framework.

1 CONTEXT OF PROJECT FORMULATION

This chapter presents a brief background of the project from the national and local contexts.

1.1 National context

1.2 Local context and the necessity of the project

2 NATURAL AND SOCIO-ECONOMIC CONDITIONS

This chapter aims to provide a comprehensive overview of natural and socio-economic conditions in and around the project area.

2.1 Natural conditions

The emphasis of this sub-chapter should be on a description and assessment of natural resources and development potential in the project area.

2.1.1 Geographical location and area

2.1.2 Topography

2.1.3 Soil

2.1.4 Climate

¹ A number of pages shown in the beginning of each part of the F/S report are regarded as a reference.

2.1.5 Hydrology

2.2 **Socio-economic conditions**

This sub-chapter should give the user of F/S report a good picture of the people in the project area, their potential as human resources in implementing the project, their current living conditions as well as their perceptions towards production forest / agro-forestry development projects as a means of improving their livelihood.

2.2.1 Population, ethnicity and labor

2.2.2 Household economy

2.2.3 Major economic activities

2.2.4 Financial sources

2.2.5 Infrastructure

If the project is to be implemented by an existing organization or an entity like a forest enterprise, a brief description will be given about the existing operations of the organization in the above Section 2.2.3 Major economic activities.

2.3 **Status of land and forest resource use**

This sub-chapter aims to describe the current situation and productivity of forest land. The description includes areas by legal status, the land use situation and land-use right holder, standing volume, productivity by land productivity class as well as areas by land unit. It should present convincing evidence that the condition of forest lands in the project area make them suitable for planting / cultivating sites for the project.

2.3.1 Current situation of forest land

2.3.2 Productivity of forest land

2.4 **Sales and marketing**

This sub-chapter overviews the market prospects for target products of the project. It examines aspects such as demand and supply, product specifications, sales prices and delivery methods.

2.4.1 Demand and supply of forest/agro-forestry products

2.4.2 Price and transportation of forest/agro-forestry products

2.4.3 Target markets

2.5 **Lessons learned from on-going and completed projects**

This sub-chapter aims to draw lessons from on-going and completed projects in order to avoid potential risks that may lead to unsuccessful implementation of the project. This sub-chapter will also examine ways to apply good experience that may lead to successful results for the project.

2.5.1 On-going and completed projects

2.5.2 Lessons learned from on-going and completed projects

2.6 **Opportunities and challenges**

This sub-chapter summarizes assessment of opportunities and challenges in implementing the project.

- 2.6.1 Opportunities
- 2.6.2 Challenges

PART II. PROJECT CONTENTS (UP TO 15-20 PAGES)

As sequel to Part I, Part II describes and defines the project rationale and concept, the project inputs and activities, their phasing, their costs and how they would be financed, and institutional arrangements required to undertake project activities.

1 PROJECT RATIONALE

Based on the information already given in Part I, the purpose of this chapter is to complete the explanation of why the project has been selected for implementation, and to define the project concept and plan.

2 PROJECT OBJECTIVES AND OUTPUTS

This chapter describes the overall goal, objective and outputs of the project. In describing them, a clear logical relationship needs to be maintained among these elements. The report presents:

- 2.1 **Overall goal**
- 2.2 **Project objective**
- 2.3 **Project outputs**

These are same as the corresponding parts of the narrative summary of the Project Design Matrix (PDM).

3 PROJECT ACTIVITIES

This chapter defines and describes in detail the project components, including activities and major inputs, and the project implementation plan and schedule.

3.1 Project components

This sub-chapter aims to describe the project components, activities and major inputs. Project components, activities and inputs are the means by which the project objective will be pursued via realization of the outputs of the project.

3.2 Project implementation plan

This sub-chapter aims to describe the project implementation plan for production forest / agro-forestry development components and related supporting components.

- 3.2.1 Planting site selection
- 3.2.2 Species selection
- 3.2.3 Afforestation/agro-forestry plan
- 3.2.4 Seedling supply plan
- 3.2.5 Tending and protection plan
- 3.2.6 Harvesting plan
- 3.2.7 Labor requirements

- 3.2.8 Training plan
- 3.2.9 Infrastructure plan
- 3.2.10 Consulting service plan

3.3 Project implementation schedule

This sub-chapter describes the project implementation schedule for undertaking production forest / agro-forestry development components.

- 3.3.1 Overall schedule for project implementation
- 3.3.2 Preparation period
- 3.3.3 Operation period

4 PROJECT COST

The cost estimate provides the basis for planning the project's funding and also for determining the project's financial and economic viability. The main text provides aggregate costs in three types of summary cost tables: financing source, year of disbursement, and expenditure category. The summary cost table needs to specify the period for which the cost estimates are prepared: assistance period or project period.

5 FINANCING PLAN

5.1 Financing sources for the project

An F/S report is accompanied with a preliminary financing plan describing project funding. The financing plan should indicate main project components or expenditure categories, and the amount proposed for financing to the financier. Sources of finance may be financial institutions, providers of grants, the governments or the implementing agency (use of its own fund in case of the implementing agency), beneficiaries, and a combination of all or some of these sources.

5.2 Loan disbursement and repayment plan

If the project uses loans, the report describes the loan disbursement and repayment plan. If the project uses subsidies, the report shows only the disbursement plan of the subsidy program.

5.3 Fund flow of the project

It is important to explain how funds would be disbursed to the implementing agency and other proposed recipient(s) and in the case of loans, how they would be repaid by showing a loan repayment schedule with fund flow charts. If a subsidy program is introduced, a description is made of the disbursement flow.

6 ORGANIZATION OF PROJECT MANAGEMENT AND IMPLEMENTATION

6.1 General aspect

This sub-chapter is intended to provide an overview about which entities and individuals will be involved in the various aspects of project implementation and

operation, what roles and responsibilities they assume, and what coordination mechanism will be established among different stakeholders.

6.2 Implementing agency

This sub-chapter highlights capacities, roles and responsibilities of the implementation agency in order to achieve the project objective.

6.3 Other stakeholders

This sub-chapter describes involvement of other stakeholders in the project.

7 MONITORING AND EVALUATION

This chapter aims to describe what to look at for the monitoring and evaluation (M & E) and how to implement the M & E in order to assess progress of the project for achievement of the project objective and to judge the results of the project.

7.1 Development impact indicators

7.2 Progress indicators

7.3 M & E implementation

PART III. PROJECT JUSTIFICATION (up to 7-10 pages)

Based on the data and information discussed in the previous parts (Part I and II), Part III aims to present the assessment of various aspects of undertaking the project.

1 FINANCIAL AND ECONOMIC ANALYSES

1.1 Financial analysis

This sub-chapter summarizes the results of the analysis on the financial viability of the project.

1.1.1 Production forest/agro-forestry development model

1.1.2 Expected costs and expected benefits

1.1.3 Results of financial analysis from a total investment viewpoint

1.1.4 Sensitivity analysis

1.1.5 Results of financial analysis from an owner's viewpoint

1.2 Economic Analysis

The sub-chapter summarizes the results of the analysis on the economic viability of the project from a society's viewpoint. Qualitative description may be added to the benefits that are not quantified in monetary terms. This sub-chapter will be prepared in case of a large scale project (subject to approval by the governments) and/or in case the project is likely to have a large impact on the society. It will be also prepared if investors particularly request it. Otherwise, this sub-chapter will be combined with the sub-chapter for the financial analysis above under the heading of the financial and economic analyses.

2 EVALUATION OF ENVIRONMENTAL IMPACT

The main purpose of this chapter is to focus on the expected effects of the project on the environment.

3 EVALUATION OF SOCIAL IMPACT

The main aim of this chapter is to examine possible impact created among households and communities, as well as changes that would be brought to ethnic groups and women. The F/S report also explains ways to involve the local people in the monitoring activities of the project.

4 SUSTAINABILITY

This chapter aims to describe factors that are critical to the sustainability of the project objective and overall goal, and how the project design attempts to address these factors. This chapter highlights sustainability of the project on a number of aspects.

4.1 Sustainability of technical aspect

4.2 Sustainability of economic aspect

4.3 Sustainability of environmental and social aspects

5 PROJECT RISKS AND MITIGATING MEASURES

This chapter aims to describe assessed results of the likely negative impact on project results if risks materialize. The chapter should also refer to the measures adopted in the design of the project to monitor and mitigate any adverse impact.

PART IV. CONCLUSIONS AND RECOMMENDATIONS (Up to 1 to 2 pages)

As a result of the analysis in the previous parts (Part I, II and III), Part IV presents the conclusion and explains outstanding issues with recommendations.

1 CONCLUSIONS

The chapter aims to provide conclusions for the feasibility study by pointing out major outputs to achieve the project objective, and expected effects of the project.

2 RECOMMENDATIONS


In order to ensure the implementation of the project as planned, the chapter provides an outline of the F/S team's perceptions on how to deal with the outstanding issues that have been identified.

**VOLUME III: PROCEDURES FOR
PREPARATION OF A
FEASIBILITY STUDY REPORT**

How to approach Volume III


Volume III presents procedures for preparation of the F/S report. In general, an F/S report will be prepared by going through three-step procedures: (1) collection of input data, (2) data analysis, and (3) output presentation. The description of the procedures of preparation for the F/S report will follow this three-step pattern.

In describing the procedures of each chapter of an F/S report, the following input-analysis-output table is used:

 **Objective:** Statement of the objective of the relevant sub-chapter.

Input data	Data analysis	Output presentation
What data and information shall be used for the analysis?	How shall the data and information be processed and analyzed? What questions are to be answered through the analysis? Reference: Reference to methodologies to analyze	Data, information, and results of the analysis to be arranged to support the justification and implementation of the project as well as to show logical sequences among parts, chapters, and sections to prove the feasibility of the project. Information shall be arranged in items as following: (1) (2) (x)

This input-analysis-output table highlights important perspectives in preparing for an F/S report. It is presented at the sub-chapter level of the F/S report in principle and is based on the F/S structure introduced in Volume II of this manual.

 **Key word: Xxx**

Explanation of important words to understand the main text

Before the presentation of the three-step table, the objective of the sub-chapter is stated. Underneath the table, further explanation will be added so the users of the manual will gain more understanding about how the analysis is carried out. The explanation will emphasize specific points of the report and describe how the contents are related to other relevant parts of the F/S report. The sequence of the description will correspond to that of the items appearing in the far right column “Output presentation” in the above table. Item numbers in the brackets indicate the item number

of the F/S structure in Volume II.

“Key word” provides explanation to important words or concepts in order to help the users understand relevant parts of the main text. It is shown in a text box format. “Example” shows specific examples based on the actual preparation of the F/S report and “Question” raises a question relating to the issue concerned. “Points to consider” explains the aspects to be taken into account for the issue concerned.

Depending on the features and scale of the project, requirements of interested donors, or methodology of the project formulation, the level of detail in the description varies. Content may be divided into sub-contents for the further elaboration or combined with other contents for a higher-level generalization so that contents to be presented will be more focused in terms of the depth of analysis and perspectives toward respective issues and topics.

Legal Framework

Objective: This aims to demonstrate how the project meets legal requirements and follows policy directions by listing-up relevant documents and standards.

Input data	Data analysis	Outputs
(1) Legal documents of: (1.1) Governing levels relating to land use planning, scale of the raw material zone relating to project formulation (1.2) Specialized governing body on the formulation of an investment project (MPI, MOC...) (2) Investment cost norms (3) Technical instructions on afforestation promulgated	(1) Shall the project be established within the current legal framework? (2) Are all the documents and instructions listed related to the project? (*)	(1) Legal framework for project formulation (2) Legal documents relating to the application in the project case

(*) Indicate document number of relevant documents, promulgated date in time sequence (newest first), title or name which summarizes the main content, and relevant information to the project.

(1) Legal framework for project formulation

The legal compliance and suitability of the project to policy directions are demonstrated by citing various legal documents at the national, provincial, and district levels relating to the project (production forest and/or agro-forestry project). Government decisions relating to the project area and nearby processing facilities will be also included in the documents to be referred to.

(2) Legal documents relating to the application in the project case

This section refers to the legal documents which describe guidelines and standards to be complied with in preparation of feasibility studies. The documents cover technical standards, cost norms of various inputs, environmental regulations, considerations of the social aspects, and so on. Norms include those applied in investment cost norms for development of production forests and norms regulating budget estimation for afforestation. The estimation of the project costs and the financial analysis are based on market prices.²

² Unit prices of the government cost norms can be used for estimation of the government portion of the project costs but estimation of the total project cost will be based on the market prices.

Introduction


This is to indicate how and by whom the project has been prepared, the origins of the project proposal (with reference to related reports such as sector reviews and strategy), the purpose of the present report, and to whom it is addressed.

The general outline of the project is also described by referring to (1) the implementing agency, (2) target products and (3) financial sources.

Part I. Project Background

The main aim of Part I is to establish a starting point and basis to explain the necessity of the project. This leads to the project rationale and contents in Part II. It is to clarify various aspects such as policy, natural, and socio-economic conditions to establish the framework of the project.

1 Context of project formulation

 **Objective:** This chapter aims to provide a brief background of the project from both national and local contexts.

Input data	Data analysis	Outputs
(1) Socio-economic development plan	(1) What are opportunities and threats that surround the project?	(1) National context
(2) Forestry development plan	(2) Is there any policy that will support the implementation of the project?	(2) Local context and the necessity of the project
(3) Relevant current government policies such as forestry development and poverty alleviation.	(3) How does the project contribute to the achievement of the policy goal?	
(4) Other relating documents (strategies, orientation...)	Reference: - Volume III Part I Chapter 2 Section 6 for an example of the SWOT analysis - Project Design Matrix (PDM)	

(1) National context (Item 1.1)


To explain the national context of the project, it may be good to begin with a description of the overall situation of the forestry sector in Vietnam. The description should highlight current sectoral issues (constraints or priorities...) and relevant sector strategies of the central government. For example, government strategies can be found in a government resolution that makes adjustments over the targets and tasks of the project on planting five million hectares of new forests. In order to focus on the relevant policies, the description should be made in consideration of the project contents to be proposed in Part II of the F/S report.

(2) Local context and the necessity of the project (Item 1.2)

This sub-chapter will be similar to the above sub-chapter but with a more detailed description of local perspectives (directions, strategies, provincial master plan on economic development, resolution ... etc.), which encompass both provincial and district perspectives. Discussions may be made on how national policies have been applied and brought into practice at local government levels and also on what priorities and needs the local people have. This will lead to the explanation of the necessity of the project.

2 Natural and socio-economic conditions

2.1 Natural conditions in the project area

 **Objective:** It aims to highlight the natural resources and development potentials in the project area, which would be the main determinants of the project.


Input data	Data analysis	Outputs (***)
(1) Topographic map of the project area (2) Administrative map with boundary of communes, districts and provinces in the project area (3) Site map (4) Reports and data on area of lands (land area in the project area, district and province where the project area is located). (5) Reports on topographical description of the project area (6) Site survey results (topography and forest land use, existing conditions of production forests in the project area) (7) Current sectoral guidance for assessment of productive potential of the forest land, assessment of the suitability for species selection for afforestation (8) Data on climate (rainfall, statistical data on rainy season, temperature, moisture on monthly basis). (9) Map of rainfall distribution covering the project area. (10) Survey results of impact of extreme factors (typhoon, flood, droughts on the plantation) (11) Data on hydrology (regime of run-offs in rainy and dry season, catchments in the project area).	(1) What are advantages and disadvantages of the project area in relation to the implementation of the project? (*) (2) How these aspects will or will not influence the project designs? (**) <hr/> Reference: -Volume IV Part I Chapter 3 Overview of field survey and analysis. -Volume III Part I Sub-chapter 2.6 for an example of the SWOT analysis	(1) Geo-graphical location and area (2) Topography (3) Soil (4) Climate (5) Hydrology

(*): Point out the underlying reasons for the potentials and constraints.

(**): Draw out the consequences of the current situation in the project area for development of the project design.

(***) While the main text is brief, the details will be described in Annex 2: Physical features of the project area.

(1) **Geographical location and area (Item 2.1.1)**

 **Key word: Project area**

In this manual, the project area is defined as areas where project activities are undertaken. It is delineated by administrative boundaries. To avoid potential confusion, the term “project site” is not used but the terms such as planting sites and harvesting sites are used to indicate specific locations where specific project activities are undertaken.

This section explains the geographical location of the project area, district, and province within the country. It also shows their sizes by land classification. The geographical location can be explained by indicating project area coordinates, describing its relationship with other areas by direction (north, south...). The project area can be explained in relation to landmarks such as towns, industrial parks, and so on.

The size of the project area will be described by the following land classification in accordance with the Land

Law: agricultural land, non-agricultural land, and un-used land (See Key word: Land classification and forest land). The size of forest land out of agricultural land will be specified. The size of the concerned district and province will be shown as well. The following table format may be used to describe features of land classification in terms of the province, the district, and the project area.

