Non-wood forest product community-based enterprise development: a way for livelihood improvement in Lao People’s Democratic Republic
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Acronyms

BDS  business development services  
BTC  Belgian Technical Cooperation  
CIAT  International Centre for Tropical Agriculture  
EDC  a local enterprise development training agency  
FAO  Food and Agriculture Organization of the United Nations  
FONP  Forestry Policy and Institutions Service (of FAO)  
FOPP  Forest Products Service (of FAO)  
FS 2020  Forestry Strategy 2020  
GAPE  Remote Village Education Support Project  
JICA  Japanese International Cooperation Agency  
Lao PDR  Lao People’s Democratic Republic  
MAD  marketing analysis and development  
MAF  Ministry of Agriculture and Forestry  
MIS  market information system(s)  
NAFRI  National Agriculture and Forest Research Institute  
NGO  non-governmental organization  
NGPES  National Growth and Poverty Eradication Strategy  
NUOL  National University of Lao PDR  
NWFP  non-wood forest product  
PAFO  Provincial Agriculture and Forestry Office  
RECOFTC  Regional Community Forestry Training Center for Asia and the Pacific  
SADU  Small-Scale Agro-Enterprise Development for Uplands  
SHG  Self Help Group  
SIDA  Swedish International Development Authority  
SNV  Netherlands Development Organization  
SUFORD  Sustainable Forestry and Development Project (World Bank funding)  
SWOT  strengths, weaknesses, opportunities and threats (analysis)  
TCP  Technical Cooperation Project  
VFI  Village Focus International  
WWF  World Wide Fund for Nature  

Exchange rate  
(September 2006)  
US$1 = 10 000 kip (K)
Chapter 1: Introduction and project context

Non-wood forest products (NWFPs) are a major natural resource of Lao People’s Democratic Republic (PDR), where 41 percent of the national territory is covered by forest and 80 percent of the population live in rural areas. The per capita availability of forest is about 2.4 ha, about six times the subregional and four times the world averages. NWFPs play an important role in food security and daily livelihoods, and the Government of Lao PDR perceives them as a valuable alternative in its basic poverty eradication strategy. NWFPs include food products, spices, condiments, food additives, sweeteners, gums, oils, oleoresins, fibres, plaiting materials, medicinal and aromatic plants, animals and animal products. In Lao PDR, NWFPs worth an estimated US$216 million are produced every year, of which local use accounts for US$184 million. NWFPs contribute substantial shares of household food consumption and cash income (from rank 3 NWFP stands at the national level, and rank 2 at the district and village levels). In study sites, NWFP income was ranked second after agricultural products, and before domestic animal sales. NWFPs are collected for household consumption, and increasingly for commercial purposes.

Natural forests and forest lands belong to the national community and are managed by the State, which allocates them to individuals and organizations for rational use (Forestry Law 1996). Government policy aims to stabilize shifting cultivation, promote the conservation and rehabilitation of forest resources, and support the development of a market-oriented economy.

Forest land and user rights, based on certified land use titles, are assigned according to the Land Use Planning and Land Allocation Programme. Five categories of forests are allocated to villages: production, conservation, protection, regeneration, and degraded.

Village forests are managed by villagers, who have to develop five-year management plans endorsed by the district authority. Individuals and organizations to whom the State has allocated the protection, conservation and management of forests and forest lands have rights to such benefits as the use of trees and the collection of NWFPs, in accordance with regulations issued by the agencies concerned (Forestry Law Art. 7).

Over the past ten years, projects (e.g., the Participatory Sustainable Management of Production Forest project) and villagers have paid more attention to harvesting logs and gaining revenue than to managing NWFPs and planting trees. Local communities have traditional customary rights, but these are often limited by regulations. Households collect and use NWFPs in accordance with village regulations and with approval from district authorities.

The harvest/production of NWFPs for commercial purposes is based on annual quotas granted to registered companies by the government. Provincial and district-level traders play a prominent role in this. There is limited value-added processing of NWFPs for consumption and/or export in Lao PDR, but there are a number of small and medium-scale processing industries, including rattan and bamboo workshops, incense factories, resin distillers, berberin processing plants, small-scale mulberry paper industries, and aromatic oil distillers.

The following recent trends demonstrate the growing interest in conserving and developing NWFPs:

- Local innovators have started to domesticate NWFP species in agroforestry systems and home gardens.
• Communities are developing the capacity to establish and run effective NWFP management systems.

The Forest Law

The Forest Law provides a legal framework for the NWFP subsector and distinguishes between customary use and commercial use of NWFPs.

Customary uses include the sale of unrestricted NWFPs. A village-level association is formed and signs a forest management contract with the local Provincial Agriculture and Forestry Office (PAFO). (This entails developing a forest management plan when the community has access to NWFPs.) Villages are often assigned degraded forests where NWFPs can be developed for customary and commercial purposes. Customary sales of NWFPs are exempt from regulations, because they are often an important source of essential household income.

