

PART II. Lessons learned from the feasibility study

Chapter 1. Lessons learned from preparation of model F/S in Thai Nguyen Province

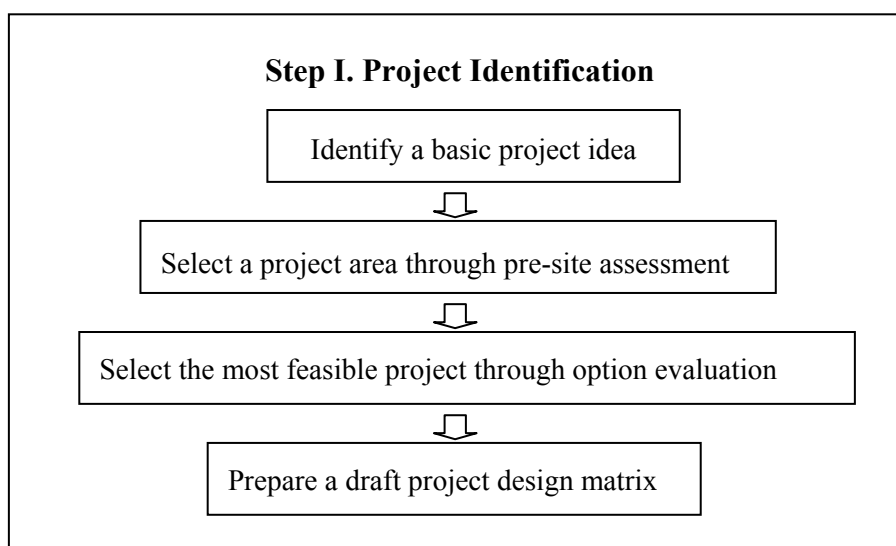
1.1 Introduction

The lessons learned are based on experience gained through the process of a feasibility study implemented in Thai Nguyen, a core province of Vietnam.

1.2 Lessons learned from feasibility study on forest development in Thai Nguyen Province

The lessons learned are compiled in accordance with the process of the feasibility study from the project identification stage to F/S reporting. Lessons learned for training and technology transfer are also described at the end (2.6 Lessons for Training and Technology Transfer).

1.2.1 Project Identification



1.2.1.1 Identify a basic project idea

The target beneficiaries were not clearly identified at the basic idea stage of project preparation. Because of this, it took longer to carry out the feasibility study in a more focused and uniform manner.

If a basic project idea (including establishment of the target beneficiaries) is not identified clearly at the project identification stage, it is more difficult to examine details such as project objectives, project activities and the implementing agency in the later stages of project concretization in light of the interrelation among these project details.

1.2.1.2 Select the most feasible project through option evaluation

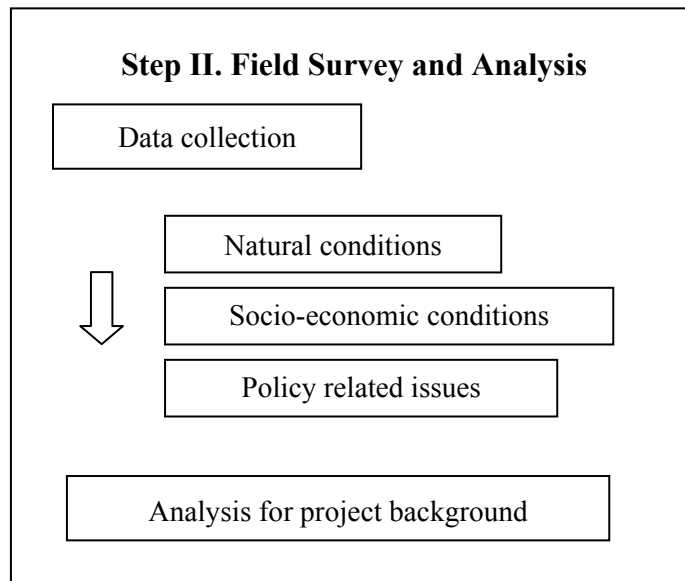
There seems to be some confusion about the use of terminologies such as *implementers* and *implementing agency*. It must be recognized that the implementing agency, one of the key project elements, is not the individual/organization that simply performs afforestation but is the individual/organization with the responsibility of making sure that the project objective is achieved. When the project options for the implementing agency were reviewed in Thai Nguyen Province, the appropriateness of assigning the role to farmers was discussed. It is deemed difficult for individual farmers to take responsibility for the achievement of the project objective, and they are therefore less likely to become an implementing agency, although they may become implementers in the respective forest plots under the project.

1.2.1.3 Prepare a draft project design matrix

In a project, inputs are applied and activities begin after the pre-conditions are fulfilled. It is expected that outputs should be achieved when the activities have been conducted. In order to satisfy this logic, it is necessary for the critical assumptions at the same level as the activities to be fulfilled. This relationship continues to apply at every level moving up the PDM, and is referred to as the *vertical logical relationship* of the PDM.

When preparing a project, inputs, activities, the project objective and the overall goal must be examined to clarify the means-ends relationships among the elements in the vertical logic of the PDM. The detailed examination of the project in Thai Nguyen Province started without confirming this relationship.

1.2.2 *Field Survey and Analysis*



1.2.2.1 Data Collection

1) Natural conditions

With regard to information collection, the importance of gathering primary data and information in the field is often neglected. This is because the authority of information other than that publicized by public institutions (such as the government statistics office) is less likely to be recognized. It is thought that the reliability of primary data and information collected by individuals is low, and that such information can therefore often not be accepted. This means that the importance of field surveys and data collection is not sufficiently recognized, so the content of the data and information collected is not carefully examined. Indeed, there are cases where documents gathered are simply recorded as data without analysis. There is also a tendency for information to be collected only from governmental agencies. Furthermore, as information sharing is not customarily practiced, the collection of information is very difficult. In Vietnam, it is necessary to understand that data and information are items that are purchased.

When conducting a field survey, it is necessary to examine how the results will be reflected in the plan. With this in mind, there is a need to identify target areas to be surveyed and decide the items and accuracy required from the survey.

2) Socio-economic conditions

For Community Consultation Meetings (CCMs), it is necessary to involve the District and Commune Offices. Specifically, at the preparation stage of the CCM, it is important to follow appropriate procedures in sending formal documents to the relevant government offices and participants. This includes sending written invitations from the District Office to Commune Offices and to each participant. In addition, facilitator training is important in the implementation of a CCM. In Thai Nguyen Province, extension workers of the Commune Office were mobilized as facilitators and details of the operation plan were explained. This experience demonstrated the critical importance of training extension workers.

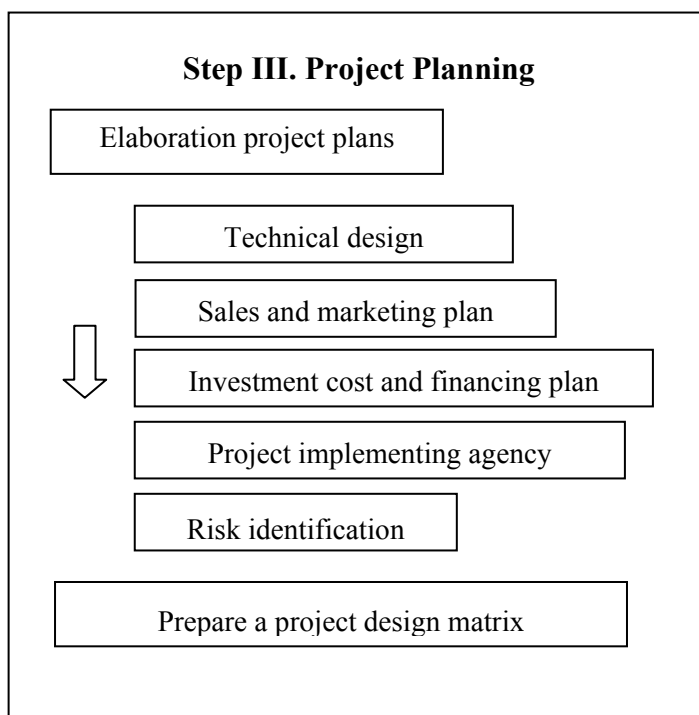
For the sample survey of socio-economic conditions, the person in charge of rural community analysis at the local sub-contractor considered asking village leaders to prepare a list of farmers interested in participating in the project. This was a result of lessons learned from previous projects showing that the interest of farmers in participating in the operation is important for smooth implementation of a project. However, a rural socio-analyst should be aware that such a purposive selection method of sampling is not compatible with the random-sampling method and it is difficult to assess how closely the sample represents the population as it is not supported by statistical techniques. The primary advantage of non-probability sampling is found at the preliminary stage of the study. As an example, it would be useful when the analyst wishes to have a preliminary understanding of some of the key issues underlying the study. For the method of selecting participants/interviewees, consultation should be made with the staff at the Commune Office and with village leaders.

For stakeholders analysis in conjunction with the progress of project preparation, it sometimes happens that the framework in which the stakeholders analysis is conducted diverges from the framework of the project. As an example, even though the project framework is in forestry development, the stakeholder analysis may extend into other fields such as water supply and power distribution development. It is therefore necessary to conduct the stakeholders analysis in consideration of the framework of the project.

3) Policy related issues

For local economic activities and basic development plans/policies in the project area, common understanding should be shared among (1) local government offices, (2) individuals and entities that are economically active (e.g. farmers, land owners, forest enterprises etc.), and (3) related People's Committees. It is therefore important to communicate sufficiently with these parties. The relevant information will be incorporated into the "project background" of the F/S report. Specifically, People's Committees are likely to have a good grasp of the essential ideas, policies, trends and reactions of economically active bodies in the project area as well as the authority to make decisions. Their opinions need to be sufficiently considered and taken into account through the enhancement of communications.

1.2.3 *Project Planning*



1.2.3.1 Elaboration of project plans

1) Technical design

As technical design tends to depend excessively on the government's existing technical standards, no such design has been established for field operations that are suitable for the conditions of the project area. It is necessary to survey the growing status of the plantation in the project area and surrounding areas as well as the details of operations being applied to such plantation. Then, based on these survey results, it is important to revise the existing technical standards established by the government and to introduce the necessary technical design.

2) Sales and marketing plan

When examining the price outlook, transport conditions, and sales conditions of the target products, it is necessary to determine the target market. Then, based on the survey results for demand and supply conditions and the target product price, it is also necessary to consider the future trends of the target products.

3) Investment cost and financing plan

Participants of the training program relatively quickly understood a conceptual explanation of cash flow, including the effects of increases/decreases in accounts receivable on cash flow and opportunity costs. However, some found it difficult to comprehend the effect of changes in cash balance on cash flow.

Participants faced difficulties preparing a repayment schedule.

4) Project implementing agency

Project implementation structure tends to follow that of Program 661 for establishing protection forests, which has been the mainstream of afforestation activities with government subsidies. It is also important to examine the implementing agency from a new perspective in which afforestation activities are carried out with loans from financial institutions. In this case, it should be recognized that the implementing agency is responsible for achieving the project objective and that related administrative agencies have important roles in establishing the implementing agency.

The disbanding and reorganization of state owned enterprises (SOEs) and privatization are progressing under the current economic policy in Vietnam. It is therefore predicted that the number of SOEs will decrease, and that investment from the private

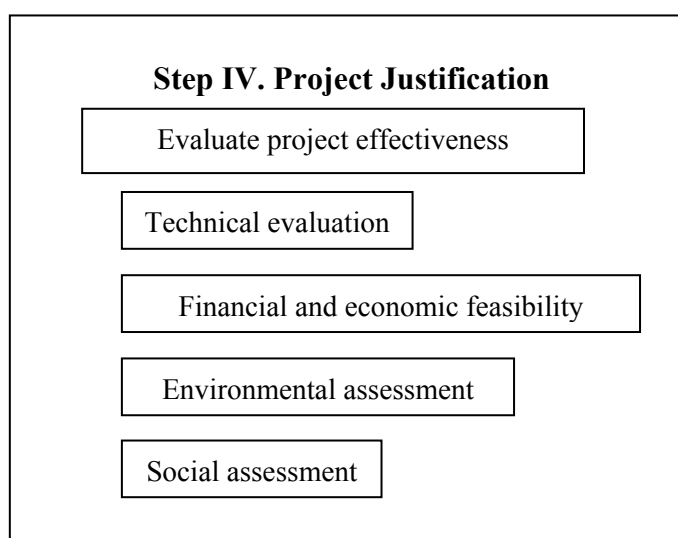
sector will be encouraged. In the forest sector, it is still difficult for farmers to establish a cooperative based on their own financial contributions. For the purpose of formulating an afforestation project in which farmers can participate using domestic financial sources, it is therefore important to carefully examine and select the implementing agency.

In the case of economic activities under the free economy (especially if compared with planned economies), it is necessary to understand their advantages and disadvantages and their internal and external conditions, and then to examine countermeasures for the issues they face. This is important when forming a consensus among stakeholders regarding an implementing agency. It is necessary to go through the process of considering several implementing agencies and examining their characteristics.

1.2.3.2 Prepare a Project Design Matrix

Similar to the draft Project Design Matrix formulated at the project identification stage, it also is necessary to re-examine the relationship of inputs, activities, outputs, the project objective and the overall goal to satisfy the vertical logical relationship of the PDM at the project planning stage. If the project plan is set forth without consistency in these relationships, the activities may not tie into the outputs of the project and the project objective may not be achieved.

1.2.4 Project Justification



1.2.4.1 Technical Evaluation

In order to evaluate project plans (especially those for afforestation/agroforestry) from a technical viewpoint, it is necessary to explain that the afforestation/agroforestry technology adopted in a project is suitable, consistent and fitting for the technical standards, natural conditions and existing techniques. It should also be confirmed that it is possible to establish the plantation/agroforestry plots and to harvest the predicted production yields based on the silvicultural/agroforestry technology adopted.

As described above, for technical evaluation it is important to confirm the appropriateness of the afforestation/agroforestry technology to be used for establishing plantation/agroforestry plots and assurance of the predicted production yield

1.2.4.2 Financial and Economic Feasibility

1) Application of theory into practice

(i) Participants of the training program more or less understood the concept of discounting based on the time value of money. However, even though the concepts of the time value and the present value of money were understood, some participants found it difficult to put them into a spreadsheet and find ways to make use of them in a feasibility study. As an example, when the price of land-use rights (or the land price) is counted in the cash outflow for the initial fiscal year as an investment cost, and later treated as a cash inflow in the liquidation year after completion of the project, a participant asked if these would cancel each other out. Because the time value of money was not taken into consideration, the amounts looked the same to him.

(ii) Differences between with- and without-project cases and before- and after-project cases were not well understood.

(iii) Even though participants were used to unit prices on a per-hectare basis, calculations beyond one hectare were a weak point. Some participants also found it difficult to prepare a plan in accordance with the implementation schedule and then reflect the plan into the cash flow table.

2) Financial analysis from the total investment-viewpoint and the owner's viewpoint

Some participants found it difficult to perform analysis from different perspectives such as from the viewpoint of a farmer or a forest enterprise, in addition to financial analysis from the viewpoint of total investment. Specifically, they struggled to calculate the amount of the principal and interest using a spreadsheet to construct a repayment schedule.

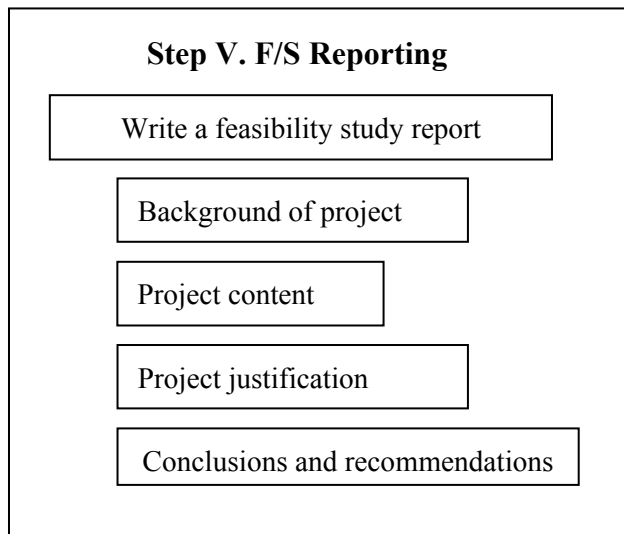
3) Analysis process and presentation skills

It is considered that because some participants did not prepare tables in the spreadsheet in accordance with the logical sequence, they were not able to provide a persuasive explanation to others. Some also had simple issues with presentation skills such as forgetting to use the unit of quantity, while others were not able to grasp what the numbers meant. There were also occasional entry-level mistakes such as not knowing the difference between “.” and “,” in Excel operation. These issues meant that they were unable to perform a sensitivity analysis by linking formulas and values in different cells of the English version of Excel

1.2.4.3 Environmental Assessment

The necessity of environmental assessment is recognized in Vietnam, and the implementation of such assessment is specified in the Environmental Protection Regulations. However, as there are no detailed regulations for any implementation enacted, no guidelines exist on how this should be conducted. Investigation of the effects of project activities on the environment is needed using a matrix such as the one attached.

1.2.5 *F/S Reporting*



The F/S report is comprised of four parts: project background, project contents, project justification, and conclusions and recommendations. However, unless the relationships between these different parts are understood, the uniformity of the report cannot be maintained. Close communication and discussion will therefore be required among the F/S study team members preparing the different parts of the report, and responsibility needs to be assigned to a person to maintain the consistency of description in the report. Furthermore, to maintain this consistency, it is important to define terminologies and to standardize the depth of description.

1.2.6 *Lessons for Training and Technology transfer*

1.2.6.1 *Technology Transfer through Simplification, Understanding, and Actions*

For technology transfer, the relevant details must be selected and substantially simplified to perform the transfer. As there are several people whose participation cannot be secured unless they are convinced, use concrete examples that are as clear as possible to aid understanding.

1.2.6.2 *Introduction of Work Units*

The preparation process of the feasibility study report is undertaken by separating the entire process into several training modules called Work Units (WUs) that are easy to

control. Clarify the input and output of each WU and clarify the process through to producing an output. Develop the image of completing the feasibility study by combining the WUs.

1.2.6.3 Interlink of Theory and Practice

A training program integrated with theory, implementation and training in the field is important. It is also important not to conduct transfer of technology based simply on verbal theoretical explanations, but to use a method that shows the technology through practice. Training should therefore be conducted by making simplified presentations, giving participants a lot of practice-type questions to perform, visiting the project area, interviewing farmers, inviting the management of factories that process wood materials and/or agroforestry products and financial institutions to lectures, organizing presentations by Provincial Study Teams (PSTs) from the core province, and letting participants discuss in groups. The subjects, target students, method of teaching and timing of teaching also need to be carefully reviewed beforehand.

1.2.6.4 Future Direction (Training, Process Improvement)

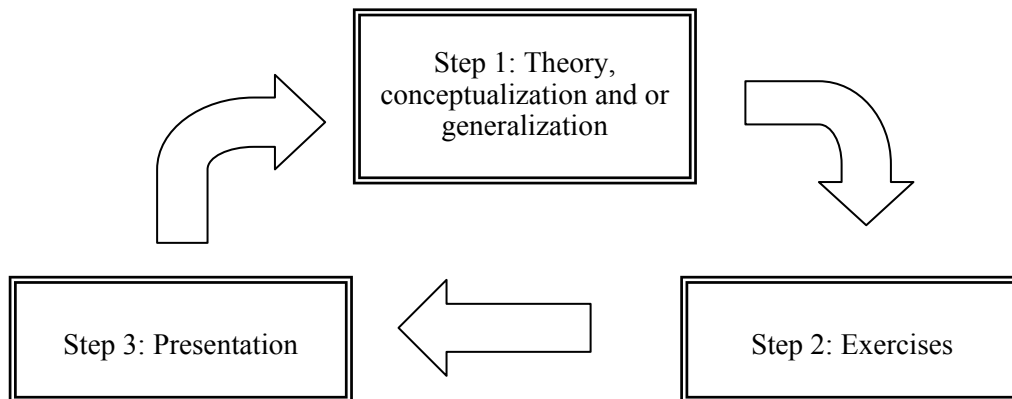
1) Rather than simply teaching theory, also include a lot of practical exercises and individual and/or group exercises using Excel by making use of cases that are easy to understand for Vietnamese people. After such exercises, it is important to give participants a chance to make presentations in front of others. Theoretical explanation by the instructor, exercises by participants and presentation of these exercises are described in the cycle shown in Figure 1 below.

2) For the training of financial and economic analyses, perform practice-type problems that will enhance their ability to put ideas into an Excel spreadsheet. As examples, the following steps can be taken: (a) calculation of net cash flow based on an afforestation plan → (b) calculation of discount factors from a discount rate → (c) calculation of present value → (d) calculation of net present value.

3) Training should include a visit to the project area, collection of data and information, and financial analysis based on the data and information collected.

4) For foreign experts, one effective method is to first have them transfer concepts to their assistants or interpreters, and then have the assistants or interpreters provides explanations to participants in the training courses.

Figure 1: Process of theoretical presentation, exercises, and presentation of the results



Step 1: To begin with, the instructor in charge of the training course will explain the theoretical aspects of the subjects. Clear and concise explanation will be given in consideration of practical application.

Step 2: The theoretical explanation will be followed by practical exercises. Participants will be asked to apply the theory to the exercises. This is done either through an individual exercise or in group work.

Step 3: After the exercises are complete, participants will be requested to make a presentation of the results. This presentation and question and answer session will provide participants with a chance to re-examine their application of the theory and outputs of such application.

DRAFT FORMAT OF ENVIRONMENTAL IMPACTS ASSESSMENT MATRIX

Project activities/Environmental factors	Land preparation	Planting	Tending	Protection	Harvesting	Seedling production	Infrastructure construction
1. Soils (erosion, salinization, deterioration of fertility)							
2. Lands (degradation, landslides, deterioration of wind breaking, fire prevention and sand breaking function)							
3. Surface water (water level, water quality, sediment deposit, flood and drought)							
4. Ground water (water level, water quality,)							
5. Atmosphere (air pollution, generation of CO ₂ , microclimate change)							
6. Fauna and flora (endemic species, valuable species, biodiversity, natural habitat)							
7. Landscape (valuable landscape)							

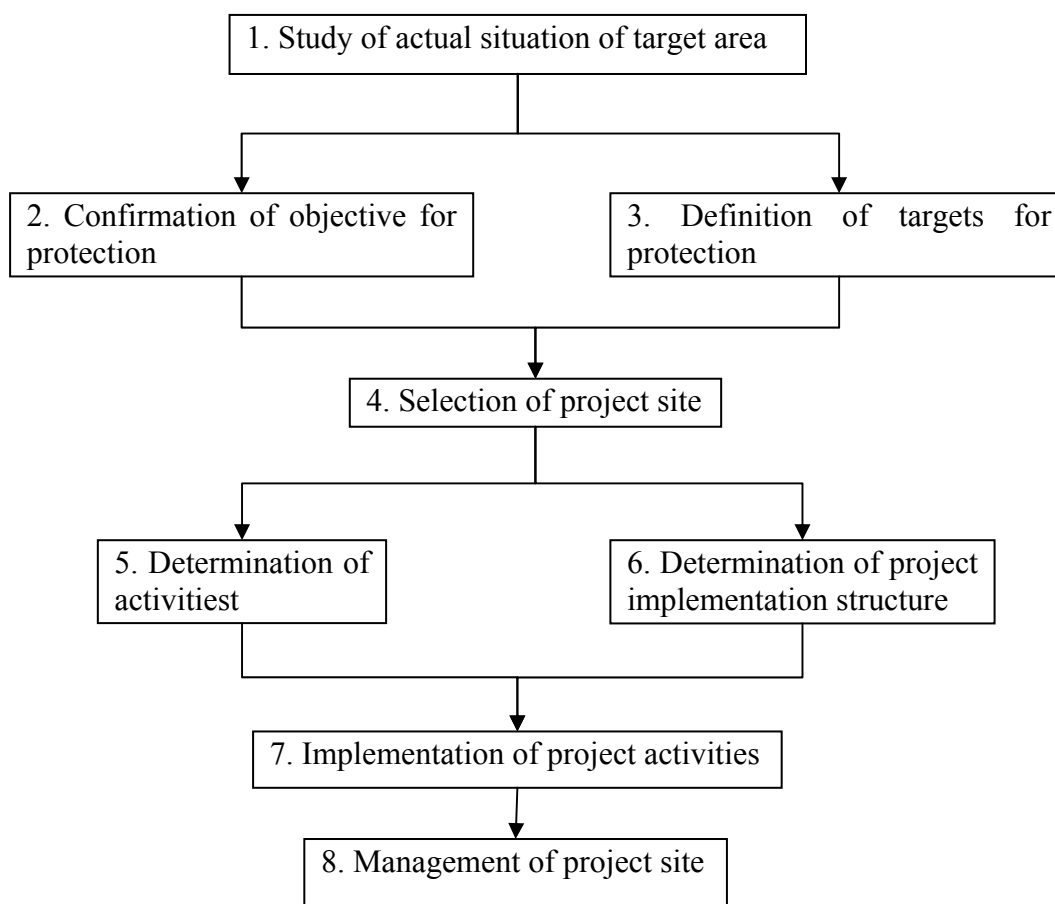
Chapter 2. Lessons learned for establishment of protection forests

(in the case of a JBIC project for protection forest)

2.1 Introduction

Expertise in the establishment of protection forests stems from the experiences, lessons learned and data from the JBIC project conducted in Quang Nam Province. As Quang Nam is one of the participating provinces of the FICAB project, the experiences, lessons learned and data from the JBIC project are summarized as technical know-how in the feasibility study manual for reference when conducting feasibility studies for protection forest projects.

The experiences, lessons learned and data are described based on the flow chart shown below. These lessons are elaborated under the responsibility of the FICAB project.



2.2 Activities for protection forest project

(1) Study of actual situation of target site

After the serious flooding of central Vietnam in 1998, a study was conducted based on the results of flood-damage investigation into whether reservoirs in the province are vulnerable to damage by flooding, comparing site factors such as topography, soil, rainfall etc.

It is important that the actual situation of the target site for the project is investigated using damage caused by past flooding as a reference, and that such reference is utilized for measures such as water conservation and reducing soil erosion in the protection forest project.

(2) Confirmation of objective for protecting

a) To reforest and maintain watershed protection forests in order to increase forest coverage for soil erosion control, water regulation, environmental improvement and mitigation of natural disasters (flood and drought).

b) To improve the livelihood of residents in the watershed area by creating employment and income generation opportunities through the activities of the project.

c) To improve the capacity of provincial and local governments and community groups of rural households in planning, implementing, and managing afforestation and forest protection

(3) Definition of targets for protecting

The targets for protection are the four reservoirs of Viet An, Thach Ban, Vinh Trinh and Phu Loc in three districts. It is recognized that these four reservoirs play a special role in the agricultural production of Quang Nam Province, contributing to assuring food security, livelihoods and job stability for local people in the three districts.

As described above, it is important to make clear targets for protection in consideration of the roles they play..

(4) Selection of project site

The project site is the watershed area for the four reservoirs and six communes are selected as targeted communes in consideration of the natural condition of the site. The watershed area is divided into crucial watershed protection basin and a buffer zone, and base on the forest status, the crucial watershed protection basin is subject to appropriate silvicultural activities.

(5) Determination of activities

The project activities are determined as follows.

a) New afforestation

b) Assisted Natural Regeneration (ANR) including additional planting

c) Protection of existing forest

d) Infrastructure (construction of access road, nurseries, firebreak line, forest-watch towers and forest guard stations.)

e) Enlightenment and extension services for the rural households.

Mixed planting of A.hybrid as a fast-growing species and Hopea odorata as an indigenous species tackles the problem of monoculture. After the fast-growing species is harvested, forest protection functions such as water conservation, soil erosion prevention etc. are maintained by the existence of the indigenous species.

Various silvicultural activities such as new plantation, assisted natural regeneration and protection of existing forest are introduced base on site condition, rather than simply applying new plantation. To support these silvicultural activities, infrastructure elements such as forest road, fire break lines, forest-watch towers etc. are allocated effectively, and enlightenment and extension services for rural households are conducted.

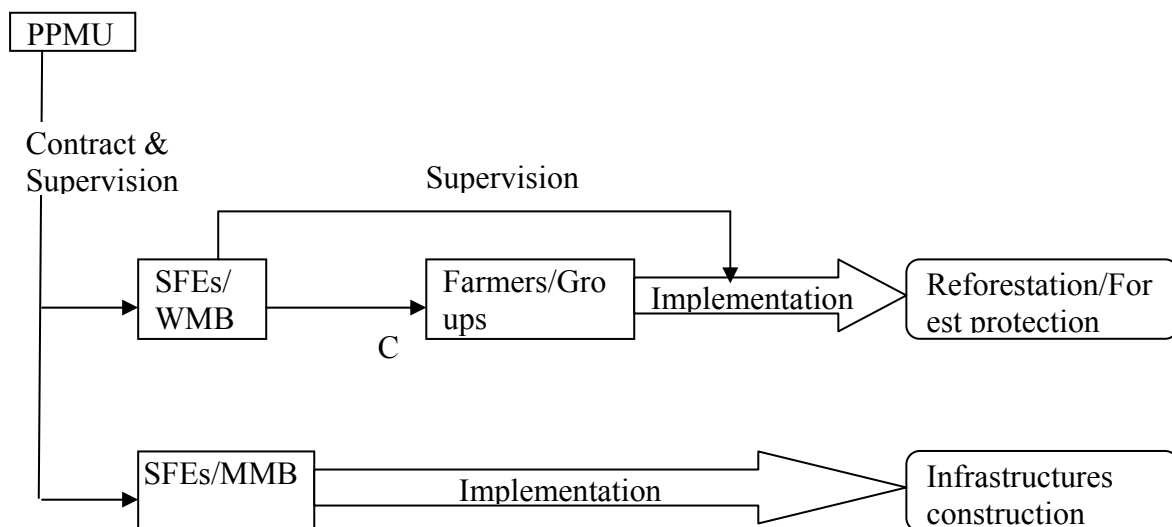
(6) Determination of project implementation structure

a) The PPC (Provincial People's Committee) is an investment owner at provincial level and is responsible for implementing the project through DARD.

b) The PPC establishes the PPMU (Provincial Project Management Unit) under DARD and the PPMU conduct project activities directly. It also makes contracts with SFEs(State Forest Enterprises) and the WMB (Watershed Management Board) for silvicultural activities and infrastructure establishment, and manages and supervises their implementation.

c) SFEs and the WMB make contracts with farmers/farmers' groups for the implementation of silvicultural activities and the farmers/farmers' groups conduct these activities. Infrastructures Construction is conducted directly by SFEs and WMB.

The flow chart for the structure of implementation is as follows.



d) Respective roles of related organizations

PPMU is not in charge of conducting project activities. The SFE and WMB, who have expertise in silvicultural activities such as planting, tending etc., are employed as contractors and project activities are conducted efficiently and effectively by these parties.

e) Cooperation among related organizations

At the provincial level, a steering committee is established with members such as the DPI (Department of Planning and Investment), the DOF (Department of Finance) and the Cadastral office. At the district level, a DPMU (District Project Management Unit) is established, and the chairmen of the commune people's committee are invited to the DPMU for discussion.

It is important to make a opportunity to exchange opinions among stakeholders at each level.

f) Participation of rural people

The procedure for obtaining the participation of rural people in the project is as follows:

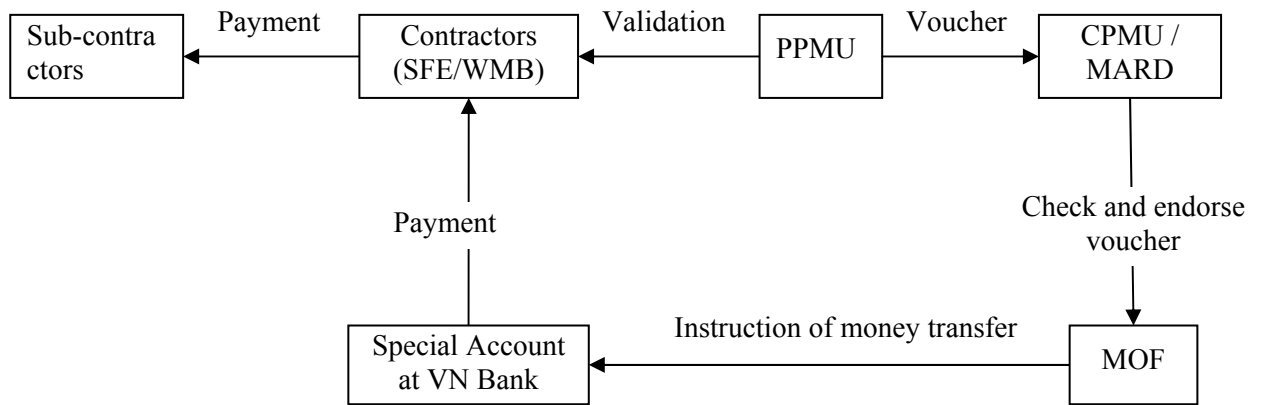
- Through extension of project-related information, rural people are invited to take part in the project.
- The SFE/WMB recruit farmers to participate in the project under the cooperation of the CPC, and farmers' groups are established based on their relationships as project activity implementers.
- TOR for activities is decided in each farmer's group, and a contract is made between the SFE/WMB and the farmers' group.
- Training is conducted based on the TOR for activities in each farmers' group, and then project activities are started.