Table I - 1 Land classification by administrative unit


Unit: hectare

Administrative unit	Province	District	Project area
Land classification			
Total area			
1. Agricultural land			
(Out of which: Forest land)	()	()	()
2. Non-agricultural land			
3. Un-used land			

Source:

Note: The project area is located in _____ District, _____ Province.

(2) **Topography (Item 2.1.2)**

 **Key word: Land classification and forest land**

According to the Land Law, the nation's land is classified into agricultural land, non-agricultural land, and un-used land. Forest land, which falls into the category of agricultural land, is further categorized into production, protection and special-use forests by legal status.

Total land area

Agricultural land

Forest land

- Production
- Protection
- Special-use

This section describes major characters of topography such as: elevation, slope, land form with a view to highlighting topographical impacts on agriculture and forestry production in the project area. The results of analysis will then enable a justification of the suitability of the project area for the development of production forest/agro-forestry. If data and information are available, the following table on various land areas by elevation and slope level may be used for describing topographic characteristics and can be incorporated in the annex.

Table I - 2 Area of forest land by elevation and slope

Unit: hectare

Adm. Unit	Land classification	Total	Elevation <300m				Elevation 300-700m				Elevation >700m					
			Total	<150	16-250		Total	<150	16-250		Total	<150	16-250			
A																
B																

Source:

Note

- (1) Description of main topographic form: hill (elevation < 300m), low mountain (elevation 300-700 m), medium mountain (elevation 700-1,700 m) and high mountain (elevation > 1,700m)
- (2) The table is calculated based on forest status map and topographic map.

(3) Soil (Item 2.1.3)

Characteristics of soil type shall be described on aspects such as: mother rock, physical characteristics, soil depth, organic matter through observation on humus content and mixed rock. Based on the description, analysis shall be conducted to determine quality of soil in the project area. Additionally, further descriptions on area and distribution of soil types should be conducted. The data obtained shall be displayed in a table for soil types by administrative unit.

Table I - 3 Main soil types in the project area

Soil type	Total area (ha)	Administrative unit			
Total area					

Source:

Then, make a general assessment of the suitability of soils for production forest/agro-forestry development activities in the project area.

(4) Climate (Item 2.1.4)

Data obtained from the process of analysis and description below shall provide a basis for the selection of suitable tree species and arrangement of production activities.

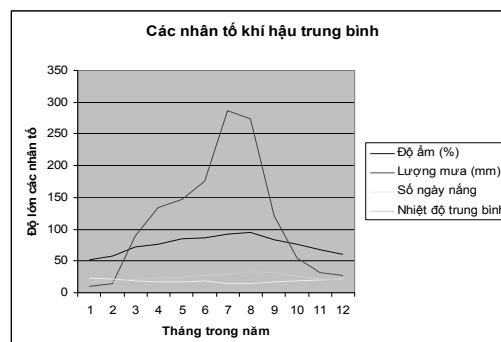
In this section it is necessary to provide assessment of basic climatic characteristics and weather conditions in the project area. Information on the seasonal rainfall patterns, moisture, and temperature may be presented using diagram by month. The report may show (a) temperature, moisture and rainfall patterns (b) seasonal typhoon and wind patterns (c) the impact of climatic factors on production and people's lives.

Table I - 4 Climatic characteristics by month

Month	1	2	3	4	5	6	7	8	9	10	11	12
Average Humidity (%)												
Average Rainfall (mm)												
Average sunshine day												
Average temperature (°C)												

Source:

The diagram on the right is shown as an example to visualize the data.



(5) **Hydrology (Item 2.1.5)**

It is required to assess hydrological characteristics (both surface and ground water) and their potential impact on agriculture and forestry production as well as people’s lives in the project area. The hydrological characteristics cover the distribution and characteristics of hydrology of the stream systems in the project area, irrigation potential, and water transport possibility in and around the project area.

2.2 Socio-economic conditions

Objective: This sub-chapter will help build a general picture on socio-economic conditions to evaluate socio-economic resource potential for sustainable implementation of the project.

Input data (*)	Data analysis	Outputs (**)
(1) Socio-economic data, statistical data, socio-economic development plan, particularly sections on population, labor force, education and health care (Data is available at statistical offices)	(1) What are potentials and constraints of the socio-economic conditions in the project area that may affect the implementation of the project?	(1) Population, ethnicity and labor (1.1) Population (1.2) Ethnicity (1.3) Labor force
(2) Household statistics and data at commune PC	(2) How these aspects will or will not influence the project design?	(2) Household economy
(3) Results of socio-economic and household socio-economic surveys (questionnaire survey) and communal consultation meetings	(3) What are the people’s perceptions towards production forest / agro-forestry development projects as means of improving their livelihood?	(3) Main economic activities (4) Financial sources
(4) Reports on annual production and business results at enterprises in the project area	Reference: Volume IV Part I Chapter 4 for Rural socio-analysis and Chapter 5 for Farming system survey	(4.1) Credits (4.2) Other financial sources
(5) Report on evaluation of economic activities of agencies in the project area		(5) Infra-structure
(6) Periodical reports of relating financial institutions.		
(7) Administrative maps		

(*) Reliability of data and information collected should be examined by comparing with those collected from different sources
 (***) While the main text is brief, the details will be described in Annex 3 of F/S report: Socio-economic data.

(1) **Population, ethnics and labor (Item 2.2.1)**

This section aims at the description and assessment of basic characteristics of people in and around the project area such as population, ethnicity and labor. The description can also cover other aspects of the people, which are deemed relevant to the design of the project, such as literacy, education, gender and health issues. The people

living in the project area may be participants in the project, target beneficiary, indirect beneficiaries, or those who may have potentially negative impact from project activities (See Key word: “Target beneficiary” in Part II Chapter 2 Project objectives and outputs).

(1.1) Population

Identify the specific characteristics of the population in the project area. The population characteristics can be summarized in the following table.

Table I - 5 Population & labor in the project area

Item	Unit	Total	Administrative unit				
Area	Ha						
Population	Persons						
Women	Persons						
Labor	Persons						
Male labor	Persons						
Female labor	Persons						
No. of household	HH						
Poor households	HH						
No. of villages	Villages						

Source:

(1.2) Ethnicity

The following table format can be used to describe the population characteristics of ethnic groups in the project area.

Table I - 6 Population of ethnic groups by commune in project area

Unit: Persons

Ethnic group	Administrative unit	Unit 1	Unit 2	Unit 3	Unit	Total
	Ethnic group ...					
Total population of ethnic groups (a)						
Total population (b)						
Percentage of ethnic groups (a)/ population(b) *100		%	%	%	%	%

Source:

Depending on the project design and the extent of the expected project impact on the ethnic groups, the focus and level of detail of the study will differ. Collected data and information may cover aspects such as: income levels, opportunity for participating in decision-making process, and specific characteristics of cultivation techniques as well as resource management of different ethnic groups.

(1.3) **Labor**

Labor should be analyzed on various aspects: numbers, profession, education, gender, administrative unit and age groups. Specific attention should be paid to the demand for labor in the project area around the year. This information will be used when devising plans for mobilizing labor for the project implementation.

Analysis on the available labor force shall be also considered as one of the basis for preparing training plans, identification of trainees and the organization of extension services.

(2) **Household economy (Item 2.2.2)**

Data used for conducting analysis in this section shall be collected through tools for the rural socio-analysis such as the household socio-economic survey, which uses the interview survey and statistical analysis.

Analysis may highlight the followings:

- 1) Average gross income of household by source. The analysis will be conducted on major income sources and on the share of the forestry earnings in the household income structure. In some areas, the off-farm income sources may be more important in the household economy.
- 2) Factors that influence the income level of households: availability and access to various resources due to geographical location, natural conditions, infrastructure, etc. and the capacity to make better use of such resources due to education background, cultivating techniques, culture, etc.
- 3) Possibility for households to participate in the project by considering factors such as: human resources, capital and land resources. These factors may provide one of the basis for determining the target beneficiary of the project.

The report may use the following table format to summarize the characteristics of the household incomes.



Key word: Average farm household and sampling method

For the analysis, it would be helpful to think about “an average farm household” (or representative sample household) derived from the data analysis together with the extent of the dispersion or deviation from the average.

If an appropriate sampling method (probability sampling) is used for the household socio-economic survey, the results will provide a good picture about household economic conditions of the local inhabitants in the project area.

However, if the questionnaire-based interview survey was conducted through the non-probability sampling method mainly due to limited availability of time or budgets, it is difficult to assess how closely the sample represents the population as it is not supported by the statistical techniques. Nonetheless, it would provide a preliminary profile of some of the households living in the project area.

Table I - 7 Average gross income of a household by income source

Income source	Annual gross income per household	
	Million VND	Share (%)
Cultivation		
Livestock		
Forestry		
Salary		
Service		
Other income sources		
Total		

Source:

If the share of “other income sources” is high in the table above, it is important to identify what types of activities fall into this income source category.

If the objective or overall goal of the project includes improving the welfare of the poor in the project area, then special emphasis should be given to analysis on socio-economic factors of the poor such as income distribution. When describing the “poverty,” it is preferable to use current criteria of “poverty” by specifying reference sources together with the definition that is being used.

(3) Major economic activities in the project area (Item 2.2.3)

It is necessary to give an overview of economic activities in the project area so that the importance of forestry sector in relation to other sectors can be highlighted. The overview will include advantages and disadvantages of the sector as well as the causes. Comparison with the economic activities in the entire district and province may help highlight specific characteristics of the project area.

It is recommended that an analysis should be conducted on economic structure by key sectors (agriculture, forestry, aquaculture, industry and services), agricultural production (cultivation, livestock) and forestry production (silvicultural activities, wood-based processing industry and consumption). Attention should be paid to aspects that may pose potential impact on the project design.

Following tables can be used to illustrate economic activities by sector.

Table I - 8 Gross Domestic Product or gross output by economic sector in Year xxxx

Economic sector	Amount (Mil. VND)	Share (%)
1. Agriculture - Forestry – Fishery		
Agriculture		
Cultivation		
Livestock		
Forestry		
Fishery		
2. Industries		
3. Services		
4. Total		

Source:

Assessment of production activities of the forestry sector will also clarify roles of organizations, governmental bodies, farmer groups, and forestry enterprises. This will include their production and management capabilities in and around the project area and an evaluation of the relationships that exist among these parties.

If the project is to be implemented by an existing organization such as a forest enterprise and a management board, this section briefly describes the past and current operation of the organization such as their mandate, organizational structure, manpower, operations, and financial conditions. The details are to be attached to the annex of F/S report.

(4) Financial sources (Item 2.2.4)

(4.1) Credits

Describe and evaluate current status of the availability and accessibility to credit sources in the project area. Then, identify various credit sources in the area for agricultural-forestry production activities. Also, the credit mechanisms, policies and conditions required by financial institutions should be described. The following tables can be used to compare the characteristics of credit operations at district and/or provincial branch offices of financial institutions.

**Table I - 9 Credits for production by different financial institutions
(as at date... month... year....)**

Unit: VND

Category	Financial institution X		Financial institution Y	
	Amount	Share (%)	Amount	Share (%)
Total outstanding balance				
Livestock				
Agricultural development				
Forestry development				
Handicraft				
Other investments				

Source:

**Table I - 10 Yearly trend of credits by credit type at financial institution X
(as at date... month... year....)**

Unit: VND

Category	Year xxxx		Year xxxx		Year xxxx	
	Amount	Share (%)	Amount	Share (%)	Amount	Share (%)
Total outstanding balance						
Short-term credits						
Medium-term credits						
Long-term credits						

Source:

From the above data and information, analysis should be conducted on the availability of credit to the project. Details should include criteria for eligibility and any other conditions that need to be met to access credits from the financial sources that have been identified. The results of the household socio-economic survey are also used to determine the level of access that respondents have to financial support.

(4.2) Other financial sources

Identify other potential sources of capital (own funds, state budget, joint venture fund, investment from other tentative sources, etc.) for the project implementation.

(5) Infrastructure (Item 2.2.5)

While describing conditions of infrastructure, emphasis should be given to infrastructures relevant to project implementation such as: communication (transportation systems and telecommunication services), power, and water supply.

(5.1) Communication

The study will begin by listing the existing transport systems (roads, canals, trucks, barges, etc.) and assessing their capacity and quality. Future development plans for transport systems of other projects in the project area and the distance to market places should be outlined. The existing condition of telecommunication infrastructure should also be studied. Existing transport systems in the project area can be described using the following table format:

Table I - 11 Transport network in the project area (or district)

Unit: km

Road type	Total	Status of road surface			
		Asphalted	Gravel	Gravel + earth	Earth
National road					
Provincial road					
District road					
Communal road					


Source:

(5.2) Energy and water supply conditions

In terms of the energy, assessment can be conducted on the supply condition of electricity to local residents and wood processing industries in the project area. The energy assessment should also cover the demand and supply of fuel wood used in the daily lives of the people.

In terms of water supply and quality, issues relating to water sources need to be analyzed since the production forest and agro-forestry development projects have impact on the availability and quality of the water source used by local people.

2.3 Status of land and forest resource use

 **Objective:** The sub-chapter aims to provide basic information on the current situation of land and forest resource utilization in the project area.

Input data	Data analysis	Outputs
(1) Base map with following classes: 1.1) Land allocation by land owner (holder of land-use rights) 1.2) Land use and forest resource (detailed for forest stands) 1.3) Details on plantation 1.4) Boundaries of the forest land by legal land status (such as production, protection and special use forests) in the project area 1.5) Groups of land productivity class in production forest (2) Legal documents of land classification (3) Soil survey results (4) Inventory data on plantation and natural forest	(1) What is current status of land use, land-use rights...? (2) What is the current status of forest resources (area, stock) and changes of forest coverage in recent period? (3) What are the factors that determine land productivity of the forest land? <hr/> Reference Volume IV Part I Chapter 3 Overview of field survey and analysis	(1) Current situation of forest land (2) Productivity of forest land

Note: A forest inventory of the forest land is prepared as a basic data in terms of block, plot, area, legal status, land use situation, land unit and land tenure. Based on the forest inventory the current situation of forest land and land productivity will be analyzed.

(1) Current situation of forest land (Item 2.3.1)

This section describes the major land uses, forest coverage, land tenure, and standing stock of the forest land in the project area. Analysis on the standing stock of existing forests by land unit will be a basis for estimating yield and financial values. Data on stock of forest land can be used for selection of planting sites. Data on land tenure is also necessary to determine the planting sites in the project area.

The following tables can be used to show 1) area of the forest land by land use situation and legal status, 2) area of forest land by land ownership (holder of land-use rights), administrative unit, and current land use situation, 3) standing volume in forest land by land ownership (holder of land-use rights), administrative unit, and current land use situation.



Key word: Classification of the current forest land use situation

The current land use situation in the forest land can be classified into (1) forested land and (2) un-forested land, in terms of its actual use, with the following possible breakdowns as an example:

1. Forested land
 - 1-1 Plantation (can be classified by species and by age)
 - 1-2 Natural forest
2. Un-forested land
 - 2-1 Bare land
 - 2-2 Crop land
 - 2-3 Fruit garden
 - 2-4 Others

Table I - 12 1) Area of the forest land by land use situation in the project area

Unit: ha

Legal status	Total	Protection forest	Special use forest	Production forest
Land use situation				
Total				
Forested land				
Plantation				
Natural forest				
Un-forested land				

Source:

Table I - 13 2) Area of the forest land by land ownership (land-use right), administrative unit (commune), and current land-use situation in the project area (Example)

Unit: ha

Holders of land-use rights by commune		Current land use situation of forested land in the forest land						Natural forest	Subtotal (1)
		Plantation							
		Eucalyptus	Acacia	Pine	Others	Total			
Commune xx	Farmer								
	SFE								
	Conflict								
	Others								
	total								
Total in the project area	Farmer								
	SFE								
	Conflict								
	Others								
	Total								

Source:

Holders of land-use rights by commune		Current land use situation of un-forested land in the forest land					Total (1)+(2)
		Bare land	Crop	Fruit	Others	Sub-total (2)	
xxx	Farmer						
	SFE						
	Conflict						
	Other						
	Total						
Total	Farmer						
	SFE						
	Conflict						
	Other						
	Total						

Source:

Table I - 14 3) Standing volume in the forest land by land ownership (land-use right), administrative unit (commune), and current land use situation in the project area (Example)

Unit: m3

Holders of land-use rights by commune		Current land use situation of forested land in the forest land						
		Plantation					Natural forest	Total
		Eucalyptus	Acacia	Pine	Others	Total		
Commune xx	Farmer							
	SFE							
	Conflict							
	Others							
	total							
Total in the project area	Farmer							
	SFE							
	Conflict							
	Others							
	Total							

Source:

For a better understanding of the methodology for data collection and analysis to clarify the situation of plantations, please refer to currently applied guidelines and instructions for the forestry sector.