Commercial use of NTFPs is based on a quota system. Companies interested in trading NWFPs apply to the PAFO for quotas of the products they wish to obtain. Based on the companies’ plans, the PAFO seeks approval for the quotas from the Ministry of Agriculture and Forestry (MAF). After approval, the PAFO holds a meeting with the Provincial Trade Office, the District Governor Deputy and the applicant companies, and the quotas are distributed among the companies. Quotas are set for each province and issued for specific zones within each district. After receiving a quota, the trader requests villages within the respective zone to supply the material. Quotas are not based on assessments of what there is in the forest, but on the number of traders applying through the district agriculture and forestry extension office.

Example: Traders in NWFPs have to pay different taxes and royalties, all of which involve paper work at different offices. The following steps are the standard process.

Traders seeking to buy NWFPs from villagers have to register with the village chief. The main reasons for this are to ensure that products can be traced back to their origins, taxes are collected from traders and statistics are collected. The village tax collector collects sales taxes from the traders:

• 50 percent of the tax remains in the village – 20 percent for official use and 30 percent as remuneration for the tax collector;
• 50 percent goes to the district tax office.

The current tax rates are complex and unclear. When a product is transported to the border from the district, traders have to pay the following additional taxes:

• 3 percent to the district agriculture and forestry office: An MAF instruction (October 1999) to PAFOs regulates the collection of royalties on NWFPs, requiring the collectors of NWFPs to replant the species harvested or pay a natural resource royalty. Royalty rates vary according to the NWFP. For example, for every tonne of paper mulberry collected, 15 trees have to be planted or a royalty of US$5 paid.
• 5 percent of the purchase price is paid to the district finance office.
• 5 000 kips (K) per tonne is paid to the district commerce office.
• 3 percent goes to the trade department at the border.

Traders also have to pay a 1 percent transit tax for transport from district to district, and often double that for transport out of the province. This is one reason why district traders seek to bypass provinces. Product prices are generally negotiated by traders and villagers.

At the same time, there are also a number of worrying trends that could adversely affect the overall status and management of NWFP resources. These include:

• possible negative impacts from the implementation of such government policies as village relocation, focal zone development, and land allocation and land-use planning (land-use conflict);
• accelerated deforestation resulting from land-use conversions for agriculture and dams, unsustainable or unauthorized logging practices, fire and other disturbances;
• increased market access and product demand without clear rules of resource allocation, tenure security and sustainable management regimes;
The key outputs of the project are:

a) the establishment of ten pilot NWFP village enterprise groups (involving 239 people) for rattan, bamboo handicrafts, paper mulberry and mushroom production activities;
b) increased incomes for local entrepreneurs;
c) assessment of the NWFP sector at the national level;
d) development of a model approach to NWFP marketing;
e) establishment of linkages with national and international organizations and the private sector (marketing information system [MIS] workshops, project partnerships, etc.);
f) capacity building for local communities and other key actors to strengthen their capacity for MA&D and sustainable management of NWFP resources.

In recent years, the government has adopted a number of initiatives aimed at developing forestry and NWFPs. Other positive signs include such innovations as self-help groups and participatory enterprises at the local level, which show much promise of success. Innovative institutional arrangements have been sponsored and promoted by donor agencies and non-governmental organizations (NGOs).

Within this context, MAF requested FAO and the Netherlands Development Organization (SNV) to assist the Government of Lao PDR in reducing rural poverty and promoting sustainable use and management of forest resources through appropriate NWFP marketing systems. More specifically, this involved establishing a model for the development of marketing systems for priority NWFPs through the market analysis and development (MA&D) approach, and promoting income generation for rural farmers through strengthening NWFP marketing and sustainable management of NWFP resources.

Photograph 1. Sign informing customers about the NWFP sales point (for mushrooms, bamboo, etc.) on road N9 between Thailand and Vietnam.
Chapter 2: The market analysis and development approach and its implementation in Lao PDR

What is Market Analysis and Development? Market Analysis and Development’s main objective is to assist local people, often the rural poor, in developing income-generating enterprises while conserving natural resources. It is a step-by-step participatory methodology for capacity building, arranged in three phases that consider social and environmental issues as well as the technological, commercial and financial aspects of products. The MA&D process recognizes local knowledge as an important source of information and builds alliances with appropriate institutions and individuals to increase access to information.

The MA&D process is conducted in three phases, preceded by a preparatory phase, as outlined in the following box.

### PREPARATORY PHASE: PLAN ACTIVITIES
During this phase, project sites and actors are identified, activities are planned, and markets for the products that the project will work with – NWFPs, agricultural produce, trees, etc. – are analysed.

### PHASE 1: ASSESS THE EXISTING SITUATION
This is an exploratory phase during which members of the target group are trained in tools and methods appropriate to the social, environmental, economical and technical issues they face. The target group considers:
- What resources and products are available?
- What are the potential enterprises? What are their main constraints and advantages?
- Who are potential entrepreneurs, and what are their expectations?

**Outcome:**
- Shortlist of products on which to base the next phase of MA&D.
- Identification of local people interested in developing enterprises.
- Understanding of the social, environmental, technical and institutional contexts of a range of products.
- Formation of interest groups to undertake the next phase.