To conduct the project activities, a procedure that reflects rural people's intentions is applied. In addition, farmers who participate in the project are recruited under the cooperation of the commune people's committee, so the joint implementation of the project activities with rural society is secured.

(7) Implementation of project activities

The flow of disbursement of project expenditure is as follows:

In the disbursement of project expenditure, it is necessary to apply for the documents required for payment through the related organizations. This means that it takes about two months for payment to reach contractors such as the SFE/WMB, which is not timely settlement. Such improper payment means that it is difficult for contractors to carry out project activities in a timely manner.



(8) Maintenance of project site

Planting sites are maintained by farmers as contractor subject to a management plan during three years after planting. However, after this period, no management plan is prepared and no management system is also established. As participating farmers have no interest in maintenance of planting site after completing the contract, there is a risk of problems such as forest fire, illegal logging and grazing in terms of site management. It is therefore necessary to take measures to secure the maintenance of the planting site by active participation of local residents, especially farmers, such as the establishment of a management board and allocation of the planting site to farmers etc. To introduce such measures, it is necessary to provide local residents compensation such as ownership of a share of the trees planted.

ANNEX

Annex 1: Handbook for the Socio-economic Survey

Handbook for the Socio-economic Survey⁴⁹

(Draft)

HANOI, 2005

⁴⁹ This “Handbook for the Socio-economic Survey” was drafted by the local consultant in collaboration with the JICA Study Team in 2005. Part of the handbook was referred to when preparing the main body of the F/S manual after necessary modifications in order to reflect information and experience newly gained and to keep terminologies and definitions in line with those used in other training materials of the training package.

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Introduction

This Handbook shows technical methodology to carry out the socio-economic survey, which could be implemented at the stage of feasibility study. The methodology of socio-economic survey is not limited to what is expressed in this handbook; this handbook shows some forms for analysis and describes tools to conduct effective socio-economic survey, and each chapter of this handbook deals with one method, technique, or task. Some of these methodologies are experimented during the first phase of the “JICA Development Study on Capacity Building for Preparing Feasibility Study and Implementation Plan for Afforestation Project in Vietnam,” and then the JICA Study Team will later develop the socio-economic study methodology for preparing feasibility study and implementation plan.

The socio-economic survey is required in order to incorporate socio-economic issues into the design of the project. The survey is used to verify the underlying assumptions of the project, as well as any perceived problems, priorities and areas of convergence or divergence between government/implementing agency and the beneficiaries/participants (e.g. local farmers) of the project. The survey should assist in assessing the farmers’ perceptions and likely responses to the opportunities and demands of the project.

The socio-economic survey can be also used by the project in order to assess its impacts in the project area. The result of socio-economic survey conducted at the stage of project preparation could be used as the baseline of the project area, which can be compared to the situation during or after the implementation of the Project.

The survey may employ Rapid Rural Appraisal (RRA) or Participatory Rural Appraisal (PRA) techniques and supplement the data previously collected. The investigation should be designed to establish:

- The extent of farmer interest in the project and the implications for project planning; (problems, constraints and means of overcoming them, from the farmers’ perspective);
- Existing land ownership patterns, access to and control over land, labour and capital, control of wood and crops and income from their sale;
- Gender relations and disaggregation of labour by sex;
- Household economy;
- Conflicting or competing demands for labour;
- Likely impact of the project on any of above.

Part 1: Preparation

1. Prepare materials for RRA

Different types and number of materials as followed are prepared for work at a village. Therefore, materials are needed to be prepared according to a number of villages to be surveyed:

- Map: A commune's map and a village's map are needed for each village. A map of actual state, a planning map or a topographic map can be used
- Large-side paper: About 30 papers of A0 side for a village
- Colour markers: a box of markers (3 colours) and two 12-colour-marker boxes per village
- Sticking plaster: two rolls of wide width side and two rolls of strait width side for each village
- String: About 20 m of large-diameter string per village
- Double clips: About two 10-clip boxes for a village
- GPS
- A4 paper: About 100 papers/village
- Tools of RRA, work plan
- Note book: A note book for a village in order to take note of work and discussions
- Correction pen: a pen per village.

2. RRA working group

Each RRA working group includes 3-4 people having background in petrology, forestry, socio-economy and community development. Among a working group, a leader, secretary and assistant are identified. A RRA working group can work with each of village in turn, or a commune may have several RRA working groups.

3. Local participants

Group discussions are carried out in each village. According to an actual situation, there are two ways to choose the participants of a group discussion:

Way 1: If there are some households' groups in a village, the participants include: village secretary, deputy and leader of village, village patriarch and representative of the households' group, or the people who have important role in forest management. The number of participants depends upon a number of households' groups in the village (make sure a balance between male and female participated).

Way 2: If there is only an unique households' group, the participants include: village secretary, deputy and leader of village, village patriarch, representatives of village societies and people who have experiences of forests. A group of participants involving in RRA group discussion includes from 8 to 13 people, of which 40-60% are female.

4. Identify a place and time for group meeting in each village

The place for the RRA group discussion in the village is suitable for the people which encourage villagers to participate. Therefore, the common place is the village cultural hall, school, village's mirror house, or a residential house in the centre of the village (a large house and an easy-going host). After having agreement of working time for each village with the commune people's committee, the commune announces the participants, working time and place to the village leader in order to let the village prepare. When choosing the working time, try to avoid raining and busy seasons of the local people.

Part 2: Some skills need to have during the processes

RRA is a process in which many people, backgrounds and components at different levels participate. The process could be easier and have more results if we knew how to improve advantages and reduce disadvantages of each participant.

1. Communication skills

Communication is a science and art in order to achieve harmonization between speakers and audience, and contrary. Therefore, members of RRA group have to focus on following issues:

- Being open-minded, listening to people opinions and being interested in what people are interested. They have to speak slowly.
- Trying to listen to opinions from people, and trying not to stop them when they speaking. If it is not clear, the members can give a question for answer and write down when listening. When necessary, they need to show symbols of sympathy and compliment.
- Giving opened and understandable issues and questions with gentle attitude and questioning one by one in order to make people easier to answer and to actively participate; letting people discuss while answering and avoiding continuously questioning which looks like an "interrogation".
- Encouraging silent and shy people in actively describing their opinions and avoiding having speaking from some people.
- Attracting attentions of audience, because attention is a beginning of interests.
- Encouraging interests of audience.
- Attracting willingness of having information from audience.
- Persuading farmers to listen to, understand and then have action and making them being sure that they can manage their action.
- Paying attention to characteristics of ethnic group, religion, belief, tradition, education, age and gender in order to appropriately communicate.
- Avoiding top-down communication.
- Asking open-oriented questions, or giving hypotheses which concern local conditions.

2. Skills in process of collection and analysis of information

RRA is a process of collection and evaluation of information of community. Therefore, skills at collecting, analyzing and evaluating information are very important.

In order to collect information in RRA process some resources are based as follows:

Secondary data: these resources are usually existed at departments of agriculture and rural development, departments of sciences and technologies, departments of resources and environment, department of statistics, sections of agriculture and rural development and commune people's committees.

Research, programmes or projects which have done previously: While collecting information, it is needed to find the programmes, projects and their advices in order to have ideas from them.

Researchers base on communities for gathering information, because they have a strong attachment to the area and clearly understand natural, economic and social conditions of the area. Therefore, they are reliable informants.

Direct observation: through field surveys, intuitional information can be gathered, including slope, vegetable cover, water source, population distribution and production conditions, etc.

Direct measure: in order to have correct and quantitative information, we can use tools (scales or rulers) to measure. Above methods are used for having data of area, productivity, yield or number of animals, etc.

- Actual conditions and economic efficiency of existing cultivation systems.
- Knowledge and understanding of farmers.
- Interviewing farmers and local officers.
- Types of cultivation on the fields of farmers.

Collecting information can be based on the following methods:

Collection of information without using questionnaire, including:

- + Using results from previous experiments.
- + Using secondary data.
- + Providing direct observations.
- + Direct mesures.

Collection of information using questionnaire, including:

- + Interviewing key informants about specific subjects.
- + Semi-formal interviews to each farmer.
- + Formal interviews to farmers with specific subject.
- + Group-of-farmer interviews.

The following methods can be applied for collecting and analyzing information for RRA process:

Method KLP (investigation of key informants)

A group of 7-15 people is gathered, including farmers, middle men, banks, heads of cooperatives, local authority, agriculture extension workers and teachers, etc.

Its purpose is to find general situations.

Method SWOT (SWOT is the abbreviation of strengths, weaknesses, opportunities and threats)

Purpose: Identify strengths, weaknesses, opportunities and threats of certain production or economic characteristics during the certain time of a village, commune, community, institution, or a household.

Classification method ABC

Purpose of this method is to define poor households and rank according to levels:

A: sign for well-off households

B: sign for middle households

C: sign for poor households.

The levels of well-off, middle or poor concepts are usually chosen by the key informants.

Method WEB (creating network diagram)

Purpose of this method is to analyze existing difficulties of a community. While analyzing information in RRA, they can provide the following demands:

Analyzing spatial factors

- Maps: Soil map, topography map, water source map, cultivation crop map and social map
- Transect profiles
- Picture describes production activities of all households together with relationships between products and by-products of each production activity.

Analysing time factors

- Seasonal calendar
- Changes of climate factors, such as temperature, humidity, rainfall, water levels on fields or rivers
- Calendar of changes in supplying foodstuff, animal food over a month
- Calendar of changes in labors or cash demands over a month
- Calendar of changes in extents of insects over a month
- Analysis of flow factors
- Flows and cash include input and output flows over a month, through which we can know time of expending money and time of gaining more money
- Flows of investment of materials for production
- Flows of labors demands over a month for each production process and for all households.

**Part 3: Tables of database on socio-economic aspects and resources
(Data at commune level)**

Commune:

District:

Date:

**Data-gathering
person:**

1. Population and labor of a commune

Table 1: General database on population and labors of a commune

Items	Unit	Year 20xx
1. Total number of household	Household	
2. Total population	Person	
+ Ratio of women	%	
+ Ratio of men	%	
3. Living standard		
+ Ratio of hungry household	%	
+ Ratio of poor household	%	
+ Ratio of medium household	%	
+ Ratio of well-off household	%	
3. Household incomes		
+ Average income of hungry household	VND/person/month	
+ Average income of poor household	VND/person/month	
+ Average income of medium household	VND/person/month	
+ Average income of well-off household	VND/person/month	
4. Ethnic group		
+ Kinh group	Persons	
+	Persons	
+	Persons	
+	Persons	
+		

Source:

Table 2: Population and labor in each village of the commune

Village	Total household (household)	Total people (persons)	Ratio of women (%)	Total labors (persons)	Ethnic group (persons)				
					Kinh				

Source:

2. Land-use and resources in villages

Item	Total land of commune (ha)	Database in each village (ha)					
		Vill.	Vill.	Vill.	Vill.	Vill.	Vill.
Total land							
I. Agriculture land							
1. Annual crop land							
a. Paddy field and rice-dry land							
b. Shifting cultivated land							
c. Other annual crop land							
2. Miscellaneous garden							
3. Land for perennial plants							
4. Grass land for livestock							
5. Aquaculture land							
6. Other agriculture land							
II. Forestry land							
1. Natural forest							
a. Production forest							
b. Protection forest							
c. Special-use forest							
2. Plantation							
a. Production forest							
b. Protection forest							
c. Special-use forest							
3. Land for nursery							
4. Other forestry land							
III. Special-use land							
1. Construction land							
2. Land for transportation							
3. Land for irrigation							

Item	Total land of commune (ha)	Database in each village (ha)					
		Vill.	Vill.	Vill.	Vill.	Vill.	Vill.
4. Land for security or defense purposes							
5. Land for mining							
6. Land for construction material							
7. Cemetery land							
8. Other land							
IV. Residential land							
1. Rural residential land							
V. Unused land							
1. Unused flat land							
2. Unused hill land							
+ Reed and grass land							
+ Reed and bush land							
+ Bush and scattered wood-tree land							
3. Unused water surface							
4. Streams							
5. Rocky mountain without forest							
6. Other unused land							

Source:

3. Land use by economic elements

Item	Total area (ha)	Allocated or rental land (ha)					Unallocated or unrentable land (ha)
		Household, individual	Village, group, house	Commune PC	Foreigner	Others	
Total land							
I. Agriculture land							
1. Annual crop land							
a. Paddy field and rice- dry land							
b. Shifting cultivated land							
c. Other annual crop land							
2. Miscellaneous garden							
3. Land for perennial plants							
4. Grass land for livestock							
5. Aquaculture land							
6. Other agriculture land							
II. Forestry land							
1. Natural forest							
a. Production forest							
b. Protection forest							
c. Special-use forest							
2. Plantation							
a. Production forest							
b. Protection forest							
c. Special-use forest							
3. Land for nursery							
4. Other forestry land							
III. Special-use land							
1. Construction land							
2. Land for transportation							
3. Land for irrigation							

Item	Total area (ha)	Allocated or rental land (ha)					Unallocated or unrentable land (ha)
		Household, individual	Village, group, house	Commune PC	Foreigner	Others	
4. Land for security or defense purposes							
5. Land for mining							
6. Land for construction material							
7. Cemetery land							
8. Other land							
IV. Residential land							
1. Rural residential land							
V. Unused land							
1. Unused flat land							
2. Unused hill land							
+ Reed and grass land							
+ Reed and bush land							
+ Bush and scattered wood-tree land							
3. Unused water surface							
4. Streams							
5. Rocky mountain without forest							
6. Other unused land							

Source:

4. Important events concerning to resource change

Description of even	Year of even	Solutions of commune

Source:

5. Communal health care service

Item	Unit	Year of 20xx
Number of clinics/infirmery	Clinic	
Number of beds	Bed	
Number of doctors	Person	
Number of physicians/nurses	Person	

Source:

Identify difficulties in communal health care service:

Propose desire and solution to these difficulties:

6. Education

Item	Unit	Year of 20xx
Number of primary schools	School	
Number of secondary schools	School	
Number of primary-school graduates	Person	
Number of secondary-school graduates	Person	
Number of high-school graduates	Person	

Identify difficulties in communal education:

Propose desire and solution to these difficulties:

7. Commercial services

Item	Unit	Year of 20xx
1. Number of markets in the commune	Market	
2. Number of commercial households in the commune	Household	
3. Number of places in the commune purchasing forest products	Place	
4. Number of people involving in forest products business		
+ Number of people in the commune	Person	
+ Number of outsiders	Person	
5. List of forest products sold by the people in the commune:		

Source:

8. Forest utilization and management

Question 1: Which one of following activities of the commune affects forest resources?

- If Yes, mark a cross (x) into a cell “Yes” and make a degree of its impact. Degree of impact is marked from 1 to 5, correlative value is: Very little impact = 1; Little impact = 2; Moderate impact = 3; Strong impact = 4, Very strong impact = 5. According to each activity, raise some solutions (if any).
- If No, mark a cross (x) into a cell “No”.

Activities affected forests	Yes	No	Degree of impact (1-5)	Proposed solutions
Development of infrastructure				
Immigrants				
Population growth				
Loggings (including legal and illegal)				
Hunting's				
Gatherings of NTFPs				

Activities affected forests	Yes	No	Degree of impact (1-5)	Proposed solutions
Trade of forest products				
Enlargement of agriculture land				
Shirting cultivation				
Forest fire				
Shortage of forest ownership				
Mining				
Exploitation of minerals and waste materials				

Source:

Part 4: Table for gathering database socio-economic aspects and resource (Data at village level)

Village:

Commune:

District:

Date:

**Data-gathering
person:**

1. Population and labors of a village

Items	Unit	Year 20xx
1. Total number of household	Household	
2. Total population	Person	
+ Ratio of women	%	
+ Ratio of men	%	
3. Living standard		
+ Ratio of hungry household	%	
+ Ratio of poor household	%	
+ Ratio of medium household	%	
+ Ratio of well-off household	%	
3. Household incomes		
+ Average income of hungry household	VND/person/month	
+ Average income of poor household	VND/person/month	
+ Average income of medium household	VND/person/month	
+ Average income of well-off household	VND/person/month	
4. Ethnic group		
+ Kinh group	Persons	
+	Persons	
+	Persons	
+	Persons	
+		

Source:

2. Land - use in the village

Land classification	10 years ago (ha)	Present (ha)	Forecast in 10 years (ha)
1. Paddy field for rice			
2. Dry land			
3. Shifting cultivated land (including leave-off-use and using lands)			
4. Residential land			
5. Unused land			
6. Plantation forest			
7. Young/sapling forest land			
8. Old forest land			
9. Other land			
Total land			

Source:

3. Difficulties that village has faced in economic development

Difficulties	Solutions

Source:

4. Participation of forest protection and development

	Total household (household)	Total area (ha)	Investment (VND/ha/year)
1. Forest protection			
2. Regeneration			
3. Forest plantation			

Source:

5. Tradition and traditional regulation

Question 1: Shortly describe a content of some major traditions in the village (not yet disseminated):

Question 2: Shortly describe a content of some major common traditions in the village:

Question 3: Describe some areas which are not allowed to use, sacred areas or forbidden areas in the village (in residential areas, as well as in forests):

Question 4: Village's regulations in forest protection and management:

6. Households' crop plantation and animal husbandry activities in the village

Agricultural production

Product	Average productivity	Ratio of home use	Ratio of sell	Average selling price
Rice				
Cassava				
Corn				
Been				

Source:

Animal husbandry

Livestock	Average number of livestock (head/household)	Average raising time (month)	Ratio of HHs who raise animal (%)	Average selling price

Source:

7. Present economic models in the village

Question 1: Mark a cross (x) at any following modes of allocation of forestry land that are appropriate to the purposes of protection of forest resource together with economic development of the local area:

Modes
Mode 1:
Mode 2:
Mode 3:

Question 2: Primarily describe those modes (advantages and difficulties):

Part 5: Tools for gathering database from communities

Tool 1: Introduction and building rapport

a. Purpose

This process is very important, because it may develop communications and establish working relationships with local people for the future discussions. Moreover, it can provide information about the participants, such as age, gender, ethnic group, education and interests.

b. Steps:

- ✓ *RRA facilitator introduces the purpose of activity in the commune and village.*
- ✓ *Introduce why the group discussions are needed.*
- ✓ *After that, each person introduces his/herself about name, age, living place and interests.*

Write information on the floor or an A0 paper.

Personal information of the RRA working group

No	Full name	Age	Living place	Interest
1				
2				
3				
...				



Introduces his/herself about name, age, living place and interests.

Tool 2: Village historical lines

(1) Purpose and signification

Village historical lines is a tool which has essentially been used in RRA. By using this tool, local people have themselves learn events which existed in the past and their effects on livelihoods, production, utilization of human and material powers, etc., and they can provide solutions in the future which are appropriate to their area (also namely as “pha bang” or “building rapport” tool between local people and outsiders).

(2) Contents

With facilitation of the RRA team, participants list the significant events which happened in the village according to timeline. After discussing, analyzing and evaluating these events by themselves, they provide the table of the village historical lines.

(3) Methods and implementing time

A diagram of the village historical lines is created by a group of farmers with the help from a RRA working group member. The process of using this tool includes the steps as follows:

- Establishment of a group of farmers of at least 5-7 people, including people who have lived for long time in the village and have much known about their area.
- Place: Try to choose a convenient place in that as many people can participate as possible.
- Materials: Chalk, large side papers, pens and other materials need to be sufficiently prepared.
- Member of RRA group clearly explains the purposes, signification and steps of carrying out the tool, as follows:
 - + The member of RRA group guides how to create a frame of the village history on A0 paper and let people do the work.
 - + The farmers list the events by themselves, and make discussions, analysis and evaluation in order to bring out the advantages, difficulties, effects and reasons of the significant events.
 - + The member can make some surveys or asks for more explanation of any major points and take notes.
 - + Results of the discussions are rewritten into large side papers.
 - + This tool is usually implemented during the first day, immediately after the RRA group came to the village and it lasts about 1.5 to 2 hours.

(4) Role of the RRA group member

The RRA working group includes 2-3 people. Each of them has a clear task, and they mostly play guiding role for the farmers, speed up and facilitate the farmers to do self-evaluation, and make notes of the discussions of the farmers in order to systematize them later.

Năm	Những sự kiện ảnh hưởng đến tình hình sản xuất của bản
1900-1905	Một vài hộ từ Giàng Ngâu chuyển đến Tặc Tè sinh sống lập thành bản Tặc Tè.
1920	Bản có 8-9 hộ sinh sống. Rừng nguyên sinh còn nhiều, có nhiều loài cây gỗ quý hiếm như lát hoa, lim, giổi, vàng tâm, sến, tau..., động vật còn nhiều như khỉ, hổ, báo, hươu, nai, vượn, sóc, chồn...
1949-1950	Bản có 14-15 hộ. Giặc Pháp chiếm, dồn dân ở tập trung, bắt nhiều người đi phu, đi lính. Bản bị đốt phá. Rừng vẫn còn nhiều.
1960	Dịch chuột rừng gây mất mùa, dân bị đói trầm trọng, xuất hiện nhiều bệnh tật.
1966	Thành lập HTX, bắt đầu khai phá ruộng nước và đi vào làm ăn tập thể
1969-1970	Bệnh sốt rét làm chết nhiều người.
1971	Tổ chức phong trào diệt giặc đói. Giáo viên về tận bản dạy học để xóa mù chữ
1972-1981	Nhân dân hạ sơn, định canh định cư ở vùng đất thấp. Bản mới có 19 hộ. Rừng bắt đầu bị nhân dân ở các bản khác chặt phá mạnh để làm nương rẫy
1980	Dịch sởi làm chết 20 trẻ em trong bản
1983-1994	Trồng quế. HTX quản lý rừng quế nhưng không thành công, bị tàn phá. Nhân dân vẫn phá rừng làm nương rẫy.
1990 đến nay	Rừng được khoanh nuôi bảo vệ. Các hộ gia đình nhận khoán trông coi. Rừng giang được bảo vệ tốt. Nhân dân bắt đầu trồng cây ăn quả và quế.

(Example: Village historical lines)

Tool 3: Creating village modeling

(1) Purpose and signification

A village modeling is a small spatial picture of a village which is created by local people from existed materials like soil, sand, tree branches and leaves, etc., in order to let people easier recognize the landscape of their home village, to evaluate, analyze and plan development of the area. The village modeling is a RRA tool which enables a visible analysis and is usually used for land-use planning.

(2) Contents

With the help of the RRA team, the participants create the mock-up, which is 4-5 m² large and sufficiently describes the village conditions, such as hills, forest, fields, streams, roads, bridges and residential areas, in order to let people together discuss difficulties, solutions and plans for appropriate activities.

(3) Methods and implementing time

The modeling is created by a group of farmers with the help from a RRA working group member. The process of using this tool includes the steps as follows:

- Establishment of a group of farmers (both male and female) of at least 5-7 people.
- Place: Try to choose a convenient place in that as many people can participate as possible and the mock-up is not able to be destroyed by weather or live stocks.
- Materials: soil, mud, small trees, branches, color powder, chalk, large side papers, pens and other materials need to be sufficiently prepared.

- Member of RRA group clearly explains the purposes, signification and steps of carrying out the tool, as follows:
 - + Ask farmers using chalks to sketch well recognized places of the village, such as hills, streams, rivers and roads, etc., on ground or place that will make the modeling.
 - + Encourage people using materials for making the mock-up in order to show significant features of soil types, types of crop, streams or village infrastructure.
 - + Discuss about difficulties, opportunities and solutions of each area and also of overall village on the modeling.
 - + The creation of the modeling is implemented during the first day of the RRA group working at the village and time requirement is 3-4 hours.

(4) Role of the RRA group member

The RRA working group, which includes 2-3 people, has to clearly explain the purposes and requirement of creation of the modeling, help its implementation and facilitate the process, discussions of the farmers, and to take notes. If it is needed, member of the RRA group can show how to do.

Tool 4: Village Sketch mapping

(1) Purpose and signification

Village sketch mapping is an important RRA tool which aims at evaluating and analyzing general situations of the village, especially the land-use conditions, livestock and crops, etc., in order to recognize difficulties and solutions at each area of village actions for village planning, land-use planning and participatory forestry allocation processes. The village sketch map is a significant document which is based for discussions of the village meetings.

(2) Contents

With the help of the RRA team, the participants themselves sketch the village situations. This sketch map adequately describes situations of land-use, live stocks, crops and infrastructure and socio-economic conditions of the village for discussing, analyzing difficulties and advantages in order to recognize solutions for the village in the future.

(3) Methods and implementing time

The sketch mapping is created by a group of farmers with the help from a RRA working group member. The process of using this tool includes the steps as follows:

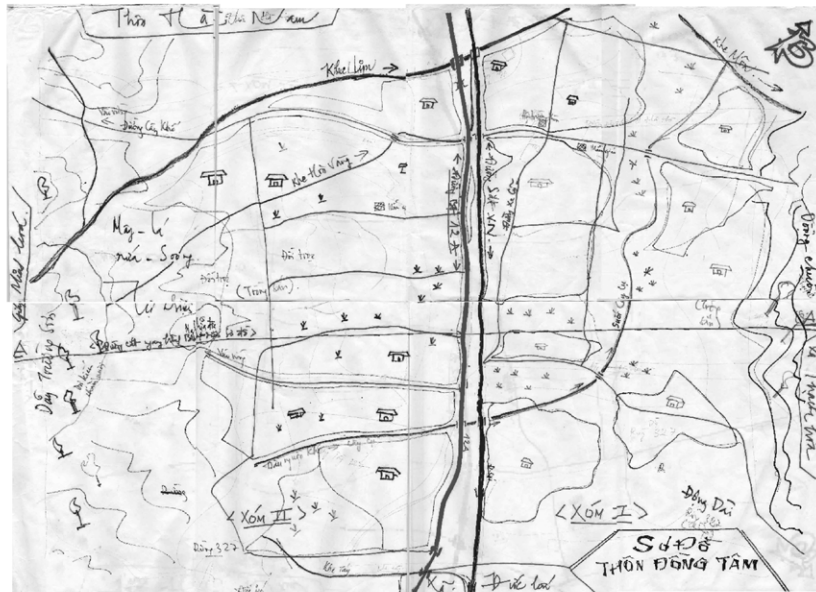
- Establishment of a group of farmers (both male and female) of at least 5-7 people.
- Place: Try to choose a convenient place in that as many people can participate as possible.
- Materials, such as chalk, large side papers, pens and other materials need to be sufficiently prepared.
- Member of RRA group clearly explain the purposes, signification and steps of carrying out the tool, as follows:
 - + Asking farmers to sketch the map on ground or on a small side paper.

- + Encouraging exchange, discussions and argument in people during sketch mapping.
- + Redrawing the sketch map from the small paper into the large side one.
- + Discussing about difficulties, opportunities and solutions for all villagers.

The village sketch map is usually drawn during the first day of the RRA working group and the time requirement is 2-3 hours (field observation and the village modeling are important bases for village mapping).

(4) Role of the RRA group member

The RRA working group, which includes 2-3 people, has to clearly explain the purposes and requirement of the village mapping, help its implementation and facilitate the process, discussions of the farmers, and to take notes. If it is needed, member of the RRA group can show how to do. Member of the RRA



group can help the farmers if they found out difficulties in redrawing the sketch map into the large side paper.

Tool 5: Creating transects and building a village profile

(1) Purpose

Investigating in lines or creating transects is an important RRA tool for evaluation of potential use of resources of the village.

Creating transects will provide a good picture of potentials of land, crops, livestock and communities in development of the village plans.

(2) Contents

- Creating transects is a tool for investigating the field in each area of the village. During the transects, some techniques of interview, discussions, direct observation and investigation are used.
- Building an actual village profile: information from the transects is gathered for sketching a profile. There are two major parts as follows:
 - + Describe the surface conditions in elevation (including general pictures of modes of cultivation, land-use and crops and livestock).

- + In a correlative cell of the lower part, each area has been identified as natural condition, mode of cultivation, livestock, crops, production institutions, difficulties and solutions.

Building a future profile: It is a profile which describes village desires and solutions in the area in the future.

(3) Methods and implementing time

Creating transects is provided after implementation of the mock-up and sketch map.

Usually, two or three transects are carried out in order to reach all significant plots of the village. Implementing time for this tool usually lasts 3 hours. The process of creating transects and building the village profile includes the steps as follows:

- Discussion on the modeling or a sketch map for performing directions of the transects.
- Establishment of the group of the participants for a transect: the group for each transect includes: a number of farmers (5-7 people, including both male and female) and members of RRA group (3-4 people) with different backgrounds, such as agriculture, forestry and animal husbandry, etc.
- Materials: map, magnetic compass, observation and measure tools, papers and pens.
- Member of RRA group clearly explain the purposes of creating a transect and ask the farmers for guiding and preparing for discussions.

Creating the transect

The transect often goes from low area to higher one. All group stop for discussions when reaching a plot which has specific character for the area. A member of the RRA group quickly outlines the topography and feature of the area.

The members of the RRA group encourage discussions among the farmers or provide interviews.

If it is needed, the member of the RRA and the farmers carefully examine the area and can take some samples. The following issues are needed to discuss and interview:

- Natural features: land, water resource and land-use history, etc.
- Important crops and livestock and cultivation techniques and productivities, etc.
- Institution and management issues.
- Difficulties
- Orientations and solutions.

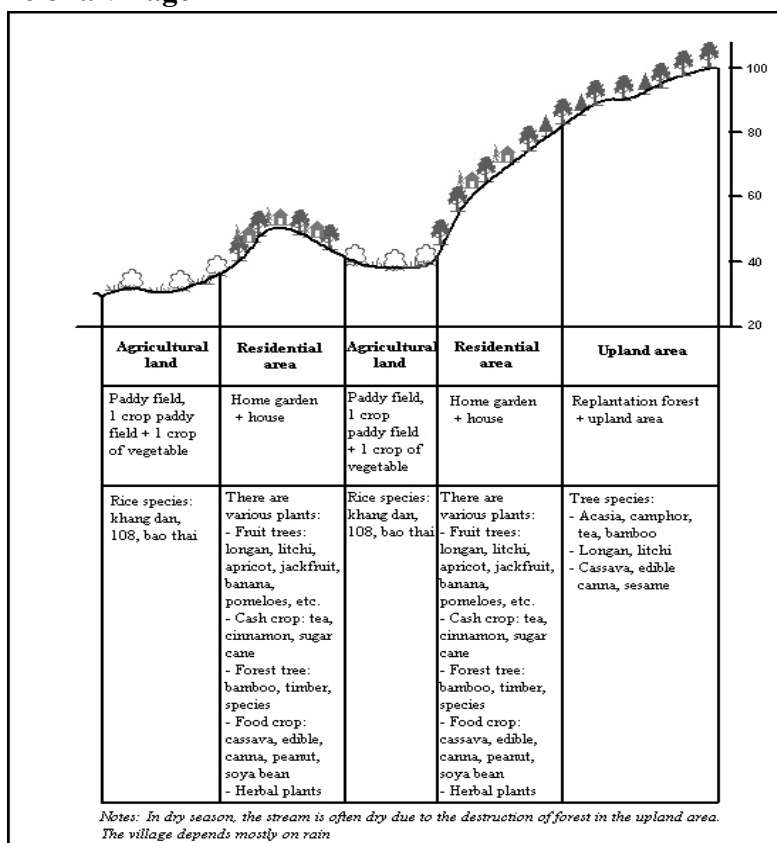
Drawing a present village profile

After creating the transects, the results from the groups are revised and unified. According to these information, a profile is built representing the village.

Building a future profile of a village

According to the difficulties and solutions that found out during creating the transects and drawing the present profile, members of the RRA group encourage discussions among farmers about expectations for future activities and let them describe these information of the future profile of the village.

The future village profile represents changes of crop and livestock structures and cultivation modes in the future. The farmers need to show pressures and internal opportunities for carrying out their plans.