The following table can be used to summarize the area and stock by species.

Table I - 15 Area and standing volume of the forest land by species and age class in the project area (Example)

Species and ages		Area (ha)	Volume (m3)
1. Plantation			
1.1 Eucalyptus			
	Coppiced plantation age level I		
	Coppiced plantation age level II		
	Coppiced plantation age level V		
1.2 Acacia hybrid			
	Age level I		
	Age level II		
1.3 Acacia mangium			
	Age level I		
	Age level II		
	Age level IV		
1.4 Pine			
	Age level IV		
	Age level V		
2. Natural forests			
Forested land			

The data and information on forest land summarized in the following table format (Table I-16) can be used as a basis to prepare the above tables (Tables I-12 to I-15).

Table I - 16 Forest inventory log book of the forest land


District	Commune	Forest district no.	Plot (Compartment)	Area (ha)	Holder of land-use rights	Current land use situation	Land unit	Standing volume (if available) (m ³)	Remarks
ABC	abc	258	78	4.5		Euca. I		652	

The above table will be placed in the annex of F/S report together with the base map.

(2) Productivity of forest land (Item 2.3.2)

It is crucial that an F/S provides sound analysis on the potential productivity of land in the project area. This section describes the identification of land productivity classes and the productivity for assessment of productivity of forest land. In order to assess the productivity of forest land, the following process can be used; 1) formation of land units, 2) estimation of area of each land unit, 3) estimation of land productivity of land units, 4) formation of land productivity classes. The following tables can be used to show 1) area and land productivity (Mean Annual Increment), 2) predicted productivity of land productivity classes and 3) area of forest land by land productivity class.

The current analysis of the data on the standing volume in the actual plantations will provide a basis for predicting the productivity of forest land. Land productivity will be estimated using mean annual increment by land unit and by species.

 **Key word: Land unit**

Land units are identified by a combination of the following five elements:

- (1) Topographical element
- (2) Slope
- (3) Soil type
- (4) Mother rock
- (5) Soil depth

For example, DIF\$ refers to the land unit characterized by hilly terrain (D), less than 8 degree of slope level (I), Feralite soil (F), and mother rock being the shale group with soil depth of more than 80cm(\$).

Table I - 17 Land productivity by land unit in the forest land

Land unit	Area (ha)	land productivity (m ³ /ha/year)		
		Species 1	Species 2	...

Source:

The land productivity classes are formed by grouping land units that share similar land productivity.


Table I - 18 Land productivity class

Unit: ha

Land class	productivity	Area (ha)	Land unit to be include	Land productivity (m ³ /ha/year)

Source:

2.4 Sales and marketing

 **Objective:** This sub-chapter gives an overview of the market potential for forest/agro-forestry products, including target products of the project, on the following aspects: demand & supply, product specifications and price as well as delivery methods.

Input data (*)	Data analysis	Outputs
<p>(1) Primary data and information on major forest/agro-forestry products (i.e. wood materials, non-timber forest products (NTFPs), and agricultural crops) in the province where the project is located, and neighboring provinces. The information, which is to be collected by interview survey, includes the following: a) type and volume of forest/agro-forestry products required with their specifications (for example, wood specifications can be the diameter and length of the wood materials, and wood species (**)), b) production capacity and annual production volume of wood/agro-forestry products (or factory products) (***) over the last few years, c) prices and price trends of forest/agro-forestry products (particularly, prices of target products of the project at harvesting sites, roadside, and factory gate) and wood/agro-forestry products (or factory products), d) areas where the forest/agro-forestry products are procured, e) purchasing and selling terms and conditions of forest/agro-forestry products and future demand prospects of them, f) data on road conditions (basically from roadside to factory gate), and g) road restriction of the traffics, if any.</p> <p>(2) Demand for wood materials for construction and other use in the province where the project is located, and neighboring provinces</p> <p>(3) Transport costs (based on distance, road quality, means of transportation)</p> <p>(4) Statistical data on demand and supply of various forest/agro-forestry products in the province and neighboring provinces. The information to be collected includes a) types of forest/ agro-forestry products with specifications, b) quantity demanded and future prospects, c) supply capacity at present and predicted for the future, d) prices and trends by specification.</p>	<p>(1) How is the gap between demand and supply at present and in the future?</p> <p>(2) What are the target products produced by the project? Who are the potential customers of the target products of the project?</p> <p>(3) Are the expected prices of the target products of the project proper or not? What are the factors that pose negative impact to producers of target products of the project?</p> <hr/> <p>Reference:</p> <p>Book 7: Market Trend Reference Book on Wood-based and Agro-forestry Products</p>	<p>(1) Demand & Supply of forest/agro-forestry products</p> <p>(2) Price and transportation of forest/agro-forestry products</p> <p>(3) Target markets</p>

(*) There are various sources of information such as farmers, traders, forest enterprises, forest management agencies, processing factories, relevant industry associations, industry experts, press agencies, provincial forestry departments, and district/provincial statistics offices or the General Statistics Office at the state level.

(**) It is suggested that study be made on how the wood materials (target products of the project) are treated at the harvesting site including the length to which they are cut and whether they are debarked.

(***) In this manual, wood products (or factory products) will be differentiated from wood materials (or raw materials), which are inputs to produce wood products. Agro-forestry products refer to both factory products and raw materials but mainly indicate raw materials to be harvested in the field in this manual. Target products of the project are raw materials planned to be produced from the production forest or agro-forestry development project.

(1) **Demand and supply of forest/agro-forestry products (Item 2.4.1)**



Key word: Potential market

Potential market is defined as an area or industries within which the target products of the project could be sold in an economically sustainable manner.

This section describes the existing and future prospects for demand and supply in the potential market by type of forest/agro-forestry products (i.e. wood materials, non-timber forest products (NTFPs), and agro-forestry products). A potential market may depend on type, quality and volume of forest/agro-forestry products, which the project could supply. Distance from the project area will also determine a stretch of a potential market.

The data and information will be collected firstly in the province and then, neighboring provinces in order to establish a total volume of consumption by type of forest/agro-forestry products. The data and information will be used for analysis and assessment of demand and supply conditions in the potential market in terms of forest/agro-forestry products that will be produced by the project.



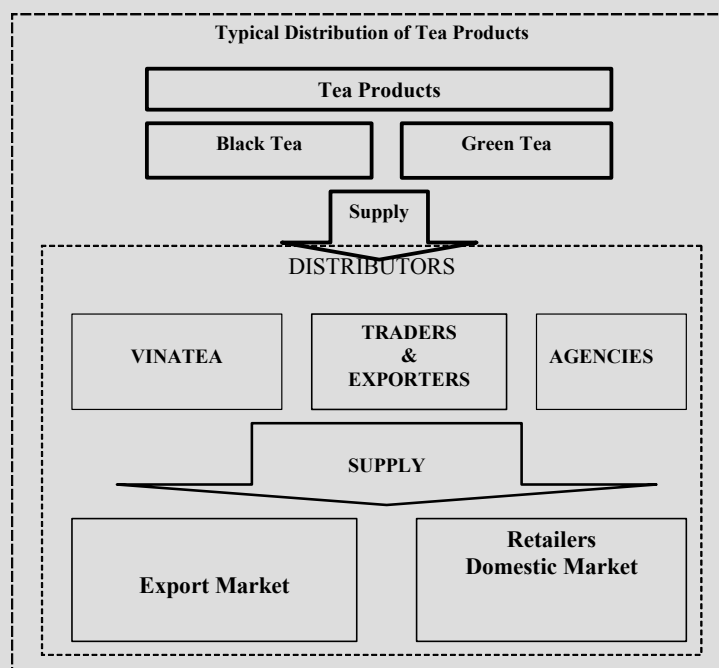
Points to consider: Demand of wood materials and products

1. Existence of a processing factory with a large production capacity indicates that large volumes of wood materials are being supplied to the industry.
2. The scale of production will create and affect the competitiveness of wood products.
3. The local market is also influenced by the international competition.



Points to consider: Agro-forestry

For some agro-forestry products, a large company may be involved in purchasing and exporting products. In case of the tea business, Viet Nam Tea Corporation (VINATEA) purchases tea from producers and conducts sales promotion mainly for export markets. Traders and agencies do the same in the local market. The distribution system will be able to feed market information back to the farmers.



In order to aggregate the data and information collected, the following table format may be used.

Table I - 19 Consumption of forest/agro-forestry products (wood materials, NTFPs, and agricultural crops) at processing factories in xx Province in 20xx

Factory	Large size timber (m3)	Chip wood (m3)	Bamboo (ton)	Pine resin (ton)	
Factory 1					
Factory 2					
Factory 3					
Others					
Total					

Source:

It would be helpful to compare the above data with the statistical data and information on annual production volume of relevant forest/agro-forestry products in the administrative area (such as province and district) where the project area is located. Then, the survey will be expanded into neighboring provinces located within the potential market. The data and information on annual production may be summarized by administrative unit as in the following table,³ and then aggregated to show the total volume and total gross output within the potential market.

Table I - 20 Production volume and gross output of main forest/agro-forestry products (wood materials, NTFPs, and agricultural crops) in xx Province in 20xx

Products	Unit	Quantity	Gross output (Mil. VND in current prices)
Round wood			
Fuel wood			
Bamboo			

Source:

The relationship between demand and supply conditions of forest/agro-forestry products at various factories in the province and neighboring provinces within the potential market in 20xx may be summarized in the following table format.

Table I - 21 Demand and supply conditions of forest/agro-forestry products (wood materials, NTFPs, and agricultural crops) at processing factories in xx Province in Year 20xx

Unit:

Factory	Product	Capacity	Requirement	Supply	Supply/demand gap
Factory 1	Product a				
	Product b				
	Product c				
Factory 2	Product a				
	Product b				
	Product c				
Total in the province and neighboring provinces	Product a				
	Product b				
	Product c				

Source:

³ Row and columns of the table will be added to show the historical trend of the production volume and gross outputs of the main forest/agro-forestry products.

(2) Price and transportation of forest/agro-forestry products (Item 2.4.2)

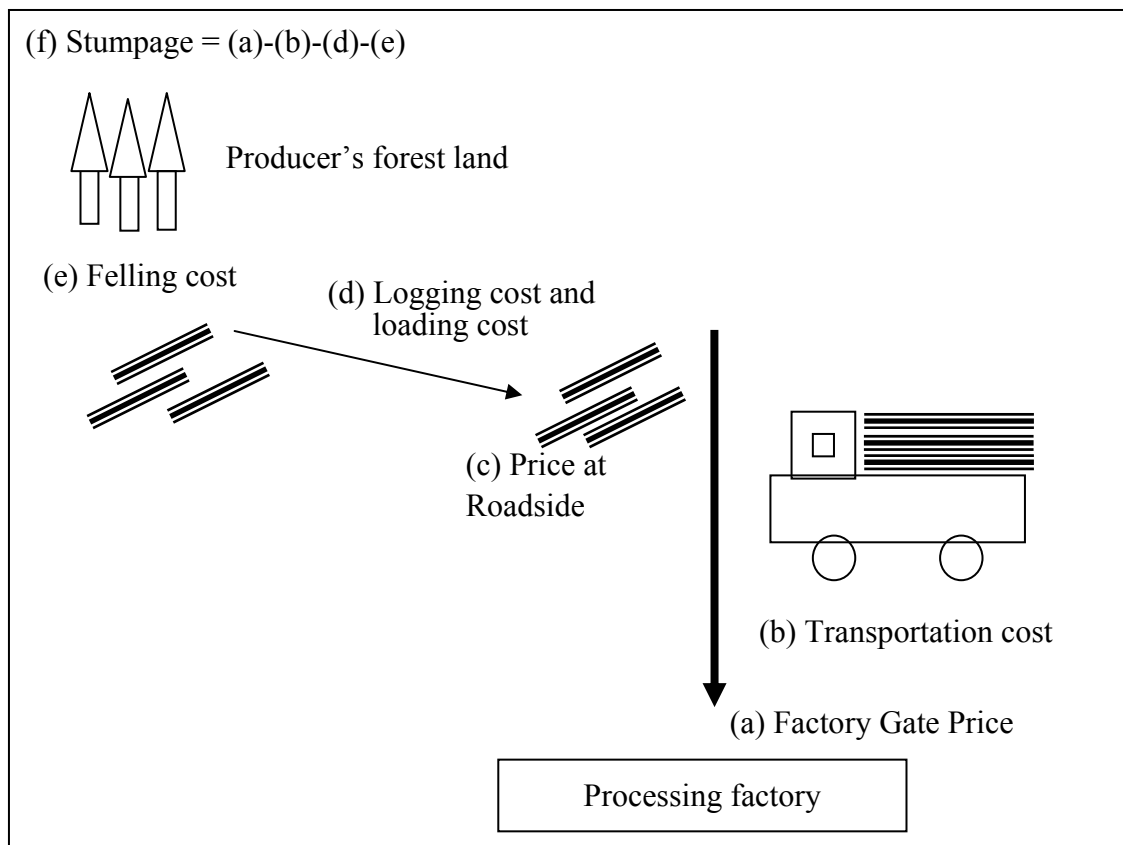
This section describes prices and delivery methods for forest/agro-forestry products, including transport costs. The analysis will begin with the delivery methods for forest/agro-forestry products, including sales methods.

As illustrated in the following diagram, in case of wood materials, the stumpage can be calculated backward from the factory gate prices and can be compared with the prevailing stumpage for sales in the field.

Table I - 22 Calculation of stumpage based on factory gate price

	Prices	Description	Price in Year (VND per m ³)
(f)	Stumpage	Standing value of the wood materials (target products of the project)	
(e)	Felling cost	Wood cutting cost	
(d)	Logging and loading cost	Transportation cost from felling site to roadside + loading cost to trucks	
(c)	Price at roadside	Stumpage + felling cost + logging cost from felling site to roadside + loading cost to trucks	
(b)	Transportation cost	Transportation cost from roadside to factory gate	
(a)	Factory gate price	Price at factory gate	

Figure I - 1 Calculation of stumpage based on the factory gate price



The analysis may also determine negative factors, if any, for producers (e.g. farmers) relating to the marketing of produce. The project design that will be developed later in the process needs to address such constraints.

The following table format may be used to aggregate data and information collected in terms of specifications of wood materials.

Table I - 23 Prices of wood materials by specification and average transport cost

Users	Wood product	Specifications of wood materials			Factory gate price (VND/M ³)	Average transport cost (VND/M ³)
		Wood species	D (cm)	L (m)		
Mill 1	Particleboard	Eucalyptus	5cm	2m	...	...
		Acacia	5cm	2m	...	...
	Group x					
Mill 2	Group a					
	Group b					
	Group c					

Source:

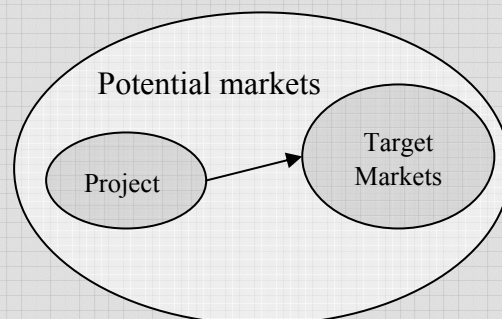
(3) Target markets (Item 2.4.3)

The above analysis and assessment should confirm where target markets exist for the target products of the project. Information on target markets to be examined covers various aspects such as: specifications of target products, market size (quantity demanded and supplied), sales prices, and delivery methods including sales methods.




Key word: Target markets of the project

The target markets are important clients as they have advantages in production scale and transport distance, and are expected to have a long-term relationship and regular interaction with the project. Priority should be given to such target markets for a supply of forest /agro-forestry products.



2.5 Lessons learned from on-going and completed projects

 **Objective:** This sub-chapter aims to describe lessons learned from on-going and completed projects in order to reduce the risk of problems in project implementation and to apply good experience that may lead to success for the project.

Input data	Data analysis	Outputs ^(*)
(1) Monitoring and evaluation reports of on-going and completed projects	(1) Which projects exist or have been completed in the project area? Or what kinds of project are similar to the project in and around the project area?	(1) On-going and completed projects
(2) Interview memos with forestry management agencies	(2) How have such projects been implemented and what are their achievements?	(2) Lessons learned from on-going and completed projects
(3) Progress and completion reports of projects	(3) What are the factors behind the successes or failures of such projects?	
(4) Data and information within five (5) recent years to determine the level of feasibility of the completed projects	(4) Generalize or conceptualize experience from other projects as they apply to the project in preparation.	
	Reference:	
	- Problems and objectives analysis	
	- Project Design Matrix (PDM)	

(*) The two sub-sections can be combined into one when writing the report.