### PHASE 2: IDENTIFY PRODUCTS, MARKETS AND MARKETING METHODS
During this phase, target group members go deeper into the selection process initiated in phase 1. They are trained in identifying the criteria for selecting the best products for the market and collecting the information needed. The target group considers:
- Which products have the best current market potential?
- Are there sufficient quantities of resources for increasing trade or processing? Can the resources be managed easily without negative impacts on the environment?
- What kind of technology, organizational structure, capacity and capital will be needed to reach potential markets?
- Which products will generate a net return and fit the target group’s expectations?
- What financial and technical support exists for setting up enterprises?

**Outcome:**
- List of possible products based on detailed feasibility studies.
- Data for designing a business plan.
- Formation of interest groups around promising products.
- Formation of a team to undertake the next phase.
PHASE 3: PLAN ENTERPRISES FOR SUSTAINABLE DEVELOPMENT

In the previous two phases, the future entrepreneurs selected products and markets that are socially and environmentally sustainable as well as financially promising. In this final phase, the enterprise strategy and business plans are prepared. Entrepreneurs are guided through a pilot phase and training, learning to monitor progress and adapt when needed.

Outcome:
- Identification of markets and development strategies, and formulation of enterprise development plans.
- Marketing and management plans, with action plans to ensure proper implementation.
- Financing obtained and a monitoring and planning system for the new enterprises implemented.

PREPARATORY PHASE

Project areas: The project first identified the project sites (six villages) in the target provinces and districts. The main criteria for selection were villages with large forested areas, proximity to roads and accessibility to markets. The target groups for the project were rural communities that depend on NWFPs, especially the poorest people in these communities. Project sites were in the 47 poorest districts identified in the government’s National Growth and Poverty Eradication Strategy (NGPES) as priority areas for development assistance.

- **Luang-Prabang province, Xiengnong district**, two villages: (i) Ban Longlead, and (ii) Ban Houay Hia.
- **Savannakhet province, Phin district**, two villages: (i) Ban Nathong, and (ii) Ban Alouay Kham Noy.
- **Champasack province, Pathoumpone district**, two villages: (i) Ban Lak 29 and, (ii) Ban Heua Kheua.

Project stakeholders: The project inception workshop was attended by 65 participants, representing national government, NGOs and international organizations and projects. This reflects the considerable importance that international organizations give to the issue of NWFP marketing. Collaboration with the private sector and other projects working in the same areas was initiated. The project was a member of the Lao NWFP Network coordinated by the National Agriculture and Forest Research Institute (NAFRI). During implementation, partnerships were established with other projects, such as the Small-Scale Agro-Enterprise Development for Uplands Project (SADU), the World Bank’s Sustainable Forestry and Development Project (SUFORD) and the Remote Village Education Support Project (GAPE), with the private sector (rattan, paper mulberry and rattan factories and traders, and trainers) and with a local knowledge service provider (called EDC).
**Facilitation and implementation framework:** In each target province (see Figure 1) and district, two project coordinators – one from PAFO and one from the Trade Department – were appointed as field facilitators. Project management was located at NAFRI (in the capital city Vientiane).

**NWFP regional survey:** In each target province, a survey was carried out to provide a brief overview of opportunities and constraints for enterprise development, including past experience in enterprise development in the area, existing service providers, livelihood strategies at the selected sites, and an inventory of potential resources and products with comparative advantages for the region. NWFP status was surveyed through a questionnaire in the Lao language. The project collected: (i) data and information on the main NWFPs traded, and an analysis of trends over the last ten years; (ii) information on existing NWFP management plans; (iii) policy and regulation links to NWFP management and trade; and (iv) gender aspects of NWFP management. Figure 2 provides a brief overview of the survey in Savannakhet province.

![Figure 2. Overview of market channels for main NWFPs inside and outside the province of Savannakhet](image)

**Example of survey**

Savannakhet province is located in a strategic position between Thailand and Viet Nam. NWFPs currently traded and identified by the survey were: rattan (six species), mushrooms (eight species), bamboo shoots (six species), sang, orchids, cardamom, wild fruits, wild vegetables, damar resin, honey, Persia (bong), insects, fish, frogs and birds. Many companies expressed concern about the depletion of resources; problems with the supply of raw materials are becoming a preoccupation. Many felt that the government and development projects should provide more support to resource management and plantation. Companies and traders expressed the need for the government to be more effective in controlling illegal trade and complained of problems with illegal traders. Companies and province-level traders mentioned that they also face strong competition from local traders who supply other companies at the international level. It was recognized that competition from Vietnamese traders is high in Savannakhet province. They give higher prices than other traders, and buy though their own trade agents in villages.
Phase 1 has six steps

Step 1 – Identify the target group.
Step 2 – Determine the financial objectives of the target group.
Step 3 – List existing resources and products.
Step 4 – Identify key constraints in the existing market system.
Step 5 – Shortlist a range of products.
Step 6 – Raise awareness of the benefits of working together.
Step 1: Identify future entrepreneurs within the local community

In each of the villages, the facilitators explained the purpose of the project and MA&D approach. Assessing the socio-economic situation is an essential first step in determining whether or not the MA&D approach will be viable in a village. It was important for the facilitators to spend enough time in each village to analyse its specific socio-economic and environmental situation. The target groups in each village were women and men involved in the collection, sale and/or processing of NWFPs. In Lao PDR, NWFP collectors are often the poorest people in the villages. They have no land, and the only way that they can buy rice is through selling or exchanging NWFPs. They are the first actors in the NWFP supply chain.