(4) Role of the RRA group member

The RRA working group having multi-backgrounds has to clearly explain the purposes, significations and methods for implementation.

Using many RRA technologies like flexible interview, observation, active listening, taking notes and integration, etc., in order to promote local people to discuss, analyze, evaluate and bring solutions out for the future.

Tool 6: Building time charts

(1) Purpose and signification

Building time charts is one of RRA tools for analyzing conditions, events and phenomena of a village over time. Result of this analysis shows changes of elements of activities of cultivation, animal husbandry and forestry over time, and effects of these events and phenomena on these activities.

(2) Contents that are usually described by farmers:

- ✓ Changes of land-use, livestock and crops.
- ✓ Changes of households or population.
- ✓ Changes of crop productivity or incomes.
- ✓ Changes of types of epidemic diseases...

Each content needs to be discussed among farmers and given some issues, such as difficulties, reasons and solutions.

(3) Methods and implementing time

It is a RRA tool which is carried out during the first day of RRA working group. Implementing time usually lasts about 3 hours. The process of using this tool includes the steps as follows:

- Establishment of a group of farmers of at least 5-7 people (including both male and female), which are including people who have lived for long time in the village and have many experiences on livelihoods, social and production issues.
- Place: Try to choose a convenient place in that as many people can participate as possible.
- Materials: Chalk, large side papers, pens and other materials need to be sufficiently prepared. Pieces of gravel, sands, plant seeds and small sticks, etc. can be used.

Member of RRA group clearly explain the purposes, signification and steps of carrying out the tool, as follows:

- Encouraging farmers to discuss to choose an issue for evaluation.
- Encouraging (guiding or explaining when necessary) farmers to discuss to choose a kind of chart for description.
- Member of RRA group guides farmers to use the chosen chart.
- Farmers provide evaluation of each issue on the ground using existing materials and take discussions and arguments.
- Member of RRA group facilitate and promote discussions among farmers, interview and take notes.
- Asking farmers for describing difficulties and solutions for each issue.
- Asking farmers for recopying major issues and transferring charts into large side papers.
- Asking group of farmers for choosing presenters of the results to the village meeting.

(4) Role of the RRA group member

The RRA working group explains, guides, takes interviews and takes notes. Member of the group has to have appropriate skills and knowledge at guiding farmers in providing qualitative and also quantitative information.

Tool 7: Analysis of seasonal calendar

(1) Purpose and signification

Seasonal calendar often provides the following information:

- Types of cultivated crops, types of plants and animals that people usually collect from forests;
- Spare or busy times over year of the people;
- Time for cultivation activities, forest product collection and hunting from people;
- Life cycle and season of each cultivated crop;
- Features of weather and climate.

Moreover, building and analysis of seasonal calendar is an important tool for evaluation of actual situation, potentials and knowledge of villagers, and then help them with establishment of models which concern economic development and natural protection.

(2) Steps

- Group leader introduces contents, purposes of this tool.
- Member of RRA group describes how to do and makes an example of doing a step.
- Ask about each activity for people. It needs to ask first about agricultural production and then about activities concerning forest, about time of earning and spending money and finally about weather characteristics. Each activity could be asked about every thing from beginning to end.
- Always ask questions “why? ”, “how?” in order to let people think and discuss easier during the process of building seasonal calendar.
- Members of RRA group have to take notes all of the ideas of agreement.

Example of the seasonal calendar:

Công việc	Tháng											
	1	2	3	4	5	6	7	8	9	10	11	12
	Muy	Bơ	Pê	Puôn	Xơng	Chơ pát	Tơ pơn	Tơ cool	Tơ kieh	Mơ zết	Mơ zết muy	Mơ zết bơ
Lúa nước - Hơ rê đooóc	đất, gieo	cấy, làm cỏ	chăm sóc	chăm sóc	thu hoạch		đất, gieo	cấy, làm cỏ	chăm sóc	thu hoạch		
Lúa rẫy - Hơ rê coóh			Phát	Đốt	tĩa	tĩa	làm cỏ	làm cỏ	làm cỏ	làm cỏ	thu hoạch	thu hoạch
Ngô - Abho		làm đất	tĩa	làm cỏ	làm cỏ							
Sắn - A roong	thu hoạch	làm đất	trồng	chăm sóc	chăm sóc							
Rau, đậu - A tuồng	làm cỏ	thu hoạch	thu hoạch	thu hoạch							làm đất	trồng
Mãng - A bãng												
Củi - Lọt, oaych												
Ưoi - Pơ muon												
Đặt bẫy - Đới piêng												
Thời tiết												

(3) Note

- ✓ It is important to use timeline of seasonal calendar according to local behavior. Use the kind of calendar (solar or lunar calendar) they use to write and discuss. Name of months needs to write also in local language.
- ✓ Also using local language when call the name of activities.

Tool 8: Analysis of parties concerning resource and economic management

(1) Purpose

Tool of analysis of concerning parties is an activity in that members of RRA group together with local people list all organizations in which people are interested, and then identify role, responsibility of these organizations and assess their importance to forest resource and economic development of the village.

Through this analysis, appropriate changes of activities of the organizations can be proposed in order to more effectively support to local people in forest resource management and also in economic development for improving life standard.

(2) Steps

- Member of RRA group introduces about purposes of making this tool and lets the people know how to do.
- The member together with the people list all organizations concerning forest resource protection and development and economic development of the village. Many organizations can be listed by the people, however, members of RRA group have to join several organizations having similar functions and missions into a group in order to have the final list of 8-10 organizations.
- The member writes names of the organizations on a large side paper and lets people discuss about role, responsibility in resource management and importance of each organization.
- Use A0 side paper for discussions and write down the following example:

Result table of analysis of interests and roles of concerning parties

Name of organisation	Activities concerning resource	Roles and responsibilities on resource management	Difficulties	Importance
Community	Using forest products	Implementing specific activities in resource management	Low education, lack of equipment and investment, feeling of inferiority, lack of power	10
Household	Using forest products	Taking part of community's and authority's activities, providing information	Low education, lack of equipment and power	7
Village associations	Preserving and developing culture, society, developing village economy	Implementing management activities, monitoring and assessment	Lack of equipment and power	8
Village authority and security	Getting advantage from forest, protecting forest, serving security,	Leading and implementing activities for resource management	Lacks of equipment, investment and power	9

Name of organisation	Activities concerning resource	Roles and responsibilities on resource management	Difficulties	Importance
	socio-economic development			
Communal authority	Getting advantage from forest, protecting forest, socio-economic development	Implementing management work, leading activities, assessment and monitoring	Lack of equipment and management mechanism	10
Border guard	Protecting forest, border security	Supporting work	Staying too far	5
Management board of nature reserve	Protecting forest, fauna and flora	Leading, implementing management, supporting techniques and investment, directly taking part of implementation	Lack of manpower, equipment and mechanism	9
Forestry protection department	Protecting and controlling forest resource	Supporting techniques and work, proposing mechanism of co-management	Lack of manpower, equipment and mechanism	8
Forest product exploiters and traders	Getting advantage from forest products, timber, animals and non-timber forest products	Providing information, taking part of management	Lack of understanding of science and technology	4
Scientific organisations, investors	Conserving nature, protecting environment	Providing science and technology and investment	Staying far away, difficult to monitor	10

Note: Importance can be measured as mark from very important (10 mark) to not important at all (0 mark)

Tool 9: Analysis of contradictions and cooperation among concerning parties

(1) Purpose

From list of concerning organizations that has done in the previous tool of “Analysis of parties concerning resource and economic management”, member of RRA group and local people analyze extent of cooperation and also extent of contradictions of each organization to each of others (pair-wise ranking).

This tool helps to identify contradiction and cooperation among concerning parties in order to build solutions of resource management and economic development for improving cooperation and reducing contradictions.

(2) Steps

- Member of RRA group recopies names of concerning organizations that are done at the previous tool in a matrix in A0 side paper. Left below cells represent cooperation and right above cells represent contradiction.
- Member of RRA group introduces purpose and style of discussions using practical examples and local words to explain.
- Provide a part of “cooperation” first. The way of discussion is to introduce relationship among a pair of the first organizations and let people discuss extent of cooperation of these two organizations. When the discussion finished, give them 10 pieces of gravel (corn seeds or areca nuts) for marking. 10 marks represent closed and comprehensive cooperation, and the mark is lower until 0 if cooperation is lower until no cooperation at all.

Result matrix of analysis contradictions and cooperation in Chenh Venh Village, Huong Phung Commune, Huong Hoa District of Quang Tri Province

	CD	CQA	DT	HGD	CDK	Xa	BP	BQL	KL	KTB
CD		3	1	1	6	3	0	4	3	10
CQA	10		1	3	4	1	0	4	0	9
DT	10	9		1	3	1	0	2	0	7
HGD	8	9	8		5	3	0	3	3	7
CDK	8	7	4	2		3	0	4	3	10
Xa	8	10	9	8	8		0	3	2	8
BP	0	5	5	0	5	8		0	0	5
BQL	7	10	10	8	10	9	6		0	10
KL	7	9	8	7	7	9	10	9		10
KTB	0	0	0	5	0	1	0	0	0	

Note: 1) Left below cells represent cooperation in which 10 marks represents comprehensive ones. Right above cells represents contradictions in which 10 marks represent critical ones and it reduces to 0 marks.

2) CD: village community, CQA: Village authority and security group, DT: Village associations, HGD: Households, CDK: Other village community, Xa: Communal authority, BP: Border guard, BQL: Management board of nature reserve, KL: Forest protection, KTB: Forest product exploiters and traders.

Tool 10: Classification, ranking and marking

(1) Purpose of classification, ranking and marking:

Classification, ranking and marking is a RRA tool for evaluating the extent of essentials, interests and priority in management of resource, cultivation crops and livestock or other concerning activities.

Given results of the classification, ranking and marking local people can create appropriate activities to local conditions and their desire.

(2) Some principles of classification, ranking and marking tool

- Make sure local reality and community knowledge.
- Several participation: individuals, interest groups, male and female.
- Comprehensively use participatory techniques: semi-oriented interview, charts or observation and group discussion, etc.

(3) Objects of classification, ranking and marking

Forestry trees, fruit trees, industrial trees, livestock, forest product utilization and credit activities, etc.

(4) Major methods in classification, ranking and marking

Major methods of this tool is a “square” method or also namely as matrix. Create a square table including:

- Cells of the first row of the table are for a list of objectives of classification, ranking and marking.
- Cells of the first left column of the table are for a list of standards for ranking.
- Cells which cross between objective column and standard row are for ranking.
- Cells in the last bottom row area for ranking of other indicator, for example, priority rank. This method allows farmers to discuss, exchange and argue about reasons why they rank and mark each objective (what classify, evaluate and mark? What kind of standards includes as a base for evaluation?).

(5) Timelines and implementing steps

Usually, this tool is carried out on the second and third days of the RRA work, after completing the other tools such as transects and seasonal calendar, etc. The process of using this tool includes the steps as follows:

- Establishment of working group: According to purposes of RRA work, different groups of farmers are established, including male group, female group and mixed group. These groups are working separately under guidance of members of RRA group.
- Each group of farmers consists of 5-7 people who have much knowledge about village situations.
- Each group has at least 2 members of RRA group and a collaborator from village. The members have task of guidance of implementation of the tool, taking interviews and taking notes. The collaborator helps to communicate, organize and if necessary to serve as example.

Preparation:

Gathering farmers and preparing appropriate materials and samples

- Chose suitable place.
- Prepare chalk, notebooks and pens, etc.

Providing classification, ranking and marking:

- Gather farmers into the place.
- Make greeting, introduction and rapport.
- Explain purpose of the meeting.
- Discuss objectives for classification with farmers.
- Guide farmers to evaluation (members of RRA group can draw a table on courtyard or ground).
- Encourage farmers in evaluating and discussing.
- Guide farmers to analyzing difficulties and solutions.
- Copy results onto large or A4 side papers and integrate ideas of farmers during the discussions.

Move over the other objective or finish evaluation work.

This tool needs to be implemented on courtyard or house floor using simple and existing materials like chalk, coal, gravel, small pieces, plant branches and pictures of animals, etc.

Tool 11: Analysis of institution and building diagram of relationship of institutions (VENN diagram)

(1) Purpose

Tool of analysis of institutions and building diagram of relationships of institutions facilitates and orientates discussions of farmers in order to state different importance and influences of institutions on activities of the areas.

Through this, appropriate changes can be identified for activities of institutions in order to more effectively contribute to development of the areas.

(2) Contents

Make a list of institutions, in which people are interested, identify functions and missions of each institution and evaluate its signification and influence to the village.

Build diagram of relationships of institutions (also namely as Venn diagram) for description of importance and influences of these institutions to the village.

(3) Methods of using the tool

Establish a group of 5-7 farmers which consist of: Representatives of farmers and associations in the village, at least 2 members of RRA group and a collaborator of the village.

Preparation: implementing place, materials and announcement of the meeting to farmers.

(4) Time and implementing steps

The tool of analysis of institutions and building Venn diagram is carried out on the third day of RRA work and has some steps:

- Greeting, introduction and rapport: explain purpose of the meeting and ask for support.
- Members of RRA group guide farmers to carrying out and using step number 1 of the tool:

- ✓ List institutions; identify functions, missions, and importance and present influences of these institutions.
- ✓ A member of RRA group draws evaluation frame onto ground or house floor and explains columns, including name of institutions, function, mission, importance and influence.
- ✓ A member of RRA group offers the farmers to list existing institutions in the area and asks them for choosing only the most important institutions to the purpose of the evaluation.
- ✓ Ask farmers for discussions about functions of each institution according to their understanding and write down on the column.
- ✓ Ask farmers for evaluating importance of each institution by comparing one institution with the others. Mark and other standards (like very important, important, less important and not important at all) can be used. Question “why” also can be used when asking farmers.
- ✓ Ask farmers for evaluating real influences which is doing similar to evaluation of importance. A question needs to be answered: What has this institution done for the village? Three standards for evaluation have to distinguish according to understanding of the people:
 - + **Function and mission:** what they do, according to understanding of the people
 - + **Importance:** whether they are necessary, according to their experiences.
 - + **Influence:** what they have done, according to reality that people have seen.

No	Name of institution	Function and mission	Importance	Existing influence to the village

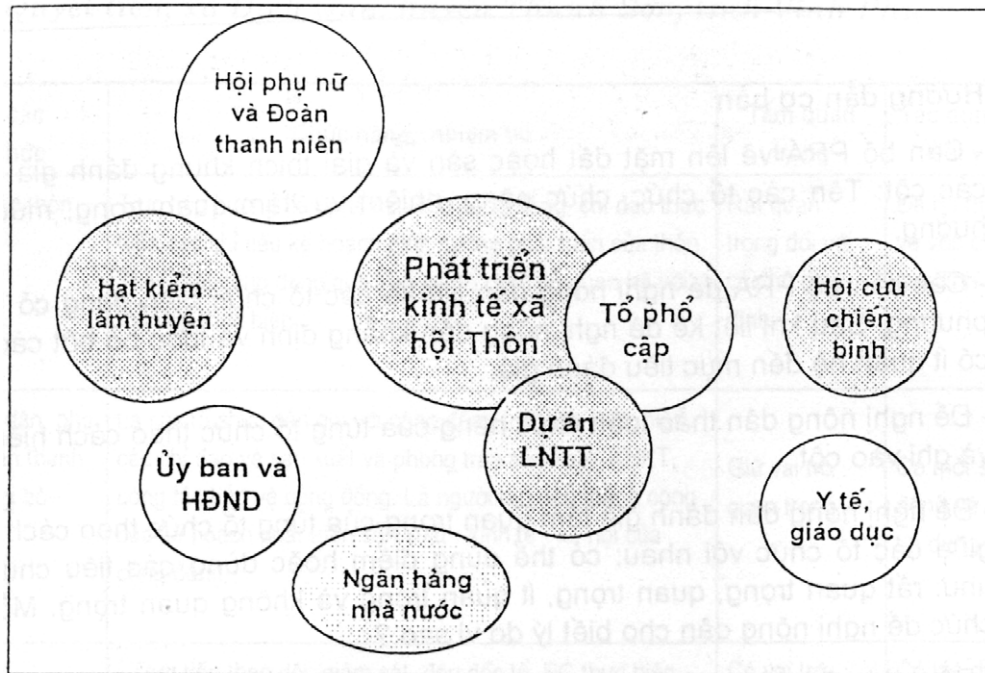
- Members of RRA group guide farmers to carrying out and using step number 2 of the tool: Building Venn diagram

Venn diagram describes each institution and relationships among it and village or other institutions. Building Venn diagram consists of some steps:

- Identify field of interest: general development of the village, agricultural development, animal husbandry or irrigation, etc.
- Show importance: Each institution is shown as a circle, diameter of which represents extent of different importance.
- Place of the circle represents influence of this institution: the distance as closed as overlap each other represents more influence.

- + Ask farmers for using scissors to cut different color papers into circles with different diameters. Use comparison method to determine institutions and write them down to big or small circles. The bigger circle represents the more important institution (village community is the biggest circle).
- + Ask farmers for disposing the circles. The institution which has more influences to the village is disposed closed to or overlapped a circle that represents interesting field.
- + Members of RRA group always ask “why” questions.

(Example of Venn diagram)



Part 6: Some notices for using RRA tools and working with communities

1. General advices

Based on previous information. When completing each tool, its results will give you an idea for using next tool in order to enlarge the collected information.

2. Advices for RRA groups of facilitators

- ✓ Always start with introduction of facilitator and other participants. Try to create discussion atmosphere but not meeting one;
- ✓ Try to start the meeting with prayers or appropriate cultural ceremonials, if a community has certain religion or specific cultural rules;
- ✓ Use local language or ask participants about whether they could understand what you say. If not, find an interpreter and let him/her translate;
- ✓ Start meeting by explaining nature and purposes of activities or tools which will be using. Describe proposed results when the activity completed;
- ✓ Explain the process that the group will be doing and appropriate time for this process;
- ✓ Take note of discussions and their results. Point a person who writes the results (a secretary). It is not a task of the facilitator;
- ✓ Be flexible and creative. Use different media in order to help discussions more interesting and effective. Use local materials anywhere you can;
- ✓ Always be tactful in demands from participants. Take some rests while participants feel stress. Be flexible. Believe in flexible process if some things unexpectedly happened. Do not unwillingly follow inflexible guidelines;
- ✓ Choose appropriate time and place to participants. Avoid looking at watch while an important activity is implementing. The meeting atmosphere could be informal;
- ✓ Don't be hurry. Activities can last from an hour to half a day and overall RRA process will last for a long time. Therefore, the process will be more effective if the timelines of the work could be suitable to community timelines;
- ✓ Encourage participation. Ask for as much responding as possible from participants. Monitor the meeting and try to reduce extremeness of the participants who are too active;
- ✓ Listen to answers and do not cut down them. Respect any opinions. Repeat the opinions for making clear if necessary;
- ✓ Make clear of argued issues and collect suggestions from people. Let people debate until one side changes their opinions. Participants and facilitators have to be patient in order to complete this long and useful process;
- ✓ Be sensitive to gender issues. Be careful of your language and manner. Male and female groups can discuss separately if the issues of discussion are too sensitive. Avoid teasing which will make uncomfortable for one or two groups of gender.

3. While working with community

- ✓ Respect right attitudes. Prove modesty. Do not represent yourself as a person who knows more than members of community. Remember that they also have much knowledge and understanding for sharing. Do not be self-conceited and be aware of your manner. Be courteous and friendly. Always take observation and adaptation.

- ✓ Encourage learning. Community collects information, makes plans, implements, and monitors and makes decisions by themselves. Their opinions, especially their decisions have to be priority in carrying out over opinions of other people, especially of the members of RRA group who have seen as “outsiders”. Members of RRA group always play the role of facilitators.
- ✓ Mix with community and establish relationships. Wear clothes like local people do, tell joke stories and have meals with them. Be careful with local traditional culture. Let people feel comfortably and do not separate yourself from people by showing patronizing manner.

Annex 2: Handbook for Communal Consultation Meeting (CCM)

Handbook for THE COMMUNAL CONSULTATION MEETING (CCM)⁵⁰

⁵⁰ This “Handbook for the Communal Consultation Meeting (CCM)” was drafted by the local consultant in collaboration with the JICA Study Team in 2005. Part of the handbook was referred to when preparing the main body of the F/S manual after necessary modifications in order to reflect information and experience newly gained and to keep terminologies and definitions in line with those used in other training materials of the training package.

Preface

The first half of the phase one of “THE DEVELOPMENT STUDY ON CAPACITY BUILDING FOR PREPARING FEASIBILITY STUDIES AND IMPLEMENTATION PLANS FOR AFFORESTATION PROJECTS IN THE SOCIALIST REPUBLIC OF VIETNAM (FICAB)” carried out through cooperation between the Government of Vietnam and Japan focused on the pre-site assessment and project option evaluation at the beginning stage of preparation of the feasibility study. The analysis on people’s needs and incentives is carried out through communal consultation meetings (CCM) and concise Rapid Rural Appraisal (RRA).

This Handbook addresses efficient methodology to grasp the local condition and investigate people’s needs and incentives through local communities’ participation of the feasibility studies, introducing “Bottom-up” approach to the project planning activities in Vietnam.

This Handbook also shows the methodology to carry out analysis on people’s needs and incentives through the CCM for future implementation of project planning in Vietnam.

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CCM**What's it for?**

- ⊕ *To explain the general description of project to the farmers at the earlier stage of project preparation;*
- ⊕ *To identify people's needs and incentives so that we can reflect their needs into project development;*
- ⊕ *To obtain the socio-economic information directly from farmers (by questionnaire sheet).*

In order to make a feasible project, the project planners must take into account various aspects such as technical, economic and financial feasibility, social and natural setting, market trend and importantly, people's needs and incentives. It is often the case that Vietnamese projects are planned in higher level, and then their decision is informed to the lower level to implement the project. However, it is important to obtain local people's opinions and reflect such people's needs to the project planning.

The Communal Consultation Meeting (CCM) is suggested to be held earlier stage of project preparation in order to obtain people's opinion and then reflect such needs to the development of project plans. (In case that the process of "project option evaluation" is carried out, the CCM is conducted during the project option evaluation. See the box below.) After this CCM, the project planners consider what kind of project will be most suitable to this area, and then such project will be analyzed more in detail together with other important criteria of evaluation to prepare the most feasible project plan.

Box: "Project Option Evaluation"

What is it?

It is the process to select one best project option from several possible project options, which have been selected from project concept alternatives. The selected option should be the best option to maximize benefits and to minimize negative impacts among several possible project options given the local setting of the project area.

What is it for?

It will provide an opportunity to compare several project options by analyzing various aspects. By introducing the procedure of project option evaluation, the project planning does not limit the project design to the only one possibility: it begins with examining project concept alternatives and several project options, and then choose best one, developing the most feasible project

(Note) See Chapter 2 of Volume IV in F/S Manual for method of project option evaluation.

Chapter 2: How to prepare for the CCM?

PRE - MEETING PREPARATIONS

1. **Form the meeting organization board:** its members must be functional, responsible and real professional persons, emphasized community approaching capacity, who may be from:
 - Project planners: Local province, district and commune representatives;
 - Local Consultant Agency;
 - Local NGO (the Local NGO can guide the CCM as a third party).
2. **Share the information on purpose and content of the CCM** among the organization board and set the schedule for the preparation activities (data collection, participant selection, facilitator selection, design building for CCM, etc.), CCM date, place to hold the CCM, and CCM agenda, etc.
 - The CCM may choose the field site where is under the forest canopy, or in the meeting room, or communal cultural community house, etc. Do not make seriously important conference atmosphere for the CCM. Try to make the atmosphere democratic open.
3. **Collect information and data:** In order to understand the local condition before the meetings, it is important to obtain information on local communes in the project area, such as natural conditions, social and economic conditions, which

could be based for meeting successful organization. The examples of required information and data at this stage are:

- Official annual statistics publications (Socio-economic statistics on National, Provincial, and District level are available every year.).
 - The local socio-economic situations are identified in the table – this database is used to know the whole picture of the local situation and to decide the size of the meeting. Socio-economic data in the Commune level is available in Commune People’s Committee office.
 - Brief information of reforestation in each commune (attached form): objectives, species of planted trees, planning trends, evaluation, assessment.
 - Cadastre data and MAP (on Land use) of Commune.
 - Development level classification based on “135” (HEPR - Hungry Eradication and Poverty Reduction Programme)
 - Major economic productions
 - Major conditions or potentials of forest development (and forestry)
 - Comments or assessment of the forest development aspects as soils, other natural conditions, labor power, funds, local community option and incentive, forest management capacity.
 - Description in brief of main natural conditions, topography, bio-climate, land forms and soils
 - Identification of natural conditions, which could be positive effective and negative effective to reforestation
 - Reforestation impacts on environment and other concerned living conditions of local community - current statement and prediction environmental status
4. **Summarize the collected information** with relation to the demographic, social, and forestry-activity-related aspects based on the “CCM preparation social form” next page.
- 5. Selection of participants**
- Discussion among organization board members and integrated data and information, to certify that who will be invited for CCM, could account number of participant.
 - The participants must be the good sample to represent the population of the project area. If the probability sampling is possible, the sample size can be

decided by referring to the following table as well as the budgets required. If it is not possible to conduct the probability sampling, efforts need to be spent to select a group of personnel who are likely to represent the population of the project area. The selection of the sample can be follow the steps described below:

- Decide the sample size based on the available budget (in case the size of the population is 100,000 for the probability sampling).

Approximate sample size	Confidence interval for the population percentage with a confidence level of about 95% (Note)
25	±20%
100	±10%
400	±5%
2,500	±2%
10,000	±1%

Note: The analysis is about 95% confident that the population percentage is found inside the interval of plus minus percentages for respective sample size. (See Technical Note 4.7-Descriptive statistics and inferential statistics and Technical Note 4.9-Sampling method of Volume VI in F/S Manual)

- √ According to the CCM preparation social form, the population can be divided into several categories based on
 - (a) Administrative unit (by commune or district),
 - (b) Past forestry activities (PAM, 327, 661, etc.),
 - (c) Ethnic group (also identify indigenous people or not, if possible)
- √ Select the participants from each category of (a), (b), (c) and each gender at random. In order for the meeting to be effective, key persons such as Commune PC leader, Farmer's union leader, Women's union leader, and Youth union leader may be invited to the meeting.

Box: Participants selection at the Thai Nguyen's CCM

For the production forestry project, about 70 households participated to the CCM inviting following stakeholders:

Households: According to the CCM preparation social form, the population is categorized in administrative unit (by commune), past forestry activities (PAM, 327, private fund), ethnic minority group. The selection of participants from each category is made so that the participants are likely to represent the population. Even though equal number of men and women are planned to be invited, more men came to attend the meeting as most women are too busy to attend the meeting, and men showed up at the meeting instead.

Key persons: A Commune PC leader, a Farmer's union leader, a Women's union leader, a Youth union leader, and a commune forestry officer are also invited to attend the meeting.

CCM PREPARATION SOCIAL FORM

- Commune Name
 - District
 - Province
-
- Number of Village:
 - Social-Economic Region Classification:
 - Remote and difficult
 - Average development
 - Advantage development
 - Geo-economic Region National Classification (*1):
 - “661” Planning (ha):
-

N ^o	Village name (Thon, Ap)	Hamlet name (a group of households) (Xom, Cum, Chom)	Household number		Reforestation status of households (Number household, what ethnic group)			
			Majority ethnic (*2)	Minority ethnic (*3)	PAM	327	661	Private fund
1	<i>Example:</i> Thon DA (Local name)	Σ 3 Xom	8 Kinh	4 Nung 7 San Chi	8 Kinh 2 Nung 5 San Chi	<u>0</u>	6 Kinh 4 Nung 7 San Chi	2 Kinh
		▪ Xom Ca	2 Kinh	4 Nung 2 San Chi				
		▪ Xom Doi	5 Kinh	2 San Chi				
		▪ Xom Mo Σ 3 Xom	1 Kinh 9 Kinh	3 San Chi 3 Nung 5 San Chi				
2	Lang Xoi (Local name)	▪ Xom Nac	3 Kinh	1 Nung				
		▪ Xom Buoi	4 Kinh	2 Nung	9 Kinh 2 Nung 3 San Chi	2 Kinh	9 Kinh 3 Nung 3 San Chi	<u>0</u>
		▪ Chom Ru	2 Kinh	5 San Chi				

*1: *11 Official Regional Zoning Classification (by training before CCM)*

*2: *Local Name and Number of Household*

*3: *Local Name and Number of Household*

6. **Preparation of questionnaire sheet:** Review the collected data and information and analyze what kind of information must be collected from each household. In order to obtain missing data and information, prepare the questionnaire sheet. Try to make the questionnaire as simple as possible. The questionnaire sheet distributed before the CCM (collection at the CCM) is attached in Appendix I. The

questionnaire has to be made based on the local situation. In case that people are illiterate or not familiar with answering the questionnaire, the way to asking the questions must be re-considered. The questionnaire sheet draft is recommended to be pre-tested before actually distributing to farmers. (i.e. Ask one or two farmers to answer the questionnaire and check which questions are difficult to answer.)

Box: Ask about Land Use Situation by questionnaire

One of the most difficult issues relating to the project preparation of the afforestation project is the issue of “land.” In Vietnam, the land use right certificates for forestry land may be issued to each individual household or forest enterprise, or maybe such land allocation process is underway depending on the provinces. It is critical for project planners to grasp the area of forestry land which can be indeed used for the project; how can we obtain such information if land is already allocated to each household? Or, even if the land has not been allocated to people, there is a possibility that local people who do not have the land-use-right may have invaded to the land and carrying out economic activities in such area.

In order to obtain the information about the current land-use situation efficiently at the stage of project preparation, we may ask the CCM participants to draw their own land according to the current situation and ask them to specify the area where they may be willing to carry out afforestation activities.

7. **Distribute the invitation letter with questionnaire sheet** to participants with close coordination with local authorities. The guidance to the lower level local authority for the guidance to hold the CCM may be issued (e.g., in case of Thai Nguyen’s case, Phu Binh District People’s Committee issued the guidance to hold the CCM towards each Commune level People’s Committee to instruct the detail step). The invitation letter and guidance for the CCM are attached in Appendix 4 and Appendix 5.

8. Select the facilitators and assistants for the CCM

- Who has good experiences on local community approaching, with special capacity to push up village dialogue, never attack or “TOP DOWN” to the meeting.

9. Prepare the presentation materials

What can be done at the CCM?

Examples:

- √ Village Map (Resources Map)

- √ Stakeholder analysis
- √ Transect walk
- √ Group discussion
- √ Needs ranking

1.1.1.1.2 Required instruments, equipment of the CCM

- All needed instruments or equipments should be used in the CCM simply and easily to understand, but very clear and concrete. Do not use the scientific styles.
- The table or integrated graphic of previous reforestation programmes which follow the group B⁵¹ (economy analysis) in the national frame (wide country), big size, maybe on large scale of paper or slide on projector and transparencies on over-head.
- The table or integrated graphic of reforestation planning in communes (where the CCM will be organized) which follow the group C (social analysis), addition of column for community appraisals, big size, may be on large scale paper or slide on projector and transparencies on over-head.
- The Commune Map on integrated information as: topographical situation, land use, existing forest types, village and hamlet locations, infrastructures and other economic units - the map on big scale as over 1/25,000.
- Big size of white paper for “COMMUNITY PARTICIPATORY MAPPING”, who want to describe or explain his/her idea on reforestation, options and other concerned activities which follow the CCM objectives, could display on this big size paper.
- Big blackboard or whiteboard, chalk and whiteboard marker (prockey) in different colors (for describing and explanation).

⁵¹ Six groups (Groups A to F) were formed to carry out the feasibility study and the implementation planning during the first phase of FICAB.

Chapter 3: What could be done in the CCM?

As stated in the Chapter 1, the CCM is held for three reasons (1. to explain the general description of project to local people (e.g. the farmers) at the earlier stage of project preparation, 2. to identify people's needs and incentives so that we can reflect their needs into project development, and 3. to obtain the socio-economic information directly from local people such as farmers (by questionnaire sheet). Therefore, taking the case of the CCM at the Thai Nguyen Province, the activities at the CCM can be listed below:

- √ Simple opening talk and introduction in brief about CCM, focused objectives and suggestion for meeting actions
- √ Presentation of project options by facilitator. Do not forget to explain the advantage, disadvantage, risk, and opportunities of each project options.
- √ Preference ranking by participants to understand their needs towards each option
- √ Group discussion on why and why not participants choose each option.
- √ Group discussion on suggestion in case of project implementation of each option.
- √ General discussion on people's needs and incentive, their current problems, etc.