(1) **On-going and completed projects (Item 2.5.1)**


This section describes on-going and / or completed projects in the project area and neighboring areas, which are similar to the project in preparation. Data and information to be collected may include the extent to which the projects have met the project objective and overall goal, and how efficiently the projects were implemented (implementation schedule, project cost, and performance of the implementing agency). Information of the projects may also cover the policy relevance, and sustainability in terms of the technical, economic, environmental and social, and organizational aspects. If possible, data and information on similar types of projects in other areas will be collected as well.

The F/S team should bear in mind the difficulties in obtaining information relating projects implemented by other parties and also the practical constraints imposed by staffing and budgetary limitations when searching for such information. The extent of the study for this section can be kept at a modest level.

(2) **Lessons learned from on-going and completed projects (Item 2.5.2)**

This section analyses and draws lessons learned from on-going and completed projects in order to avoid problems and make better use of good experience from them to ensure the feasibility of the project.

2.6 Opportunities and challenges

 **Objective:** This sub-chapter summarizes the analysis of opportunities and challenges in implementing the project.

Input data	Data analysis	Outputs
(1) All the information and results of the analysis described in Part I.	(1) Examine opportunities surrounding the implementation of the project, strengths of the implementing agency, internal weaknesses of the implementing agency, and external threats. Reference: SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis as an example in this sub-chapter	(1) Opportunities (2) Challenges This analysis will be followed by the description of Part II Chapter 1 Project Rationale.

(1) **Opportunities (Item 2.6.1)**

This section examines opportunities surrounding the project and strengths of the implementing agency and those involved in the implementation. Opportunities include such factors as supporting policies of the governments, unsatisfied markets, and well-developed infrastructure while strengths cover availability of resources such as land, labor, capital, expertise, and capacity to implement projects. The SWOT analysis may be utilized for the analysis.

(2) **Challenges (Item 2.6.2)**

This section is to describe challenges expected in formulation of the project. They are both external threats surrounding the project and internal weaknesses of the implementing agency.



Example: SWOT analysis


Production forest project for conservation activities by Management Board (MB)

	<p>Opportunities</p> <ul style="list-style-type: none"> - Government has policy to support conservation activities in the project area. - Provincial government allowed the production activities. - Provincial government is willing to support MB's conservation activities through the production activities. - Bank is willing to support MB if there is a guarantee from the provincial government. - Tree species (xxx) which is technically well adapted in the project area is available, which possibly bring significant economic value and positive environmental impacts, and increased forest coverage. - There is still some unsatisfied market demand. - Canals and infrastructure exist for transportation. 	<p>Threats</p> <ul style="list-style-type: none"> - Recent market shows some volatility - Sales price is lower - Availability of substitutes
<p>Strength</p> <ul style="list-style-type: none"> - MB is authorized to conduct conservation activities. - MB controls large area for production activities. - MB can mobilize local contractors and labor forces in the project area. - MB has a wide network with research institutes, extension services and government agencies to obtain information on technology. - MB has some experience in techniques relating to forest development. - MB is operating on self-balancing their income with a small state's subsidy. 	<p>(With own strength, MB is able to take advantage of opportunities.)</p> <p>Production forest development in order to generate income for conservation (project concept)</p>	<p>(With its own strength, MB is able to avoid threats and adopt the strategies.)</p> <ul style="list-style-type: none"> - Cost minimization through large scale plantation - Selection of technologies to apply
<p>Weaknesses</p> <ul style="list-style-type: none"> - Less experience in production activities - Weak financial basis - Yet to take adequate measures against illegal activities in the project area 	<p>(With own weakness, MB adopts strategies not to miss the opportunities (phased strategies).)</p> <ul style="list-style-type: none"> - Mobilize initial investment capital - Strengthen management capacity - Establish market channels - Technical training 	<p>(With weakness and threats, MB adopts measures to avoid worst case scenario.)</p> <p>Ensure a minimum level of profits</p>

Part II. Project Contents

As sequel to Part I, Part II describes and defines the project rationale and concept, the project inputs and activities, their phasing, their costs, how they will be financed, and institutional arrangements required to undertake the project activities.

1 Project rationale

 **Objective:** This chapter aims to explain why the project has been selected for implementation.

Input data	Data analysis	Outputs
(1) Information described in Part I Project background	(1) Is the description of this chapter persuasive enough to convince the users of F/S report of the overall need, justification, and urgent implementation of the project based on Part I of the project background?	(1) Project rationale
(2) Long and short-listed project options	Reference: - Problems and objectives analyses - SWOT analysis	
(3) Results of CCM		

Based on the information already given in Part I, the purpose of this chapter is to complete the explanation of why the project is needed and to present the project concept to address the current development issues.

(1) **Project rationale (Item 1)**

This chapter describes the necessity of carrying out the project, what benefits the implementation of the project is going to bring about, the identify of the implementing agency and the target beneficiary of the project.

It may briefly refer to any other options which were not taken at the project identification stage, but should then explain the reasons why this project concept was chosen. As a basis for selection, explanation should be given to factors such as: the implementing agency, management group, target products and financial sources.




Example: Project rationale

One of the ways to present the project rationale is to begin with (a) a description of the general importance of the topics that the project plans to address, and (b) the relevant core problem (or the main development issue) or causes of the core problem in the project area, which were identified through the problems and objectives analyses, and then to proceed with (c) presentation of the project concept as an appropriate counter-measure to address the development issue. In describing the justification of the project concept as a counter-measure, it may be helpful to show (d) opportunities surrounding the project and (e) strengths of the implementing agency which will execute the project, and then refer to (f) the weakness of the implementing agency and threats surrounding the project. In order to tackle weaknesses and prepare for threats, possible counter-measures that ought to be incorporated in the project design are illustrated. When presenting the project concept, other possible project options can be referred to demonstrate the advantage of the project against the options that will be rejected.

The SWOT analysis will provide an analytical framework as a basis to describe the project rationale. Based on the example of the SWOT analysis shown in Sub-chapter 2.6 in Part I, the project rationale, for example, can be outlined in the following way:

- (1) Importance of conservation activities in the project area
- (2) Development issues confronted
- (3) Project concept: production forest development in order to generate income for conservation
- (4) Government policy and lending policy relevant to the project as opportunities
- (5) Strengths of the implementing agency
- (6) Areas and issues to be addressed by the project (how weaknesses are to be overcome and threats are to be minimized)

2 Project objectives and outputs

 **Objective:** This chapter is to describe the overall goal of the project and project objective.

Input data	Data analysis	Outputs
(1) Information described in Part 1 Project background and PDM.	Reference: - Problems and objectives analyses - Project Design Matrix (PDM)	(1) Overall goal (2) Project objective (3) Project outputs

Information shall be consistent with the description in the PDM.

(1) **Overall goal (Item 2.1)**

(2) **Project objective (Item 2.2)**

The project objective is to be achieved by the end of the project period. If external assistance is provided, the objective of the assistance should be achieved by the end of the assistance period.

It is important to define the target beneficiary of the project and the project area in this sub-chapter.



Key word: Project

An undertaking for the purpose of achieving a project objective and overall goal within a given budget and time period



Key word: Project objective, overall goal and outputs

Project objective is defined as an objective that is expected to be achieved as a result of the implementation of the project. If external assistance is provided, the objective of the assistance is defined and is to be achieved by the end of the assistance period. The objective of the assistance is regarded as an interim objective en route to the project objective. The project objective and the objective of the assistance are revealed in the form of specific benefits for the target beneficiary of the project.

Overall goal is defined as development effects that are expected to be attained as a result of the project objective being achieved. The overall goal should be achieved possibly three to five years after the completion of the project period.

Outputs are defined as intermediate objectives that must be achieved by implementing project activities in order for the project objective to be attained.

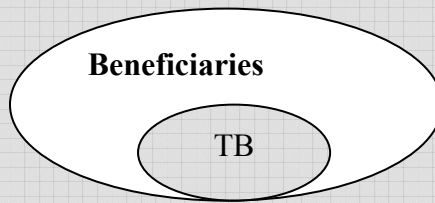
(3) **Project outputs (Item 2.3)**

Outputs are to be achieved by implementing project activities and need to be achieved for the project objective to be attained. The outputs correspond to respective project components, which group project activities that contribute to realization of the same output of the project. The outputs will be described in a full sentence that illustrates the state of achievements like “the forest land is planted with species of commercial values.”

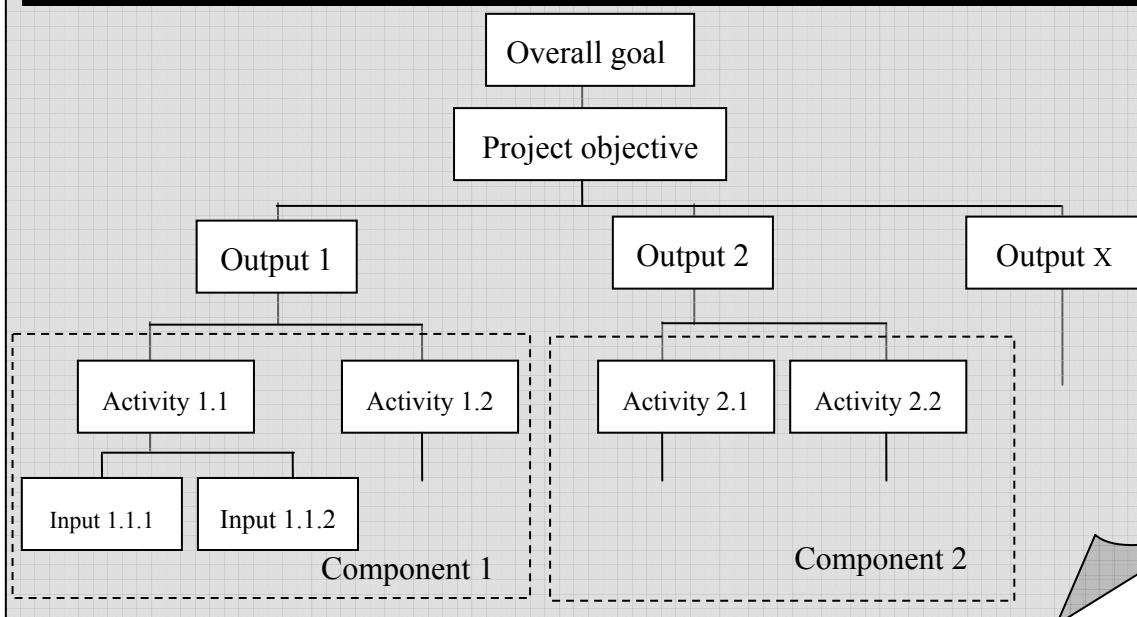


Key word: Target beneficiary and beneficiaries

Target beneficiary (TB) is defined as the principal group for which positive changes are intended as a result of the project implementation. In many cases, the target beneficiary is selected from within a group of beneficiaries of the project. The project objective takes the form of specific benefits for the target beneficiary. In case of Model F/S of Thai Nguyen Province (Book 4-1), for example, the target beneficiary is “smallholders which have red books for forest land in the project area” while beneficiaries include not only TB but also suppliers of input materials like seedlings, buyers of wood materials, and so on.




Points to consider: Relation among overall goal, project objective, outputs, components, activities, and inputs of the project



3 Project activities

3.1 Project components

 **Objective:** This sub-chapter aims to describe the project components including activities and inputs.

Input data	Data analysis	Outputs
(1) PDM (2) Project activities and inputs	(1) Do the project components cover all the activities and inputs that are necessary to achieve the project objective? (2) For each component, what are the key inputs and outputs? (*)	(1) Project component


(*) Describe each of the components, including activities and inputs, sufficiently for the users of an F/S report to understand them, and the relationships between them.

(1) Project component (Item 3.1)

Project components that correspond to outputs of the project will be listed and a brief summary will be given for each of the components. For example, a production forest development project may consist of the following components:

- Component 1: Production forest development;
- Component 2: Support for production forest development;
- Component 2-1: Development of finance mechanism;
- Component 2-2: Promotion of market linkages;
- Component 2-3: Training and capacity building;
- Component 2-4: Infrastructure development (such as forest roads and canals); and
- Component 3: Project management, monitoring and evaluation (M & E).

Detail descriptions about project components can be developed if necessary.

 **Key word: Project component, activities, and inputs**

A project component is a group of activities that share common characteristics and scope, and that contribute to a single output of the project.

Project activities are specific actions intended to produce outputs through the efficient use of the inputs.

Inputs are personnel, funds, equipment, land, and facilities necessary for the implementation of the project.

Project components, activities, and inputs are the means by which the project objective will be pursued via realization of the outputs of the project.



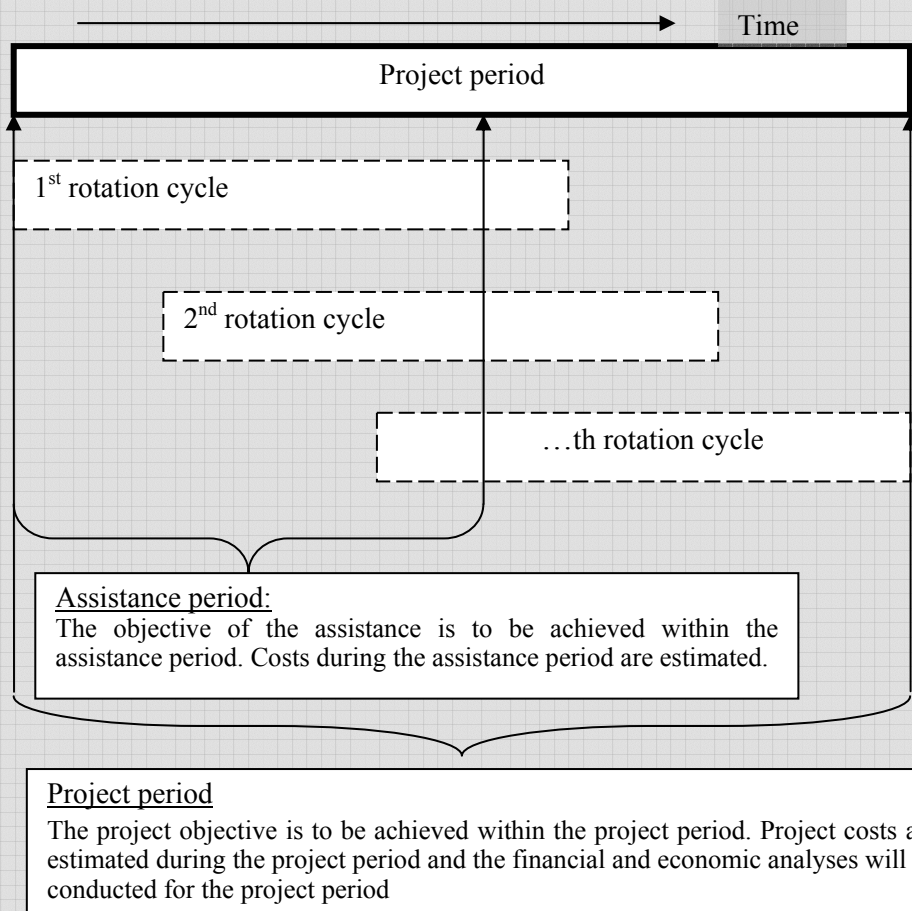
Key word: Assistance period and project period

In this manual, the following terms will be used to explain the two different time phases associated with the project implementation: “assistance period” and “project period.” The objective of the assistance is to be achieved within the period of external assistance while the project objective should be achieved within the project period.

The assistance period is the period when external assistance is sought for the development of major investments under the project, such as land preparation and planting of seedlings. If the project is to be financed through the financial assistance from financial institutions (loans in this case) and/or governments (subsidies), the assistance period may coincide with the loan disbursement period in the former case and with the duration of the subsidy program in the latter case.

The project period covers the entire duration of the project, including the assistance period. If development of a plantation is carried out over a number of years, the project period may be set to cover up to the harvesting year of the trees planted in the final year of the assistance period. Financial and economic analyses will be conducted on the project period.

Example for production forest development project



3.2 Project implementation plan

Objective: This sub-chapter aims to describe the project implementation plan for the production forest / agro-forestry development components and relevant components.

Input data	Data analysis	Outputs
(1) Sheets of plot description. (2) Ecological characteristics of species to be planted (3) Results of site selection for planting (4) Detailed map of plantation plot (5) Results of CCM and interviews memos with concerned parties (6) Standards for forest operations (7) Results of survey on seedling supply capacity in and out of the project area (8) Data on household labor force (9) Cost norms for afforestation/agro-forestry development of one ha (10) Map of infrastructure design (11) Prices of wood materials and agro-forestry products	(1) Do the activities ensure the rationale with technical standards and progress on production forest/agro-forestry in the project area? (2) For each activity, it is necessary to address information such as: Where? When? Amount of works? And how? <hr/> Reference Volume IV Part I Chapter 1 for Method of pre-site assessment, Chapter 2 for Project option evaluation, and Chapter 5 for Farming system survey, and Chapter 6 for Surveys of possibility of agro-forestry application	(1) Planting site selection (2) Species selection (3) Afforestation/ agro-forestry plan (4) Seedling supply plan (5) Tending and protection plan (6) Harvesting plan (7) Labor requirements (8) Training plan (9) Infrastructure improvement plan (*) (10) Consulting service plan

(*) The infrastructure plan can be further divided into several parts such as 1) nursery 2) construction upgrading roads/canals 3) others such as offices and towers 4) equipment procurement plan, depending on the project design.