Participants at the first meeting in each village were men and women with an interest in NWFP-based enterprises. In most of the villages, more than 80 percent of villagers rely on NWFPs for their livelihoods. In general, about 80 to 120 people participated at the first meetings, but by the end of phase 1, only 20 to 40 people showed commitment to developing an NWFP pilot enterprise. These interest groups included a mix of rich and poor people.

Photograph 2: In all six villages, more that 60 percent of the NWFPs collected are used for food, and more than 70 percent are sold or bartered. Only 30 percent of NWFPs collected are used for construction and household tools (handicrafts are not counted in this 30 percent).
Table 3. Description of project sites

<table>
<thead>
<tr>
<th>Province</th>
<th>District</th>
<th>Village</th>
<th>Population</th>
<th>% of adult women and men involved in NWFP activities through the project</th>
<th>Area of forest village (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luang-Prabang</td>
<td>Xieng Nung</td>
<td>Ban Long Lead</td>
<td>268</td>
<td>98%</td>
<td>1 648</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(130 women, 138 men)</td>
<td></td>
<td>(40% of total village area)</td>
</tr>
<tr>
<td>Luang-Prabang</td>
<td>Xieng Nung</td>
<td>Ban Houay Hia</td>
<td>477</td>
<td>95%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(235 women, 242 men)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Savannakhet</td>
<td>Phin</td>
<td>Ban Nathong</td>
<td>1 211</td>
<td>100%</td>
<td>5 303</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(618 women, 593 men)</td>
<td></td>
<td>(38.52% of total village area)</td>
</tr>
<tr>
<td>Savannakhet</td>
<td>Phin</td>
<td>Ban Alouay Kham Noy</td>
<td>648</td>
<td>98%</td>
<td>2 461</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(310 women, 338 men)</td>
<td></td>
<td>(87% of total village area)</td>
</tr>
<tr>
<td>Champasack</td>
<td>Pathoumphone</td>
<td>Ban Lak 29</td>
<td>340</td>
<td>70%</td>
<td>408</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(175 women, 165 men)</td>
<td></td>
<td>(80% of total village area)</td>
</tr>
<tr>
<td>Champasack</td>
<td>Pathoumphone</td>
<td>Ban Lak 62</td>
<td>446</td>
<td>90%</td>
<td>162 ha</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(228 women 218 men)</td>
<td></td>
<td>(60% of total village area)</td>
</tr>
</tbody>
</table>

**Socio-economic description of a typical project site**

Ban Longlead is located in Xiengngueng district, in the southern part of Luang-Prabang province. There are 43 households in the village, and ethnic groups include Lao, Hmong and Kamou. The total population is 268 people, 50 percent of whom are female. The average household size is six people. The most important activities providing employment are agriculture and the collection/sale of NWFPs. Education and health facilities are minimal. There is a small primary school, but no clinic. For medical treatment, villagers must take road 13 north to Luang-Prabang town or go to the district hospital. The main source of income is collecting NWFPs (paper mulberry, broom grass, bamboo), livestock and fisheries. Five women trade NWFPs in the village. Rice yields from paddy depend mainly on the rainfall rate; in a good rainfall year, rice production may meet villagers’ needs. Villagers face rice insufficiency for four to five months a year.
**Step 2: Determine the financial objectives of the target group**

In each village, the target group members defined the incomes that they expected the enterprise to generate. Potential entrepreneurs must identify their current positions at the start of an enterprise and what they eventually want to achieve. An enterprise has long-term development potential only when it satisfies expectations and entrepreneurs have the capacity to implement and sustain it. The facilitators used participatory rapid appraisal tools to assess the wealth of the target group and the socio-economic and forest status. As most target group members had difficulties with reading, counting and writing, the tools used involved drawing and role play. The wealth ranking was based on information from the villagers. The target group was split into three groups: (i) rich; (ii) average; and (iii) poor. Criteria for classification were clear and based on the factors that influence people’s wealth (rice, access to land, livestock capital). For each group, the information obtained was based on households’ current yearly consumption and on what they require to meet family and/or production needs for one year.

*Photographs 3 and 4. A women’s group in Ban Long Lead define their actual and future needs using economic circle drawing.*

Mrs Bounlouang, rattan trader in Ban Lack 29, Pathoumphone
“What I would like to have is a car to be able to transport handicrafts, but also to travel.”
Steps 3 and 4: List existing resources and products, and identify market constraints

It is important that the facilitator knows and understands the target group’s livelihoods. Participatory group discussions were used to identify the main NWFPs and issues related to their management, including the main constraints and opportunities. At this stage, the groups listed all theNWFPs that they collected, including those less frequently of not yet used. For information collection, the target group was split into three groups: (i) women; (ii) elderly men; and (iii) mixed men and women. This exercise helped target group members to identify and assess all the NWFP resources they have in the surrounding forests. Resource locations and products were mapped, listed, categorized according to use (food, medicine, construction, etc.), and ranked according to price and quantity sold.