Box: Option to be presented at the CCM in Thai Nguyen Province

1. Group for production forest

Based on the data was conducted by the local sub-contractor and JICA study team, six production forest models (options) have been selected for CCM which are including:

Model 1: Farmer + Self capital + Production forest

Model 2: Farmer + Bank loan + Production forest

Model 3: Group farmer + Self capital + Production forest

Model 4: Group farmer + Bank loan + Production forest

Model 5: Farmer + Forestry enterprise + Production forest

Model 6: Group farmer + Forestry enterprise + Production forest

2. Group for agro forestry

For agro-forestry models, the local sub-contractor and the JICA study team selected eight models (options) to present at CCM which are including:

Model 1: Farmer + Self capital + Agroforestry (Agriculture and short term forestry products)

Model 2: Farmer + Self capital + Agroforestry (Agriculture and long term forestry products)

Model 3: Farmer + Bank loan + Agroforestry (Agriculture and short term forestry products)

Model 4: Farmer + Bank loan + Agroforestry (Agriculture and long term forestry products)

Model 5: Group farmer + Self capital + Agroforestry (Agriculture and short term forestry products)

Model 6: Group farmer + Self capital + Agroforestry (Agriculture and long term forestry products)

Model 7: Group farmer + Bank loan + Agroforestry (Agriculture and short term forestry products)

Model 8: Group farmer + Bank loan + Agroforestry (Agriculture and long term forestry products)

Chapter 4: How to analyze the result of the CCM?

1. PRODUCTION FOREST

Most land for production forestry has been already allocated to individual households with land-use certificate⁵². In order for Forestry Enterprises (FE) or any organization to carry out the production forestry project required to use such individual households' land; that is, forestry land for production of woods could be secured by a contract to use individual household's land, by a contract to use a number of households' land forming organization of farmers as the labor force, or a contract with FE entrusting with total coordination with peoples.

In any case, as the land is used by local people, it is critical to design the project in a way that people are interested in participating to the project. For this reason, it is important to obtain people's needs and incentives at the beginning stage of project planning, and then reflect their needs into the project implementation plan. Therefore, the result of CCM can be utilized to analyze people's needs and incentives and possible form and structure of project implementation.

Analysis points and its corresponding activities in the Study is described in the table below.

Table 1: Analysis check list

Check Points	Detail check items	Activities in the study
1. Identification of project beneficiaries and needs assessment	1.1. Have the land owners/users under project area been identified? 1.2. Has the information on the general socio-economic situation of the project area and people's need been collected and analyzed? 1.3 Has the people's needs been reflected into the project plans?	1.1. Land owners/users identified before CCM (data collection stage) 1.2. Data and information collected before and during CCM. 1.3 Project option evaluation and CCM are the method to reflect people's needs into the project plans.
2. People's project acceptance	2.1. Has the influence to the current forest resource use/production and people's living system and its social and economic feasibility been examined?	2.1 Brief analysis is done before CCM and detail analysis will be carried out during implementation of Feasibility Study.

⁵² There are some pieces of land which is still used by Forestry Enterprises in Vietnam besides the land used by households.

Check Points	Detail check items	Activities in the study
	2.2. Do people accept the project with full understanding of project influence?	2.2 During the CCM, the project will be explained to farmers carefully.
3. Mitigation of negative impact	3.1. Does the project have possibility to pose negative impact to people? 3.2 Has the options to mitigate, reduce, or compensate the negative impact been prepared?	3.1. Brief analysis is done before CCM and detail analysis will be carried out during implementation of Feasibility Study (F/S). 3.2 Detail analysis will be carried out during implementation of F/S.
4. Participation from People (or social/farmers' organizations)	4.1. Was there any opportunity for the people to participate in the discussion in project planning? 4.2. Was the way of people's participation appropriate? 4.3. Have the existing social/farmers' organizations been researched? And, is such organization able to participate in the project? 4.4. In case that people will obtain profit from the project, is there any monitoring mechanism to check if the expected profit is surely received by people developed in the project planning?	4.1. CCM is the opportunity for people to participate in the project planning. 4.2. CCM is designed for efficient and effective people's participation. 4.3. Existing social/farmers' organizations are identified and analyzed before CCM. Forming or utilizing organization is analyzed before, during and after the CCM. 4.4. Profit sharing and its monitoring mechanism is one of the difficulties discussed in the CCM. More detail analysis will be carried out during implementation of F/S and more specifically implementation planning.

2. AGRO-FORESTRY

The “Agroforestry” in the Study is considered to be the combination of farming system and forestry component, fruit tree, and/or Non-Timber Forest Product carried out by local households from the view of support to the small farmers, poverty alleviation, and food security.

In case that a certain technology is introduced and implemented, there are many ways to extend the technology: for example, extension officers, FEs, NGOs, farmers' groups may be able to implement the extension of the technology. Considering such possibilities, the result of CCM can be used to analyze the potential method for technology extension.

Reference: The Case in Thai Nguyen Province on August 2 and 3, 2005

1. PREPARATION STAGE

(a) Meetings among stakeholders and organizers

Coordinated partnership for preparation of the CCM was first identified and organized with official representatives of the JICA Study Team, Provincial Study Team (Sub DoF), District PC (where the project area is located), which consultants involve CCM organization. In these meetings, the information on purpose and content of the CCM was shared among the organization board and the schedule for the preparation activities (data collection, participant selection, facilitator selection, design building for CCM, etc.), CCM date, place to hold the CCM, and CCM agenda, etc. were set.

(b) Data and information collection

Focused concise research on socio economic general statements of all targeted project communes (five communes⁵³) was carried out. The collected information include some characteristics, typical villages and households, fields model, and then the size of CCM place for CCM is decided.

Appendix 6 shows the integrated table of this focused concise research on socio economic which related reforestation and Agro-Forestry implemented trends (in five project targeted communes).

(c) Selection of participants

Having investigated local condition, CCM conductors identified who to be participated in the meeting according to the Table 2.

(d) Selection of facilitators

Local facilitator candidates were nominated by District PC to carry out the CCM (based on list of graduated students from Thai Nguyen Agro-Forestry University who are working for Agro-Forestry Extension practicing programme at the commune level, managed by District PC).

⁵³ The project area originally covers 5 communes, namely Ban Dat, Tan Khanh, Tan Kim, Tan Thanh, and Tan Hoa of Phu Binh District, Thai Nguyen Province. However, due to characteristics of the land-use rights in the commune, Tan Khanh is taken out from the original project area at the project planning phase. As CCM was conducted at the initial stage of the F/S, collection of the relevant information and data was conducted in the original project area, including the data from Tan Khanh, unless explicitly so mentioned.

(e) Training of facilitators

Facilitators are trained to conduct the CCM. Facilitators must understand the objective of CCM and materials used in the CCM. Facilitators themselves prepared materials used in the CCM so that they are more prepared for facilitation (they became able to explain the each option to farmers, and lead to participatory and friendly atmosphere at the CCM.)

(f) Coordination with local authority

The conductors of CCM collaborated closely with Commune PC leaders and District PC officers to confirm detail logistic matters (e.g. place, documents, sending invitation letters, etc.)

(g) Rehearsal

The CCM conductors (mainly facilitators) had actually visited CCM place before the CCM date and rehearsed all the agenda of CCM to practice the facilitation.

The agenda of CCM is attached in Appendix 1, 2 .

Table 2: Participants table

Reforestation Period Title and Notice for CCM	Production Forestry Project Target Site					Agroforestry Project Target Site
	BAN DAT	TAN KHANH NEZ	TAN KIM NEZ	TAN THANH	TAN HOA	TAN HOA
PAM	372.63 Ha 535 HH	591.14 Ha 517 HH	298.76 Ha 415 HH	1246.00 Ha 950 HH	314Ha 466HH	124.15Ha 206HH
327 (773)		32.65 Ha 51 HH	18.50 Ha 29 HH	512.56 Ha	49.10 Ha 37 HH	
Free (Private fund)	390.05 Ha 626 HH	175.28 Ha 181 HH	459.34 Ha 721 HH		206.55 Ha 664 HH	
Villages	14	23	17	12	10	4
Households	1161	1595	1448	1166	1728	
Participants from PAM Households	5	5	3	8	4	6
Participants from 327 and Free Households	4	3	5	4	4	4
Stakeholders' Participants						
▪ PC Leader	1	1	1	1	1	
▪ Farmer Ass.	1	1	1	1	1	
▪ Women Ass.	1	1	1	1	1	
▪ Youth Ass.	1	1	1	1	1	
▪ Forestry officer	1	1	1	1	1	
	Σ 14	Σ 13	Σ 13	Σ 17	Σ 10	Σ 13
Recommend to CCM	Day 1: Commune Group I: 40 Ps Place: TAN KHANH			Day 2 Commune Group II: 27 Ps Place: TAN HOA		Day 2 13 Ps Place: Tan Hoa

In TAN HOA commune where four villages were selected as experimental study on Agro-Forestry Models, 8 participants additionally participated from households who are representatives of Agro forestry model (two participants for each village). This is the reason why the number of participants of TAN HOA Commune became 23. The total number of participants of CCM on Day 2 (Commune Group II) became 40 persons.

2. CCM IMPLEMENTATION

- At first based on official CCM Agenda (here attached) the organization Board assigned responsible conductor for each task: main organizer, main facilitator and supported facilitator (in plenary and each discussion group).
- Participants registration before CCM opening (at least one hour):
 - Participants hand questionnaire answer to organization board, where facilitators check and help to review, to correct, and then to compile the questionnaires.
 - Reaffirmation of list participants and participants receipt the allowance for questionnaire respond.
- Opening CCM with Honour Speeches (by some special representatives)
- Introduction in brief of JICA Project and CCM
- Divided group discussion (smaller number participants or for individual topic as production forest and Agro Forestry Model)
- Discussion of participants on ranking panels:
 - Project evaluation options
 - People's needs and incentives
 - Constraints and solutions
- Reporter of each discussion group show the conclusion
- CCM organization board closed speeches
- Participants receipt final allowance (meeting allowance)

The lunch of CCM for all participants was provided free of charge, could make the friendship atmosphere and sincere relationship among participants.

3. RESULT OF CCM

Based on conclusion reports of each discussion groups:

Group 1. Production Forest Options (Model)

After the explanation, analyses and discussions on the six options among the farmers, the results were revealed as follows:

(a) The result of vote:

- Option 5: 22 tickets (most interested)
- Option 1,4: 19 tickets (second most interested)
- Option 3: 13 tickets
- Option 6: 2 tickets
- Option 2: 0 ticket (least interested)

(b) The reasons for what farmers feel interested (+) and uninterested (-) in:

Option 5:

(+) Farmers who do not have self-capital will be supplied with free seedlings, technique, management and labour cost; and importantly, their products will be consumed by some company or forest enterprise (FE).

(-) Farmers are hesitant about profit equality and the contract between 2 sides.

Option 1 and 4:

(+) Farmers are free in using and managing their own money and they can also look for customers for their products with negotiated prices.

(-) They are limited in capital (opt. 1).

Option 6:

(-) In the current situation, the profit proportions between FE and households (HHs) are unreasonable:

Firstly, the beginning investment (nearly VND 7 mil) of FE in HHs' afforestation activities is much less than the volume of wood (65m³/ha) that HHs have to return to FE.

Secondly, HHs are worried that their extra wood consumption may be under the force of FE with low price; however, they have no choice (conducted basing on the contract).

Option 2:

(-) If HH meets risk in their plantation, they will lose their money and go bankrupt.

(c) Suggested solutions to make the options more feasible:

- Capital is considered a top priority in this area. Thus, it is necessary for HHs to get a loan with low interest (opt. 2, 4)
- Available and stable markets should be set up to avoid risk of nowhere to sell as well as being forced with low price (all options.)
- It is important to carry out a series of study on land to classify types of soil in order to choose suitable species for each one (all opt.)
- HHs' plantation activities should be monitored and supervised during the time they use the loan from banks (opt. 2,4,5,6)
- Training courses on afforestation techniques should be held (all opt.)
- Pay-back period must be long enough for each rotation (7-10 years)

In terms of option 5, which is most wanted, in this case, it is fair to arrange a discussion between FE and HHs to take a consideration of the profit equality for 2 sides, including clear terms and conditions such as:

- + The total products should be divided into 2 equal parts: 50/50, meaning: HH owns 50% of the wood and return 50% to FE. *Or:*
- + HH should return 20m³/ha to FE

(The price must be fixed at the current market when the contract is liquidated)

(d) Needs, wants and incentives with vote result:

- Technical transfer to HHs should be regular and permanent (13)
- Consult HHs which species is planted in specific types of land (11)
- Provide HHs with necessary equipment and methods in protecting against forest fire (8)
- More study and analyse the good and bad points of pine which has high values in both domestic and overseas markets
- Replace some insufficient types of trees with acacia hybrid (15)
- Invest more in holes-digging and favourable conditions for acacia hybrid development (9)
- Germinate a local nursery garden (14)

- Fertilizers should be under aegis of the government. The price of fertilizers are too high at the moment – twice as expensive as rice (15)
- Study tours (16)
- Update information about species, technique, market... (14)

Plantation plans must be built in a large scope with detailed activities: which trees are chosen, where and how many hectares are planted...

(Now, HHs have almost no oriented and unified plans. Therefore, the effectiveness is inadequate)

Types of trees voted as follows:

- Canarium (intercropped with other types): 10
- Red eucalyptus: 3
- Acacia hybrid: 16
- Acacia mangium: 11
- Eucalyptus (bach dan hom): 10
- Pineapple: 0
- Acacia with tea: 2

(e) Problems:

- Lack of capital
- Cumbersome and complicated administrations in borrowing money
- Bad seedlings quality due to transportation
- Self managing consuming places
- Infertile soil
- Transportation system (bad roads)

(f) Solutions to problems:

- Special policies for farmers in borrowing money from Social Policy Bank; call for help from home and international donors, GOs or NGOs
- Self-catering seedlings from local nursery garden
- Consulting farmers about consuming places
- Taking relevant measures for land improvement
- Innovating and upgrading transportation systems (intervillage roads)

Phu Binh, 2 August 2005

Group 2. Production Forest Options (Models)

After the explanation, analyses and discussions on the six options (models) among the farmers, the results were summed up as follows:

(a) The result of vote:

Most preferred options:

Option 2: HH + Loan + Production Forest (38 tickets)

Option 4: HHs + Loan + Production Forest (34 tickets)

Least preferred options:

Option 1: HH + Self-capital + Production Forest

Option 5: HH + FE + Production Forest

Option 6: HHs + FE + Production Forest

(b) The reasons for what farmers are uninterested in:

- High norms (65m³/ ha)
- Price force
- Small and irregular investment
- No unified agreement between FE and HHs

(c) Suggested solutions to make options 5 and 6 more feasible:

- 30-35m³/ha returned to FE (depending on land quality)
- The risks, if happens, must be shared by both FE and HHs
- Synchronous investment of FE in HHs' plantation
- Information exchange between FE and HHs should be regular.
 - + *HHs will be interested in options 5 and 6 in the case all necessary terms and conditions must be negotiated beforehand.*
 - + *The advantage of option 5 and 6 is prominent: HHs do not have to worry about capital and they can also gather in group to produce a huge volume of wood and create an auspicious market.*

(d) Needs, wants and incentives:

- If possible, HHs are eager to have free investment from Vietnamese government (like PAM) or 30-70 (HH: 30%, government: 70%)

- Farmers are willing to receive assistance from home and international organizations
- Farmers want to plant acacia hybrid or eucalyptus U16
- PAM forest should be replaced with other species which is most suitable to the land features
- Nursery gardens in local will be the best solution to seedlings quality.
- Safe market to sell products
- New species should be experimentally planted, then introduced to HHs
- The dissemination of knowledge of afforestation techniques is essential
- Study tours, workshops, seminars are important for farmers to share experience and knowledge.

(e) Problems:

- Capital and loan is not enough to meet the demands in plantation
- Soil is eroded and poor
- Bad transportation will lead to low price: customers meet difficulty in transporting wood so they reduce the price.
- Expensive seedlings creates a hard nut for HHs in the first investment period
- Consuming places is always farmers' puzzle
- Measures to protect and manage forest against thefts and natural damage.

(f) Solutions to problems:

- Social Policy Bank and Agricultural and Rural Development Bank should make it easier for HHs to borrow enough money in a sufficient period of time
- Agricultural and Rural Development Department, related offices in collaboration with HHs find out solutions to bad soil issues
- Government should much or few invest in building transportation roads
- HHs can cultivate seedlings in a local nursery garden under experts' guidance and supervision
- Information about market should be given and exchanged among HHs
- Forest fire prevention measures must be reinforced

Phu Binh, 2 August 2005

Group 3. Production Forest Options (Models)

After the explanation, analyses and discussions on the six options (models) among the farmers, the results were summarized as follows:

(a) The result of vote:

Option 1: HH + Self-capital + Production Forest	(4 tickets)
Option 2: HH + Loan + Production Forest	(27 tickets)
Option 3: HHs + Self-capital + Production Forest	(10 tickets)
Option 4: HHs + Loan + Production Forest	(22 tickets)
Option 5: HH + FE + Production Forest	(4 tickets)
Option 6: HHs + FE + Production Forest	(42 tickets)

(b) The reasons for what farmers are interested (+) and uninterested (-) in:

Option 1:

(+) HH is independent to calculate and use their own money in plantation and free to sell their products

(-) Individual HH will make little effort to implement the project successfully

Option 2:

(+) Farmers freely manage their loan and they themselves can also search for potential customers for their products with negotiated prices.

(-) They own a limited area of land. Accordingly, the amount of products is not worth mentioning

Option 4:

(+) All things such as seedlings, techniques, management, consuming places, price and so on will be discussed and carried out among the organization of HHs basing on the loan from banks. Additionally, concentrated products are attractive enough to FE. Hence, it will not take time and energy to find customers as well as consuming places

Option 5:

(+) HH is supported with available seedlings, fertilizers, techniques, management and labour cost.

(-) If HH wants to develop their plantation with other trees, they must ask for permission from FE because HH has no right in making decision to choose species which is better and more effective. Moreover, HH just receives a finite investment (nearly VND 7mil/ha) from FE but they have to provide FE with a much more valuable volume of wood (65m³/ha) in return. Therefore, HH expect to have no wood left for them to sell.

Option 6:

(+) HHs are helped by FE in their plantation, especially in the first years of investment. In addition, HHs can make an entirely good plan for all activities from the beginning to the end (seedlings, techniques, management, harvesting, price negotiation...). All the jobs are carried out basing on the unification of the organization.

(-) HHs feel hard and complicated to make common and final decisions, as a saying goes: “Too many cooks spoil the broth”.

(c) Suggested solutions to make the options more feasible:

- Consuming places with stable price should be available;
- Transportation systems must be upgraded or newly built;
- Seedlings and technical consultation is very important to farmers;
- More investment from the government and other organizations is farmers' concern;
- The interest for loan needs to be lowered;
- HHs are eager to have the land-use right (red book) to take an active role in plantation plan;
- In cases of options 5 and 6: All the terms and conditions must be democratically and publicly discussed between HHs and FE before the contract is signed in order to assure the benefits of both two sides. HHs request that the volume of wood returned to FE should be reduced; the allowance for forest management needs increasing (VND 100,000/ year is too little).

(d) Needs, wants and incentives:

- Land-use right should be prolonged for farmers to make permanent plans (23 tickets);
- HHs are willing to get capital allowance from Vietnamese government (23 tickets);
- Transportation systems (23 tickets);

- Techniques and consuming markets (12 tickets);
- Guaranteed price (7 tickets);
- Irrigation systems (dams, lakes, canals...) should necessarily be built to supply enough water for trees;
- Seedlings must be supplied on time and in time (right season for cultivation);
- Farmers need to be trained with modern and up-to-date techniques, forest fire prevention measures;
- Farmers are really interested in the agro-forestry model with various species.

Types of trees voted as follows:

- Eucalyptus (Bach Dan Mo):	23
- Acacia mangium:	23
- Canarium:	10
- Bamboo (Mang Bat Do):	9
- Cay Phan (.....):	8
- Sapindus (Sau):	6

(e) Problems:

- HHs meet difficulty in seedlings (sources and quality);
- Forest management is a hard problem;
- Farmers lack oriented policies on plantation and the care from all authority levels.

(f) Solutions to problems:

- Assign land with land-use right (red book) to individual HHs;
- Support some certain allowance for HHs in forest fire prevention campaign;
- Training courses on techniques for all HHs must be taken monthly or seasonally;
- Local and governmental authorities and related offices should take supervision and control on the project (if any), farmers' plantation and the markets;
- HHs gather money, time and energy together with the local and government assistance to make transportation roads that plays an important role in planting, exploiting and transporting wood;
- Anti-insect movements.

Phu Binh, 3 August 2005

Group 4. Agro-forestry Options (Models)

After a working day, the explanation, analyses and discussions on the eight options (models) were performed seriously among the farmers, the results were summarized as follows:

(a) The result of vote:

The options were voted as the most interesting to farmers:

Option 5: HHs + Self-capital + Short-time Agro-forest Products (16 tickets)

Option 7: HHs + Loan + Short-time Agro-forest Products(16 tickets)

(b) The reasons for what farmers are interested in the two options:

- HHs have more chance to share experience, knowledge of science and technology in plantation
- The group of the same incentive HHs will enthusiastically contribute their strength, labour force to management. Furthermore, their products (huge volume) will become real goods that are sold in the market
- The rotation of short-time trees such as acacia will not let HHs take long time to take back the money that they invested, after that HHs can implement another rotation. Moreover, the unforeseeable risk of losing money due to natural damage or downward fluctuation of price and so on may come to the farmers.

(c) The reasons for what farmers are not interested in the other options:

- HHS have limited capital for investment (opt. 1,2,5,6)
- It's difficult to sell small volume of wood (opt. 1,2,3,4)
- Individual HH cannot have mutual support (opt. 1,2,3,4)
- HHs' land area is not much enough to plant long-time forest trees (opt. 2,4,6,8)
- It's risky and HHs do not know what will happen after a long time (opt. 2,4,6,8)
- The consuming markets for products are not yet guaranteed.
-

(d) Suggested solutions to make the options more feasible:

- The capital should be raised in different ways from various sources, for example, self-capital, social organizations (GOs, NGOs), loan from banks with low interest, projects, etc.
- Long-term policies on afforestation and consuming market (to avoid price force from customers) should be systematically made from local to government levels.
- Organizations of the same incentive HHs should be widely built in each village
- Mechanization and modernization should be applied to plantation

(e) Preferred agricultural species and forest products:

Agricultural species:

- Tea: 22 tickets (most interested)
- Lychee: 10 tickets (second most interested)

Forest products:

Products with success: acacia hybrids, eucalyptus hybrids, rattan and acacia mangium

Reasons for success:

- The above-mentioned species can quickly develop in the land and climate conditions
- They require a little investment, which is suitable for the local economic conditions (many HHs in Phu Binh are in poverty)
- They have advantages of simple plantation and management. Also, they have good quality so that it is easy to sell on the market

Products with failure: acacia auliculifomit, Lat (.....), Lim (.....), Xa Cu (.....) and pine

Reasons for failure:

- The land condition (infertile) is not suitable for their development
- The investment and plantation techniques are not good enough
- HHs cannot wait until the right time for harvesting rotation. Therefore, the quality of the long-time products is undervalued.

(e)Problems:

- Water
- Transportation
- Power
- Capital
- Techniques
- Seedlings
- Consuming places
- Low unification in community

(f)Solutions to problems:

- Take advantage of the available ponds, lakes, dams in locals in irrigation; build some more canal systems and pump stations to supply enough water for trees
- Government collaborates with local residents on building roads; concretizing transportation system
- Power stations with standard cables must be installed in all villages
- Loan with low interest or without interest
- Training courses and study tours should be held, and the result of the courses will be reflected by the effectiveness in practice
- Nursery garden should be raised in locals
- The government should make a healthy market, avoiding the current situation of price force; guarantee for consuming products
- Popularize the plantation campaign among the farmers

Phu Binh, 3 August 2005

4. ANALYSIS OF THE CCM RESULT

(a) *Production Forest*

- Many farmers are interested in carrying out the production forest project by contracting with Dong Phu Forest Enterprise (FE) (or private company) because farmers who lack their own capital can receive the initial investment and technical support from the FE. However, farmers are not willing to accept the current contract with Dong Phu Forest Enterprise if the current condition applies to the future contract. That is, farmers perceive that the profit sharing between farmers and FE at the current contract is not fair, and farmers are willing to participate in the project only if the contract condition is modified to reflect farmers' request. Current contract with FE impose 50 - 65 m³/ha wood to return to FE. However, most farmers worry that they may fail to produce so much because of the soil condition of the Phu Binh district or unforeseen natural disaster. On the other hand, farmers do not know how much volume of wood they can in fact produce in the future by themselves. Therefore, it is crucial to forecast the volume of output and then set the reasonable production volume in the contract with mutual agreement between FE and farmers.
- Farmers are not familiar with the arrangement of contract. Also, farmers complain that FE gives explanation on forestry project from their point of view only without asking farmers' needs. Farmers wish to receive easy explanation of the project and provide information from farmers' side.
- Some farmers in Tan Kim and Tan Thanh Commune have experience in carrying out the production forest project by signing the contract with Dong Phu FE's individually. On the other hand, some farmers stated that they are interested in forming the farmers' organization to contract with Dong Phu FE as a group and manage the production forest project by a group. They also noted that in order for the farmers' group to be functional, they need government guidance and approval for forming the group from the people's committee, and selected leader would play the important role. (Individual contract with Dong Phu FE can be implemented relatively smoothly as it has been already implemented in the area.)

(b) *Agro-forestry*

- According the discussion result of the meeting, most farmers preferred to carry out the agro-forestry project in the combination of short-term species (such as acacia hybrid and acacia mangium) and agriculture product (such as tea) by forming a farming group. On the other hand, as most farmers are poor so that they neither have enough self-capital nor confidence enough to borrow bank loans, resulting most farmers wishing to receive financial support from NGOs, governments, or international aid agencies.
- As stated in the case of the production forestry project, farmers noted that formation of a farming group requires guidance and approval from government. The project area already have one existing farmers' group, however, the group only focus on seedling activities, and farmers are willing to form agro-forestry management group.

**APPENDIX 1. CCM. AGENDA DAY 1 IN THE COMMUNE GROUP 1
(BAN DAT, TAN KHANH AND TAM KIM)**

Date: 2 August, 2005

Time frame	Contents of Activities	Place	Responsible Conductors	Notice
Morning				
7.30-	Registration participants and handed questionnaire form	Secretary desk	Organization board and facilitator of group (1), (2), (3)	Mr. Vo Tri Chung
8.30-9.00	CCM opening	In the meeting room	Mr. Thai Quang Hai	
	Purpose and signification of CCM			
	Introduction of participant			
	Opening speech		Mr. Tran Xuan Chien	Thai Nguyen DoF
	Introduction of JICA Project		JICA team	
	Introduction of the CCM (goals and objectives, methodologies, organization, implementation)		Organization board staff	
9.00-10.30	Divide in two group discussion	Each group has one place	Facilitator of group (1) Mr. Giang, Mr. Hoai; Facilitator of group (2) Ms. Hai, Ms. Ngan	
	Present of content and discussion		Facilitators of group	
10.30	Tea break			
10.45-12.00	Continued discussion		Facilitators of group and participants	
12.00-13.30	Lunch break		Organization board	Mr. Hai and PC of Tan Khanh
Afternoon				
13.30-15.30	Continued groups discussion	May be in the meeting room or in the field (production forest site)	Facilitators	Depend on the weather how convenience
15.30-	All participant in the	In the meeting	Organization board	

Time frame	Contents of Activities	Place	Responsible Conductors	Notice
16.00	meeting room CCM Assessments To summarize of CCM Closing speech	room	Facilitator of two group present briefly of group discussion JICA team	
16.00	Participant get allowance	Secretary desk	Secretary board of CCM	

Remark:

- (1) Total of participant number is not over 50 persons for effective discussion and useful information selection.
- (2) The suitable time frame of working day for local farmers as rural custom started time on 8.00 AM and finished time on 4.00 PM.
- (3) If the number of Project Targeted Communes is too many and total number of population and households is too big, CCM can be held for different commune groups in order to organize them effectively and conveniently.

**APPENDIX 2. CCM.AGENDA DAY 2
IN THE COMMUNE GROUP 2 (TAN THANH, TAN HOA)**

Time frame	Production forest topic		Agro forestry topic	
	Contents of activities	Responsible Conductors	Contents of activities	Responsible Conductors
Morning				
7.30-	Registration participants and handed questionnaire form	Secretary desk	Registration participants and handed questionnaire form	Secretary desk
8.30-9.00	CCM opening (include two topic) Introduce of participant and delegate Opening speech Divide follow topic Introduce Facilitator	In the main meeting room Mr. Hai, Mr. Chien Other meeting room Ms. Nga. Mr. Dat Group Facilitator (3)	CCM opening (include two topic) Introduce of participant and delegate Opening speech Divide follow topic Introduce Facilitator	In the main meeting room Other meeting room Mr. Trong Hai, Mr. Huy Group Facilitator (4)
9.00-10.30	Group discussion	Group Facilitator (3)	Group discussion	Group Facilitator (4)
10.30	Tea break		Tea break	
10.45-12.00	Continued discussion	Group Facilitator (3)	Continued discussion	Group Facilitator (4)
12.00-13.30	Lunch break		Lunch break	
Afternoon				
13.30-15.30	Continued groups discussion	Group Facilitator (3) May be in the meeting room or in the field. Depend on the weather how convenience	Continued groups discussion	Group Facilitator (4) May be in the meeting room or in the field. Depend on the weather how convenience
15.30-16.00	Assessment and conclusion of group	Group Facilitator (3)	Assessment and conclusion of group	Group Facilitator (4)
16.00	All participant in the main meeting room. Closing CCM	Organization board	All participant in the main meeting room. Closing CCM	Organization board
16.00	Participant get allowance	Secretary desk	Participant get allowance	Secretary desk

APPENDIX 3: QUESTIONNAIRE SHEET

Questionnaire for Household economic survey

Date: ____ / ____ / 2005

Village/Commune: _____

A. Household information

1. Name of householder: _____

2. Ethnic group: _____

3. Gender: Male female Age _____

4. Total members live in your household Male female

5. Main Labours: Male female Under and over working age Male female

6. Assets of family:

6.1. Transports: Bicycle Motorcycle xe công nông Other

6.2. House type: Wood/thatched Building house Multistoried house

7. What rank of economic of your family its right: Rich Under rich medium
 poor hungry

B. Times stay in Village

1. Ông/Bà đã ở xóm này bao lâu rồi? từ năm nào _____ sinh ra đây

How long did your family lives in this village? From year Born here

2. Quê gốc của Ông/Bà là ở đâu?

Where were you home land?

Thôn _____ xã _____ huyện _____ tỉnh _____

Village Community District Province

3. Nếu gia đình ta cư đến đây (If your family emigrated to here)

Lý do di cư: Kế hoạch nhà nước di cư tự do Lý do khác

Reason of emigration: state planning; free emigration; other reason

C. Các nguồn thu nhập (Incomes)

C1: Năm 2004, thu nhập của Ông/Bà là bao nhiêu:

In 2004, how much income is your family?:

Nông nghiệp ____vnd Lâm nghiệp ____vnd Dịch vụ/buôn bán ____vnd Lương ____vnd

Khác ____vnd

Agriculture Sylviculture Service Salary other

So với 5 năm trước, thu nhập của gia đình: tăng lên Không thay đổi
Giảm xuống

Compare 5 year ago, your family income is: increase No change reduce

C2. Sản xuất nông nghiệp: Năm 2004, Ông/Bà đã trồng cây gì:

C2. Agriculture production: year 2004 what kind crops did you cultivated:

lúa khoai lạc ngô đậu sắn rau cây khác _____

Rice sweet potato peanut corn bean cassava vegetables other

Năng suất có thay đổi so với 5 năm trước không? tăng Giảm Không thay đổi

Productivity Compare 5 year ago increase reduce No change

Ông/Bà có bao giờ thiếu ăn không? Không thiếu Thiếu 1-2 tháng Thiếu hơn 4 tháng

Did you ever ill-nourish? No ill-nourished 1-2 months more than 4 months

Trong tổng số lượng sản phẩm nông nghiệp được thu hoạch năm 2004, bao nhiêu được sử dụng để phục vụ gia đình, và bao nhiêu đã bán trong thị trường?

Product of agriculture in 2004 how many you used for family, and how many you sell

Loại cây trồng Crops	Số bán sell	Giá tiền/kg price per kg	Bán ở đâu? Where you sell
Lúa (Rice)			
Màu (dry crop)			
Sản phẩm khác Other product			

(for the participants for the agroforestry project, the table below is asked.)