(1) **Planting site selection**
(Item 3.2.1)

This section describes the conditions of the planting sites, which will be the target area for the project implementation. The selection of the target area will be based on land productivity, current land use, conditions of the land-use rights to the concerned forest land, and farmers' intentions to participate in the project. The farmers' intentions will be surveyed through the rural

Key word: Planting site

Planting sites will be the target area for the project implementation. Various criteria will be applied such as the lack of conflict, land with high productivity, etc.

The diagram illustrates the selection criteria for planting sites within forest land. It shows a large rectangular area labeled 'Forest land'. Inside this area, there are two ovals: one labeled 'No conflict' and another labeled 'High productivity land'. Arrows from both ovals point to a box labeled 'Planting site'. A second box labeled 'Planting site' is positioned below the first one, also with an arrow pointing to it from the 'High productivity land' oval. The entire diagram is set against a grid background.

socio-analysis and forest resource survey. Description of selected sites will be given in the following table format.

Table II - 1 Conditions of planting sites selected for the project

Unit: ha

Characteristics of planting site conditions ^(Note)	Land productivity class				Total of project area
(Example) Farmers have LURs to Eucalyptus plantations					

Source:

Note: The characteristics of the planting site conditions will be described combining land-use right holders (e.g. farmers, SFEs, etc.) and the current land use situation (e.g. Eucalyptus, Acacia, etc.).

This section should also describe the reason why specific forest lands are selected for planting sites.

(2) Species selection (Item 3.2.2)

This section shows the tree species and in case of an agro-forestry development project, tree species and agricultural crops that have been selected for the planting. The suitability of species based upon their ecological characteristics and ecological conditions at the planting site will be analyzed. Species will be selected in consideration of their product values, productivity, and the diversity of species. It is necessary to avoid planting a single species in a large area.

The report will describe the criteria for species selection applied to the project, and the area for planting by selected species, by administrative unit, and by land productivity class.

(3) Afforestation/agro-forestry plan (Item 3.2.3)

This section describes afforestation/agro-forestry plan. It can be simply described using an annual planting and/or cultivating plan that helps to address: criteria to identify area for annual afforestation, description of annual afforestation area by species, by administrative unit (commune...), and by productivity class. Afforestation / agro-forestry plan can be shown in the following table.

Table II - 2 Annual afforestation/agro-forestry plan

Unit: ha

Species	Year 1	Year 2	Year 3	Year 4	Year 5	Year xx	Total
Species 1								
Species 2								
Total								

Source: Estimate of F/S team

The afforestation/agro-forestry plan will help balance the amount of inputs (seedlings, fertilizers, and pesticides) and workloads as well as estimate outputs. Specific attention shall be required to balance planting areas for each year (e.g. an average area over the planting period) so that requirements for labor, input materials, and budgets, etc. shall be relatively stable over the period in consideration of meeting the availability of resources.

(4) Seedling supply plan (Item 3.2.4)

This section should outline the following key points: seedlings demand by species and by year; and supply capacity. As for supply capacity, it is important to indicate clearly the suppliers of seedlings and their capacity. Depending on capacity, it will be necessary to examine whether to upgrade or establish a new nursery.

Table II - 3 Seedling supply plan

Unit: 1000 Seedlings

Items	Year 1	Year 2	Year 3	Year 4	Year 5	Year xx	...	Total
Total no. of seedlings								
Species 1								
Species 2								

Source: Estimate of F/S team

(5) Tending and protection plan (Item 3.2.5)

This section describes the tending and protection area each year based on the planting plan. Normally, tending will start from the planting year until the third year. Protection will also start from the first year and continue until the harvesting year.

Table II - 4 Tending and protection plan

Unit: Ha

Items	Year 1	Year 2	Year 3	Year 4	Year 5	Year xx	Year ...	Total
Total								
Tending area								
Protection area								

Source: Estimate of F/S team

(6) Harvesting plan (Item 3.2.6)

This section shows the annual harvesting area by tree species and by land productivity class. It is necessary to describe felling and logging measures, skidding applied. Then, describe the harvesting area, annual felling volume and annual sales volume by tree species as shown in the following table format.

Table II - 5 Annual harvesting plan

Items	Year 1	Year 2	Year 3	Year 4	Year 5	Year xx	Year ...	Total
1. Harvesting area (ha)								
Species 1								
Species 2								
2. Standing volume (m ³)								
Species 1								
Species 2								
3. Sales volume (m ³)								
Species 1								
Species 2								

Source: Estimate of F/S team

The estimation of standing and sales volume is based on the prediction of land productivity and the rate of salvaged log.⁴

(7) Labor requirements (Item 3.2.7)

This section will describe the requirement for labor by man-day for different project activities of the production forest/agro-forestry development component. The information derived from the labor requirement will form a basis of the labor mobilization for the project implementation as well as development of training plan.

Based on the labor cost norm for production forest/agro-forestry development projects, planting and harvesting plans, other supporting activity plan, etc., labor requirements are estimated for key activities of the project by year and month in the year.

Annual number of man-days for total labor and external labor requirements for production forest/agro-forestry activities will be estimated on a one ha basis and presented as in the following table format.

Table II - 6 Annual number of man-days for total labor and external labor requirements on a one ha basis

Unit: man-days

Implementation year	Year 1	Year 2	Year 3	Year 4	Year 5	Year xx	Year..
Type of labor							
No. of unskilled labor man-days required per year (a)							
No. of man-days that household can mobilize per year (b)							
External labor requirements per year (a)-(b)							

Source: Estimate of F/S team

⁴ “The salvaged log” means the retained portion of the logs for sales.

From the above table and plan for afforestation, annual total labor requirements for afforestation/agro-forestry activities of the project shall be shown as in the table below:

Table II - 7 Annual total labor requirements for the project

Unit: man-days

Items	Implementation year	Year 1	Year 2	Year 3	Year 4	Year 5	Year x	Year..
	I. By annual total (man-day/year)							
Total								
1. Planting								
2. Tending								
3. Protection								
4. Harvesting								
II. By month(s) that require(s) most of labors in the year								
Month (January, ....etc.)	...	...	...	...	...	...	...	...
Man-days in the above month								
Labor (man/month) in the above month								

Source: Estimate of F/S team

The demand versus supply for labor should be balanced by comparing the demand for labor and the supply capability of households in the project and its adjacent areas. In case of a labor shortage (demand for labor is greater than the supply capacity of a household, for example), it is necessary to propose measures such as: the proper distribution of annual planting sites, forming forest development groups to share labor, attracting labor from external sources, and/or to use alternative measures for planting activities such as utilization of equipment.

(8) Training plan (Item 3.2.8)

This section aims to outline the training plan for the implementing agency and other stakeholders concerned with the project implementation. Identification of the training needs will be done through interviews with farmers, extension workers, staff at the implementing agency and other relevant organizations. The interview survey with the implementing agency and the household socio-economic survey will incorporate questions relevant to the training needs. Based on the survey results, the training plan will be designed to satisfy the identified needs. The plan will describe the training objectives, subjects and contents, and trainers for each group of trainees. The project costs should cover implementation of the training plan.

(9) Infrastructure plan (Item 3.2.9)

(9.1) Nursery

If the supply volume of seedlings for the project is expected to be insufficient in terms of quantity and quality by species, new nurseries will be developed to meet the requirements of the project. The development of a nursery plan will be based on the seedlings required for afforestation, existing and future supply capacity of seedlings in comparison to the demands of the project and others, afforestation plan, infrastructure design, and cost norms for nursery establishment. The report will describe the capacity, technical criteria, locations, and construction schedule.

(9.2) Construction or up-grading of roads and canals

Results of the rural socio-analysis conducted in the project area (roads/canals for transportation) and the need for transportation of seedlings and harvested products can be considered as a basis to affirm the need for road/canal construction.

(9.3) Other construction works and procurement of equipment


It will be necessary to clarify requirements for construction of facilities and procurement of equipment. The list of facilities and equipment, and their norms for investment shall be required to provide a basis for the project cost estimate.⁵

(10) Consulting service plan (Item 3.2.10)

This section will describe the consulting services to be planned under the project. The services may range from purely technical services to managerial, organizational, financial, training, and marketing services depending on where needs are found in the project implementation. The description in this section will cover types of external expertise required along with the number of man-months of consulting services and the time they will be required (details can be put in the annex of F/S report).

⁵ The government cost norm is referred to for estimation of the quantity required and estimation of the government portion of the project costs. However, estimation of the total project cost will be based on the market prices.

3.3 Project implementation schedule

 **Objective:** This sub-chapter describes the project implementation schedule for undertaking production forest / agro-forestry development projects.

Input data	Data analysis	Outputs
(1) Relevant technical guidelines and regulations for project implementation	(1) Are all the necessary steps during the preparation and implementation periods included?	(1) Overall schedule for project implementation
(2) Project design prepared	(2) Are the sequence and required time period of each step reasonable and practical?	(2) Preparation period (3) Operation period

(1) **Overall schedule for project implementation (3.3.1)**

This section aims to give a summary picture of the time frame for project implementation prior to the description of the two periods (preparation period and operation period). The following table format (Table II-8) may be used to describe the overall schedule for project implementation.

(2) **Preparation period (Item 3.3.2)**

For the purpose of defining a preparation work schedule, it is good to start by reviewing all the necessary steps and procedures for commencing the project such as establishment of an implementing agency like a project management board, preparation of financial arrangements, public notification of the project implementation, and promotion activities for participating farmers. Next, the sequence and time schedule required for respective steps and procedures are determined. The following table format (Table II-9) may be used to describe the schedule during the preparation period.

Key word: Preparation period and operation period

Time-bound actions will be described for the project implementation schedule. The schedule is generally divided into the two periods: preparation period and operation period.

The preparation period is a period in which activities relating to the preparation work for the project are carried out. Activities during this period may include establishment of an implementing agency, set-up of financial arrangements, etc.

The operation period is a period during which physical operations are to be undertaken in the field. Activities during this period may include planting and tending, construction of infrastructure facilities, implementation of training activities, and so on.

Table II - 8 Overall Schedule for project implementation

Calendar Year								
Implementing Year	1	2	3	4	5	6	7	8
Component	Period	Preparation period	Operation period					

Source:

Table II - 9 Implementation Schedule during Preparation Period

Step	Activities	Months											
1													
2													
3													
...													
...													
X													

Source:

(3) Operation period (Item 3.3.3)

In production forest/agro-forestry development projects, the main activities related to establishing and maintaining plantation/cultivation plots are repeated during the operation period.

The activities for establishing plantation/cultivation plots can be described as a model pattern from designing planting plots in the initial year to protection activities in the harvesting year. In F/S report, the following table format (Table II-10) may be used to describe the model pattern for establishing plantation/cultivation plots.


Table II - 10 Model pattern for establishing plantation/cultivation plots

Step	Activities	Model pattern for establishment (Note)						
		1 st year	2 nd year	3 rd year	4 th year	...th year	...th year	Xth year
1								
2								
3								
4								
5								
...								
...								
XX								

Note: Columns for years when activities are carried out are indicated by color shading.

Source: Estimate of F/S team

4 Project cost

 **Objective:** A cost estimate of the project is prepared to provide a basis for planning its funding and also to ensure the viability of financial sources for the project. It will be also a basis on which to examine the project's financial and economic viability.

Input data	Data analysis	Outputs (*) (**)
(1) Price and quantity data and information of input items for each category of the project.	(1) How much is the total investment demand?	(1) Conditions for cost estimate
(2) Economic indicators such as CPI (consumer price index)	(2) How much does each project component require?	(2) Project costs or costs during the assistance period
(2) Preliminary design and components	(3) What are available/ potential financial sources?	
	Reference:	
	-Volume IV Part I Chapter 7 Financial and economic analyses	
	-Volume IV Annex 3: Case Study - Is Acacia a Good Option?	

(*) The two sub-chapters can be combined into one when writing the report.

(**) While the main text is brief, the details will be described in Annex 4 of F/S report: Cost tables.

The main text provides expenditure of the project by component. Cost tables are prepared by financing source, year of disbursement and expenditure category. The expenditure is incurred either during the assistance period or the project period (See Key word: Assistance period and project period). If an external agency extends financial assistance to the project, the external agency is interested in the costs estimated during the assistance period in order to check their proportion of the assistance. Costs estimated during both the assistance period and project period can be described in the report as necessary.

In the summary cost tables, it is important to include all components and input costs to be incurred during the relevant period. For example, in the case where the management board of the government undertakes a project, the cost estimate should include the value not just of the government's input but also of the farmers' own contributions to the investment, whether in cash, materials, equipment or in the form of labor. Baseline costs are estimated from the unit prices collected in the field survey and quantities derived from the preliminary design.

Baseline costs are expressed in market prices on a constant price basis over the assistance period or the project period.⁶ Therefore, estimates should all relate to the same

⁶ The estimation of the project cost is based on the market prices. Unit prices in the government cost norms can be used for estimation of the government portion of the project costs if the government extends support to the project.

date, which should be specified as “Base Year” such as Year 2007. The base year is usually around the time of project preparation. Contingencies (physical and price) should be added to the baseline costs to determine total costs during the relevant period: assistance period or project period.⁷ For the purpose of conducting the economic analysis, rates and amounts of taxes and duties will be indicated.

This chapter consists of the following parts: conditions for cost estimate; and project costs. The complete cost breakdown can be given in annexes of F/S report.

(1) Conditions for cost estimate (Item 4.1)

This sub-chapter provides conditions for the project cost estimate. It includes base year of the cost estimate, rate of physical contingencies, expected rate of inflation, unit prices of major input items, duration of the cost estimate, exchange rates of the foreign currencies (e.g. VND per US dollar), types and rates of taxes, and so on.

⁷ Price contingencies are calculated based on the baseline costs and physical contingencies.



Key word: Project costs, costs during the assistance period, baseline costs and contingencies

Baseline costs are the best estimates of project costs required at a specific date, assuming that the quantity of works, goods and services, and relevant prices are known, that quantities and prices will not change during the project period, and that the project will be implemented as planned.

Contingencies are allowance for adverse conditions which will be added to the estimate of the baseline costs. Physical contingencies are included in the project costs to allow for uncertainties and to compensate for possible inaccuracy in the estimates of work quantity. It is often calculated and expressed as percentages of baseline costs. For example, the physical contingency for civil work in difficult terrain may be set at 15% of the baseline cost and the physical contingency for the definable civil works such as road surfacing and canal lining may be 5% of the baseline cost. Price contingencies may also be estimated (on yearly baseline costs plus physical contingencies) to demonstrate the probable escalating effect of inflation on project costs and hence the level of finance required.

The baseline costs, physical and price contingencies will be calculated to estimate the project cost during the project period. The estimate during the assistance period is named as “cost estimated during the assistance period” in this manual.

The planning of an assistance period (or disbursement period) for a production forest/agro-forestry development project may depend on the needs of borrowers/recipients, requirements of external assistance agencies, and the nature of species planted. The F/S team should bear in mind that the longer the time span over which predictions of costs and benefits must be made, the more likely their inaccuracy, leading to adjustments in the project plan during the assistance period.



Example: Government general practice in terms of the cost structure

General practice of the government for their afforestation projects at the time of preparation of this manual:

Although the cost structure of a project depends on the type of projects, the Government of Vietnam applies the following structure to afforestation projects: plantation establishment (production forest development) 50-60%; infrastructure development 10-15%; management 10-12%; contingencies 5-10% of the project cost during the project period.

(2) **Project cost or cost during the assistance period (Item 4.2)**

This sub-chapter shows component-wise expenditure by: 1) financing source; 2) year of disbursement; and 3) expenditure category. The following table formats can be used to show the expenditure. It is important to specify which period these cost tables are prepared for: either costs estimated during the assistance period or project costs estimated during the project period.