<table>
<thead>
<tr>
<th>No.</th>
<th>NWFP</th>
<th>Food (rank)</th>
<th>Use (rank)</th>
<th>Sale (rank)</th>
<th>Average selling price (K/kg)</th>
<th>Quantity sold</th>
<th>Income ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mushrooms (Hetphok)</td>
<td>Y (1)</td>
<td>N</td>
<td>Y (1)</td>
<td>10 000 to 15 000</td>
<td>19 kg/year/family</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Frogs, fish, crabs and snails</td>
<td>Y (2)</td>
<td>N</td>
<td>Y (2)</td>
<td>12 000</td>
<td>25 kg/year/family</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Damar resin</td>
<td>N</td>
<td>N</td>
<td>Y (3)</td>
<td>2 500</td>
<td>25 kg/year</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Rattan (wai) nine species</td>
<td>Y (4)</td>
<td>Y (1)</td>
<td>Y (4)</td>
<td>700/cane</td>
<td>50 kg/year</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Cardamom</td>
<td>N</td>
<td>N</td>
<td>Y (5)</td>
<td>10 000</td>
<td>25 kg/year</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Bamboo shoots</td>
<td>Y (3)</td>
<td>N</td>
<td>Y (6)</td>
<td>1 000</td>
<td>20 kg/year/family</td>
<td>6</td>
</tr>
</tbody>
</table>

In all six villages, people eat, use and sell NWFPs as part of their livelihood strategies. More than 40 different NWFP species were listed during the PRA exercise in January 2005. In all six villages, more that 60 percent of the NWFPs collected are used for food, and more than 70 percent are sold or bartered. Only 30 percent of NWFPs collected are used in construction or for household tools (handicrafts are not included in this 30 percent). Villagers emphasized that they have to travel further and further to collect NWFPs. The main causes of NWFP depletion identified by the villagers were: (i) overharvesting (legal and illegal); (ii) forest fires; and (iii) logging.
Current constraints in the community were analysed carefully so that the target group had the information necessary to choose the most appropriate NWFP(s). Every NWFP sold by the village was assessed. During the exercise, the facilitators asked the target group to reflect on the following questions:

- Where are the main markets? To whom do you sell?
- What quantities do you harvest and sell? At what prices?
- How quickly does the resource regenerate?
- Do you pay taxes? What is the cost of transport?
- What is your profit margin?
- What are the main difficulties, problems, constraints and additional costs?

*Photograph 5. The main constraints to the development of rattan marketing identified by villagers in Ban Lak 29 were: (i) depleting resources (overharvesting) and the need to travel further and further to obtain and buy rattan; (ii) lack of equipment for rattan handicrafts; (iii) low quality of rattan handicrafts; (iv) fluctuating demand and prices; and (v) lack of access to markets (dependence on local traders as intermediaries).*
Step 5: Shortlist potential products
The facilitator helped the target group to collate all the information and data collected, and facilitated selection of the criteria for shortlisting potential products. The following information was put on the wall and checked by all participants:

- importance of the product in household economies;
- quantity and quality of the product harvested and the regeneration rate in the forest;
- harvesting technique;
- main markets and prices of all NWFPs sold;
- access to credit, transport costs, etc.

Selection of the criteria for shortlisting NWFPs was a lively exercise with the full participation of all target group members (men and women) under the facilitator’s guidance.

Example of criteria defined by a target group for shortlisting NWFPs

<table>
<thead>
<tr>
<th>Marketing</th>
<th>Social/institutional</th>
</tr>
</thead>
<tbody>
<tr>
<td>- The NWFP is already sold.</td>
<td>- There is demand among the villagers.</td>
</tr>
<tr>
<td>- There is market demand.</td>
<td>- Laws and regulations exist.</td>
</tr>
<tr>
<td>- Enough is available to respond to demand.</td>
<td>- Both men and women participate.</td>
</tr>
<tr>
<td>- Profit can be made.</td>
<td>- Entrepreneurs benefit.</td>
</tr>
<tr>
<td>- Prices fluctuate.</td>
<td></td>
</tr>
<tr>
<td>- The NWFP is profitable.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Resources</th>
<th>Processing and technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>- The NWFP is available in sufficient quantity and in the long term.</td>
<td>- Villagers have basic knowledge of processing.</td>
</tr>
<tr>
<td>- Collection will have no negative impact on the environment.</td>
<td>- Processing and storage will be developed at the village level.</td>
</tr>
<tr>
<td>- There is possibility for plantation.</td>
<td></td>
</tr>
<tr>
<td>- Forest management will be developed.</td>
<td></td>
</tr>
</tbody>
</table>
### Table 5. Shortlisting of NWFPs in Ban Alouay Kham Noy, Phin district