Loại cây trồng Crops	Số bán sell	Giá tiền/kg price per kg	Bán ở đâu? Where you sell
Lúa (Rice)			
Khoai lang (sweet potato)			
Lạc (peanut)			
Sắn (cassava)			
Đậu (bean)			
Ngô (Corn)			
Rau (Vegetables)			
Hoa quả (Fruit)			
(Tea)			
Sản phẩm khác Other product			

Ông/Bà có bao nhiêu con gia súc, gia cầm: con bò con trâu con lợn Gia cầm

How many livestock did you have: Cows Buffalo pigs poultry

C3. Financial support:

C3-1 Loan

1. Ông / bà có vay tiền trong 5 năm vừa qua không? Có Không

Have you received loan last 5 years? Yes No

2. nếu có vay thì vay ở ngân hàng nào?

Ngân hàng Chính sách, Ngân hàng Nông nghiệp, Ngân hàng khác(_____)

If your answer is yes above, which financial institution did you receive the loan?

Policy Bank, Agri-Bank, others (specify _____)

3. Mục đích ông bà vay vốn để làm gì?

Chăn nuôi Phát triển Nông nghiệp Phát triển lâm nghiệp Thủ công mỹ nghệ

Ngành nghề khác(_____)

What was the purpose to receive the loan?

Livestock Agriculture development forestry development handicraft

others (specify _____)

C3-2 Trợ cấp Subsidies

1. Trong 5 năm qua ông bà có nhận được khoản tiền trợ cấp nào không? Có Không

Have you received any subsidies last 5 years? Yes No

2. Nếu có thì ông, bà được trợ cấp bao nhiêu?

Lượng tiền trợ cấp : _____ VND

If your answer is yes above, how much of subsidies did you receive?

Specify the amount : _____ VND

3. Mục đích của việc nhận tiền trợ cấp để ông bà làm gì?

Chăn nuôi Phát triển Nông nghiệp Phát triển lâm nghiệp Thủ công mỹ nghệ

Ngành nghề khác(_____)

What was the purpose to receive the subsidies?

Livestock Agriculture development forestry development handicraft

others (specify _____)

C3. Những hoạt động sản xuất nào tạo thu nhập trong hộ gia đình của Ông/Bà? Activities have income in your family

TT	Loại hình hoạt động Activities	Số lao động		Số LĐ theo giới		Thu nhập bình quân (triệu đồng/năm) (Chú ý: không trừ chi phí) The average income (million per year) (Net Income)
		LĐ chính Main Labors	LĐ phụ Sub Labors	LĐ Nam Men Labors	LĐ nữ Women labors	
1	Sản xuất nông nghiệp (agriculture)					
2	Thu nhập từ lâm nghiệp (income from forest)					

TT	Loại hình hoạt động <i>Activities</i>	Số lao động		Số LĐ theo giới		Thu nhập bình quân (<i>triệu đồng/năm</i>) (<i>Chú ý: không trừ chi phí</i>) <i>The average income (million per year)</i> (<i>Net Income</i>)
		LĐ chính Main Labors	LĐ phụ Sub Labors	LĐ Nam Men Labors	LĐ nữ Women labors	
	<i>Gỗ cây (wood)</i>					
	<i>Gỗ thành phẩm (timber)</i>					
	<i>Cây ăn quả (Plant fruite)</i>					
	<i>Các loại khác (other)</i>					
3	Thu nhập khác (cụ thể _____) Other income					

D. Chi phí trong năm (Spending in the year)

Ông/Bà chi phí hết bao nhiêu cho mỗi khoản sau trong một năm? What kind of spend in one year?

TT	Chi phí cho hoạt động spend for activities	Quy ra thóc Rice value (kg)	Quy ra tiền convert to money (vnd)
1.	Nông nghiệp Agriculture		
2.	Gia súc livestock		
3.	Thực phẩm Food family supply		
4.	Học phí School fees		
5.	Sức khỏe healths		
6.	Thuế nhà ở (Tax for settlement)		
7.	Chi phí khác Other spend (_____)		

E. Quyền sử dụng đất (Land use right)

1. Xin mời ông bà hãy vẽ sơ đồ đất và nhà ở của mình vào trang giấy kèm theo

Please draw your land area following the instruction described in the attached paper.

2. Ông/Bà đã có đất canh tác như thế nào: mua nhà nước giao khác _____.

How do you have your lands?: Bought; land allocation; other

3. Ông/Bà đã nhận giấy quyền sử dụng đất vào năm nào? Năm _____

When did you have certificate of land use?

4. Ông/Bà có thêm đất khác không?

Did you have other land?

Nếu có, có bao nhiêu đất? _____ sào

If you have, How many land did you have? _____.

5. Bằng cách nào? mua nhà nước giao thừa kế khác _____)

How do you have lands? Bought; from Village allocation; inherit; other

6. Bây giờ gia đình ta có bao nhiêu đất? Xem dưới:

How many lands did you have now? look after

Loại đất Type of soil	Diện tích (sào)	Hình thức sở hữu đất (bìa đỏ) (Redbook with or without availability)
Lúa một vụ Rice one crop/year		
Lúa hai vụ Rice two crop/year		
Màu (dry crop)		
Vườn nhà garden		
Vườn đồi forest farm		
Đất rừng được giao forest land		
Đất khác other		

7. Ông/Bà có thuê đất không? có không

Did your family rental lands yes no

Nếu có, thì thuê đất nào? _____ Bao nhiêu _____ sào Tiền thuê/năm _____ đồng

If yes, what kind of land? How many money/year

8. Ông/Bà từng bao giờ có mâu thuẫn với người khác về đất đai không?

Did your family have conflict with other about lands?

Nếu có, thì mâu thuẫn về đất gì? _____.

If yes, What kind of contradiction

Với ai? _____.

Who is contradiction with your family

9. Đã giải quyết mâu thuẫn này bằng cách nào? _____.

How to resolve a conflict?

F. Sử dụng đất lâm nghiệp (Forestry land use)

F1 Allocated Forestry Land

1 Do you have Bare lands? Không Có

If yes, how large is the bare land? _____ Ha

If yes, please specify on the map of your land in the attachment.

2. Ông/Bà có đất rừng không? Không Có

Do you have forestry land Yes No

Ông/Bà đã nhận bao nhiêu đất rừng? _____ ha

How large forest land did you have?

Ông/Bà đã nhận đất theo hình thức gì:

What kind of lands own

quyền sở hữu đất (bìa đỏ) bố mẹ cho chương trình PAM chương trình 327

Red certificate inherit PAM Program 327 Program

Ông/Bà làm gì tại đất rừng được giao:

What did you do in your allocated forest land

Trồng rừng Trồng cây ăn quả Hoạt động khác (_____)

Woods; Sell timber; plant fruit; mix of agriculture and tree plantation; landscape; other

Ông bà có đánh giá gì về sản phẩm lâm nghiệp của rừng PAM mà gia đình đang quản lý ?

Did you have appreciate about forest product from PAM Program

Theo Ông/Bà nếu thay thế rừng PAM thì lựa chọn loại rừng nào hoặc phương thức sử dụng đất nào để đạt hiệu quả kinh tế nhất ?

Do you want to replace PAM forest with other kind of forest ?

Rất cảm ơn sự giúp đỡ của Ông/Bà / Thank you for your help

APPENDIX 4: INVITATION LETTER FOR THE CCM
THE PEOPLES OF COMMITTEE OF PHU BINH DISTRICT **SOCIALIST REPUBLIC OF VIETNAM**
OF PHU BINH DISTRICT Independence - Freedom – Happiness

No: /CV-UB

V/v Invitation for Communal Consultancy Meeting

Phu Binh, 25 July 2005

To: Sir or Madam

Under the frame of cooperation upon between the two Government of Vietnam and Japan on the project: “The development study on capacity building for preparing feasibility studies and implementation plans for afforestation projects in the Socialist Republic of Vietnam” which has been managed by Department of Forestry (Ministry of Agriculture and Rural Development) and Japan International Cooperation Agency (JICA).

The JICA Study Team cooperated with the Sub-Department Forestry of Thai Nguyen and The People Committee of Phu Binh District hold Communal Consultancy Meetings to provide adequate information, people’s needs and incentives for preparing feasibility studies and implementation plans of afforestation project.

➤ **Participants:**

- The JICA Study Team
- Leaders of the Phu Binh District PC, Women Union, Farmer Union, Youth Union and Agroforestry Staffs undertake in two communes (Tan Thanh and Tan Hoa).
- Representative of the households have production forest

➤ **Times:** meeting one day, starting on 7h30 AM, date 03 August 2005

➤ **Place:** It will be held at Tan Hoa PC Meeting room

➤ The representatives should come to joint adequate, on time and prepare usefully opinions for discussion.

Remark: Please fill in questionnaire which is sent enclosure with the invitation letter before come to join Communal Consultancy Meeting.

Phu Binh District PC Authority
Chairman

APPENDIX 5: GUIDANCE TO HOLD THE CCM**THE PEOPLES OF COMMITTEE
OF PHU BINH DISTRICT****SOCIALIST REPUBLIC OF VIETNAM
Independence - Freedom – Happiness**

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No: 363/CV-UB

*Ref: Guidance CCM Participation**Phu Binh date 25-July-2005***To: Commune PC (Five Targeted Project Communes) BAN DAT, TAN KHANH, TAN KIM, TAN HOA, TAN THANH**

Realized planning belong to the cooperation between two governments as Vietnam and Japan on the project which title “Capacity building of the feasibility study projects of reforestation and Agro forestry model in Vietnam”, both main partners as Department of Forestry (MARD) and JICA selected Thai Nguyen province which is pilot on project targeted programme.

The Thai Nguyen Sub Department of Forestry and Phu Binh District PC selected five target project communes as Ban Dat, Tan Khanh, Tan Kim, Tan Hoa, Tan Thanh.

Most important solution of the project making is local communities’ participation which base on the Communal Consultation Meeting for feasibility study. Sub DoF Thai Nguyen and Phu Binh district PC organize the CCM for two commune – groups:

- ⇒ Group One as Day 1-Combines three communes: Ban Dat, Tan Khanh, Tan Kim on 02 August 2005 at Tan Khanh Commune PC (meeting place)
- ⇒ Group Two as Day 2-Combines two communes: Tan Hoa, Tan Thanh on 03 August 2005 at Tan Hoa Commune PC (meeting place)

The numbers of participants for each commune – group were arranged in order as 40 persons, in details following below table:

	Ban Dat	Tan Khanh	Tan Kim	Tan Hoa	Tan Thanh
Production Forest Household	9	8	8	12	10
Agro forestry Model Household	0	0	0	0	8
PC leader	1	1	1	1	1
Farmer Association	1	1	1	1	1
Woman Union	1	1	1	1	1
Youth Union	1	1	1	1	1
Agro Forestry officer	1	1	1	1	1
Total	14	13	13	17	23

- ⇒ Select criteria of participants as: linkage with production forest, agro forestry model; representative of different ethnic people groups; genders and generations; good experiences and knowledge on reforestation and land use; from different socio-economic ranking. Who will be invited as official CCM participant must answer by writing on the questionnaire form before attendance at CCM.
- ⇒ The Commune PC send official list of participants to District PC (Permanent Organization Board of CCM) before deadline 29 August 2005.
- ⇒ Allowance for each participant:
 - Questionnaire answered: 10,000 VND
 - CCM attendance: 20,000 VND
 - All participants will be provided lunch (free of charge)
- ⇒ Commune PC of meeting place prepare all conditions for CCM conducting successful and will be reimbursed all service fees (by direct cost).

Phu Binh District PC

**APPENDIX 6: INTEGRATED SOCIAL IMPACTS ON REFORESTATION
PROJECTS IN THAI NGUYEN**

Orderly No. and name of commune (North to South)	Special characteristics and statements	HHs/ population	Ethnic minority group household number	Surface natural land (ha)	Forestry land on available planning (ha)	No. Village	Name of villages	HH/ population (if available)	HHs under poor level (135 criteria)	Forestry areas (ha)	Existing areas of PAM reforestation			Existing areas of "327", "773" programs of reforestation			Existing area of private agro-forestry models as farm complex			Notice
											Areas (ha)	HH owner	Comments + Evaluation	Areas (ha)	HH owner	Comments + Evaluation	Areas (ha)	HH owner	Comments + Evaluation	
Ban Dat (12 villages)	+ Nearest City of Thai Nguyen but it is one of poorest communes of Thai Nguyen province and Phu Binh district + Bad infrastructures backward living conditions as remote areas and special difficult rural areas + Over 60% of total number population belong to minority ethnic group of San Diu community + Hilly zone, topography sites and barren lands + 64 households in under poor rate as follow "135" policy + Almost local households want to replace the PAM old forests + Which village inhabitants as almost Kinh people, there are as much more new immigrants unclear number population could not control statement resettlement	1161/5664	+ San Diu original indigenous human source + Over 60% population of commune mixed inhabitants in almost villages except four Kinh people villages real separated community.	1858.33 + There are barren lands which are also potentials for reforestation or agro-forestry model establishment	762.68 + PAM = 372.63 (535 HHs) + Agro-forestry models = 390.05 (626HHs) (from commune PC statistic document and policy bank in district level)	1	Bo Tac	140	14	114.7	56.30	75	Eucalyptus low quality	0			58.40	83	Almost indigenous species of plants canatium, dracontomelum, bamboo, fruit trees/medium value	No skill to growth perennial trees
						2	Da Bac	130	10	106.3	52.10	45	Eucalyptus low quality	0			54.20	67	As above	-
						3	Dong Quan	186	4	109.9	57.50	56	Eucalyptus low quality	0			52.40	85	As above	-
						4	Cau Manh	76	7	80.13	39.5	34	Eucalyptus low quality	0			40.60	42	As above and plus vegetables forestry	-
						5	Viet Long	156	8	85.30	39.70	59	Eucalyptus low quality	0			45.60	52	As above	-
						6	Na Chang	Un clear	Un control local income	33.15	15.10	26	Eucalyptus low quality and bad quality	0			18.05	37	Unsuccessful land use, low harvesting	-
						7	Dong Vi	143 (almost Kinh people)	4	42.20	20.70	46	Good quality of Eucalyptus	0			21.50	53	Successful land use, diversity products in home garden farms	Skill on land use, perennial trees, vegetable for market
						8	Trung Dinh	Un clear (almost Kinh people)	4	35.80	17.60	32	Good quality of Eucalyptus	0			18.20	45	As above	Non vegetable to market
						9	Bai Phang	121	6	66.60	31.50	59	Eucalyptus, bad forest	0			35.10	60	Almost indigenous species of plants, medium harvesting products	Non vegetable to market
						10	Tan Minh	117	1	22.50	20.10	47	Eucalyptus, bad forest	0			21.50	53	As above	Non vegetable to market
						11	Dan Dat (as same name of commune)	Unclear (almost Kinh people)	2	23.30	11.20	25	Good quality of eucalyptus forest	0			12.10	31	Almost indigenous species of trees, high quality vegetables to market	Good home gardens and private farms
						12	Phu Loi	Unclear (almost Kinh people)	3	23.70	11.30	29	Good quality of eucalyptus forest	0			12.40	35	As above	-

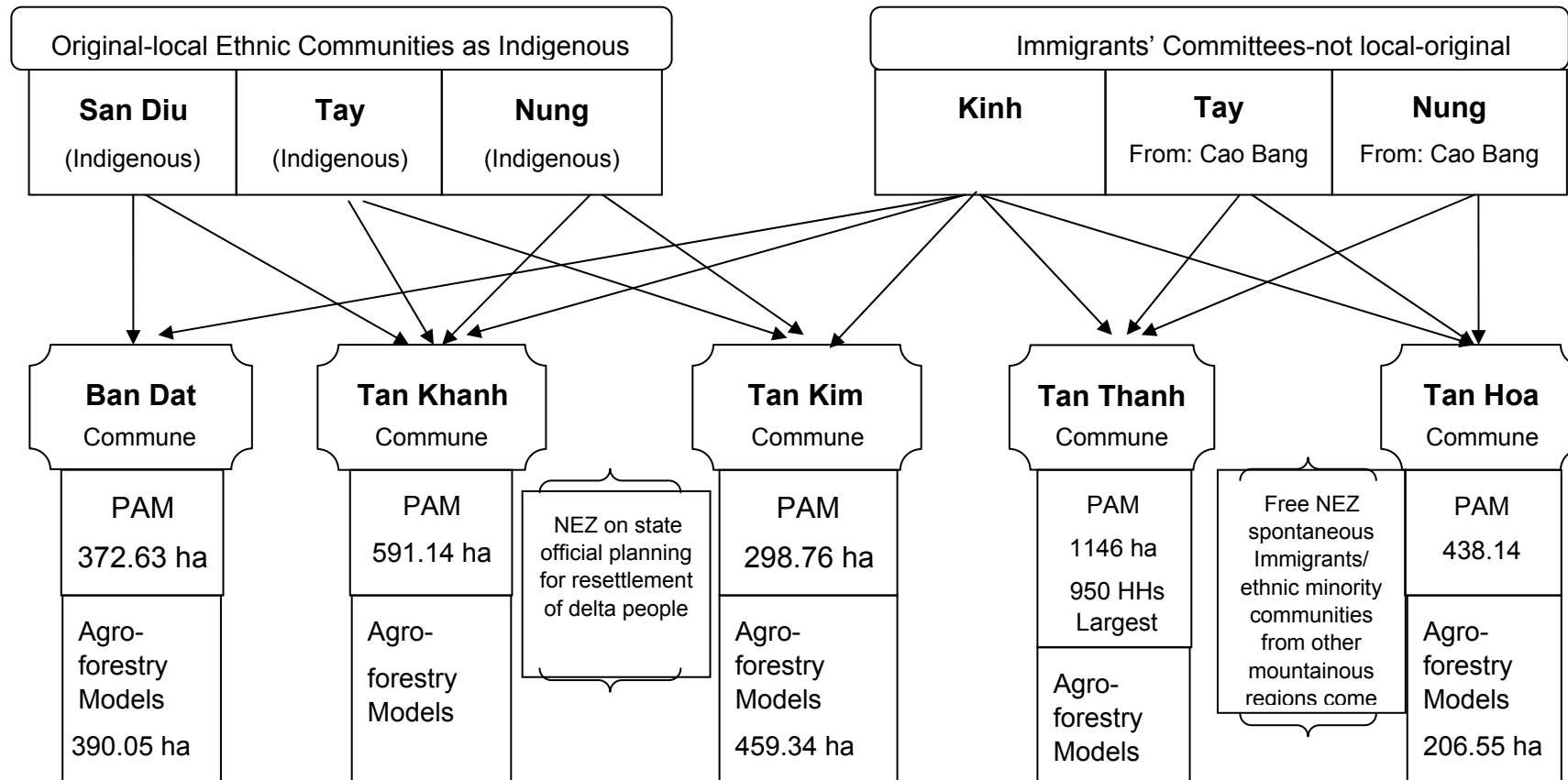
Orderly No. and name of commune (North to South)	Special characteristics and statements	HHs/ population	Ethnic minority group HH number	Surface natural land (ha)	Forestry land on available planning (ha)	No. Village	Name of villages	HH/ population (if available)	HHs under poor level (135 criteria)	Forestry areas (ha)	Existing areas of PAM reforestation			Existing areas of "327", "773" programs of reforestation			Existing area of private agro-forestry models as farm complex			Notice								
											Areas (ha)	HH owner	Comments + Evaluation	Areas (ha)	HH owner	Comments + Evaluation	Areas (ha)	HH owner	Comments + Evaluation									
Tan Khanh (23 villages)	+ Hilly areas, medium topographical sites + Rural development condition as suitable + Local communities' good traditional knowledge on land use + Good infrastructure + Five ethnic groups of local people as Kin, Tay, Nung, San Diu and Hoa - There are original indigenous ethnic groups Tay, Nung and San Diu - Kinh is majority + New economic zone development on state official planning and resettlement since 1960	1595/7376	91 (446 persons) Tay and Nung better knowledge on Land use and cultivation	2193.59	807.53 + PAM: 591.14 (517 HHs) + 327 and 773: 32.76 (51 HHs) + Agro-forestry Model: 175.28 (181 HHs) + Other not plus	1	Dong Bau	74/236	3	44.83	44.83	?	Eucalyptus low quality															
						2	Xom Tre	70/340	6	28.58	28.58	?	As above												1 ethnic HH Tay			
						3	Xom Ke	65/254	4	41.07	32.07	?	As above						9.0	?	Indigenous species of plants					14 ethnic HHs Tay+Nung+San Diu		
						4	Lang Thong	81/378	5	53.41	53.41	?	As above															
						5	Kim Bang	52/380	5	22.94	17.94	?	As above							5.0	?	Indigenous species of plants						
						6	Lang Ca	62/275	6	35.41	14.91	?	As above		6.24	?	Eucalyptus + acacia good quality			14.26	?	Indigenous species of plants					2 Ethnic HHs Tay	
						7	Hoang Mai (1)	89/465	9	36.42	32.42	?	As above							4.0	?	Indigenous species of plants						
						8	Hoang Mai (2)	77/415	12	42.20	35.70	?	As above							6.5	?	Indigenous species of plants						
						9	Na Ri	78/396	8	34.27	34.27	?	As above															
						10	Xom Tranh	57/251	4	31.54	6.24	?	As above		5.12	?	Eucalyptus + acacia + Fruit tree good quality			20.18	?	Indigenous species of plants						
						11	Dong Hoa	51/150	1	19.36	19.36	?	As above															5 ethnic HHs Tay
						12	Dong Dau	49/154	1	18.45	18.45	?	As above															
						13	Lang Ca	68/359	6	36.17	36.17	?	As above															9 ethnic HHs Nung
						14	Na Tu	135/631	0	31.69	21.69	?	Eucalyptus good quality							10.0	?	Perennial fruit trees and high quality vegetables						
						15	Na Muoi	62/299	1	26.22	5.22	?	As above							21.0	?	As above						
						16	Bang Son	58/336	3	27.74	21.77	?	As above							6.0	?	As above						3 ethnic HHs San Diu
						17	Cau Cong	55/290	0	135.10	79.10	?	As above		21.30	?	Eucalyptus, acacia and fruit tree good			34.7	?	As above						50 ethnic HHs San Diu
						18	Dong Tien (1)	61/199	1	13.20	10.20	?	As above							3.0	?	As above						
						19	Dong Tien (2)	48/212	1	10.34	8.34	?	As above							2.0	?	As above						
						20	Xom Ngo	122/513	6	63.44	38.44	?	As above							24.5	?	As above						3 ethnic HHs Tay and Nung
						21	Nong Truong	43/205	1	11.86	11.86	?	As above															3 ethnic HHs Tay and Nung
						22	Cau Ngam	73/352	2	22.98	12.84	?	As above							10.14	?	As above						
						23	Xuan Minh	65/250	6	10.33	10.33	?	As above															1 HH Tay

Orderly No. and name of commune (North to South)	Special characteristics and statements	HHs/ population	Ethnic minority group household number	Surface natural land (ha)	Forestry land on available planning (ha)	No. Village	Name of villages	HH/ population (if available)	HHs under poor level (135 criteria)	Forestry areas (ha)	Existing areas of PAM reforestation			Existing areas of "327", "773" programs of reforestation			Existing area of private agro-forestry models as farm complex			Notice
											Areas (ha)	HH owner	Comments + Evaluation	Areas (ha)	HH owner	Comments + Evaluation	Areas (ha)	HH owner	Comments + Evaluation	
Tan Kim (17 villages)	+ Hilly areas, medium topographical sites + Rural development condition as suitable + Local communities' good traditional knowledge on land use and good infrastructure + There are five ethnic groups of local inhabitants Kinh, Tay, Nung and Hoa Three original indigenous groups as Tay, Nung and Kinh Kinh is majority + New economic zone development on state official planning since 1960 (resettlement for Kinh in Low land come here)	1448/6560	Nung: 127 Tay: 40 Hoa: 80	2146.49	803.42 PAM: 248.76 (415 HHs) "327" and "773" programs: 18.50 (24HHs) Agroforestry: 459.34 (721 HHs) (Inventory list by Policy Bank only)	1	Deo Khe	136/612	5	123.00	38.00	40	Eucalyptus forest medium and low quality. There are 25 ethnic minority households	4.00	6 ethnic minority HHs	Indigenous species plants as canarium, dracontomelum, bamboo, melia and palm	81.00	124	Agroforestry models-mixed cultivation, high quality products and soil improvement	Skill on long term products/perennial trees
						2	Bo La	74/375	1	70.00	34.00	62	Almost Tay ethnic households. As above	3.50	4 Tay HHs	As above	32.00	60	Almost Ta and Nung ethnic HHs- as above	
						3	Quyét Tien	90/452	3	38.00	12.00	10 Tay HHs	Eucalyptus. As above	1.50	2 Tay HHs	As above	24.50	28	10 Tay HHs - As above	
						4	Hai Minh	129/610	6	85.00	35.00	64	20 Tay and Nung HHs. As above			As above	50.00	40	11 Tay HHs - As above	
						5	La Dao	122/587	4	64.30	25.00	?	Eucalyptus as above			As above	29.00	?	As above	Non inventory book of HH which in three kinds of programs
						6	Xom Trai	89/377	6	50.00	20.00	?	As above	2.50	?	As above	27.50	?	As above	
						7	Xom Chau	59/281	5	44.00	10.00	?	As above				34.00	?	As above	
						8	La Duoc	40/172	2	22.20	9.00	?	As above	2.00	?	As above	11.00	?	As above	
						9	Bach Thach	124/533	6	45.90	12.00	?	As above				33.00	?	As above	
						10	Tuong Dai	Unclear	?	24.50	10.00	?	As above				14.50	?	As above	
						11	Thong Bong	67/321	4	20.00	6.00	?	As above				14.00	?	As above	
						12	Nui Chuc	107/445	7	25.00	10.76	?	As above				14.34	?	As above	
						13	Dong Chuc	33/150	3	33.00	7.00	?	As above				26.00	?	As above	
						14	Tan Thai	26/114	1	25.20	10.00	?	As above				15.00	?	As above	
						15	Mon Ha	111/450	5	35.50	20.00	?	As above	1.00	?	As above	14.50	?	As above	
						16	Mon Thuong	88/379	5	50.20	25.00	?	As above	2.00	?	As above	29.00	?	As above	
						17	Xuan Lai	88/350	5	48.00	22.00	?	As above	1.50	?	As above	24.50	?	As above	

Orderly No. and name of commune (North to South)	Special characteristics and statements	HHs/ population	Ethnic minority group HH number	Surface natural land (ha)	Forestry land on available planning (ha)	No. Village	Name of villages	HH/population (if available)	HHs under poor level (135 criteria)	Forest ry areas (ha)	Existing areas of PAM reforestation			Existing areas of "327", "773" programs of reforestation			Existing area of private agro-forestry models as farm complex			Notice	
											Area (ha)	HH owner	Comments + Evaluation	Area (ha)	HH owner	Comments + Evaluation	Area (ha)	HH owner	Comments + Evaluation		
Tan Thanh (12 villages)	+ Larger surface of hilly land, high potential land use + New resettlement by spontaneous immigrants as ethnic minority people from two abjection provinces Cao Bang and Lang Son. Same ethnic groups but not be original different customs Tay and Nung who's good knowledge on land use and cultivation + New economic zone but one free kinds as spontaneous moving could select which kind of plant to develop + Poor infrastructure + Barren land mixed with man-made forest existing man made forest not good + Difficult and remote rural communities	1166/5060	223 Tay HHs 352 Nung HHs + Almost new spontaneous immigrants + Good knowledge on land use-cultivation and handicraft + Good and successful experiences exchanges between different ethnic communes on reforestation and land use and other activities in life	2793	2758.56 PAM: 1246 (950HHs) "327 and 773" agro-forestry model: 512.56	1	Xom Vo	85 (55 Tay HHs)	2	95.60	50	33 Kinh HHs and 55 Tay HHs	Eucalyptus plus, good and medium quality much more wood for market	32.00	?	Indigenous Species of plants, good products and high price market	15.60	15	Agro-forestry models, successful, good products for harvesting		
						2	La Le	80 (54 Nung HHs)	3	89.70	63.70	23 Kinh HHs and 54 Nung HHs	As above				26.00	15 Kinh and 20 Nung	As above		
						3	Dong Bon	105 (33 Tay HHs and 43 Nung HHs)	0	105.00	80.00	?	As above				25.00	15 Kinh and 10 Nung	As above		
						4	Non Tranh	75 (6 Nung HHs)	0	128.50	95.00	?	As above				33.50	19 Kinh and 6 Nung	As above		
						5	Hoa Lam	120 HH (33 Tay HH and 76 Nung HHs)	1	250.00	180.00	?	As above				70.00	5 Kinh, 50 Nung and 20 Tay	As above	Best agro-forestry model. Much wood of PAM forest for sale	
						6	Ha Chau	Almost Kinh new resettlement	0	9.50	9.50	17	As above								
						7	Soui Lua	50 (46 Nung HHs)	0	200.00	150.00	Almost Nung HHs	As above	15.00	?	As above	35.00	4 Kinh 20 Nung	As above		
						8	Bau Trong	80 (62 Tay HHs and 14 Nung HHs)	2	250.00	175.00	?	As above	15.00	?	As above	60.00	4 Kinh, 40 Tay and 14 Nung	As above		
						9	Bau Ngoai	70 (10 Tay HHs and 26 Nung HHs)	1	190.00	145.00	?	As above				45.00	?	As above		
						10	La Bi	88 (22 Tay HHs and 26 Nung HHs)	2	230.26	150.00	?	As above				80.26	?	As above		
						11	Cau Muoi	90 (10 Tay HHs and 12 Nung HHs)	3	125.00	95.00	?	As above	8.00	?	As above	22.00	?	As above		
						12	Tan Yen	85 (almost Kinh HHs)	0	160.00	97.80	?	As above	10.20	?	As above	52.00	?	As above		

Orderly No. and name of commune (North to South)	Special characteristics and statements	HHs/ population	Ethnic minority group HH number	Surface natural land (ha)	Forestry land on available planning (ha)	No. Village	Name of villages	HH/ population (if available)	HHs under poor level (135 criteria)	Forestry areas (ha)	Existing areas of PAM reforestation			Existing areas of "327", "773" programs of reforestation			Existing area of private agroforestry models as farm complex			Notice
											Areas (ha)	HH owner	Comments + Evaluation	Areas (ha)	HH owner	Comments + Evaluation	Areas (ha)	HH owner	Comments + Evaluation	
Tan Kim (14 villages)	+ Hilly site, good soil, high potentials of cultivation and reforestation +New economic zone by spontaneous immigrants who from adjacent province as Cao Bang and Lang Son come. Recent resettlement not be original indigenous ethnic group as Tay and Nung, different customer with original local Tay-Nung in Phu Binh district + Suitable conditions for rural development, good infrastructures + Traditional experiences and knowledge on land use, agroforestry models and mixed aquaculture products and cultivation on slop lands + Approaching market high value products + High potentials soils, lands, manpower and indigenous knowledge on rural development	1728/4364	4 ethnic groups (Tay, Nung, Kinh and Hoa) Over 70% of Tay, Nung are new spontaneous immigrants resettlement	1405.11	670 Pam: 438.14 (672 HHs) "372 and 773": 49.1 (37 HHs) Agroforestry models: 206.55 (664 HHs) (From official commune PC statistic/integrated document	1	Xom Ca	92/442	6	44.68	28.96	61	Eucalyptus-good and medium quality, high price of wood for sale	2.00	3	Indigenous species of trees: canarium, bracontonelum, bamboo, palm...	13.72	19	Successful agroforestry models, high income, diversify products as long term and short term	Almost market products from agroforestry models
						2	Xom Han	155/739	0	12.25	5.94	25	As above	2.00	4	As above	4.31	7	As above	As above
						3	Xom Ngo	127/605	0	27.79	16.93	47	As above	0.80	3	As above	10.06	11	As above	As above and high potential for agroforestry models
						4	Dong Ca	90/425	0	33.10	20.75	40	As above				19.35	21	As above	As above
						5	Xom Vau	168/705	0	27.75	19.25	42	As above	1.00	3	As above	8.50	9	As above	As above and high potential for agroforestry models
						6	Xom U	90/424	0	25.04	22.34	49	As above				2.65	5	As above	As above and high potential for agroforestry models
						7	Trai Giua	102/430	0	52.05	43.61	61	As above				8.44	10	As above	Medium rate of products, not the same above
						8	Vuc Quang	102/430	0	50.55	35.58	60	As above	4.70	7	As above	10.27	12	As above	As above, difficult area
						9	Xom Gian	121/556	3	86.42	65.63	68	As above	16.90	17	As above	3.89	5	As above	As above, difficult area
						10	Xom Te	110/490	5	25.34	19.97	36	Eucalyptus bad forests				5.37	6	As above	As above
						11	Vang Ngoai	144/668	4	103.14	87.89	73	Eucalyptus medium forests	2.50	3	As above	12.75	9	As above	As above
						12	Gieng Mat	101/449	7	94.80	48.16	52	Eucalyptus medium forests	8.90	11	As above	37.74	46	As above	Remote and difficult area low value products
						13	Tru So	104/458	0	102.93	23.13	58	Eucalyptus good forests	10.30	9	As above and plus Acacia	69.50	71	As above	High value products
						14	Thanh Luong	200/980	0	0.00	0.00	0								

Social Impacts on Reforestation Activities (As Diagram Analysis on Human Source)



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Key problems link reforestation projects' options of local villages:

- PAM (Program de l'Allimentation du Mondiale) wheat Poudre Kg/ working day for growing (Top and Down) Rescuing urgent "Serious lack food" in period 1985 to 1990. Where is larger scale of barren land "Regreen" only reforestation Free and simple + spontaneous Immigrant, New Economic Zone state official planning.
- Agroforestry models → private fund/households are owning options

Researching and classification
on household system and social association system of the five project targeted communes -
Phu Binh district for CCM designing

Conducted by VESDI team with local levels from 24 to 30 May 2005

(List of Conducted Persons)

No	(Name)	(Address)	(Notice)
1	Vo Tri Chung	VESDI	Team leader
2	Pham Viet Hung	VESDI	
3	Names of other persons are not listed here.		
4			
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Second research on socio-economic impacts of agro-forestry models

(In Targeted Project Communes of Phu Binh District)

18 June and 19 June 2005 on the field

22 June to 26 June 2005 in the office

List of researchers team

N ^o	Name	Graduated Level	Address Profession Position	Research Task	Notice
1	Vo Tri Chung	M.Sc	VESDI - Senior Expert in Forestry - Human Ecology	Socio-Economic Analysis	Team Leader
2	Pham Viet Hung	M.Sc.	VESDI Socio-Economy Assessment	RRA	Member
3	Nguyen Duc Tung	BAC	VESDI - Geo-Socio	Integrate - Analysis Data/Information	Member
4	Tran Phong Thu	Eng.	VESDI - Forestry	Land and Forest Resources Evaluation	Member
5	Nong Quoc Huy	Eng.	District Commune/ Extensive Officer	Forestry and Farm Analysis	Member
6	Dinh Thi Kim Ngan	Eng (Miss)	District Agro Forestry	Agro Forestry Model Officer	Member
7	Nguyen Xuan Dung	M.Sc.	VESDI - Socio-Economy	Socio-Economy Analysis on Desk	Member
8	Tran Thi Kim Tinh	M.Sc. (Miss)	VESDI - Socio Economy	Socio-Economy Analysis on Desk	Member

Annex 3: Case Study - Is Acacia a Good Option?