Table II - 11 1) Example of summary cost of the project by financing source
(Period estimated: -)

Unit: Mil. VND

Project component	Financing source	Total cost	Ratio	Bank	Government	Farmer
1. Production forest development						
2. Support to production forest development						
2.1 Development of finance mechanism						
2.2 Promotion of market linkages						
2.3 Training and capacity building						
2.4 Infrastructure development						
3. Project management and M&E						
A) Total baseline cost						
B) Physical contingency						
C) Price contingency						
Total cost (A + B + C)						

Source: Estimate of F/S team

Table II - 12 2) Example of summary cost of the project by year
(Period estimated: -)

Unit: Mil. VND

Project component	Year	1	2	3	4	5	6	7	8
	1. Production forest development								
2. Support to production forest development									
2.1 Development of finance mechanism									
2.2 Promotion of market linkages									
2.3 Training and capacity building									
2.4 Infrastructure development									
3. Project management and M&E									
A) Total baseline cost									
B) Physical contingency									
C) Price contingency									
Total cost (A + B + C)									

Source: Estimate of F/S team


Table II - 13 3) Example of summary cost of the project by category
(Period estimated: -)

Unit: Mil. VND

Expenditure category	Materials	Labors	Expert Service	Salary	Operating cost	Base-line cost	Contingency	Total
Project component								
1. Production forest development								
2. Support to production forest development								
2.1 Development of finance mechanism								
2.2 Promotion of market linkages								
2.3 Training and capacity building								
2.4 Infrastructure development								
3. Project management and M&E								
Total baseline cost								

Source: Estimate of F/S team

5 Financing plan

 **Objective:** This chapter shows the financing plan that indicates the amount proposed for financing each of the project components or expenditure categories, the loan schedule and the fund flow of the project.

Input data	Data analysis	Outputs (*)
(1) Total project costs by component or expenditure category (2) GOV regulations on the investment credits and budgetary supports for production forest / agro-forestry development projects (3) Terms and conditions of loans from financial institutions, any other funds possibly available to finance the project. (4) Organization structure of the project management (5) Results of socio-economic survey/household socio-economic survey.	(1) How is the project's cash flow? (2) Are the financial sources (loan, subsidy, grant, or self-funding) sufficient for the implementation of the project? (3) Is the financing plan of the project in line with policies and regulations of the government, financial institutions, and donors? Is the financing source suitable with the needs of borrowers? (4) Is the amount of loan appropriate in consideration of the repayment capabilities of borrower(s)? <hr/> Reference -Volume IV Part I Chapter 4 for Rural socio-analysis and Chapter 7 for Financial and economic analyses -Volume IV Annex 3: Case Study - Is Acacia a Good Option?	(1) Financing sources for the project (2) Loan disbursement and repayment plan (3) Fund flow of the project

(*) This part can be used for negotiation with financial institutions. Therefore, it is important to show the commitment of the implementing agency to meet its proposed share of the project costs. It is also important to show assumptions on the beneficiaries' contribution - in cash or kind – to project financing.

(1) **Financing sources for the project (Item 5.1)**

In order to identify potential sources of finance, consultations and interviews should be conducted with governmental agencies, financial institutions, and any other organizations or individuals that could possibly extend financial support for the project implementation. This can be done as part of the rural socio-analysis and the financial analysis. A financial institution may be the main party to extend a loan to cover the initial investment costs for production forest/agro-forestry development component while the implementing agency or farmers may be potential recipients or borrowers of the loan. The implementing agency or farmers may bear the counter-part fund portion against the loan with their own capital, including in-kind contributions.



Key word: Financing ratio and non-eligible items for financing

Financial institutions typically finance only a certain percentage of expenditure in any category (not finance 100% of the expenditure).

Financial institutions and/or any other supporting agencies may also consider certain items not eligible for financing. For example, the Japan Bank for International Cooperation (JBIC) does not finance with its usual project loan: (1) general administration expenses; (2) taxes and duties; (3) purchase of land and other real property; (4) compensation; and (5) other indirect items.

(2) Loan disbursement and repayment plan ((Item 5.2)

A loan disbursement and repayment plan is prepared based on the terms and conditions expected to be applied for the loan such as the loan amount, interest rate, grace period, disbursement period, repayment period, collateral, guarantees, etc. The terms and conditions of the loan to be applied for the analysis can be based on the data and information collected through the consultation and interviews with relevant organizations.

The following table presents a possible table format to show the loan disbursement and repayment plan, which can be used for both a household and an organization (or an entity) as a borrower of a loan.



Example: Assistance period and project period in case of Model F/S of Thai Nguyen Province

In case of the production forest development project in Model F/S, the planting activities are carried out in a staged manner over seven years. The trees planted in the last plot are expected to be harvested in the fifteenth year from the initial year.

As a larger proportion of expenses is expected to be incurred at an early stage of the project period, particularly in the first year of the rotation cycle, the loan disbursement plan is set for the first eight years. The assistance period is set at the first eight years, including the one-year preparation period, out of the total fifteen years of the project period.

Table II - 14 Loan disbursement and repayment plan

Unit: VND

Implementation Year	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr x	...
Outstanding balance at beginning of year							
Loan disbursement							
Repayment							
- Interest							
- Principal							
Outstanding balance at end of year							

Source: Estimate of the F/S team

If a subsidy program is applied to the project, the report shows the disbursement plan of the subsidy program.

An assistance period is set to sufficiently cover a disbursement period in case of financial assistance from financial institutions and/or governments. It can be established by considering the time period required for external assistance, the time period within which the project objective is to be achieved from a viewpoint of financial sources such as donors, and nature of species planted (See Key word: Assistance period and project period).

(3) Fund flow of the project (Item 5.3)

This sub-chapter explains how funds would be disbursed under the project. Providers and users of funds are described in the organization chart together with the fund flows among different parties to be involved in.

Experience in FICAB study tells that fund providers can generally be classified into two types depending on the characteristics of funds: (1) non-financial institution and (2) financial institution. For example, non-financial institutions are typically government and donor agencies that extend grant type assistance while typical financial institutions are banks. If fund providers are financial institutions, it is expected that the fund flows will include the repayment flow from the end-users of loans and the project will utilize the monitoring functions of the financial institution.

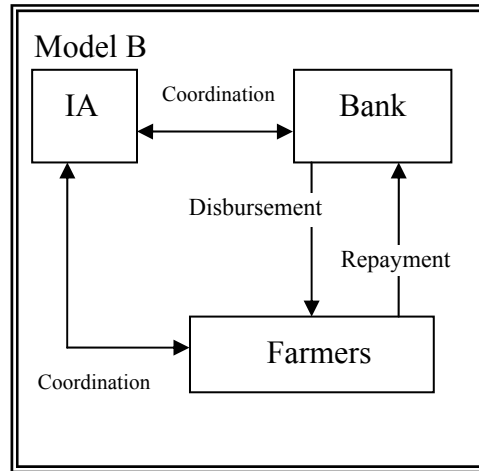
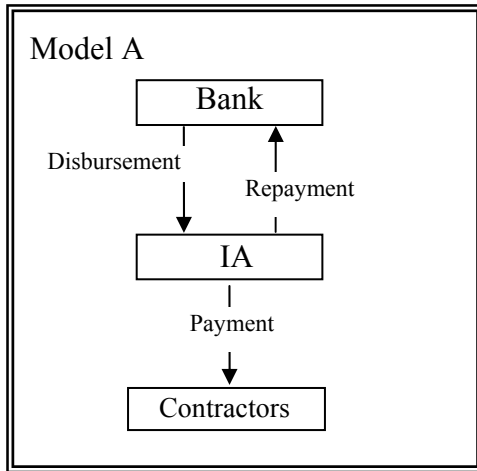
Fund users can be categorized into two types: (1) fund users primarily responsible for achievement of the project objective and (2) fund users being participants of the project. Fund users who are responsible for achievement of the project objective are usually the implementing agency. Farmers are typically fund users who participate in the project but do not assume responsibility for the project objective. In the case where fund users are not an implementing agency, more attention needs to be paid on inter-agency coordination.

Based on the observations above, the following combinations can be prepared as four models (Models A to D).

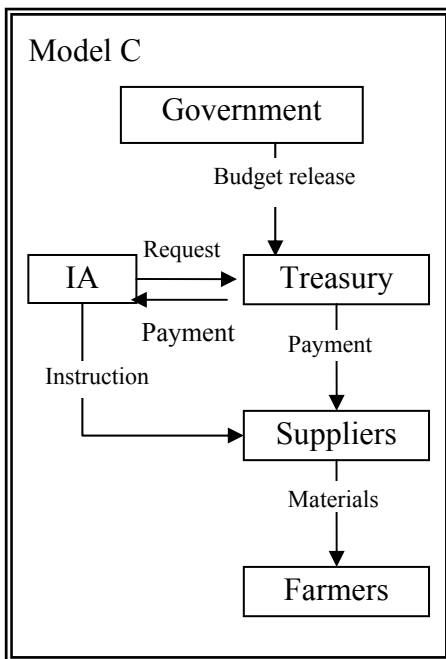
Table II - 15 Classification of providers and users of funds

	Fund provider	Financial institution (e.g. bank)	Non-financial institution (e.g. Government)
Fund user			
Responsible for the project objective (Implementing agency)		Model A	Model C
Not responsible (e.g. farmers)		Model B	Model D

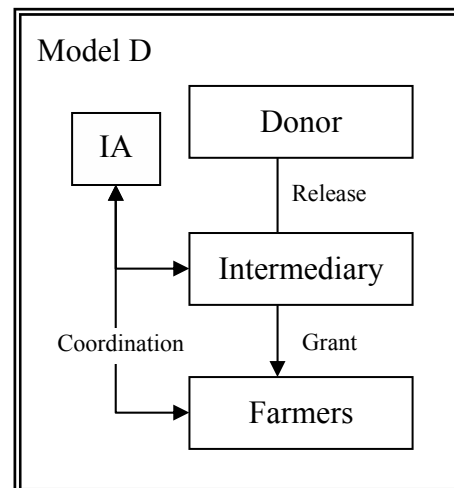
Model A in the table above is the fund flow from a financial institution to the party responsible for achievement of the project objective. One example is that a forest enterprise, an implementing agency (IA), undertakes a production forest development project with a loan from a bank.



Model B is the fund flow from a financial institution to the party not responsible for achievement of the project objective. For example, small farm households plant trees with loans from a bank. Farmers in this case are responsible for repayment of loans to the bank.



Model C is the fund flow from a non-financial institution to the party responsible for achievement of the project objective. For example, a project management board, an implementing agency (IA) established at the district office, has budgets appropriated from the provincial government to spend for management and operation of the project. Treasury division of the district office will handle transactions upon request from the project management board.




Model D is the fund flow from a non-financial institution to the party not responsible for achievement of the project objective. For example, smallholders receive grant assistance from a donor agency through an intermediary like a bank and participate in the project.

Drawing the flow chart as shown in the next chapter (Part II Chapter 6 Organization of management and implementation) will help the users of F/S report grasp

an overall picture of the fund flow and identify their respective roles and responsibilities in the overall scheme of the project. The diagram in Chapter 6 (Organization of management and implementation) shows the combined case of above Models B and C with the fund flow from the government and a financial institution, and repayment flow from borrowers together with the parties involved in the process. The process may also include auditing flows and financial reporting processes. In case of the budget and the subsidy program, the description is made only on the disbursement flow.

6 Organization of management and implementation

 **Objective:** This chapter is intended to describe responsibilities of and relations among the organizations/individuals that will be involved in various aspects of the project implementation.

Input data	Data analysis	Outputs
(1) Management organizational structure	(1) Is the implementing arrangement appropriate for achievement of the project objective?	(1) General aspect
(2) Interview memos with management agencies, business units, and communities	(2) What capacity constraints need to be addressed in the project design?	(2) Implementing agency
(3) Results of household socio-economic survey	Reference Volume IV Part I Chapter 4 for Rural socio-analysis and Chapter 5 for Farming system survey	(3) Other stakeholders

(1) General aspect (Item 6.1)

This sub-chapter describes which organizations (or entities)/individuals will be responsible for which aspects of project implementation and operation. These organizations/individuals can be categorized into three groups: management group, implementation group and supporting group. It is important to describe the roles and responsibilities of respective organizations/individuals and the coordination mechanisms among them.

 **Key word: Management, implementation and supporting groups**

Organizations/individuals involved in project implementation and operation can be classified into: management group, implementation group including implementing agency, and supporting group.

The management group is a decision-making body that sets policy directions for the project implementation and supervises the operation. The implementation group including implementing agency is responsible for execution of the project under the policy direction set by the management group. The implementing agency is responsible for achieving the project objective. The supporting group is to support implementation of the project.



Key word: Implementing agency and community-based organization (CBO)

In this manual, the implementing agency is defined as an organization/entity that is responsible for achieving the project objective. For this organizational objective, the implementing agency is staffed with personnel whose responsibilities are clearly defined and is equipped with planning and controlling functions for the project implementation. On the other hand, a Community-Based Organization (CBO) is defined as a group of individuals/farmers in a local community that facilitates community needs and voluntarily participates in the project. Because of these characteristics, the implementing agency respects the intention of the groups to carry out the project. A CBO may be a group of participants in the project as beneficiaries but is less likely to perform a role of an implementing agency.

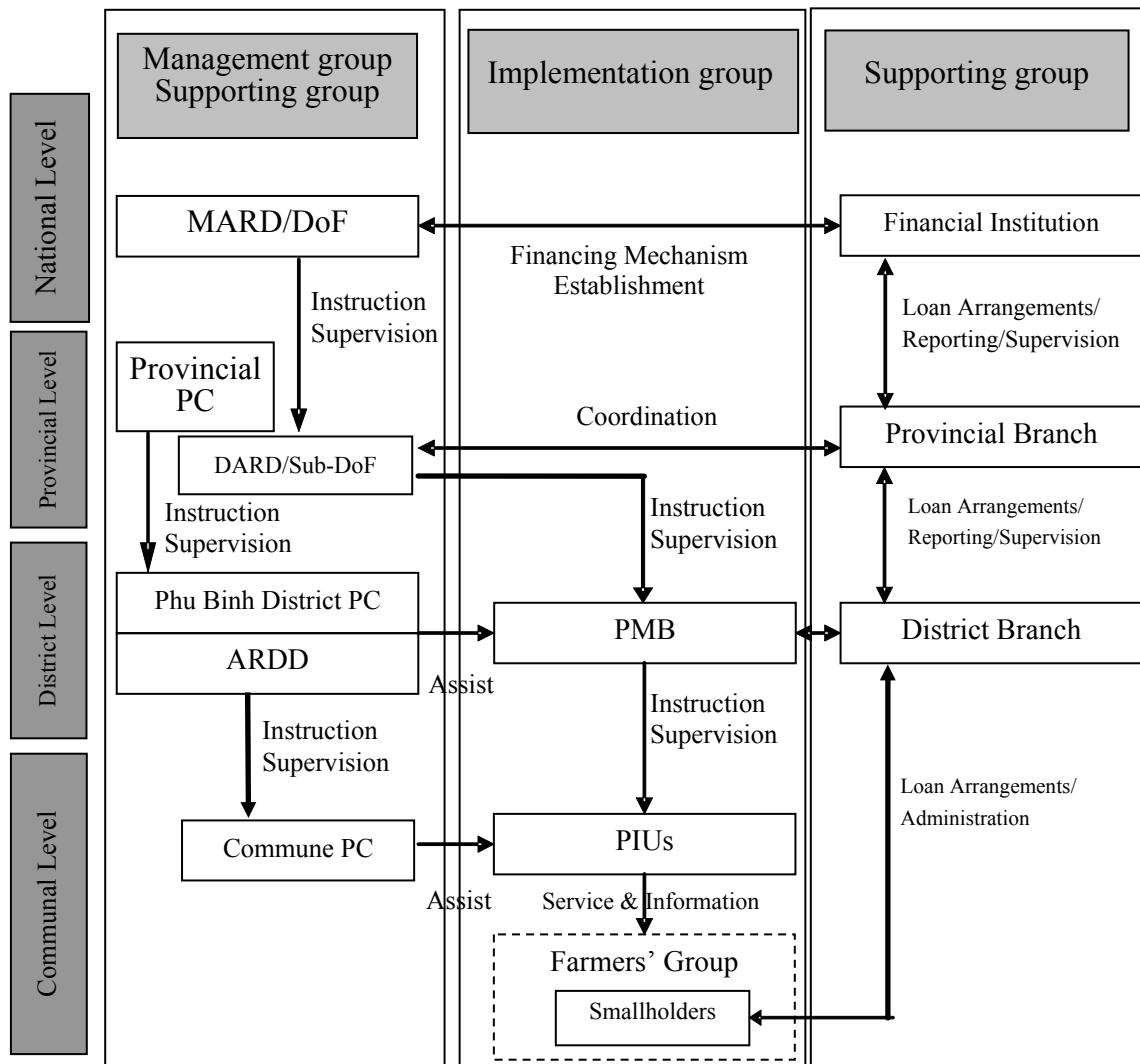
It is helpful for users of F/S report to understand the institutional arrangement if the report shows organizational charts of the project implementation arrangement, differentiating national, provincial, district, and commune levels. The sub-chapter should demonstrate that satisfactory arrangements exist for coordination among and within organizations responsible for respective activities under the project. Such coordination may take the form of a management board or a steering committee which consists of representatives from different organizations, and periodical consultation meetings at commune and village levels.