<table>
<thead>
<tr>
<th>Item</th>
<th>Criteria for elimination</th>
<th>Resources</th>
<th>Social/institutional</th>
<th>Village-level processing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kisi (Shortlisted)</td>
<td>High demand&lt;br&gt;Price is 2,000 to 3,000 K/kg&lt;br&gt;Collection increases every year</td>
<td>All-year collection&lt;br&gt;Collected from trees, rather than felling&lt;br&gt;Resources are available</td>
<td>Men, women and children can collect&lt;br&gt;Trees cannot be cut (government ruling)</td>
<td>No processing&lt;br&gt;Can be stored for 5 to 10 years</td>
</tr>
<tr>
<td>Mushroom (Shortlisted)</td>
<td>High demand&lt;br&gt;Market in the district&lt;br&gt;Demand not satisfied&lt;br&gt;Some species sell at high prices</td>
<td>Once a year&lt;br&gt;Collection for 3 months&lt;br&gt;2 seasons a year: June to July and October to December</td>
<td>Women collect and sell</td>
<td>Dried and steamed only</td>
</tr>
<tr>
<td>Orchids (Excluded in first round)</td>
<td></td>
<td>Collection not authorized by the government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frogs, birds (Excluded in first round)</td>
<td>Not all season&lt;br&gt;Very low prices</td>
<td></td>
<td>Government ban on hunting</td>
<td></td>
</tr>
<tr>
<td>Forest fruits (Excluded in first round)</td>
<td>Not all season&lt;br&gt;Low prices&lt;br&gt;Mainly a source of food</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bamboo shoots (Shortlisted)</td>
<td>Few markets – difficult to find buyers&lt;br&gt;Source of food</td>
<td>Collection season&lt;br&gt;May to October</td>
<td>No problem</td>
<td>Dried&lt;br&gt;Traditional&lt;br&gt;Dong</td>
</tr>
<tr>
<td>Bamboo cane (Shortlisted)</td>
<td>Market exists; high demand for handicrafts&lt;br&gt;Cannot respond to demand, often insufficient time</td>
<td>No problem; found in the forest</td>
<td>No government ban or quotas&lt;br&gt;Men collect and women do handicrafts</td>
<td>For catching fish&lt;br&gt;Kadong – rice basket&lt;br&gt;Ngoua – basket for cooking rice</td>
</tr>
<tr>
<td>Wild vegetables (Excluded in first round)</td>
<td>Used only for food&lt;br&gt;Low prices</td>
<td>Insufficient for marketing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honey (Excluded in first round)</td>
<td>Not all season&lt;br&gt;Only two families involved</td>
<td>Difficult to harvest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bong bark (Excluded in first round)</td>
<td></td>
<td>Insufficient resources</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Step 6: Raise awareness of benefits of working together

Once target group members have identified potential NWFPs to work with, it is important for them to understand the benefits of working together. Team building is an important aspect of the MA&D approach. Ethnicity is diverse in Lao PDR, and each ethnic group has its own organizational and social set-up. In each of the pilot project villages, workshops with team building exercises were held. In all six villages, women are the main collectors and traders of NWFPs, but heads of households are usually men, who also control the money. The project supported women’s involvement. The target group selected group representatives (women and men) to carry out the market chain survey and report back to the group.
Summary of Phase 1
Participatory exercises with the target communities identified a good demand for most NWFPs, local availability of products, local people’s experience of harvesting and post-harvest activities, and local market opportunities. However, there were also constraints and challenges to be overcome. The target villages identified:

- depletion of resources (increased collection time and lower quantity), and inadequate common property resource management systems to promote the sustainable harvesting of resources;
- inadequate marketing information, knowledge about alternative markets and marketing means;
- inadequate trade networking and market access for farmers – low prices to farmers;
- policy bottlenecks – villagers need permits to take products to other districts and permits are difficult and complicated to obtain;
- inadequate credit facilities, which restrict value adding by farmers and entrepreneurs;
- inadequate product development, design and quality management (post-harvest techniques and technologies);
- local people’s inadequate skills in post-harvest and product design aspects;
- inadequate enterprise/business development services (BDS) and lack of community organization for resource management and marketing;
- lack of enterprise culture and capacity (product development, enterprise planning and management, marketing);
- poverty and subsistence-oriented livelihoods, which restrict the capacity to take risks and innovative steps.

During the process, the target groups (400 people in six villages) took part in training and meetings, building their capacity in NWFP enterprises and marketing and in group formation. They shortlisted 16 NWFPs for phase 2.
Table 6. NWFPs shortlisted by villages

<table>
<thead>
<tr>
<th>Province</th>
<th>District</th>
<th>Village</th>
<th>Target group</th>
<th>NWFPs selected</th>
</tr>
</thead>
</table>
| Luang-Prabang    | Xieng Nung| Ban Long Lead | 31 (10 women)| 1. Mulberry paper (posa)  
2. Broom grass (kaem)  
3. Bitter bamboo shoots  
4. Insect larvae (mai douang) |
| Luang-Prabang    | Xieng Nung| Ban Houay Hia | 44 (16 women)| 1. Mulberry paper (posa)  
2. Broom grass (kaem)  
3. Stick lac |
| Savannakhet      | Phin     | Ban Nathong   | 39 (20 women)| 1. Rattan  
2. Bamboo  
3. Cardamom  
4. Mushrooms  
5. Pandanus leaf |
| Savannakhet      | Phin     | Ban Alouay Kham Noy | 30 (14 women)| 1. Rattan  
2. Bamboo  
3. Damar resin (Kisi)  
4. Mushrooms |
| Champasack       | Pathoumphone | Ban Lak 29 | 56 (25 women)| 1. Bamboo shoots  
2. Rattan  
3. Fish  
4. Mushrooms |
| Champasack       | Pathoumphone | Ban Lak 62 | 26 (15 women)| 1. Rattan  
2. Bamboo cane |