Is Acacia a Good Option?⁵⁴

Tan My District, Tan Tien Province

Tan My District⁵⁵ is one of the districts in Tan Tien Province, which is located about 100 km from Hanoi, the capital city of Vietnam. The population of the district is about 100,000. The agriculture sector accounts for about 70% of the gross output. The major agricultural products in the area include rice, maize, peanuts, sweet potatoes, and cassava. The livestock sector is a growing sub-sector in the area. According to a recent household survey conducted by the National Economic Development Institute, the average gross income in the surveyed area of the district is estimated at about 18 million Vietnamese Dong (VND) per household. Most of the farmers surveyed responded that they had paddy fields and about 70% of them had forestry land. The average and median size of paddy fields is about 4300 m² while the median size of the forestry land is about 1.0 ha.

Module I: Data Collection, Current Price vs Constant Price

It is a sunny day during the summer in 2005. Mr. Son is a farmer in Tan My District. He is chatting with Mr. Thao, a newly fledged researcher of the National Economic Development Institute, who visited Mr. Son to study development potential in the area. Mr. Son's neighbor, Mr. Phong, is also sitting down next to Mr. Son.

Question 1 for discussion on informed consent

If an external researcher conducts an interview, the researcher should make clear the purpose of the interview and the interviewee's right to refuse any questions. Write a form to receive consent from an interviewee.

Mr. Thao: Have you ever participated in any forestry development project?

Mr. Son: In the mid-1980s, I took part in the PAM⁵⁶ using 0.5 ha of my forest land.

Mr. Thao: What was the PAM program?

⁵⁴ This case study was prepared for the seminar on the financial and economic analyses in November 2006. Some terminologies and definitions appearing in the case may not necessarily be same as those used in the main body of the manuals and other training materials of the training package because necessary modifications were made in the training materials in order to reflect information and experience gained since then. Excel spreadsheets used in this case study have been placed in the CD for reference.

⁵⁵ Fictitious names have been used for the geographical names and names of persons appearing in this case study.

⁵⁶ PAM stands for Programme Alimentaire Mondial, which had been supported by the World Food Program.

Mr. Son: It was a program that provided us with rice in return for planting trees. Under the program, I planted *Eucalyptus* in the forests. I have so far harvested the second regenerated trees and now observe the third regeneration of *Eucalyptus* in the area.

Mr. Thao: When did you harvest and sell the trees planted under PAM?

Mr. Son: The first time I sold my trees was in 1995 and the second time was in 2004.

Mr. Thao: How did you sell the trees and can you recall how much you received by selling trees?

Mr. Son: When people sell trees in our area, we sell them wholesale to traders. Traders used to come and ask us permission to harvest the trees themselves. The purchasing price depended on the quality and quantity of standing trees within the area they wished to purchase.

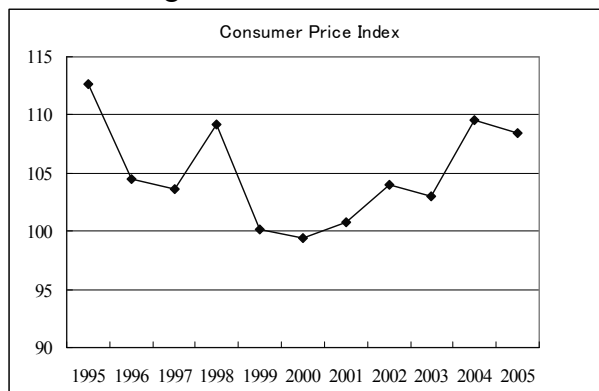
But back in 1995 when I sold *Eucalyptus* for the first time, we still used to sell the trees on a log-by-log basis. I remember that I received five million VND in cash at that time by selling the logs. I also used some of the logs for constructing my houses as well.

Mr. Thao: How about the sales the second time in 2004?

Mr. Son: In 2004, I myself harvested the trees and sold them for firewood. I received a total of one million VND from the sales. Nowadays, we can sell firewood at 100,000 per m³.

Question 2 for current price and constant price: The following graph shows the consumer price index (CPI) from 1995 to 2005 (December of the previous year is set at 100).

Figure 1: Consumer Price Index



Source: Homepage of GSO (<http://www.gso.gov.vn/>)

The CPI is used as one of the indicators for the inflation, which is defined as “a sustained rise in the general price level. The proportionate rate of increase in the general price level per unit of time (The MIT dictionary of modern economics).” The average rate of increase in CPI is calculated at about 5.0% p.a. over the period.

Calculate how much Mr. Son would have received at the 2005 price by selling standing trees in 1995 and firewood in 2004, and examine the appropriateness of the sales price in 2005. For the adjustment of 1995 sales prices and 2004 sales prices to 2005 sales prices, use CPI in the respective years—although it is not necessarily a good index to adjust the price level of the standing trees because CPI is a “consumer” price index.

Module 2 : Incremental Analysis and Without-Project Case

Mr. Thao: Mr. Son, were you able to fell all the trees for firewood with your family labor force?

Mr. Son: Yes, we did all the work by ourselves.

(Mr. Thao thought that this kind of activity would usually require no more than 10 man-days including the support of his neighbors.)

Mr. Thao: Did you receive some assistance from extension workers⁵⁷ under the program?

Mr. Son: Yes. At the preparing stage before plantation, extension workers provided us with training courses on afforestation techniques such as spacing,⁵⁸ selection of species,⁵⁹ the size of holes, and types and amounts of fertilizers.

⁵⁷ Extension workers are under the management of Agricultural and Rural Development Division of the District Office. They are assigned at a commune level and basically in charge of farmers within a commune. Main activities of extension workers are: transferring advanced technologies to farmers; (b) managing plant and animal epidemic diseases; (c) introducing new plant and animal variety; (d) providing fertilizers and other materials services; and (e) participating in rural development projects at commune. Extension workers are classified into the four (4) types of professional fields in Tan My district. They are specialized in (1) forestry, (2) crop science, (3) animal husbandry – veterinary, and/or (4) economic affairs. But they are assigned to manage not only his/her professional field but all extension fields in the commune.

⁵⁸ Spacing is silviculture term, indicating the distance among planted seedlings. Spacing is usually expressed by formula such as “2 m x 2.5 m.” This means the distance between two seedlings next to each other in a line is 2 m, and the distance between two lines next to each other is 2.5 m. In order to obtain a maximum forest yield, spacing should not be too dense or too sparse. It is necessary to maintain a forest stand in appropriate space. In general, appropriate spacing of certain forest plot depends on the following three factors: (1) species (canopy and root’s shape), (2) land forms (high or low quality), and (3) planting purposes (target product is chip wood, sawn wood for furniture, for protecting environment, or for fruits...).

⁵⁹ In order to select appropriate species to plant, the following factors should be considered: (1) purpose of forest plantation: planting forest for environment protection, special use or production forest. If it is the production forest, what are target products? Whether a species meet the requirements of target products or not needs to be examined; (2) social and economic conditions such as knowledge and skills of local farmers and related stakeholders in cultivating a species, availability of seedling sources, and technology development level of a project region; (3) natural conditions such as land form and climate; and (4) characters of target species: whether this species is suitable with land form and other natural conditions of a project area or not needs to be examined.

Mr. Thao: Did you apply some fertilizers?

Mr. Son: A little amount of fertilizer was applied at the initial plantation stage but thereafter no fertilizer has been placed.

Question 3 for the without-project case:

For the sake of the analysis, let us think of a 1.0-ha model from now on in consideration of an average farmer in Tan My District.

(1) Suppose that Mr. Son has the user-right to 1.0 ha of forest lands. Every nine years, he will be able to harvest 2.0 million VND/ha (1.0 million VND/0.5 ha x 2) worth of firewood at the 2004 price by using 20 man-days of labor. For calculation of labor costs, use 25,000 VND per man-day as the man-day labor cost at the 2005 price. Calculate how much Mr. Son is expected to receive in 2013. Provide your answer both in 2005 constant price and 2013 price.

(2) Assume that the estimated volume of firewood in 2013 is 90% of what Mr. Son harvested in 2004. Revise your calculation above.

Mr. Thao: Do you have any future alternative plan for your forestry lands?

Mr. Son: Yes. Although I am yet to come up with a concrete plan, I currently envision planting *Acacia hybrid* instead, possibly from next year.

Mr. Thao: Let us think about the potential of your forestry lands.

Why would you like to plant *Acacia hybrid* in your forests?

Mr. Son: Because I heard that *Acacia hybrid* is a fast-growing species that fetches a reasonable sales price. I heard that the stumpage price of *Acacia hybrid* in our area would be one million VND per m³ for logs with a diameter of 20 cm or larger, 800,000 to 900,000 VND per m³ for those with a diameter of 15 to 20 cm, and 500,000 VND per m³ for the smaller-diameter logs. In addition, this species has a positive impact on the quality of soil unlike *Eucalyptus*. However, I also acknowledge the vulnerability of *Acacia hybrid* since I saw damaged trees following strong winds and typhoons.

Mr. Phong: I think that compared with *Acacia hybrid* the quality of *Acacia mangium* will be better and this species is also stronger. It can thrive in infertile land. In addition, I heard that the selling price of *Acacia mangium* is twice as high as that of *Acacia hybrid*. *Acacia mangium* grows more slowly in the initial two years but we have not experimented

applying fertilizer to *Acacia mangium*. Therefore we are yet to be sure how fertilizer works for the growth of *Acacia mangium*.

Mr. Son: How many years do we have to wait before felling trees?

Mr. Thao: If the project is designed for production of input materials for paper or particle boards, the production cycle is much shorter than that for furniture materials. We estimate that you will be able to fell the trees in 8 years' time; however, the unit sales price for paper materials or particle boards is lower than that for furniture. According to our survey, the harvesting volume of *Acacia mangium* in this area is not as big as that of *Acacia hybrid*. Let us compare the results of the financial analysis for these two species to aid your decision.

Module 3 : Model Development, Identification of Expected Benefits (factory gate price vs stumpage price)

(1) Model development

Mr. Thao lists up types of information required for the financial analysis. For the purpose of conducting the financial analysis, he first needs to elaborate a model for the analysis.

Based on soil conditions of the forestry land, Mr. Thao considers that it would be a good idea to propose a production forest model of acacia species after soil improvement so as to supply wood materials. Because Mr. Thao learned that Mr. Son would be involved in this plantation for gaining a better livelihood, it would be preferable to develop a model for the shorter-cycled plantation forests. Therefore Mr. Thao thinks of wood materials for paper or particle boards as possible target products. If the forest is developed for wood materials for paper or particle boards, the harvest can be done within 8 years.

(2) Identification of Expected Benefits

Now, Mr. Thao wonders what will be the future market potential of the proposed products and how much Mr. Son will receive by selling the products. For the purpose of studying the future market potential of the products, he learned at the workshop he recently attended that it would be important to examine: (1) the current market trend; (2) factors affecting changes in the market; and (3) future market trends. For the purpose of studying the current market trend, particularly supply-and-demand conditions of the target products and price trend, Mr. Thao decided to interview a number of potential customers

within the area within which the target products could be supplied in an economically viable way.⁶⁰

One of the companies he visited is called Dai Phat Particle Board Company. As he entered the gate of the company, he found the administrative building on the left-hand side. On the right-hand side of the gate, there is a receiving yard of wood materials but he found few wood materials stored in the yard. Mr. Anh is head of the forestry department at the company. He welcomed Mr. Thao into his office. After Mr. Thao explained the purpose of the interview, Mr. Anh described the operating conditions of the company in response to Mr. Thao's questions.

Question 4 for discussion

- (1) Based on the memo of Mr. Thao, identify appropriate factory gate prices of wood materials for use in your analysis.
- (2) Discuss the appropriateness of choosing Dai Phat Particle Board Company as one of the target markets (target clients) of the proposed project.

Mr. Anh: We started operation here at the end of 2002 as a subsidiary company of the state forest enterprise. The results of the operation are lower than the amount that we were scheduled to produce but we plan gradually to increase our production volume in 2006 and 2007.

Mr. Thao: How is the current market trend of your products? Do you have stable supply and demand conditions of your products? Are the prices of your products stable?

Mr. Anh: Let me tell you my general view over the current market trend of our products. I would say that the market demand for particle board is relatively steady. However, we face severe competition with low-quality products from domestic manufacturers as well as materials imported from Indonesia and Malaysia.⁶¹

Mr. Thao: What about the conditions of procurement of wood materials? How do you find these materials?

Mr. Anh: We collect wood materials from nearby areas for production of particle board at our factory. The annual production capacity of the factory is 16,000 m³ of the products per year. Purchasing prices of wood materials depend on the specification of the wood

⁶⁰ As the stable supply of wood materials is one of the critically important factors for potential buyers who operates the factory, the analyst should understand that the price of wood materials in a larger volume will be more expensive than the prices of wood materials in a smaller volume. In this case, Mr. Thao may also need to consider possibilities to increase the production volume with the relatively high efficiencies.

⁶¹ The country joined the WTO in January 2007.

materials, ranging from 350,000 VND/Ton to 470,000 VND/Ton. Total wood materials required for our annual operation will be 30,000 to 35,000 m³. The standard specification of wood materials we purchased is a diameter of 4 to 30 cm with a length of 1.0 - 2.0 m without bark. If raw materials are supplied with bark, the weight is reduced by 16%. We purchase materials at our factory gate and are ourselves responsible for unloading materials. We have difficulties in securing the wood materials these days. Also, we do not know why we are unable to get sufficient volume of materials.

Brief description of the operation at the Dai Phat Particle Board Company based on Mr. Thao's interview memo⁶²

Starting Year of Operation: December 2002

Annual Production Capacity: 16,000 m³

Results of Operation:

Year 2003 Not available

Year 2004 9600 m³

(Actual volume could be smaller.)

Production was not as expected due to technical issues.

Year 2005 9600 m³ (Actual volume could be smaller.)

Production was temporarily suspended due to technical issues and shortage of raw materials.

Year 2006 (planned) 12,800 m³

Year 2007 (planned) 14,400 m³

4. Sales price of particle boards at the factory gate including VAT: about 2 Mil VND/M³

(1) 1220 mm x 2440 mm x 12 mm 2.12 million VND/m³

(2) 1220 mm x 2440 mm x 14 mm 2.10 million VND /m³

(3) 1200 mm x 2440 mm x 28 mm 1.76 million VND /m³

5. Market of particle boards

The market demand is relatively steady. However, they face severe competition with low-quality products from domestic manufacturers and imported materials from Indonesia and Malaysia.

6. Raw materials

The volume of the required raw materials (solid basis) is 30,000-35,000 m³ per year for the annual production volume of particle boards (16,000 m³).

Standard specification ϕ 4-30 cm x 1.0 – 2.0 m without bark.

If more than 30 cm in diameter, the materials will be used for furniture.

⁶² As a business practice, factories tend to buy materials at a higher price if the volume reaches a certain lot. Stable supply over a certain period of time is another important aspect to take into consideration.

The pricelist of raw materials is as follows. This was set in June 2005.

- | | |
|----------------------------------|-----------------|
| (1) ϕ 16 cm min x 2.0 m min | VND 470,000/Ton |
| (2) ϕ 12-16 cm x 2.0 m up | VND 430,000/Ton |
| (3) ϕ 8 – 12 cm x 2.0 m up | VND 390,000/Ton |
| (4) ϕ 5 – 8 cm x 0.5 m min | VND 350,000/Ton |

Recent price trend

Unit: VND/Ton

Species or Specification	2002	2003	2004	2005 February	2005 April	2005 June
<i>Eucalyptus</i> , <i>Acasia</i> , Others (diameter < 8 cm up)	309,000	309,000	309,000	335,000	360,000	390,000

If raw materials are supplied with bark, the weight is reduced by 16%.

The conversion rate from Ton to m³ is as follows:

- | | | | |
|----------------------------|-------------|---|--------------------|
| (1) <i>Eucalyptus</i> | 1.0-1.2 Ton | = | 1.0 m ³ |
| (2) <i>Acacia</i> | 0.8 Ton | = | 1.0 m ³ |
| (3) <i>Magletia glouce</i> | 0.6 Ton | = | 1.0 m ³ |

Depending on water absorption, the adjustment is made by +/- 0.1 Ton

After interviewing Mr. Anh, Mr. Thao found it necessary to estimate transportation cost including loading costs of the materials so as to calculate how much Mr. Son would receive from sales of wood materials. He decided to make an appointment with several transport companies operating in the area. After his requests were rejected several times, he was finally able to interview Mr. Ha, vice director of the Dai Dai Transport Company. Mr. Ha was a little puzzled about Mr. Thao's sudden visit and asked what he could do for him. Mr. Thao explained his proposed project and his necessity to obtain the relevant information.

Mr. Ha: My company is the only national transportation corporation under the Ministry of Transportation in the province. This company has 40 trucks with a monthly handling volume of about 8000 Mt (approx. 940,000 Mt-km⁶³). Our main cargoes are cement, fertilizer, and coal. These three commodities account for about 60% of the total cargoes

⁶³ Ton-km is standard units for measuring travel that considers ton output and distance traveled. For example, 60 ton-km represents 10 ton traveling 6 kilometers or 6 tons traveling 10 kilometers, and so on.

handled at the company. Aside from these cargoes, we also handle steels and iron ores. However, the transport volume of wood materials is not much. Most wood materials are transported by private enterprises. I think that private enterprises have certain advantages in transporting a small amount of cargoes. Transportation cost depends on various factors such as types of equipment and road conditions, distance, and the volume of cargo.

After having given this general information about the company, Mr. Ha gave Mr. Thao the following hints for future references on transportation costs of wood materials from Tan My District to the Dai Phat Particle Board Factory.

Brief information from the vice director of the Dai Dai Transport Company based on Mr. Thao's memo

1. Base Tariff: 1,000 VND/ Mt-km , excluding Value Added Tax (VAT) (5%)

As this is not an official offer, the rate is subject to reconfirmation.

2. Main conditions:

a) There are no traffic restrictions or difficulties on the roads from Tan My District to the city. Restrictions or difficulties mean muddy road conditions, existence of bridges that do not withstand heavy loads of wood materials, and/or existence of forest roads that do not permit traffic of trucks.

b) Suppliers will load wood materials onto trucks.

c) Base tariff includes for round trip

d) Maximum waiting time for loading wood materials will be around 4 hours after arrival of a truck at a loading site, with additional waiting charges applicable at 300,000 VND/truck/day.

e) Further details shall be discussed and negotiated later depending on the detailed schedule, loading site, and availability of trucks, etc.

3. The tariff schedule was changed in October 2005 with an increase of 10% and a further increase could take place depending on the crude oil price in the world market.

4. Other information

There are two (2) main state transportation companies in the province. One is Dai Dai Transportation Company and the other is a passenger (bus) service company. Because there are so many private transportation companies, it is not possible to give the number of companies.

5. Remarks

The interviewee initially indicated the basic tariff set at 1,200 VND/Mt-km for wood materials but later during the meeting, he indicated at 1,000 VND/ Mt-km, expecting a new business opportunity.

On the way back to Mr. Son's house, Mr. Thao calculated the distance from Dai Phat Particle Board Company. The meter of the bike indicated that the distance between the roadside yard of Mr. Son and Dai Phat Particle Board Company was about 30 km.

Mr. Son was tending to a water buffalo nearby his house. Upon seeing Mr. Thao in the distance, Mr. Son temporarily suspended his works and went back to his house to invite Mr. Thao for a cup of tea. His neighbor, Mr. Phong, also came to see Mr. Thao. After having heard what Mr. Thao found from his visits to potential customers of wood materials, Mr. Son cheerfully responded:

Mr. Son: Thank you for your information. Now, I would like to know how much I could receive from sales of wood materials for particle boards.

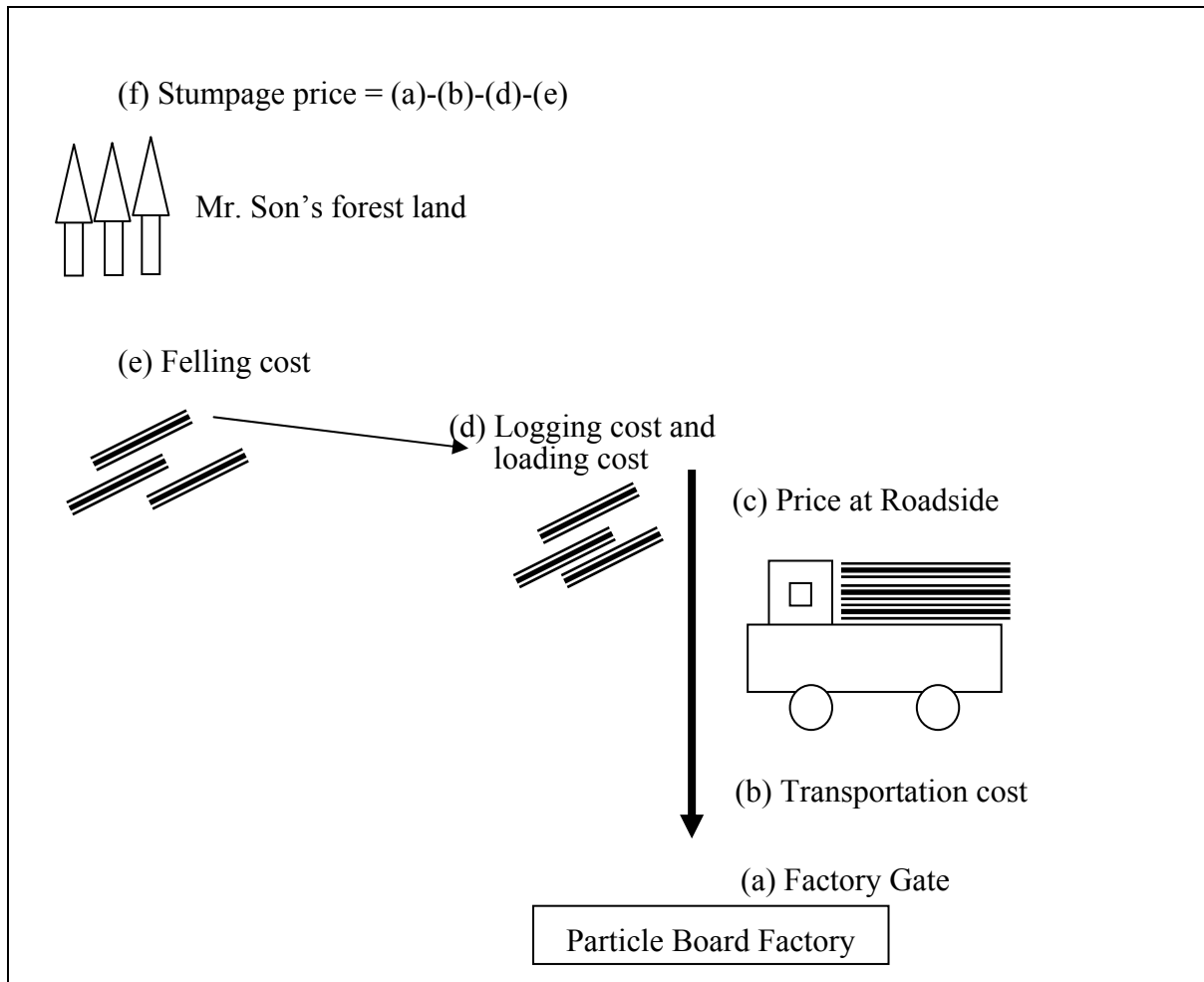
Mr. Thao: I think that I have sufficient data to explain to you.

Question 5 for calculation of unit stumpage value (per m³)

According to the production forest model, both *Acacia hybrid* and *Acacia mangium* are expected to be harvested in 8 year's time (planting in 2006 and harvesting in 2013). All products can be sold to the particle board factory in 2013.

Mr. Thao would like to know how much Mr. Son might receive by selling one cubic meter (1 m³) of products from his forestry land. Calculate the stumpage value of *Acacia hybrid* and *mangium* at both the 2005 price and 2013 current price with the following information (refer to the illustration below). First, calculate the value at the 2005 price then adjust to the 2013 price assuming that the expected rate of inflation remains at 5.0% p.a. throughout the period up to 2013. For the calculation, also assume that the felling and logging cost would be 100,000 VND/m³ at the 2005 price.

	Prices	Description	Price in Year 2005 (VND per m ³)
(f)	Stumpage price	Standing value of the price	
(e)	Felling cost	Cutting cost	100,000
(d)	Logging and loading cost	Transportation cost from felling site to roadside + loading cost to trucks	
(c)	Price at road side	Stumpage price + 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	



Mr. Son: I understand how much I can receive from sales of 1 m³ of wood materials for particle boards. Then, how much standing volume do I expect in my forests at harvesting time?

Mr. Thao: According to our survey, the following standing and sales volumes are estimated in the district when trees come to harvesting time, although the harvesting volume depends on soil fertility.

Table 1: Standing and Sales Volumes

Item	m ³ /ha
Standing volume	
<i>Acacia hybrid</i>	150
<i>Acacia magium</i>	98
Sales volume	
<i>Acacia hybrid</i>	105
<i>Acacia magium</i>	68

Mr. Son: Why is the standing volume different to the sales volume?

Mr. Thao: The difference exists because the bark and smaller parts of the tree stems are not utilized.

Mr. Son: Then, I would like to know how much I might receive from sales of trees in the harvesting year.

Question 6 for calculation of expected cash inflow

You would like to help Mr. Thao calculate how much Mr. Son will receive from the factory if he fells trees in 2013. Calculate the total stumpage value of *Acacia mangium* in his forests at both the 2005 price and the 2013 price.

Module 4 : Estimation of costs (farm gate prices of input and opportunity cost of labor)

Mr. Son: Now, I would like to know how much I have to invest so as to expect returns.

Mr. Thao: I would like to know where you usually purchase fertilizers.

Mr. Son: I usually go to the commune center to buy fertilizers.

Mr. Thao: How much did one kg of NPK (Nitrogen- Phosphorus- Potassium) cost you?⁶⁴

Mr. Son: There are two types of suppliers: private suppliers and organizations such as a farmers' union. The prices they offer are all the same. One kg of NPK costs 2,000 VND but I do not buy a pre-composed NPK. Instead, I purchase nitrogen, phosphorus, and potassium separately. One kg of N (nitrogen) costs me 5,000 VND, 1 kg of P (phosphorus) 2,000 VND, and 1 kg of K (potassium) 4,500 VND.

Mr. Thao: How much fertilizer do you usually purchase for one cropping season?

⁶⁴ Earlier, Mr. Thao learned from an extension worker that farmers' union and women's union in this area used to sell fertilizers to farmers and collect payment 2 to 3 months later after harvest.

Mr. Son: I usually buy 3 kg of nitrogen, 20 kg of phosphorus, and 5 kg of potassium per Sao⁶⁵ per season. Therefore I apply a total of about 150 kg of fertilizers for my rice field per season.

Mr. Thao: How do you transport the fertilizer from the commune center to your house and how much do you pay for transportation of fertilizers?

Mr. Son: I usually use my bicycle or motorbike to carry bags. By bicycle, I can carry a 50-kg bag. By motorbike, I can carry 100 to 150 kg of fertilizers at once.

Mr. Thao: If the people in this area plant seedlings, from whom do they usually purchase them and how much do they pay for the seedlings? Do you have any idea, Mr. Phong?

Mr. Phong: I buy seedlings from traders. One seedling of *Acacia mangium* costs 300 VND while that of *Acacia hybrid* 500 VND.

Mr. Thao: By the way, how much do the people in this area earn per day when they work for off-farm works, for instance, what is the daily wage rate for construction work in the nearby area?

Mr. Son: I heard that some farmers employed external labor forces and pay 25,000 VND per man-day with lunch included. I remember that some farmers went to work at the construction site within our commune during the off-peak season of the last year. Depending on the type of work, the payment offered by the construction company varies ranging from 25,000 to 40,000 VND per man-day. The company did not bear expenses for lunch.

Mr. Thao: How do the people in this area carry out plantation works?

Mr. Phong: It depends on each case. I rent a bulldozer to carry out land preparation. The rental charge of a bulldozer is very expensive. It cost me 200,000 VND per hour. I paid about 3 million VND for the total rental charges. I could plant 800 seedlings within a day. My friend living in the nearby district told me that he had hired external labor for clearing vegetation, digging holes, and fencing against buffalos. He used hoes for digging holes and felling axes and sickles for clearing vegetation.

After the meeting with Mr. Son and his neighbor, Mr. Thao went to the central area of the district and the provincial capital to examine the prices of goods referred to by Mr. Son.

⁶⁵ Sao is a local standard unit for measuring areas. 1 sao=360m²

The distance from the district center to the commune center was approximately 10 km. The following are the price data collected by Mr. Thao from several suppliers.

Table 2: Pricelist at the district center

Item	VND/Kg	VMD/50 kg
NPK	1,800	88,000
Nitrogen	4,300	207,500
Phosphorus	1,300	65,000
Potassium	4,000	195,000

Table 3: Pricelist of equipment at the provincial capital

Item	VND/Piece
Sickle	25,000-35,000
Hoe	10,000-35,000
Felling ax	25,000-35,000

Mr. Thao checked delivery prices of fertilizers at a number of manufacturers of fertilizers in nearby provinces. The price of the fertilizer (NPK) that the retailer at the district center deals with was 1,729 VND per kg including 5% tax. Another manufacturer responded that the price would be 1.85 million VND per ton. A manufacturer he contacted responded that they would be willing to deliver their products free of charge although it would depend on the volume of fertilizers purchased.