(2) Implementing agency (Item 6.2)

This sub-chapter should demonstrate that the implementing agency is the most appropriate body to implement the project in terms of achievement of the project objective. It should demonstrate that they have the power, structure, staffing, equipment and facilities, finance, motivation and capacity to undertake their functions.

If the report has specific names for key posts of the project implementation body, this is the place to mention and draw attentions for the functions of the posts. Should any new organization have to be created for the implementation of the project, it is important to provide, as much as possible, details of its legal status, functions and powers, internal organization, operating procedures, staffing and budget. Detailed explanation of a new organization should normally appear in an annex of F/S report. Where areas have been found to improve the implementing capacity of the implementing agency, the counter-measures will be incorporated in the project design.

Figure II - 1 Sample structural organization chart for project implementation



(3) Other stakeholders (Item 6.3)

Based on the brief overview of the concerned stakeholders in sub-chapter 6.1 above, this sub-chapter describes how other stakeholders such as Provincial and District PC, MARD/DARD, financial institutions and private buyers of materials will play a role in the project. Wherever appropriate, additional explanation will be given to arrangements for coordination of the project implementation and coordination among the stakeholders. Depending on the project design, the description may also cover

Example: Establishment of a new implementing agency

In Model F/S of Thai Nguyen Province, it is proposed to establish a Project Management Board (PMB), as an implementing agency, within the District Office and Project Implementation Unit (PIUs) at the commune offices to carry out daily field operations and provide support to participating smallholders under the supervision of the PMB.


the roles and functions of participating households in the project, either individually or collectively, and ways in which the implementation agency of the project, in collaboration with other supporting organizations, ensure such participation.



Example: Proposed Production Forest Association in Model F/S of Thai Nguyen Province

In the project area, individual smallholders have land-use rights to the forest land. Therefore, it is deemed efficient and effective to organize participating smallholders into groups in order to improve their access to credit, inputs, technology and markets. Under the project, it is proposed to finance necessary costs for meetings to form farmers' groups, training activities, and establishment of a network of farmers' groups as a Production Forest Association.

7 Monitoring and Evaluation (M & E)

 **Objective:** This chapter aims to describe what to look at for the monitoring and evaluation and how to implement them in order to achieve the set objective of the project.

Input data	Data analysis	Outputs
(1) Project design matrix	(1) Why should M&E be conducted?	(1) Development impact indicators
(2) Organization for project implementation	(2) What are the necessary indicators for the M&E? (3) Where can information be collected from? (4) What are the methods for conducting the M & E? /Under which mechanism will it be conducted?/ Where is the budget source?	(2) Progress indicators
(3) Concerned parties	(5) Who will be involved in the M&E process?	(3) M & E implementation
	Reference	
	Volume IV Part I Chapter 8 Monitoring and evaluation of the project results	

(1) Development impact indicators (Item 7.1)

This section describes development impact indicators in order to judge the results of the project during and after the implementation of the project. The indicators are usually developed when a PDM is prepared. The results of the analysis on the financial and economic aspects, environmental and social impacts, sustainability, and risks which are described in Part III Project justification, may be used as some of the indicators in the PDM. These indicators can be used to monitor and evaluate the achievement of the project objective and the overall goal.



Key word: Development impact indicators and progress indicators

Indicators are target figures that serve as yardsticks for measuring the achievement of outputs, project objective, and overall goal. These indicators comprise such elements as type, quantity, and quality of data to be collected. Time, location, and activities for data collection also need to be planned.

Indicators can be classified into “development impact indicators” and “progress indicators.” Development impact indicators measure the achievement of the project objective and the overall goal while progress indicators measure the achievement of the project objective, the outputs of the project, project activities, and also inputs. The indicators corresponding to the inputs can be called input indicators.

In selecting these indicators, the F/S team should bear in mind the practical constraints imposed by staffing and budgetary limitations and the difficulty of obtaining and maintaining data. Therefore, the number of indicators should be kept to a modest level which is consistent with institutional capacity.



Question: Who should conduct monitoring and evaluation?

The monitoring and evaluation of the project will be conducted in consideration of the Project Design Matrix (PDM) or the logical framework, and also the Overall Plan of the Project (Annex 1 of Model IP (Book 5-1) as an example). While monitoring centers on activities, outputs and the project objective in terms of the PDM, evaluation focuses on all the results of the project, particularly achievement of the project objective and the overall goal. Though the difference between the terms “monitoring” and “evaluation” is not always clear.

For monitoring and evaluation, institutional arrangements will be required. Monitoring, which takes place at appropriate times and with sufficient information, will enable the implementing agency of the project to utilize results swiftly and make necessary adjustments and changes to the plan and/or activities. Therefore, it will be good if monitoring is undertaken by those directly involved in project activities. On the other hand, evaluation aims to make recommendations on the future course of the project and draw lessons for other projects. This will require a more objective perspective. Therefore, it would be ideal if evaluation is undertaken by a third party, independent from the planning and implementing agencies of the project. Alternatively, the implementing agency could conduct evaluation and have comments on the results of the project from the third party, such as the faculty members of a university.

(2) Progress indicators (Item 7.2)

This section presents progress indicators in order to determine the progress of the project and modify the plan if necessary. Indicators that are subject to monitoring also include assumptions described in the column of “Critical Assumptions” of the PDM.

(3) M & E implementation (Item 7.3)


This sub-chapter shows how to implement monitoring and evaluation of the project. Based on the institutional arrangements, the sub-chapter describes timing, methods, members and organizations/entities, and budgets in terms of information collection and aggregation, decision-making, and feedback.

Part III. Project Justification

Based on data and information discussed in the previous parts (Parts I and II), Part III aims to present the assessed results on financial and economic aspects, social and environmental aspects, sustainability of the project, and risks of undertaking the project.

1 Financial and economic analyses

1.1 Financial analysis

 **Objective:** This chapter summarizes the results of the financial analysis on the viability of the project.

Input data	Data analysis	Outputs (*)
(1) Statistic Year Book (macro economic indicators such as inflation rates and exchange rates)	(1) What are the results of the analysis on the financial viability of the project?	(1) Production forest / agro-forestry development model
(2) Data and information on input and output prices of products	(2) What are the results of the analysis on the financial viability of the project from a borrower?	(2) Expected costs and benefits
(3) Survey results of the household socio-economic survey	Reference	(3) Results of financial analysis from a total investment viewpoint
(4) Project plans including data on planned physical quantities	Volume IV Part I Chapter 7 Financial and economic analyses	(4) Sensitivity analysis
(5) Terms and conditions of loans	Volume IV Annex 3: Case Study - Is Acacia a Good Option?	(5) Results of financial analysis from an owner's viewpoint

(*) While the main text is brief, the details will be described in Annex 5 of F/S report: Financial and economic analyses. See Model F/S of Thai Nguyen Province (Book 4-1) as an example.

(1) **Production forest / agro-forestry development model (Item 1.1.1)**

This section briefly describes the basic conditions and features of the model on which the financial analysis is conducted. While the incremental analysis is conducted, both with-and without-project cases will be described. The basic conditions may include the base year, physical and price contingencies, exchange rates of foreign currencies (e.g. VND per US dollar), etc. while features of the model may describe the types of species, a rotation cycle, and so on.

(2) **Expected costs (Item 1.1.2) and expected benefits (Item 1.1.3)**

These sections describe expected costs and benefits to be used for the analysis. In terms of the expected costs (section 1.1.2), unit prices and quantities or volumes of major

input items will be mentioned together with the total cost per ha. On the side of expected benefits (section 1.1.3), unit prices and quantities or volumes of output items will be shown together with the total benefit per ha. References should be made to prices quoted, such as stumpage prices, farm gate prices, and factory gate prices (depending on sales method: whole sales at harvesting site or selling at the factories, for example).

(3) Results of financial analysis from a total investment viewpoint (Item 1.1.4)

This section shows the results of the financial analysis from a total investment viewpoint with a brief conclusion. The results can be shown with some main investment criteria: the financial rate of return (FIRR), financial net present value (NPV), and the benefit-cost (B/C) ratio. Analysis is conducted on a constant price basis, including physical contingencies (but excluding price contingencies).

The financial analysis is firstly conducted on the incremental net cash flow of the one ha model by species or model. It is done from a total investment viewpoint over the project period. If the products are sold at the stumpage prices, the harvesting costs are not included in the cash outflow. If the products are sold at the roadside prices, the harvesting cost including logging costs to the roadside are incorporated in the cash outflow.

The following table format can be used to summarize the analysis results of one ha model.

Table III - 1 Results of the analysis from a total investment viewpoint (Model 1 ha)

Item	Species A Model 1	or	Species B Model 2
Output (m ³ /ha)			
Average Stumpage Prices (000 VND/m ³)			
Sales (million VND)			
Financial Internal Rate of Return (FIRR)		%	%
Financial NPV (at ...% discount rate) (Mil. VND)			
Benefit-Cost Ratio			

If the implementing agency is an organization or an entity that is directly involved in the implementation of the project, the analysis should be also made on the entire project over the project period. For example, if a forest enterprise implements a production forest development project in the forest land area of 2,500 ha, the financial analysis should be conducted by taking into account the plantation, tending and protection costs for 2,500 ha, costs for some supporting services, infrastructure development, project management, and so on.

It should be also noted that loans are not incorporated in the analysis from a total investment viewpoint but later at section 1.1.6 where the analysis is conducted from an owner's viewpoint.

(4) **Sensitivity analysis (Item 1.1.5)**

This section summarizes results of the sensitivity analysis by changing, for example, prices of major inputs and outputs as well as per ha yield of products to be harvested. It aims to examine the level of negative impact on the financial results of the project. The switching value may be mentioned in this section.

(5) **Results of financial analysis from an owner's viewpoint (Item 1.1.6)**


The analysis from an owner's viewpoint will incorporate a net cash flow of loans from financial institutions into the incremental net cash flow from the total investment viewpoint. The analysis is done on the basis of an average farmer (on an average or median forest land size of a potential participating farmer), an enterprise (on the entire forest area of the project) or any other organization that plans to receive loans under the project. Financial analysis can be conducted by species or model over a rotation cycle and in case of the organization or the entity like a forest enterprise, conducted for the entire area of the project over the project period including other project components, if any. The following table format can be used to show the results of the analysis from an owner's viewpoint.

Table III - 2 Results of the analysis from an owner's viewpoint (xx ha basis)

Items	Results
FIRR on Equity	
Financial NPV (at ...% discount rate) (Mil. VND)	
Benefit-cost ratio	

For presenting the results, it is necessary to specify on what basis the analysis is conducted, for example, on an average farmer or an organization (or an entity like a forest enterprise).

1.2 Economic analysis

 **Objective:** The sub-chapter summarizes the results of the analysis on the economic viability of the project from a society's viewpoint.

Input data	Data analysis	Outputs (*) (**)
(1) Data and information on types of taxes and subsidies. (2) Rural wage rates in the project area, international prices of chips, etc. for converting financial prices to economic prices. (3) Conversion factors (4) Data and information in Parts I & II	(1) What are the results of the analysis on the economic viability of the project? (2) Are there any other benefits expected from the project although not quantifiable? Reference -Volume IV Part I Chapter 7 Financial and economic analyses -Volume IV Annex 3: Case Study - Is Acacia a Good Option?	(1) Economic analysis

(*) While the main text is brief, the details will be described in Annex 5 of F/S report: Financial and economic analyses.

(**) If the project is small in scale, this section can be put together under the heading of the financial and economic analyses without having the two sub-chapters separated.

(1) Economic analysis (Item 1.2)

This sub-chapter describes the results of the economic analysis based on the incremental net cash flow. Price adjustments will be made on items such as taxes and subsidies, labor, externalities, and tradable goods. Qualitative description may be added to the benefits that are not quantified in monetary terms.


The following table format can be used to show the results of the economic analysis of the entire project including all the benefits and costs expected from the project after price adjustments.

Table III - 3 Results of the economic analysis

Items	Results
Economic Internal Rate of Return (EIRR)	%
Economic NPV (at discount rate of ...%) (Billion VND)	
Benefit-cost ratio	

It should be noted that the economic analysis is done from a viewpoint of the society or country as a whole, which is not same as the viewpoint of the government. It is also pointed out that as is the case with the financial analysis, the economic analysis is to be done over the project period.

2 Evaluation of environmental impact

 **Objective:** The main purpose of this chapter is to focus on the expected effects of the project on the environment.

Input data	Data analysis	Outputs
(1) Survey data on environment: erosion, water quantity/quality, bio-diversity when having project.	(1) What are positive or negative environmental impacts in and around the project area?	(1) Evaluation of environmental impact

(1) Evaluation of environmental impact (Item 2)

Environmental impacts of the project in the forest sector are quite difficult to assess unless they are monitored over a long term. It is also very costly to establish the monitoring system. Hence, it can be described qualitatively by using the known impact that selected species have on top soil, water, air, and so on.

Example: Simple evaluation of environmental impacts

The following table format may be helpful to grasp a range of environmental factors which activities of the project are expected to have impacts on.


Activities Environmental factor	Land preparation	Planting	Tending	...	Infrastructure
1. Soil	Yes/Serious	....	....		....
2. Land	No	No	....		....
3. Surface water	Yes/ Not serious	....	....		...
4.....	....	....	....		...
5...					

Source:

This chapter describes expected effects of the project on the environment through assessing visible impacts such as: soil erosion, soil fertility, surface water source (both quality and quantity). Besides, it can be based on the existing environmental monitoring system, State of Environment (SOE) reports, and thematic reports on environment in order to study possible impacts on the changes of nature of land, nutrient components and bio-diversify.

In the case where natural forests are transformed into plantation, the impacts of the transformation need to be assessed.

3 Evaluation of social impact

 **Objective:** The main aim of this chapter is to examine possible impacts created among households and communities, as well as changes that would be brought to ethnic minority groups and women.

Input data	Data analysis	Outputs
(1) Labor demand of the project. (2) Contents of the project activities (3) Assessment on household economy	(1) What positive or negative social impacts is the project likely to cause on the people in and around the project area? (2) How will the people in the project area be involved in implementation, including monitoring and evaluation activities of the project? <hr/> Reference <hr/> Volume IV Part I Chapter 4 Rural socio-analysis	(1) Evaluation of social impact

(1) Evaluation of social impact (Item 3)


This chapter describes possible impacts created among communities as well as changes that would be brought to the household economy, ethnic minority groups, and women.

A production forest /agro-forestry development project is often closely related to land-issues (land use) and the mobilization of labor. Analysis on the impact of the project on social aspects may include the impact on creation of employment opportunities, on improvement of the household economy in the short, medium and long terms, on ethnic minority groups, on women, and on the income gap between the poor and the rich.

Where appropriate, discussions are held on the relationship of anticipated impacts of the project on the policies and priorities of the governments and the supporting financial institutions, which are related to social aspects of production forest /agro-forestry development projects. Production forest/agro-forestry development project will bring about chances for local people to participate in the project and utilise their land effectively.

The local people in the project area should have chances to participate in the monitoring and evaluation of the project.

4 Sustainability

 **Objective:** This chapter aims to describe the sustainability of project on technical, economic, environmental, and social aspects

Input data	Data analysis	Outputs (*)
(1) Every aspects of the project	(1) What would ensure the sustainability of the project?	(1) Sustainability of technical aspects (2) Sustainability of economic aspect (3) Sustainability of environmental and social aspects

(*) Depending upon the projects, contents of the sub-chapters (economic sustainability and environmental and social sustainability) may be combined with the relevant chapters such as the financial and economic analyses (Chapter 1), evaluation of environmental impact (Chapter 2), and evaluation of social impact (Chapter 3) of Part III Project justification.

(1) **Sustainability of technical aspects (Item 4.1)**

This sub-chapter assesses the technical viability of the project: whether the project's technical design conforms to the technical standards of the governments and reflects the needs of the local people in the project area.

The analysis may begin with confirmation of suitability on the basis of technical point of view applied for each silvicultural measure (technical design) based on the analysis below:



Key word: Sustainability

Sustainability is defined as the durability of the benefits and development effects produced by the project after its completion. It is expected that the benefits and development effects realized through the project will last or even grow after completion of the project.

- 1) Compliance with existing legal documents including technical guidelines in the current sectoral documents.
- 2) Suitability with natural conditions and existing technical practice of production in the project area (through the site survey in the project area and any other places of similar conditions). It may be also necessary to study viability of the harvesting measures, e.g. felling methods and logging methods.