Photograph 6. Meeting in Ban Alouay Kham Noy, Savannakhet. MA&D training for target groups involved women as the main NWFP collectors, and the village traders’ organization.
PHASE 2: IDENTIFY PRODUCTS, MARKETS AND MEANS OF MARKETING
During phase 2, the target groups go deeper in the selection process initiated in phase 1. They are trained to identify the criteria for selecting the best products for the market, and to collect the information needed. The following questions have to be answered:

- Which products have the best market potential? How many collectors and traders are involved?
- Are there sufficient quantities of resources for increasing trade or processing? Can these resources be managed easily without having a negative impact on the environment? What are the opportunities for domestication?
- What technology, organizational structure, capacity and capital are needed to reach potential markets?
- Which products will generate a net return and fit the target group’s expectations?
- What financial and technical support exists for setting up the enterprise?

Phase 2 has three steps

Step 1 – Analyse the four areas of enterprise development.
Step 2 – Select the most promising products.
Step 3 – Create interest groups.

Step 1: Analyse the four areas of enterprise development
The team of field facilitators and target group members reviewed the outcomes of phase 1 and developed the criteria for assessing and selecting the NWFPs with the highest chance of success.

With support from facilitators, the target group prepared natural resource, marketing, socio-economic and institutional surveys. A village-level forest survey was carried out.

Market chain analysis started with the village to the district market, with traders following product channels to the borders or capital city. It took one week to move along the chain and identify all the main actors and types of processing in the country. Unfortunately, it was not possible to follow the product into neighbouring countries, where many NWFPs are processed, but some information from other countries was collected through other channels (Internet, national institutions, projects, etc.). This was a participatory exercise carried out for each of the shortlisted NWFPs. Mrs Boulea from Ban Nathong told the project “It is the first time for me to understand what is a market and to discover how to grow mushrooms.”
Target groups were exposed to new markets for cultivated mushrooms, handmade paper, bamboo and rattan handicrafts, learned about new processing techniques and designs for handicrafts, and met national trading and processing companies, as well as training companies. Groups also attended trade fairs in their provinces and Vientiane.

The market chain analysis highlighted the following problems faced by villagers in marketing their products:

- lack of access to market information, especially regarding prices;
- fluctuating demand;
- difficulties in negotiating prices with traders, villagers’ lack of confidence;
- complex market chain with much trade with neighbouring countries;
- lack of expertise or equipment to produce and sell good-quality products;
- lack of organizational skills;
- lack of credit facilities for developing community-based enterprises;
- lack of BDS.

Photograph 7. The target group interviewed local rattan handicraft traders in Pakse (May 2005) using a specially prepared questionnaire. The main information collected was on supply, demand, prices and taxes.
In the following example of market chain analysis for paper mulberry (*Broussonetia papyifera*) in Ban Long Lead and Ban Houay Hia, Luang-Prabang province target groups interviewed traders, processors, retailers, intermediaries, and local and provincial authorities. The groups travelled for one week from the village, to the district, the province and the border with Thailand. Data and information at each stage were recorded and presented in one diagram (Figure 3).

**Figure 3. Example of market chain analysis for paper mulberry (August 2005)**

**Example of NWFP resource management:** Each of the project sites followed the land-use and allocation programme initiated by the government. This resulted in classification of the land managed by villages as agriculture and forest land.

Villagers and facilitators identified the different types of forest where major NWFPs were collected and where plantation and cultivation activities could be developed. The field survey recorded the following information: (i) distance between the forest and the village; (ii) location of the forest area for harvesting; (iii) density and status of each shortlisted NWFP in each type of forest; and (iv) regeneration rates and constraints of shortlisted NWFPs.
In Xieng Nung district, forestry authorities have banned the commercial harvesting of bamboo worm (mai douang), which is highly sought after and can obtain good prices. The main reason for the ban is that too much bamboo has to be cut to find the worm. It is therefore difficult for target groups to collect bamboo worm.