Question 7 for discussion on input prices

Discuss the appropriate prices to be used for the analysis and the opportunity cost of labor.⁶⁶

As for the opportunity cost of labor, Mr. Thao can ask a worker at the nearby construction site or at a construction site in the nearby city to find out where they are from, how much they receive per day and how much they pay for their daily

⁶⁶ The opportunity cost is the benefit foregone by using a scarce resource for one purpose instead of for its next best alternative. Assume that a farmer works for a construction company during the off-farm season. If she instead works for the afforestation project on her forest land, she would forego the opportunities to earn the daily wages that she could otherwise have received from the construction company. The value of her daily wage foregone would be the opportunity cost of the labor for her afforestation project.

transportation cost and lunch. Some farmers are engaged in buy-and-sale of agriculture products. Their daily net income may be comparable to the rural wage rate.

The rate of rural wages may change, being affected by its seasonality. In this case, a weighted average of wage rates can be calculated based on the information collected.

Module 5: Construction of Pro forma Cash Flow Statement, Incremental Analysis, Discounting, Application of Investment Criteria, Sensitivity Analysis, and Risk Analysis

Question 8 for calculation (Expenditure plan)

Mr. Thao would like to calculate how much Mr. Son needs to invest for planting, tending, and felling trees each year. However, Mr. Thao was not sure if he could obtain information on the number of man-days required for plantation, tending, and harvesting based on the interviews. Mr. Thao decided to refer to the quantity table of the cost norm from the Ministry of Agriculture and Rural Development (MARD). The following is the table of quantity constructed from the cost norm with the additional information collected from his field survey.

Items	Unit price	VND	Quantity	Unit/Ha
Material				
1 st Year				
Seedlings (<i>Acacia Mangium</i>) (Incl. Supplemental plantation)			1826	Seedling
Seedlings (<i>Acacia Hybrid</i>)			1826	Seedling
Fertilizer (NPK)			332	Kg
2 nd Year				
Fertilizer			166	Kg
Labor Cost				
1st year				
Vegetation treatment			18.48	Man-days
Digging holes			29.12	Man-days
Filling holes			10.18	Man-days
Bed-dressing fertilizing			9.76	Man-days
Transportation + Plant			8.60	Man-days
Supplemental plantation 10%			1.20	Man-days
Tending (1 st)				Man-days
Vegetation clearance (in all planted forest area)			13.37	Man-days
Weeding + hoeing			11.22	Man-days
Tending (2 nd)				
Vegetation clearance + hoeing			28.58	Man-days
Forest protection			7.28	Man-days

Total labor cost of Year 1			137.79	Man-days
Afforestation design	46,000	VND/Man-day	7.03	Man-days
Inspection and take-over of planted forest	46,000	VND/Man-day	2.00	Man-days
2nd year				
Vegetation clearance			13.37	Man-days
Weeding + hoeing			11.22	Man-days
Fertilizing NPK			11.29	Man-days
Vegetation clearance, weeding + hoeing			21.56	Man-days
Forest protection			7.28	Man-days
Technical design	46,000	VND/Man-day	4.61	Man-days
Inspection and take-over of tending	46,000	VND/Man-day	2.00	
3rd year				
Vegetation clearance + hoeing (1 st)			22.44	Man-days
Vegetation clearance + hoeing (2 nd)			22.93	Man-days
Forest protection			7.28	Man-days
Technical design	46,000	VND/Man-day	4.61	Man-days
Inventory, preparing achievement map	46,000	VND/Man-day	2.00	Man-days
4th – 7th years				
Protecting			7.28	Man-days
8th year				
Protecting			7.28	Man-days

Question 9: Estimation of expenditure

First, construct a parameter table that shows price and quantity information, table of index, and then a table to show yearly expenditures from 2005 up to 2013. For the estimation of expenditures, set the physical contingency at 5% of the baseline cost in this case study. The expected rate of inflation is set at 5% p.a. over the period of the analysis. Assume no in-use value of the land before and after this project, and traders will harvest trees so that Mr. Son will not incur harvesting expenses.

How much is the total amount that Mr. Son needs to bear for the plantation, tending, and felling in each year and the total amount over the project period? How will these costs change if the opportunity cost of labor changes from 25,000 VND per man-day to 38,500 VND per man-day at the 2005 price?

Question 10: Preparation of cash flow statement

Having both sales and expenditure plans in your hands, now you would like to know whether Mr. Son is really getting good returns from the project. Construct a cash flow statement and find out the net cash flow from the table.

Question 11: Incremental analysis

Calculate the incremental cash flow using the results of the analysis under ***Question 3*** above.

Question 12: Discounting

The amount Mr. Son will receive in 2013 is not equivalent to the amount at present. Discuss the time preference of consumption and discounting techniques.

Question 13: Investment criteria

Calculate the financial net present value (NPV) and financial internal rate of return (FIRR) from the incremental net cash flow. For the purpose of calculating NPV, apply the real discount rate of 10%.

Question 14: Calculate the discount factor using the discount rate of 10% and examine whether the summation of the present values obtained in respective years shows the same value as the one obtained by using the NPV function of Excel.

Question 15: Sensitivity analysis

Conduct the sensitivity analysis by selecting at least two variables that may have greater impacts on the feasibility of the project. Recall the interview results of Mr. Thao at the Dai Phat Particle Board Company and the Dai Dai Transport Company. Also calculate a switching value for the variables you selected.

Question 16: Assume that the real wage rate is expected to increase by 10 % every year over the next 5 years. Incorporate this factor in your estimation of the cash flow and present the results of the analysis.

Question 17: What advice do you give to Mr. Son?

- (1) Examine whether the profitability of the proposed project is high or low. How do you see the incremental net cash flow? Is there any way to improve the profitability?
- (2) Discuss about: (a) stability of income and risk aversion of farmers; (b) stepwise/gradual approach of adopting new technologies; and (c) how plantation of trees impacts on transient poverty.

Module 6: Financing

To reduce Mr. Son's financial burden in the initial period of the project, Mr. Thao wonders whether there is any credit service to which Mr. Son could gain access. He visited Ms. Lan (vice director) and Mr. Dung (head of the credit section) at the provincial branch office of

Rural Development Bank in Tan Tien province to gather information on their credit schemes. After hearing a general description of the bank and its credit services, Mr. Thao started his questions:

Mr. Thao: I understand that your bank is one of the leading financial institutions in our province, vigorously expanding your credits to farmers in recent years.

Mr. Lan: Yes, as seen in our operation records, the outstanding amount of loans increased compared with that at the end of the last year.

Mr. Thao: For what purposes do the people in Tan My District take out loans?

Mr. Dung: In Tan My District, loans to the agriculture sector account for a large proportion. In particular, the livestock sector is a growing sector. Loans for meat production are characterized with being short term while those for breeding purposes are medium term.

Mr. Thao: We are promoting an afforestation project by a farmer in Tan My district. I would like to know to what aspects do you pay attention when conducting a credit appraisal?

Mr. Lan: We consider a number of aspects for our appraisal. For instance, we examine the profitability of the project, investment costs, markets, sales amounts and expenses, repayment capacity of farmers, the size of the land to which farmers have accesses, and so on. For us, field verification is important because farmers tend to claim to having more land than they really do so as to get a larger amount of loan.

Mr. Thao: What is the interest rate you applied?

Ms. Lan: Our current short-term interest rate is 1.05% per month. In the case of medium- and long-term loans, the interest rates are 1.15% and 1.30% per month, respectively.

Table 4: Outstanding loans

Loan types	As of 12/2004 (Bil. VND)	As of 12/2005 (Bil. VND)
Total amount of outstanding loan	986	1,212
Short term (<12 months)	451	607
Medium term (12-60 months)	424	482
Long term (>60 months)	111	123

Loan types	As of 12/2004 (Bil. VND)	As of 12/2005 (Bil. VND)
No. of customers (clients)	94,080	87,560

Source: Provincial Branch Office of the Rural Development Bank in Tan Tien Province

Note: Estimated data in 2005

Mr. Thao: What about the repayment period?

Ms. Lan: It depends on the cropping cycle. As you can see from the results of operations (Table 4), our long-term credits are limited partly because we do not have good means to mobilize long-term funds. We also see a lower demand on long-term loans. We are concerned with various risks involved in long-term projects including uncertainty of sales. Farmers tend to borrow on a short-term basis because of the lower interest rate.

Mr. Thao: Do you set a grace period of a loan?

Ms. Lan: The maximum grace period does not exceed one third of the repayment period.

Question 18: Suppose that Ms. Son negotiates with the Rural Development Bank for a loan with the following conditions.

Loan amount: 5 Million VND

Interest rate: 1.30 % per month (fixed rate)

Repayment period: 6 years (over 6 installments)

Grace period: 1 year

(1) Calculate the net cash flow from the loan and show how the loan will reduce difficulties in the initial period of the project

(2) If the interest rate is 6.0% p.a., what do you see?

(3) Examine the impact of inflation on net cash flow from the loan.

Question 19: Compare your results of the financial analysis with the scheme whereby a State Forest Enterprise provides cash worth 3.8 million VND per ha (2005 price) in the first year, NPK and seedlings in kind in the first and second years. A farmer will, in return, have to supply 65 m³ of wood materials per ha (sales volume basis) upon harvesting the trees in 2013.

Module 7: Project Design Matrix (PDM or Logical Framework) and Total Project Cost

Mr. Thao found 100 farmers in the project area who shared similar concerns to those of Mr. Son. Mr. Thao started thinking of some necessity of having a management body for the project if many farmers are to be involved in the implementation of the project and the project needs to be carried out in a more organized way. He decided to consult with Tan My District Office to discuss this issue. He was introduced to Mr. Nghia, a senior staff member at the Agriculture and Rural Development Division of the Office. Mr. Thao explained what he learned in recent days starting from the conversation with Mr. Son.

Mr. Nghia: Our office is promoting agriculture and forestry activities in our district. Rice and maize have been playing an important role in the agriculture sector of our district; however, to increase cash income of farmers in future, forestry as well as livestock sectors will become increasingly important.

Mr. Thao: Do you have any experience in setting up a project management board at your office to implement a project?

Mr. Nghia: Yes, we have experience in establishing a Project Management Board (PMB) to implement a milk cow project in our district. The management board monitors the physical progress of the project and also provides technical assistance in terms of the selection of milk cows and breeding methods while the financial institution does financial management of the project funds. If the project you propose needs a similar type of project management board, the proposed functions of the PMB could be: preparation of a forest production plan based on the individual plans of farmers; assistance for farmers in applying for loans; technical guidance including types of inputs to be used; marketing services; and monitoring and evaluation.

Mr. Thao: How many persons and how much money do you think it requires for the establishment and operation of the PMB?

Mr. Nghia: I think that the proposed PMB may need to be staffed with about five members from the office, who can work on a part-time basis. The operation of PMB will require some amount of budget but considering our narrow tax basis and limited budgetary support from the government, it would be hard for our office to allocate a special budget for the operation of the PMB and recruit new staff members. Since we have to handle the project within our financial capacities, we would have to ask our existing staff to perform extra tasks on top of their daily works by paying them allowances.

After listening to Mr. Nghia's detailed explanation, Mr. Thao prepared the following table for personnel assignment plan and expected cost required for the operation.

Table 5: Proposed members of PMB

Position	Number of persons
Director	1
Finance and planning staff	1
Technical staff	1
Marketing staff	1
Chair of commune	1
Total	5

For operation of the PMB, annual staff allowances and operating costs are estimated at 18 million VND and 7 million VND, respectively.

Question 20: Project Design Matrix (PDM or Logical Framework)

How do you show the problem tree, objective tree, and PDM of the proposed project?

Question 21: Project cost or cost during the assistance period

Assume that Mr. Thao already identified sufficient market potential of the target wood materials that the proposed project plans to supply. With the following additional information, calculate the total project cost after taking into account the project management costs. Alternatively, calculate cost during the assistance period from 2006 to 2010.

(1) Participation of farm households:

50% of 100 households in the initial year, 30% of 100 households in the second year, and 20 % of 100 households in the third year.

(2) Size of the participating farm households: same as that of Mr. Son

Module 8: Economic analysis

Question 22: Conversion of financial price to economic price

It was learned that the FOB⁶⁷ price of woodchips at the nearby port was 95 US\$. How much is the economic price of timber for woodchips? Adjust the financial price of the trees.

⁶⁷ FOB stands for “Free on board.” It is the price of an export loaded in the ship that will carry it to foreign buyers. On the other hand, CIF is the landed cost of an import on the dock in the receiving country, including

Question 23: Economic Feasibility of the Project

With the information given in Question 22 above, examine the economic feasibility of the project.

Question 24 for discussion: Financial analysis vs Economic analysis

Compare the following cases for discussion

Case 1: The project is financially feasible but economically not feasible.

Case 2: The project is financially not feasible but economically feasible

Module 9: Financial ratio analysis

Question 25 for discussion:

Explanation on the financial ratio analysis at the entity level in comparison with the financial analysis of the project.

cost of international freight and insurance and often cost of unloading onto the dock. CIF stands for “Cost, Insurance, and Freight.”



Regenerated *Eucalyptus*
(right-hand) and planted *Acacia*
(left-hand)



Acacia Mangium



A farmer transports input materials
with his motorcycle.

Teaching Note

1. Topic: Financial and economic analyses

2. Target learners: This case material was originally developed for the course for staff members of FIPI (Forestry Inventory and Planning Institute) and Sub-FIPI participants.

3. Duration: 5 days

4. Pre-requisites: Basic Excel skills. The Excel program for the analysis is attached to each of the modules.

5. Learning objectives:

- (1) Learn objectives of financial and economic analyses
- (2) Conduct the financial analysis using the case
- (3) Learn differences between financial and economic analyses

6. Contents:

- (1) Definition of a project and description of financial and economic analyses in F/S
- (2) Introduction of a case: establishment of the project objective and data collection through field survey.
- (3) Explanation of the basic steps of the financial analysis
- (4) Description of differences between financial and economic analyses
- (5) Brief explanation of financial ratio analysis to deepen understanding of financial analysis.

7. Abstract:

Mr. Son, a farmer in Tan My District of Tan Tien Province, wonders what would be a good idea to utilize his existing forestry land for a better livelihood. He consulted with Mr. Thao, who happened to visit Mr. Son to study development potential in the area from the country's economic development research institute. Mr. Thao gave him suggestions on the plantation of acacia species and he himself visited various places to collect relevant data and conduct a feasibility study.

8. Possible questions

In addition to Questions 1 to 25 as listed in the case, because plantation project of trees requires a relatively longer gestation period, we may ask what will be the major obstacles that participants think will prevent farmers from participating in the project (alternatively, discuss possible factors that will encourage farmers to participate in the project)?

9. Possible Schedule

Day	Time	Topics
1 st	AM	- Introduction of financial and economic analyses
	PM	- Module 1: Data Collection, Current Price vs Constant Price - Module 2: Incremental Analysis and Without-project Case
2 nd	AM	- Module 3: Model development, Identification of Expected Benefits (factory gate price vs stumpage price)
	PM	- Module 4: Estimation of Costs (farm gate price of inputs and opportunity cost of labor)
3 rd	AM	- Module 5: Construction of Pro forma Cash Flow Statement, Incremental Analysis, Discounting, Application of Investment Criteria, Sensitivity and Risk Analysis
	PM	
4 th	AM	- Module 6: Financing
	PM	- Module 7: Project Design Matrix (PDM or Logical Framework) and Total Project Cost
5 th	AM	- Module 8: Economic Analysis
	PM	- Module 9: Financial Ratio Analysis

10. Acknowledgment

This case study has been prepared as part of the outputs under JICA's Development Study on Capacity Building for Preparing Feasibility Studies and Implementation Plans for Afforestation Projects in the Socialist Republic of Viet Nam, which started from 2005. I would like to express my sincere appreciation to the JICA Vietnam Office for giving permission for the case study to be included in the case library of FASID, to Professor Mori and FASID for providing valuable comments for improvement, and to Vietnamese counterparts, informants in the field, and study team members for sharing relevant information.

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 Implementation Plans
for production forest/agroforestry
development projects in Vietnam

Book 3: IP Manual

**Volume I: Structure and Contents of an
Implementation Plan**

**Volume II: Procedures for Preparation of an
Implementation 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

“Manual for Preparation of Implementation Plans for production forest / agroforestry development projects in Vietnam (Book 3: IP 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 (hereinafter referred to as “FICAB”).

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

FICAB was divided into two phases. Phase I was to prepare Model F/S and IP as well as 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 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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Abbreviation

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
	The Development Study on Capacity Building for Preparing
FICAB	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 IP Manual

IP Manual (Book 3) is one document of the training package that documents the methodology for preparing an IP and incorporates lessons from practical experiences in conducting feasibility studies and implementation planning in Thai Nguyen Province and Participating Provinces (PPs). In the manual, processes and procedures for preparing IP are explained giving the users information on how to conduct implementation planning. Users of IP Manual are expected to use the manual along with other documents of the training package, especially Model IP of Thai Nguyen Province for the production forest development project (Book 5-1), as these documents provide concrete examples of the IP.

2. Users of IP Manual

The main users of this manual are those who plan to prepare the implementation plan. They are staff members of government institutions who have experiences in project formulation or project implementation in the forestry sector. Other users include management boards, forest enterprises and local consultants. The completed implementation plan will be for the use of management and staff members involved in implementation of the project, and supporting agencies such as financial institutions and potential investors.

Users of the manual should bear in mind that each project has different characteristics and therefore, it is essential that users themselves select what is relevant for their specific case, taking into account the particular needs of the implementing agency. It is also important to understand possible differences in procedures of different provinces and varied assistance policies of financial institutions and/or potential investors.

3. Structure and Contents of the Implementation Plan

The following is the suggested structure and contents of an implementation plan.

Introduction

This mentions the arrangements through which the Implementation Plan has been prepared. It will also provide the general outline of the project.

Part I. Summary of the Project

The main aim of Part I is to provide a basis for preparation of the IP. It describes the general outline of the project by which users of the IP can gain overall understanding of the project. For this purpose, F/S report of the project is summarized and the Project Design Matrix (PDM) is attached. The contents of this part include project area, project objectives, project outputs, project components, project cost and PDM.

Part II. Implementation Plan in Respective Fields

Part II consists of seven chapters, with the description of the implementation plan in respective fields relevant to project implementation.

Chapter 1: Institutional arrangement

Chapter 1 describes the overall management structure of the project, structure and roles and responsibilities of the implementing agency and other relevant stakeholders. Other relevant stakeholders may include Community-based Organizations (CBOs).

Chapter 2: Implementation schedule

This chapter aligns project activities against time frames. The chapter begins with a description of the overall implementation schedule of the project. The implementation schedule is then elaborated in terms of the two periods: preparation period and operation period.

Chapter 3: Arrangement for financial management

It is important to effectively manage and monitor the financial resources of the project. Chapter 3 clarifies the sources of finance and the recipients of financial assistance. Then the process for the fund flow from the financing sources to the recipients will be described including necessary arrangements for the process.

Chapter 4: Procurement arrangement

This chapter identifies all the items to be procured under the project and determines which items should be grouped together into same contracts. Also important are the procurement method and related approval procedures. This chapter explains who will be in charge of major processes and who will be authorized to approve awards and contracts. This chapter will also identify how long these procedures should take.

Chapter 5: Sales and marketing

Chapter 5 will clarify how to conduct sales and marketing of forest/agro-forestry products to ensure that the planned benefits of the project are realized.

Chapter 6: Training plan

A training plan is based on the results of a training needs survey for those involved in the implementation of the project. A training plan comprises two sub-chapters: one is a plan at the field level, and the other is a plan at the level of the implementing agency. The basic idea and outline of the plan are explained and a table of detailing the training plan is prepared for respective plans.

Chapter 7: Monitoring and evaluation

This chapter aims to describe how to implement monitoring and evaluation (M & E) including specifying the timing of M & E process. It is necessary to re-examine the development impact indicators and progress indicators identified in the F/S report and then, elaborate M & E system.

Introduction

1. Objective of IP 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 capacities 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.

IP Manual (Book 3) is one document of the training package that documents the methodology for preparing an IP and incorporates lessons from practical experiences in conducting feasibility studies and implementation planning in Thai Nguyen Province and Participating Provinces (PPs). In the manual, processes and procedures for preparing IP are explained giving the users information on how to conduct implementation planning. Users of IP Manual are expected to use the manual along with other documents of the training package, especially Model IP of Thai Nguyen Province for the production forest development project (Book 5-1), as these documents provide concrete examples of the IP.

2. Structure of IP Manual

The manual is divided into two main volumes:

VOLUME I: STRUCTURE AND CONTENTS OF AN IMPLEMENTATION PLAN

VOLUME II: PROCEDURES FOR PREPARATION OF AN IMPLEMENTATION PLAN

Volume I explains the structure and main contents of an IP while Volume II describes the procedures on how to conduct implementation planning. Important points to prepare respective parts are also mentioned in Volume II.

3. Users of IP Manual

The main users of this manual are those who plan to prepare the implementation plan. They are staff members of government institutions who have experiences in project

formulation or project implementation in the forestry sector. Other users include management boards, forest enterprises and local consultants. The manual is set at a level which will allow users of the manual to explain the process the implementing agency will use to complete the project. The manual will show the users the process they need for preparing the implementation plan.

Users of the manual should bear in mind that each project has different characteristics and therefore, it is essential that users themselves select what is relevant for their specific case, taking into account the particular needs of the implementing agency. It is also important to understand possible differences in procedures of different provinces and varied assistance policies of financial institutions and potential investors.

The primary users of the IP to be prepared by using this manual will be management and staff members involved in implementation of the project, particularly those of the implementing agency. They are expected to make use of the IP for implementation of the project. The secondary users will be personnel of supporting agencies of the project, particularly financial institutions and/or potential investors.

VOLUME I: STRUCTURE AND CONTENTS OF AN IMPLEMENTATION PLAN

A. Outline of the IP

The main text of an Implementation Plan (IP) comprises two (2) parts: part 1 a summary of the project and part 2 an implementation plan in respective fields. Part 2 consists of seven chapters: institutional arrangement, implementation schedule, arrangement for financial management, procurement arrangements, sales and marketing, training plan, and monitoring and evaluation. Prior to the body text, "ABBREVIATIONS," "TABLE OF CONTENTS," "MAPS," "INTRODUCTION" are presented. At end of the report, "ANNEXES" will be attached. The following outlines the basic structure of an Implementation Plan.

Outline of IP

ABBREVIATIONS

TABLE OF CONTENTS

MAPS

INTRODUCTION

PART I. SUMMARY OF THE PROJECT

PART II. IMPLEMENTATION PLAN IN RESPECTIVE FIELDS

Chapter 1. INSTITUTIONAL ARRANGEMENT

Chapter 2. IMPLEMENTATION SCHEDULE

Chapter 3. ARRANGEMENT FOR FINANCIAL MANAGEMENT

Chapter 4. PROCUREMENT ARRANGEMENTS

Chapter 5. SALES AND MARKETING

Chapter 6. TRAINING PLAN

Chapter 7. MONITORING AND EVALUATION

ANNEXES

The following “B. Structure and contents of Implementation Plan” provides the suggested contents for each part of the main text. The IP elaborates on the important implementation processes and arrangements of the project as described in the F/S report. Particular attentions should be drawn to the following points:

- the IP should describe how and when the implementing agency implements activities;
- the main text should be compressed but comprehensive (a relatively short main text of about 50 pages);
- the report should maintain a logical consistency throughout, including the well-connected relation with contents of the F/S report; and
- constant vigilance is needed against excessive detail, wordiness, repetition or improper location of materials.



Key word: Implementation Plan and Feasibility Study

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.

B. Structure and contents of the Implementation Plan

INTRODUCTION

This mentions the arrangements through which the Implementation Plan has been prepared. It will also provide the general outline of the project.

PART I. SUMMARY OF THE PROJECT

The main aim of Part I is to provide a basis for preparation of the IP. It describes the general outline of the project by which users of the IP can gain overall understanding of the project. For this purpose, F/S report of the project is summarized and the Project Design Matrix (PDM) is attached. The contents of this part include project area, project objectives, project outputs, project components, project cost and PDM.

- 1 Project location and area
- 2 Project objectives and outputs
 - 2.1 Overall goal
 - 2.2 Project objective
 - 2.3 Project outputs
- 3 Project components
- 4 Project cost
- 5 Project Design Matrix

PART II. IMPLEMENTATION PLAN IN RESPECTIVE FIELDS

Part II consists of seven chapters, with the description of the implementation plan in respective fields relevant to project implementation.

CHAPTER 1: INSTITUTIONAL ARRANGEMENT

Chapter 1 describes the overall management structure of the project, structure and roles and responsibilities of the implementing agency and other relevant stakeholders. Other relevant stakeholders may include Community-based Organizations.

- 1.1 Overall implementation structure

1.2 Implementing agency

1.3 Other relevant stakeholders

CHAPTER 2: IMPLEMENTATION SCHEDULE

This chapter aligns project activities against time frames. The first sub-chapter describes the overall implementation schedule of the project. The implementation schedule can be divided into the following two periods: preparation period and operation period.

2.1 Overall schedule for project implementation

2.2 Preparation period

2.3 Operation period

CHAPTER 3: ARRANGEMENT FOR FINANCIAL MANAGEMENT

It is important to effectively manage and monitor the financial resources of the project. Chapter 3 clarifies the sources of finance and the recipients of financial assistance. Then the process for the fund flow from the financing sources to the recipients will be described including necessary arrangements for the process. As an example, the chapter will include the following sub-chapters:

3.1 Financing sources

3.2 Loan program for project activities

3.3 Government budgets for project activities

3.4 Arrangements for accounting, financial reporting, and auditing

CHAPTER 4: PROCUREMENT ARRANGEMENT

This chapter identifies all the items to be procured under the project and determines which items should be grouped together into same contracts. Also important are the procurement method and related approval procedures. This chapter explains who will be in charge of major processes and who will be authorized to approve awards and contracts. This chapter will also identify how long these procedures should take.

Governments, financial institutions and donor agencies often have specific procurement procedures and documentation. The implementing agency is required to

comply with the respective guidelines of these institutions when items are to be procured with funds from the institution concerned.

4.1 Procurement plan

4.2 Procurement flow with approval process

CHAPTER 5: SALES AND MARKETING

Chapter 5 will clarify how to conduct sales and marketing of forest/agro-forestry products to ensure that the planned benefits of the project are realized.

5.1 Overview of sales and marketing conditions

5.2 Sales and marketing flow

CHAPTER 6: TRAINING PLAN

A training plan is based on the results of a training needs survey for those involved in the implementation of the project. A training plan comprises two sub-chapters: one is a plan at the field level, and the other is a plan at the level of the implementing agency. The basic idea and outline of the plan are explained and a table of detailing the training plan is prepared for respective plans. The training plan table will cover the objective, training contents, target trainees, and duration of each training course.

6.1 Training plan at the field level

6.2 Training plan at the level of the implementing agency

CHAPTER 7: MONITORING AND EVALUATION

This chapter aims to describe how to implement monitoring and evaluation (M & E) including specifying the timing of M & E process. It is necessary to re-examine the development impact indicators and progress indicators identified in the F/S report and then, elaborate M & E system. The contents of M & E system include the organizations responsible for M & E and a method for M & E etc. The information will be presented in a concise table format.

7.1 Monitoring

7.2 Evaluation

C. Expected outputs of the implementation planning

1. Implementation Plan

The outputs of implementation planning will be prepared in the form of an Implementation Plan in accordance with the structure described in “B. Structure and contents of Implementation Plan” of Volume I in this manual. The IP will be submitted for approval by the government and/or for use by other concerned organizations. It will provide a basis for the implementation at the later stage.

2. Map in the Implementation Plan

A map will be included in the IP. The following map will be prepared as part of the IP:

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 planting tree species (for production forests) or agro-forestry models, and planting years in respective planting sites or agro-forestry sites. Administrative boundaries, main roads, rivers, residential areas, etc. are also shown on the afforestation/agro-forestry planning map. The map scales 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: PROCEDURES FOR PREPARATION OF AN IMPLEMENTATION PLAN

INTRODUCTION

This part describes the arrangements through which the IP has been prepared. It should refer to the F/S report that provides a basis for formulating the project. The description also includes the general outline of the project by referring to (1) the implementing agency, (2) target products, and (3) the financing sources.

PART I. SUMMARY OF THE PROJECT

Objective	This part aims to summarize key features of the project based on the F/S report in order for users of the IP to gain an overall understanding of the project.
Relevant part of F/S report	Part I. Project Background and Part II. Project Contents
Important points for preparing this part	Present a concise explanation on the important characteristics of the project
Structure	1 Project location and area 2 Project objectives and outputs 3 Project components 4 Project cost 5 Project Design Matrix

Process to prepare the IP

1 Project location and area

The description of “Geographical location and area” and “Status of land and forest resource use of F/S report is summarized with Location and Area as follows.

1.1 Location (Refer to **Part I, Section 2.1.1 of F/S report)**

Explain the specific location of the project area. Refer to the F/S manual for definition of “the project area.”

1.2 Area (Refer to **Part I. Sections 2.1.1 and Sub-chapter 2.3 of F/S report**)

Size and classification of land in the project area is explained by use of the following table format (Table 1). It should be confirmed that the project will be implemented only in forest land.

Table 1 Land classification by administrative unit

Unit: ha

Land classification	Size of area by administrative unit			
	Unit 1	Unit 2	Total of the Project Area
Total area (1+2+3)				
1. Agricultural land				
(Out of which:	Sub-total [(1)+(2)+(3)]			
Forest land)	(1) Plantation			
	(2) Natural forest			
	(3) Un-forested			
2. Non-agricultural land				
3. Un-used land				

Source:

2 Project objectives and outputs

(Refer to **Part II. Chapter 2 of F/S report**)

The description of the project objectives and outputs from the F/S report will be summarized under the following headings:

2.1 Overall goal

2.2 Project objective

2.3 Project outputs

It is important to describe the target beneficiary of the project in the above Sub-chapter 2.2 Project objective. As for the definition of the target beneficiary, refer to the F/S manual.

3 Project components

(Refer to **Part II. Sub-chapter 3.1 of F/S report**)

3.1 Project components

Main features of each project component will be summarized.

3.2 Main activity plan

Activity plans will be described by using the following sample summary tables for planting, harvesting, and infrastructure plans.

Table 2 Planting plan by administrative unit and species (example)

Unit: Ha

Area by species	Unit 1	Unit 2	Unit 3	Unit x	Total
Total						
Species 1						
Species 2						
Species 3						

Source: Estimate of F/S team

Table 3 Planting plan by year and species (example)

Unit: Ha

Area by species	Year ...	Year ...	Year ...	Year ...		Total
Total						
Species 1						
Species 2						
Species 3						

Source: Estimate of F/S team

Table 4 Harvesting plan (example)

Unit: Ha

Harvesting plan	Year ...	Year ...	Year ...	Year ...	Year ...	Total
Area (Ha)						
Species 1						
Species 2						
Species 3						
Standing volume (m3)						
Species 1						
Species 2						
Species 3						
Commercial volume (m3)						
Species 1						
Species 2						
Species 3						

Source: Estimate of F/S team

Table 5 Infrastructure plan (example: forest road)

Unit: Km

Year	Administrative Unit			
	Unit 1	Unit 2	Unit 3	Total of the project area
2008	10 km	20 km	0 km	30 km
2009				
Total				

Source: Estimate of F/S team

4 Project cost

(Refer to **Part II. Chapter 4 of F/S report**)

Project costs estimated for each project component will be shown in the following table format. The table should clarify the period for which cost estimates are made: either project costs over the project period or costs during the assistance period. Refer to the F/S manual for definition of the “project costs” and “costs during the assistance period.”

Table 6 Example of summary cost of the project by financing source

(Period estimated: -)

Unit: Mil. VND

Project Component	Total cost	Ratio (% of total project cost)	Financing source		
			X	Y	Z
1. Component 1					
2. Component 2					
3. Component X					
A) Total baseline costs (1+2+3)					
B) Physical contingency					
C) Price contingency					
Total cost (A + B + C)					

Source: Estimate of F/S team

5 Project Design Matrix

(Refer to **Annex 1 of F/S report**)

The Project Design Matrix of the F/S report will be inserted in this section.

PART II. IMPLEMENTATION PLAN IN RESPECTIVE FIELDS

CHAPTER 1. INSTITUTIONAL ARRANGEMENT

Objective	This chapter aims to clarify (1) the overall management structure of the project and (2) the internal organizational structure of the implementing agency together with the roles and responsibilities of the staff assigned to respective departments. (3) The roles and responsibilities of other relevant stakeholders identified will also be explained.
Relevant part of F/S report	Part II. Chapter 6 Organization of project management and implementation
Important points for preparing this part	(1) Streamline areas where more than one organization is responsible for roles and responsibilities (overlapped roles and responsibilities) or fill out areas where no one assume such roles and responsibilities for project implementation. (2) Reflect the ideas of local people in order to encourage their participation in the project.
Structure	1.1 Overall implementation structure 1.2 Implementing agency 1.3 Other relevant stakeholders
Annexes relevant to this section	Annex 4: Terms of Reference for Project Staff

Process to prepare the IP

1.1 Overall implementation structure of the project (Refer to Part II. Sub-chapter 6.1 of FS report)

Confirm the overall implementation structure of the project by drawing the structural organization chart for project implementation, which shows the relationships between the different stakeholders involved in implementation of the project. A sample organization chart has been attached at end of this chapter. The explanation will focus on the relationship between the implementing agency and other relevant stakeholders.