The feasibility of harvesting productivity (as in the harvesting plan) will be also confirmed:

- 1) Confirm the feasibility of plantation productivity as predicted (by comparing silvicultural measures to be applied with productivity obtained in the project area or any other places of similar conditions)
- 2) Confirm the feasibility for the annual afforestation area (as planned)

(2) **Sustainability of economic aspect (Item 4.2)**

This sub-chapter describes economic sustainability of the project. The following points may be considered:


- 1) Relevance and consistency of the proposed financial support with the policy directions of the governments and financial institutions;
- 2) Sufficient financial support in light of the requirements of the project;
- 3) Availability of the self-funded capital of the farmers, organizations, and/or the implementing agency for the project, including their in-kind contributions;
- 4) Extent of certainty to which the project contributes to improvement of household's economy;
- 5) Prospect for long-lasting demand of the target products of the project within the target and potential markets;
- 6) Technical and managerial capacity of the implementation group to maintain the project; and
- 7) Appropriateness of the institutional form in light of the local institutional practices, including the amount of budget.

(3) **Sustainability of environmental and social aspects (Item 4.3)**

This sub-chapter describes the sustainability of environmental and social aspects. The following points may be considered:

- 1) Good impact of the project on the environment in the project area;
- 2) Extent to which the social environment of the project is to be improved in terms of: community relations, spiritual life, and the rippling or multiplying effects of these impacts into neighboring areas;
- 3) Creation of employment opportunities for the local people; and
- 4) Improvement of the awareness of people in the project area in terms of environmental and social aspects.

5 Project risks and mitigating measures

 **Objective:** This chapter aims to describe possible negative impacts on the project if risks occur and mitigating measures to minimize them.

Input data	Data analysis	Outputs (*)
(1) Every contents relevant to the F/S report (2) PDM	(1) What shall happen to the project if project's risks materialize? (2) What mitigating measures to negative impacts, if any, have been instituted in the project design?	(1) Project risks and mitigating measures
	Reference Volume IV Part I Chapter 8 Monitoring and evaluation of the project results	

(*) Depending on the projects, the contents of this chapter may be described in relevant chapters of Part III: the financial and economic analyses (Chapter 1), evaluation of environmental impact (Chapter 2), evaluation of social impact (Chapter 3) and sustainability (Chapter 4).

(1) *Project risks and mitigating measures (Item 5)*

This chapter describes assessment on possible negative impacts on the project once risks materialize and then propose possible mitigating measures. Risks should be explicitly identified in terms of their possible impact on the realization of the outputs, project objective, and overall goal of the project. For identification of risks, it would be helpful to think about the critical assumptions in the PDM by considering which conditions need to hold true in order to attain, for example, the project objective once the outputs have been realized.⁸ Those risks likely to have a substantial negative impact need to be analyzed in detail.

Project risks include



Key word: Risks and the critical assumptions in PDM

In general, "risk" can be defined as variation in potential outcomes and understood as a combination of the probability and the size of the event.

In the framework of the PDM, occurrences of negative risks correspond to the failure of various conditions described in the column of the critical assumptions. The critical assumptions play decisive roles in the success of the project but the likelihood of the critical assumptions being met cannot be determined and it is also difficult to control or overcome those risks. Critical assumptions may become facilitators or barriers to the performance of activities, the achievement of the project objective and overall goal. Thus, special attention should be given for monitoring of those risks.

⁸ Risks and critical assumptions are related but are opposites of each other since a risk is usually stated negatively while a critical assumption is stated positively.


risks on policy changes, risks on changes in prices (prices of products, labor, materials...), risks on project implementation (e.g. farmers' response to the project and stability of staffing), risks on environmental changes (soil, water, etc.), risks on technology impacting on productivity of plantation forests, risks on illegal loggings, risks on pests and diseases, and other disasters such as forest fires.

If the probability of occurrence of negative impacts is very high, a change of project components needs to be considered and/or risk mitigation measures need to be instituted in the project design. For example, formation of a farmers' union for the community-based projection may be a possible counter-measure to reduce illegal logging. If the project design cannot be changed or risk mitigation measures are not incorporated, successful implementation of the project is not expected.

Part IV. Conclusions and Recommendations

As a results of the analysis in the previous parts (Part I, II and III), Part IV presents the conclusion and sets forth outstanding issues with recommendations.

1 Conclusions


 **Objective:** This chapter provides conclusions of the feasibility study.

Input data	Data analysis	Outputs
(1) The whole F/S report	(1) Is the project ready for implementation?	(1) Conclusion

(1) Conclusion (Item 1)

This chapter confirms the feasibility of the project by defining major expected project outputs, and expected effects of the project. This will be followed by Chapter 2: recommendations.

2 Recommendations

 **Objective:** This chapter recommends keys issues that should ensure the implementation of the project as planned.

Input data	Data analysis	Outputs
(1) The entire F/S report (2) Assumptions	(1) What are the key points that need to be addressed prior to and during the implementation of the project?	(1) Recommendations

(1) Recommendations (Item 2)

This chapter provides an outline of the F/S team’s perception of how to deal with the identified outstanding issues as recommendations. For example, recommendations may be on policy (lands, accessibility to credit loans, product prices...), project costs, capital sources and disbursement, and/or the organization for project implementation, project acceptance, and approval.

Annex

The annexes to the feasibility report contain the detailed supporting data and information for the project. While the main text of F/S report is written with the general users in mind, the annexes will be prepared with the specialist in mind. Among others, annexes may include the following topics:

Annex 1: Project Design Matrix

Annex 2: Physical features of the project area

Annex 3: Socio-economic data

Annex 4: Cost tables

Annex 5: Financial and economic analyses

Annex 6: Forest inventory log book of the forest land

Glossary

The following are the key words which appear mainly in Volume III of the F.S Manual: Procedure for Preparing of a Feasibility Study Report. The numbers in the brackets after each key word indicate page numbers of this manual where relevant key words are explained. There are a few key words explained in the IP Manual (Book 3), which are indicated with the page numbers of the IP Manual.

Assistance period and project period (P.52):

In this manual, the following terms will be used to explain the two different time phases associated with the project implementation: “assistance period” and “project period.” The objective of the assistance is to be achieved within the period of external assistance while the project objective should be achieved within the project period.

The assistance period is the period when external assistance is sought for the development of major investments under the project, such as land preparation and planting of seedlings. If the project is to be financed through the financial assistance from financial institutions (loans in this case) and/or governments (subsidies), the assistance period may coincide with the loan disbursement period in the former case and with the duration of the subsidy program in the latter case.

The project period covers the entire duration of the project, including the assistance period. If development of a plantation is carried out over a number of years, the project period may be set to cover up to the harvesting year of the trees planted in the final year of the assistance period. Financial and economic analyses will be conducted on the project period.

Average farm household and sampling method (P.29):

For the analysis, it would be helpful to think about “an average farm household” (or representative sample household) derived from the data analysis together with the extent of the dispersion or deviation from the average.

If an appropriate sampling method (probability sampling) is used for the household socio-economic survey, the results will provide a good picture about household economic conditions of the local inhabitants in the project area.

However, if the questionnaire-based interview survey was conducted through the non-probability sampling method mainly due to limited availability of time or budgets, it is difficult to assess how closely the sample represents the population as it is not supported by the statistical techniques. Nonetheless, it would provide a preliminary profile of some of the households living in the project area.

Classification of current forest land use situation (P.33):

The current land use situation in the forest land can be classified into (1) forested land and (2) un-forested land, in terms of its actual use, with the following possible breakdowns as an example:

1. Forested land
 - 1-1 Plantation (can be classified by species and by age)
 - 1-2 Natural forest
2. Un-forested land
 - 2-1 Bare land
 - 2-2 Crop land
 - 2-3 Fruit garden
 - 2-4 Others

Community-based organization and community mobilization (P. 20 of IP Manual): In these F/S and IP manuals, community-based organization (CBO) indicates a group of individuals/farmers in a local community who pro-actively participates in the project. The implementing agency respects the intention of the groups to carry out the project. When the project is implemented through the CBOs, procedures and schedules to organize CBOs need to be suitable for the local community. It is important to disseminate project-related information to the local people in advance in order to confirm their needs and reflect them in the implementation of the project.

Development impact indicators and progress indicators (P.76):

Indicators are target figures that serve as yardsticks for measuring the achievement of outputs, project objective, and overall goal. These indicators comprise such elements as type, quantity, and quality of data to be collected. Time, location, and activities for data collection also need to be planned.

Indicators can be classified into “development impact indicators” and “progress indicators.” Development impact indicators measure the achievement of the project objective and the overall goal while progress indicators measure the achievement of the project objective, the outputs of the project, project activities, and also inputs. The indicators corresponding to the inputs can be called input indicators.

In selecting these indicators, the F/S team should bear in mind the practical constraints imposed by staffing and budgetary limitations and the difficulty of obtaining and maintaining data. Therefore, the number of indicators should be kept to a modest level which is consistent with institutional capacity.

Financing ratio and non-eligible items for financing (P.68):

Financial institutions typically finance only a certain percentage of expenditure in any category (not finance 100% of the expenditure).

Financial institutions and/or any other supporting agencies may also consider certain items not eligible for financing. For example, the Japan Bank for International Cooperation (JBIC) does not finance with its usual project loan: (1) general administration expenses; (2) taxes and duties; (3) purchase of land and other real property; (4) compensation; and (5) other indirect items.

Implementing agency and community-based organization (CBO) (P.73):

In this manual, the implementing agency is defined as an organization/entity that is responsible for achieving the project objective. For this organizational objective, the implementing agency is staffed with personnel whose responsibilities are clearly defined and is equipped with planning and controlling functions for the project implementation. On the other hand, a Community-Based Organization (CBO) is defined as a group of individuals/farmers in a local community that facilitates community needs and voluntarily participates in the project. Because of these characteristics, the implementing agency respects the intention of the groups to carry out the project. A CBO may be a group of participants in the project as beneficiaries but is less likely to perform a role of an implementing agency.

Implementation Plan and Feasibility Study (P. 4 of IP Manual): The Implementation Plan (IP) aims to provide personnel involved in project implementation, particularly those of the implementing agency, with a plan of how to implement the project. It will also give potential supporting agencies (e.g. financial institutions, government agencies, and foreign donor agencies) information on how the implementing agency will carry out the project to its completion. Moreover, it focuses more on how and when the project is to be implemented than on why the project needs to be executed. The duplication of descriptions in the F/S report and IP should be reduced while the important implementation arrangements for the project will be further elaborated in the IP.

Land classification and forest land (P.25)

According to the Land Law, the nation's land is classified into agricultural land, non-agricultural land, and un-used land. Forest land, which falls into the category of agricultural land, is further categorized into production, protection and special-use forests by legal status.

Land unit (P.37):

Land units are identified by a combination of the following five elements:

- (1) Topographical element
- (2) Slope
- (3) Soil type
- (4) Mother rock
- (5) Soil depth

For example, DIF\$ refers to the land unit characterized by hilly terrain (D), less than 8 degree of slope level (I), Feralite soil (F), and mother rock being the shale group with soil depth of more than 80cm(\$).

Management, implementation and supporting groups (P.72):

Organizations/individuals involved in project implementation and operation can be classified into: management group, implementation group including implementing agency, and supporting group.

The management group is a decision-making body that sets policy directions for the project implementation and supervises the operation. The implementation group including implementing agency is responsible for execution of the project under the policy direction set by the management group. The implementing agency is responsible for achieving the project objective. The supporting group is to support implementation of the project.

Planting site (P.53):

Planting sites will be the target area for the project implementation. Various criteria will be applied such as the lack of conflict, land with high productivity, etc.

Potential market (P.39):

Potential market is defined as an area or industries within which the target products of the project could be sold in an economically sustainable manner.

Preparation period and operation period (P.59):

Time-bound actions will be described for the project implementation schedule. The schedule is generally divided into the two periods: preparation period and operation period.

The preparation period is a period in which activities relating to the preparation work for the project are carried out. Activities during this period may include establishment of an implementing agency, set-up of financial arrangements, etc.

The operation period is a period during which physical operations are to be undertaken in the field. Activities during this period may include planting and tending, construction of infrastructure facilities, implementation of training activities, and so on.

Procurement methods (P.28 of IP Manual): There will be four typical procurement methods: competitive bidding, limited bidding, local shopping and direct contracting. Competitive bidding is competitive bidding by open advertisement. Limited bidding is competitive bidding by direct invitation without open advertisement. Local shopping is a procurement method based on comparing price quotations obtained from several suppliers to ensure competitive prices. Direct contracting is a method used to directly appoint a specific supplier/contractor/consultant. In most cases, competitive bidding by open advertisement is considered as the best practice, particularly when public funds are to be used with due attention to considerations of economy, efficiency, transparency in the procurement process and non-discrimination among eligible bidders for procurement

contracts. However, under special circumstances in which competitive bidding by open advertisement may not be appropriate, other procurement methods may be considered.

Project (P.49):

An undertaking for the purpose of achieving a project objective and overall goal within a given budget and time period

Project area (P.24):

In this manual, the project area is defined as areas where project activities are undertaken. It is delineated by administrative boundaries. To avoid potential confusion, the term “project site” is not used but the terms such as planting sites and harvesting sites are used to indicate specific locations where specific project activities are undertaken.

Project component, activities and inputs (P.51):

A project component is a group of activities that share common characteristics and scope, and that contribute to a single output of the project.

Project activities are specific actions intended to produce outputs through the efficient use of the inputs.

Inputs are personnel, funds, equipment, land, and facilities necessary for the implementation of the project.

Project components, activities, and inputs are the means by which the project objective will be pursued via realization of the outputs of the project.

Project costs, costs during the assistance period, baseline costs and contingencies (P.64):

Baseline costs are the best estimates of project costs required at a specific date, assuming that the quantity of works, goods and services, and relevant prices are known, that quantities and prices will not change during the project period, and that the project will be implemented as planned.

Contingencies are allowance for adverse conditions which will be added to the estimate of the baseline costs. Physical contingencies are included in the project costs to allow for uncertainties and to compensate for possible inaccuracy in the estimates of work quantity. It is often calculated and expressed as percentages of baseline costs. For example, the physical contingency for civil work in difficult terrain may be set at 15% of the baseline cost and the physical contingency for the definable civil works such as road surfacing and canal lining may be 5% of the baseline cost. Price contingencies may also be estimated (on yearly baseline costs plus physical contingencies) to demonstrate the probable escalating effect of inflation on project costs and hence the level of finance required.

The baseline costs, physical and price contingencies will be calculated to estimate the project cost during the project period. The estimate during the assistance period is named as “cost estimated during the assistance period” in this manual.

The planning of an assistance period (or disbursement period) for a production forest/agro-forestry development project may depend on the needs of borrowers/recipients, requirements of external assistance agencies, and the nature of species planted. The F/S team should bear in mind that the longer the time span over which predictions of costs and benefits must be made, the more likely their inaccuracy, leading to adjustments in the project plan during the assistance period.

Project objective, overall goal and outputs (P.49):

Project objective is defined as an objective that is expected to be achieved as a result of the implementation of the project. If external assistance is provided, the objective of the assistance is defined and is to be achieved by the end of the assistance period. The objective of the assistance is regarded as an interim objective en route to the project objective. The project objective and the objective of the assistance are revealed in the form of specific benefits for the target beneficiary of the project.

Overall goal is defined as development effects that are expected to be attained as a result of the project objective being achieved. The overall goal should be achieved possibly three to five years after the completion of the project period.

Outputs are defined as intermediate objectives that must be achieved by implementing project activities in order for the project objective to be attained.

Risks and the critical assumptions in PDM (P.86):

In general, “risk” can be defined as variation in potential outcomes and understood as a combination of the probability and the size of the event.

In the framework of the PDM, occurrences of negative risks correspond to the failure of various conditions described in the column of the critical assumptions. The critical assumptions play decisive roles in the success of the project but the likelihood of the critical assumptions being met cannot be determined and it is also difficult to control or overcome those risks. Critical assumptions may become facilitators or barriers to the performance of activities, the achievement of the project objective and overall goal. Thus, special attention should be given for monitoring of those risks.

Sustainability (P.84):

Sustainability is defined as the durability of the benefits and development effects produced by the project after its completion. It is expected that the benefits and development effects realized through the project will last or even grow after completion of the project.

Target beneficiary and beneficiaries (P.50):

Target beneficiary (TB) is defined as the principal group for which positive changes are intended as a result of the project implementation. In many cases, the target beneficiary is selected from within a group of beneficiaries of the project. The project objective takes the form of specific benefits for the target beneficiary. In case of Model F/S of Thai Nguyen Province (Book 4-1), for example, the target beneficiary is “smallholders which have red books for forest land in the project area” while beneficiaries include not only TB but also suppliers of input materials like seedlings, buyers of wood materials, and so on.

Target markets of the project (P.43):

The target markets are important clients as they have advantages in production scale and transport distance, and are expected to have a long-term relationship and regular interaction with the project. Priority should be given to such target markets for a supply of forest /agro-forestry products.

Reference:

FAO [1993], Guidelines for the design of agricultural investment projects, FAO Investment Centre Technical Paper 7.

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World Bank [1998], Project Implementation Plan (PIP) Guidelines, the World Bank

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