1.2 Implementing agency

(Refer to **Part II. Sub-chapter 6.2 of F/S report**)

First the role and responsibilities of the implementing agency described in Part II Chapter 6 of the F/S report will be re-examined. Then, the internal organization structure, assignments and roles of personnel of the implementing agency will be described from the perspective of how they will contribute to meeting the project objective. If an implementing agency is to be newly established, the procedures to establish the implementing agency will be also described.

1.2.1 Organization

Identify an appropriate internal organization structure for project implementation. In general, a number of functional departments can be established such as planning, finance and accounting, extension services, sales promotion, procurement, and personnel administration. The internal organization structure will be designed to meet the needs of the project. This will be also affected by the scale of the project. Clear tasks for each department should be given in the description.

1.2.2 Staff assignment/staffing

For each department, the number of personnel to be assigned will be explained together with their roles, responsibilities and qualifications.

Recruitment and assignment of personnel depend on the project type. For example, if a project is undertaken with participation of farmers, the head of the project implementing agency can be selected from the group of farmers. In that case, the government will notify the persons in charge of the project and help them with orientation of the project and relevant policies.

1.3 Other relevant stakeholders

(Refer to **Part II. Sub-chapter 6.3 of F/S Manual**)

Relevant stakeholders, other than the implementing agency, who are involved in project implementation, will be enumerated. For each of the relevant stakeholders, roles and responsibilities will be elaborated in connection with project implementation. Other relevant stakeholders include community-based organizations (CBOs). Where a CBO plays a key role in project implementation, particularly tree plantation and/or cultivation of

agriculture products, the method for forming the group and its function will be described. For example, the following sections can be used to describe CBOs.

- (a) Procedure for establishing of the organization
- (b) Structure of the organization
- (c) Roles and responsibilities of the organization



Example: TOR of PMB Staff in the Model F/S of Thai Nguyen province

(a) Project director

Roles and responsibilities

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

Qualifications

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

(b) Staff in charge of finance & planning

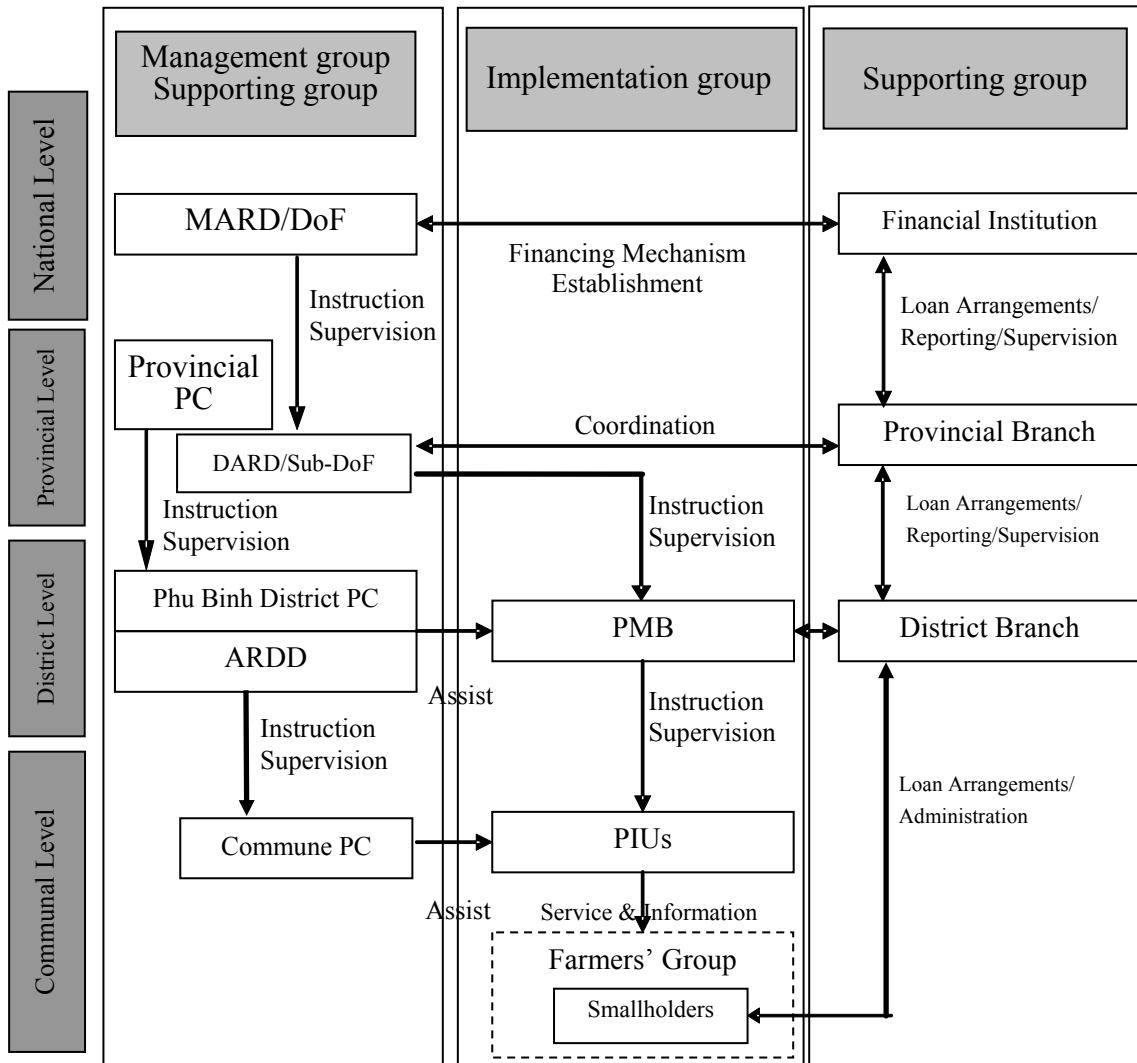
.....

(c) Staff in charge of technical & extension services

.....

(d) Accountant

Figure 1 A sample chart of structural organization chart for project implementation



CHAPTER 2. IMPLEMENTATION SCHEDULE

Objective	This chapter aims to describe the project implementation schedule.
Relevant part of F/S report	Part II. Sub-chapter 3.3 Implementation schedule
Important points for preparing this part	(1) Prepare a realistic schedule in consideration of the required timing and sequencing for planned project activities. (2) Pay attention to local conditions in the project area such as flood seasons, planting and harvesting seasons of agriculture products. (3) Take into consideration existing procedures and guidelines that the implementing agency is required to comply with.
Structure	2.1 Overall schedule for project implementation 2.2 Preparation period 2.3 Operation period
Annexes relevant to this section	Annex 2: Plantation Plan Annex 3: Silviculture Guidelines Annex 5: Preliminary Sample Forms for Implementation Planning

Process to prepare the IP

2.1 Overall schedule for project implementation

(Refer to **Part II Sub-chapter 3.3 of F/S Report**)

The main activities under each component and sub-component, along with their implementation schedule, are summarized in the sample table format shown below. These schedules may be subject to revision over the course of project implementation. The implementation schedule can be divided into the two periods: preparation period and operation period. During the preparation period, preparation works for the main activities of the project are to be undertaken, prior to commencing the operation period. During the operation period, main activities of the project are to be carried out.

Table 7 Overall schedule for project implementation

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

2.2 Preparation period

(Refer to **Part II Sub-chapter 3.3 of F/S Report**)

Implementation of the preparation period is mainly concerned with the establishment of a management and operation structure for project implementation. Examine what kind of preparation works is required before actual planting activities start and how long the respective work is scheduled to take. In a case where the community in the project area is to be mobilized under the project, the initial works for community mobilization will be elaborated.

Study may include procedures and time periods required for establishing an implementation agency, financial arrangements, procurement of funds, purchase of equipment and materials, dissemination of project information to the local people, and preparing of a tentative list of participants in the project. Check the relation between these different procedures and decide the time sequences of each procedure to be carried out.

The following table shows an example of an implementation schedule during the preparation period. The initial works for community mobilization are found in Step 5 of the table.



Key word: Community-based organization and community mobilization

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.

Table 8 Example of implementation schedule during preparation period

Step	Activities	Relevant Component	Months											
			1	2	3	4	5	6	7	8	9	10	11	12
1	Establishment of a Credit Scheme with a Bank	Comp 2-1												
	Negotiation with Potential Financing Agencies		■											
	Establishment of Agreement				■	■								
2	Establishment of PMB and PIU	Comp 3												
	Appointment of Project Director & PMB staff				■									
	Appointment of PIU staff				■	■								
3	Office set-up	Comp 3												
	Procurement of Office Equipment				■	■								
	Establishment of Project Account				■									
4	Review of F/S, IP, Tools and Manuals	Comp 3												
	PMB and PIUs Internal Meetings				■	■								
	First Year Target Setting				■	■								
5	Initial Community Meeting	Comp 2-2												
	Dissemination of information	Comp 3			■	■								

Step	Activities	Relevant Component	Months											
			1	2	3	4	5	6	7	8	9	10	11	12
	Preparation of tentative list of participants													
...														
7	Staff Training	Comp 2-4												
	Credit Scheme													
	Facilitation Skill													
	Silviculture													

2.3 Operation period

(Refer to **Part II Sub-chapter 3.3 of F/S Report**)

The implementation schedule during the operation period will be re-examined by means of preparing a rotation cycle model.

In case of an afforestation project, for example, activities such as land preparation, hole-digging, and planting are carried out in the first year and weeding is carried out every year from the first year to the third year. A series of these activities make the rotation cycle model, which is replicated through the rest of the project area during the operation period. Give detailed descriptions of monthly activities for each step of the rotation cycle model.

The following table shows a rotation cycle model for afforestation activities. It can be used as an example for explaining a rotation cycle during the operation period.

Table 9 Example of table for rotation cycle model of afforestation activities during operation period

Step	Activities	1 ha model rotation cycle						
		1 st year	2 nd year	3 rd year	4 th year	5 th year	6 th year	7 th year
1	Community mobilization							
2	Preparation of Detail Reforestation Plan							
3	Timber Harvesting and Site Cleaning							
4	Reforestation Plot Design							
5	Site Preparation							
6	Delivery of Seedlings and Fertilizer							
7	Refilling							

Step	Activities	1 ha model rotation cycle						
		1 st year	2 nd year	3 rd year	4 th year	5 th year	6 th year	7 th year
8	Planting							
9	Beating Up							
10	Tending							
11	Protection							
12	Monitoring and Evaluation							

The following table shows a monthly schedule for Step 1 of a rotation cycle for afforestation activities. It can be used as an example to explain the monthly schedule for each step of the rotation cycle model during the operation period.

Table 10 Monthly schedule for step 1 (community mobilization) of rotation cycle model

Activities	Months											
	1	2	3	4	5	6	7	8	9	10	11	12
First Community Meeting												
Planning												
Publicity												
Holding the Meeting												
List of Potential Participants												
Pre Assessment on Household and Site												
Notification of Visit												
Household and Site Visits												
Reporting of the Household and Site visit												
Screening of Project Participants												
Initial Approval at PMB												
Meetings with the Financial Institution												
Approval at the Financial Institution												
Notification of the Selection to Households												
Second Community Meeting												
Planning of the Meeting												
Publicity												
Meetings with the Financial Institution												
Preparation of Loan Applications												
Staff Training on Filing of Loan Applications												

Activities	Months											
	1	2	3	4	5	6	7	8	9	10	11	12
Holding the Meeting												
Handing out Loan Applications												
Preliminary Group Formation												
Group Formation												
Meetings with Project Participants explaining about group formation												
Establishment of Group Rules												
Group Afforestation Training												
Notification of Training												
Implementation of Training												
Loan Application Meeting												
Explanation of Loan Disbursement and Interest Payments												
Preparation of Loan Application												
Loan Establishment Meeting												
Notification of Approval												

CHAPTER 3. ARRANGEMENT FOR FINANCIAL MANAGEMENT

Objective	This chapter aims to describe arrangements for financial management that are to ensure effective management and monitoring of financial resources for the project.
Relevant part of F/S report	Part II. Chapter 5 Financing plan (financing sources for the project (Sub-chapter 5.1), loan disbursement and repayment plan (Sub-chapter 5.2), and fund flow of the project (Sub-chapter 5.3)) Part II. Chapter 6 Organization of project management and implementation
Important points for preparing this part	(1) Ensure simple and timely disbursement/release mechanism for funds (2) Maintain transparency and ensure the accountability of financial management
Structure	3.1 Financing sources 3.2 Loan program for project activities 3.3 Government budgets for project activities 3.4 Arrangements for accounting, financial reporting, and auditing

Process to prepare the IP

3.1 Financing sources

(Refer to **Part II. Chapter 5 of the F/S report**)

This section reiterates the different sources of finance for different project activities, as already described in the F/S report. It explains channels through which the funds will be delivered from providers to users. Financing sources may include financial institutions, government budgets, overseas donor agencies, etc. The providers and users of funds are briefly described in the organization chart together with the flow of funds between different parties involved in the project. The following sections show an example of a loan program and government budgets as financing sources for the project.

3.2 Loan program for project activities

This section describes the fund flow mechanism and financial management processes of the loan program. The description may cover the following aspects:

- (1) Procedures for loan application, appraisal, approval, disbursement, administration, and collection, as well as the human resources to be devoted to these tasks;
- (2) Description about what will happen if end-users default in making repayments;
- (3) Outline of the collateral requirements for loans and how such collateral will be liquidated. Such information must conform to the laws of the country. If there are any legal impediments to collateral liquidation, describe how and whether they will be addressed; and

- (4) Performance to date of the financial institution in relation to expected collection rates under the project along with methods or special programs for bridging any gap.

3.3 Government budgets for project activities

The financial institution typically finances only a portion of the project cost in any expenditure category. The institution may also declare certain items as non-eligible for finance. It is important to understand the budget mechanism and include sufficient funding in the annual budget to cover counterpart expenditures.

Summarize the government’s budget approval process and timing, from the initial submission of the budget proposal to approval and subsequent release of funds. This helps both the implementing agency and the financial institution plan their annual budget and disbursement, respectively.

Estimates, including both government budgets and loan portions, are typically developed from annual action plans showing the timing and sequencing of major activities expected to be completed over a twelve month period and associated funding requirements. Although the overall project implementation schedule serves as a guide, such annual plans become increasingly useful as implementation advances and the initial schedule requires updating.

Table 11 Sample annual budget cycle for project management component

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

If any problems are foreseen in the budget release mechanism, describe how they will be addressed. If the financial gap is expected between when funding will be needed and when it is likely to become available, indicate what measure will be used to bridge the gap.

3.4 Arrangements for accounting, financial reporting, and auditing

Describe accounting, financial reporting, and audit arrangements. This includes: (1) maintaining separate project accounts and internal controls, (2) providing timely financial reports, and (3) arranging for project or corporate audits. If part of the project cost is funded with government budgets, the financial arrangements need to follow the state budget management system. If foreign donor agencies extend support, financial documentation and audit processes need to be adopted in line with the legal documents (i.e.

guidelines and procedures) agreed between the foreign donor agency and their Vietnamese counterpart agency. When the implementing agency is a profit-oriented organization or entity, the organization/entity has to observe accounting standards applicable to the organization/entity. Descriptions of the arrangements for accounting, financial reporting, and auditing can be combined with the preceding sub-chapters where the loan program and government budgets for project activities are described, respectively.

CHAPTER 4. PROCUREMENT ARRANGEMENT

Objective	This chapter aims to describe the arrangements for purchasing and how the implementing agency will ensure efficient and transparent procurements of goods and services within the required legal framework.
Relevant part of F/S report	Part II. 3.2 Implementation plan
Important points for preparing this part	(1) Compliance with the existing guidelines and procedures (2) Prepare simple ways to procure goods and services whose quality is at an acceptable level, at reasonable costs, and in a timely manner.
Structure	4.1 Procurement plan 4.2 Procurement flow with approval process

Process to prepare the IP

4.1 Procurement Plan

This sub-chapter identifies all the items to be procured under the project and determines which items should be grouped together into contracts. Items can be classified into goods or services. Governments, financial institutions and donor agencies often have specific procedures and documentation that needs to be followed during procurement. The implementing agency is required to comply with the guidelines of respective institutions when items are to be procured with funds provided by those institutions.

The following table can be use for describing the procurement plan.

Table 12 Sample table for procurement plan

Item Component	Item to be procured	Lot/Package for procurement	Procurement method	Responsible organization	Remarks (Note)
Component 1	Seedling	One package	Limited bidding	PMB	
	Consultancy service for preparing Training plan	Individual basis	Direct contracting/shopping	PMB	
	Civil works	Two packages	Competitive bidding	PMB	
Component 2					
• • •					
Component X					

Note:

In the column “Remarks,” specific procedures and information required under the applicable local procurement guidelines should be described. For example, formation of an

evaluation committee including a third party may be required depending on the expected contract amount.



Key word: Procurement methods

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.

4.2 Procurement flow with approval process

Approval procedures relating to procurement are important. This sub-chapter explains who will be in charge of major processes, who will be authorized to approve awards and contracts, and how long the procedures should take. The following flow chart will be helpful to visualize the process used for procurement. Attention should be also paid to matching the procurement schedule with the schedule of releasing and disbursement of funds.

Table 13 Sample flow for procedure of procurement of seedling

No	Expected Schedule	Action	Contractors/ Farmers (C/F)	Implementing Agency (IA)	Supplier (SU)	Government Organization (GO)	Remarks
1		Estimate and inform quantity of seedlings					C/F estimate the number of seedlings needed and inform IA of the quantity for their technical review.
2		Selection of supplier					IA aggregates the number of seedlings required in the project area for the year. Based on the aggregated quantity, IA requests several suppliers, which have been recommended by GO, to present their price quotations together with the quality and delivery schedule. IA selects the most appropriate supplier based on the quotations.
3		Confirm quantity of seedlings					C/F and IA confirm the quantity of seedlings to be procured together with the supplier that will be used. IA informs GO of the quantity to be procured together with the selected supplier of seedlings for their endorsement.
4		Place order of seedlings					C/F order seedlings from the supplier recommended by IA. IA collects order forms of C/F in the respective communes, aggregate the number of seedlings, and place a purchasing order with the supplier.
5		Delivery and inspection of seedlings					The supplier informs C/F of delivery points and schedules through IA. It delivers seedlings directly to C/F. IA conducts on-site inspection of the quality of seedlings. C/F confirms the quantity of seedlings delivered. C/F signs the receipts for materials delivered and sends them to the supplier through IA.
6		Payment for seedlings					C/F directly pays a bill for seedlings to the supplier based on their request for payment.

CHAPTER 5. SALES AND MARKETING

Objective	This chapter aims to describe arrangements that will clarify how to conduct the sales and marketing of forest/agro-forestry products in pursuance of realizing the planned benefits of the project.
Relevant part of F/S report	Part I. Sub-chapter 2.4 Sales and marketing
Important points for preparing this part	(1) Review all the stakeholders to be involved in the process. (2) Confirmation of actions and time sequences for the actions to be taken. (3) Incorporate steps to adjust the sales and marketing plan to meet changes in market conditions
Structure	5.1 Overview of sales and marketing conditions 5.2 Sales and marketing flow
Annexes relevant to this section	Annex 5: Preliminary sample forms for implementation planning

Process to prepare the IP

5.1 Overview of sales and marketing conditions

(Refer to **Part I. Chapter 2.4 of the F/S report**)

Review the data and information in the sales and marketing plan by referring the relevant part of the F/S report, which shows (1) demand and supply of forest/agro-forestry products, (2) price and transportation of forest/agro-forestry products, and (3) target markets.

This sub-chapter will focus on the analysis of sales and marketing conditions before examining and elaborating the volumes and marketing flow in the sub-chapter to follow.

5.2. Sales and marketing flow

5.2.1 Basic idea for preparing sales and marketing flow

The sales and marketing flow aims to show how target products of the project are to be sold from producers to users. In order for preparing a sales and marketing flow, it is necessary to clarify who is expected to take what actions, when and how such actions are to be taken.

The first step will be to identify stakeholders who are involved in selling, transporting and buying target products of the project based on sales and market conditions reviewed above. For example, it is possible to identify the following three parties: (1) producers of target products, (2) the implementing agency which is responsible for implementation of the project, and (3) users of target products.

Regarding producers of target products of the project, it is possible to identify smallholders/farmer's groups, state forest enterprises (SFEs) and private companies, etc. A

number of possible alternatives exist as an implementing agency such as: existing government organizations like Sub-DoF, management boards, and SFEs. It is possible to establish a new organization such as a project management board. Users of target products are generally processors of target products such as timber mills, chipping factories, particle board companies, etc. in the case of wood materials, for example. Exporters of target products can be also considered as users of the target products.

Stakeholders for sale and purchase of target products of the project can be widely varied depending on the characteristics of the project. Therefore, those who are expected to participate in sales and marketing have to be carefully examined.

In terms of the timing and sequence for selling and buying target products of the project, a series of actions has to be examined. For example, major actions can be described as follows: collection and dissemination of market information in potential and target markets, negotiation of selling and buying conditions, contract on sales and purchasing, delivery of target products, and payment of bills, etc. It is expected to examine how these actions are arranged by time sequence, what kind of communications take place among stakeholders, and what specific formats are required for communications.

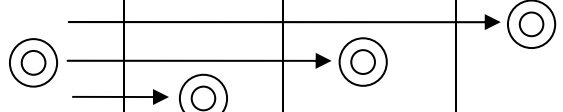

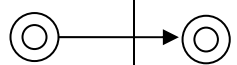
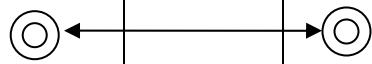

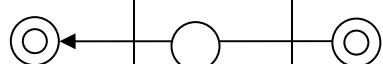
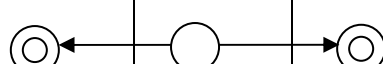
5.2.2 Preparation of sales and marketing flow

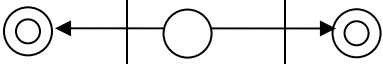
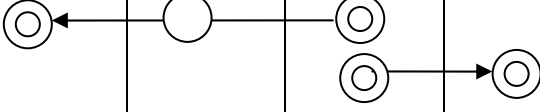

A sales and marketing flow will be prepared through the following steps:



- (1) Identification of stakeholders who are involved in sales and marketing activities;
- (2) Identification of roles and responsibilities for respective stakeholders;
- (3) Identification of all necessary actions for the sales and marketing;
- (4) Arrangement of actions by time sequence; and
- (5) Construction of a sales and marketing flow by matching actions with respective stakeholders who will implement them.

The process mentioned above will be incorporated into the following flow chart with additional explanation in the column of remarks.

Table 14 Sales and marketing flow (example of sales and marketing of wood materials)

No	Expected Schedule	Stakeholder Action	Producers (Smallholders, SFE, etc.)	Implementing agency (IA)	Intermediate agent (Traders, etc.)	Target markets (Users, major clients)	Potential markets	Remarks
		Review the market conditions in target and potential markets						IA reviews and updates the data and information collected during preparation of the F/S in terms of the demand and supply in the potential market, prices of wood materials, and conditions of the target markets.
		Provide market information						IA aggregates the information collected and provide it to producers. Prices and specifications of wood materials that are in demand are important factors to be considered in sales decisions to be made by producers.
		Express intention of sales						Producers inform of their intention to sell the trees to IA. The size of the areas and species to be harvested need to be stated.
		Information exchange of demand and supply of wood materials						IA and users of wood materials (Target market) exchange information on the demand and supply of wood materials (such as the specifications, quantities, prices, locations of producers and users).
		Agreement between user and intermediate agent						A user of wood materials and an intermediate agent agree on the conditions for the sale and purchase of wood materials.
		On-site survey on conditions of forests						An intermediate agent that agrees with the user conducts an on-site survey on the condition of forests where producers have shown their intention to sell the trees. IA will coordinate and join the survey as a witness.
		Negotiation on sales and purchase conditions						Based on the survey, the intermediate agent and producers negotiate on sales and purchase conditions such as prices, specifications, quantity, and delivery condition of wood materials. IA will help producers on negotiation if requested.

		Sales contract				When they agree on sales and purchase conditions, a sales contract is concluded between the intermediate agent and a producer. IA will sign it as a witness.
		Harvest and delivery of wood materials				Delivery of wood materials is done in accordance with the sales contract concluded. This case shows an example where the intermediate agent will harvest standing trees upon payment to the producer and transport wood materials to the factory gate of the user. IA will conduct an on-site inspection at the time of harvesting.
		Payment				The user will pay a bill directly to the intermediate agent after inspection, based on the request from the intermediate agent.

Note:  Indicates a stakeholder who is directly involved in actions concerned. \rightarrow Indicates the order in which actions occur.
 Indicates a stakeholder who coordinates actions among stakeholders who are directly involved in actions.

CHAPTER 6. TRAINING PLAN

Objective	This chapter aims to describe a capacity building program for those involved in project implementation in order to strengthen their ability to implement the project as planned.
Relevant part of F/S report	Part II. Section 3.2.8 Training plan
Important points for preparing this part	(1) Identify proper training needs of those involved in project implementation in order that the project can be carried out smoothly with realization of the objective. (2) Prepare an appropriate training plan that matches the training needs identified.
Structure	6.1 Training plan at the field level 6.2 Training plan at the level of the implementing agency

Process to prepare the IP

The training plan for those involved in the implementation of the project is based on the results of the training needs assessment. A training plan can be prepared for two types of activities: one is a training plan for those directly involved in planting activities, etc. at the field level. The other is a training plan for those involved in project management and implementation in the implementing agency. Both training plans are expected to cover: (1) the title of the training course, (2) objectives, (3) training contents, (4) targeted participants, (5) number of participants, (6) duration, (7) timing, and (8) required costs in the summary table (Table 15) as shown on the last page of this chapter.

6.1 Training plan at the field level

(Refer to **Part II. Section 3.2.8 of the F/S report**)

The field level training plan is concerned with the implementation of project activities in the field. The plan will cover plantation of seedlings, cultivation of agricultural products, tending and protection, etc. Participants targeted in the training plan may be farmers in the project area, employees and/or contract workers of the implementing agency.

6.2 Training plan at the level of the implementing agency

The implementing agency training plan is concerned with management and implementation of the project. The training plan will cover project management, finance and planning skills, technical and extension skills, accounting skills, and so on. The plan will be conducted for management personnel and staff members of the implementing agency.

Table 15 Sample table for training plan

Title of training course	Objective	Training contents	Target participants	Number of participants	Duration	Timing	Cost	Remarks (Instructors, training methods, etc.)

CHAPTER 7. MONITORING AND EVALUATION

Objective	This chapter aims to show detailed M & E plans together with ways to implement the M & E.
Relevant part of F/S report	Part II. Chapter 7 Monitoring and evaluation
Important points for preparing this part	Re-examine the M & E indicators and implementation mechanism in order to ensure a timely and effective feedback of the results.
Structure	7.1 Monitoring 7.2 Evaluation

Process to prepare the IP

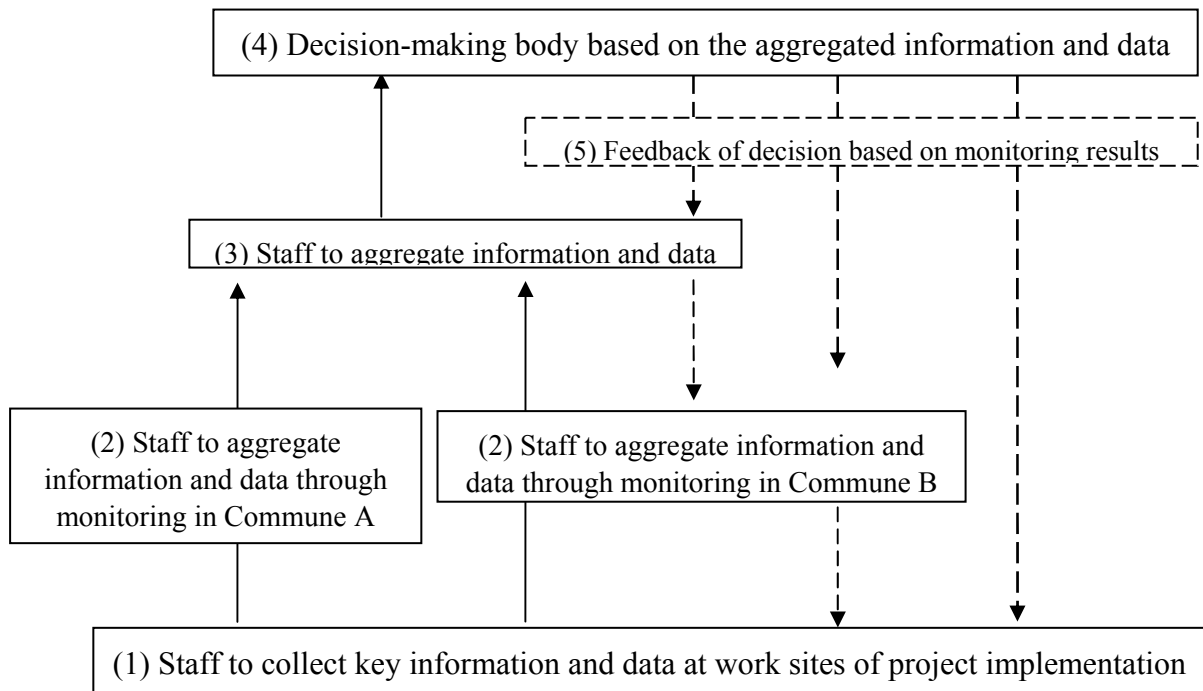
7.1 Monitoring

(Refer to **Part II. Chapter 7 of F/S report**)

Monitoring aims to examine if the project is progressing in accordance with the plan. The monitoring process should ensure that necessary changes are made and required actions are taken for successful completion of the project. The development impact indicators and the progress indicators of the project are re-examined and utilized for the monitoring of the project. Critical assumptions set for the Project Design Matrix (PDM) will be also monitored.

Based on institutional arrangements, this part describes the timing, methods, members, organizations/entities and budgets as they relate to information collection, aggregation, analysis, decision-making and feedback. It is important to establish a system that regularly collects and summarizes key information and data for decision-making. As an example, Figure 2 below illustrates the monitoring processes and information flow from (1) identification of key information at the work sites to (5) feedback of decision to concerned levels. It may be helpful to designate staff members of the implementing agency to be responsible for each step of this flow. The information flow should reflect the M & E plan shown in Table 16 below.

Figure 2 Monitoring process and information flow



The disbursement of loans/release of funds can be linked to quality and performance targets identified in the monitoring process. This is particularly useful when it needs to ensure that relevant planting and tending activities are carried out in a specific time period. This can also accompany a field inspection done by the implementing agency to check the performance and quality of the plantation investment.

7.2 Evaluation

(Refer to **Part II. Chapter 7 of F/S report**)

Evaluation aims to make recommendations on the future course of the project and draw lessons for other projects. It will be carried out by using all the results of the project, particularly achievement of the project objective and the overall goal. The development impact indicators and progress indicators will be used for evaluation of the project.

This part of the IP will describe the composition of the evaluation team that may be formed during the mid-term and final evaluation of the project. It will describe the mechanism used to provide feedback on evaluation results. As evaluation requires a more objective perspective, evaluation may be undertaken by a third party, independent from the F/S team and the implementing agency of the project. Alternatively, the management group could conduct evaluation and have comment on the results of the project from the third party. It is also important to feedback comments and suggestions of the target beneficiary by including representatives of the target beneficiary in the evaluation team.

Refer to Part II. Chapter 7 of FS manual for the definitions of “development impact indicators,” “progress indicators,” and for parties to conduct monitoring and evaluation.

Table 16 Sample table for M & E plan

Description	Indicators	Monitoring and Evaluation means	Information collection			Report synthesis			Decision making		Decisions sent for implementation	
			Collected by	Time	Method	Sent to	Time	Method	Person/agency	Time	Time	Method

Annex

ANNEX 1: Overall Plan of the Project

ANNEX 2: Plantation Plan

ANNEX 3: Silvicultural Guidelines

ANNEX 4: Terms of Reference for Project Staff

ANNEX 5: Preliminary Sample Forms for Implementation Planning

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