### Table 7. NWFP survey in the forests surrounding Ban Houay Kheua

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Rattan</th>
<th>Bamboo cane</th>
<th>Malva nut</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Type of forest and habitat occurrence</td>
<td>Found in evergreen forest only</td>
<td>Evergreen forest and bamboo forest Scattered on hillsides and along streams in evergreen forest</td>
<td>Found in evergreen forest only</td>
</tr>
<tr>
<td>2</td>
<td>Seasonal harvesting calendar</td>
<td>Throughout the year, depending on needs and market demand</td>
<td>Throughout the year, depending on needs and market demand</td>
<td>For between 2 weeks and 1 month in April or May only</td>
</tr>
<tr>
<td>3</td>
<td>Area harvested</td>
<td>Evergreen forest, widely distributed and situated 5 to 7 km from the village</td>
<td>Evergreen forest, widely distributed and situated 5 to 7 km from the village</td>
<td>Evergreen forest, widely distributed and situated 5 to 7 km from the village</td>
</tr>
<tr>
<td>4</td>
<td>Time needed for harvesting</td>
<td>1 day to collect 10 canes per person (men and women) – 1 cane is 4 m</td>
<td>½ day (usually morning) to collect 6 canes per day per person – 1 cane is 4 to 5 m</td>
<td>1 day to collect less than 5 kg per person</td>
</tr>
<tr>
<td>5</td>
<td>Problems with harvesting</td>
<td>Cannot collect all of the canes because of sharp spines. Need to climb tree to collect whole canes</td>
<td>Difficult to cut and carry, very heavy and far from village</td>
<td>Tree very high and slender for climbing to collect fruit. Very short harvesting season</td>
</tr>
<tr>
<td>6</td>
<td>Impact of harvesting on the ecosystem</td>
<td>No impact. No felling or slash and burn in allocated forest</td>
<td>No impact. No felling or slash and burn in allocated forest</td>
<td>No impact. No felling or slash and burn in allocated forest</td>
</tr>
<tr>
<td>7</td>
<td>Time needed for regeneration and regrowth after harvesting</td>
<td>4 to &gt;10 years, depending on species. Shoots can be collected every year</td>
<td>1 year. Cane and shoots also collected for food</td>
<td>&gt;10 years, plus 3 to 4 years for first fruiting</td>
</tr>
<tr>
<td>8</td>
<td>Propagation/plantation</td>
<td>Not yet</td>
<td>Not yet</td>
<td>Not yet</td>
</tr>
<tr>
<td>9</td>
<td>Resource management and improved harvesting methods</td>
<td>No management plan – collection only, depending on season and demand</td>
<td>No management plan – collection only, depending on season and demand</td>
<td>No management plan – collection only, depending on season and demand</td>
</tr>
</tbody>
</table>

### Analysis of the policy and social environment:
Meetings were organized for target groups and local authorities to discuss village forest management regulations (decrees, rules, etc.), harvesting plans, quotas, taxation, etc. for each of the shortlisted NWFPs.
According to the Forestry Law, local communities benefit from tax exemptions when they promote NWFP plantations.

In the six villages, village traders (both women and men) were already involved in the process and sometimes led it, when they had experience in marketing. Village heads also participated. For all shortlisted products, the groups assessed whether both women and men, the elderly and the poorest members were already benefiting and whether they would benefit from further developments (marketing, NWFP plantations, etc.).

**Step 2: Select the most promising products**

Once the target groups had gathered the necessary information about the economic, ecological, social, policy and technical viability of each of the shortlisted products at the local, district, province and national levels (step 1), a village-level meeting was held to present these findings to all target group members. For each product, the facilitator helped the target group to display the information through diagrams, drawings and product assessment tables (see example in Table 8). This gave all group members the opportunity to provide missing data/information and ask for clarifications.
<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Markets/economy</th>
<th>Resource/environment</th>
<th>Social/institutional</th>
<th>Science/technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1 set = 4 chairs and 1 table)</td>
<td>Good price: 450 000 to 550 000 K per set</td>
<td>Still found in the forests</td>
<td>Government promotes rattan plantation</td>
<td>Harvesting is easy</td>
</tr>
<tr>
<td>Traders compete to buy the products</td>
<td>Easy to plant and grow (from seedling)</td>
<td>Easy to plant and grow (from seedling)</td>
<td>Skills in processing rattan for handicraft production already exist</td>
<td></td>
</tr>
<tr>
<td>Transportation is good and easy</td>
<td>No insect attack problem</td>
<td>Harvesting throughout the year, but mainly during 9 months</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills exist already, production volume is important</td>
<td>Rattan shoots are widely distributed in the evergreen forest 3 to 10 km from the village</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prices for road-side sales are acceptable</td>
<td>1 day to collect 15 large canes per person</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Each family (3 to 4 people) produces 2 to 4 sets a month for 8 months</td>
<td>1 day to collect 30 to 60 medium canes per person</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32 families make chairs</td>
<td>1 day to collect 100 to 200 small canes per person</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32 families make cupboards, producing 10 per family per month</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Half of sales are profit (average of US$500 per family per year)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labour: 3 person-days to produce a cupboard; 6 person-days to produce a set</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Constraints</th>
<th>Markets/economy</th>
<th>Resource/environment</th>
<th>Social/institutional</th>
<th>Science/technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traders do not care about quality, resulting in lower prices for villagers. Retailers complain about low quality</td>
<td>Distance of forest from village</td>
<td>Rattan raw material from other districts is often confiscated by district officers/tax collectors (foresters) if it has no permit</td>
<td>Out-of-date knowledge and skills for processing rattan furniture</td>
<td></td>
</tr>
<tr>
<td>Less demand during the rainy season; products attacked by fungus and sometimes rot</td>
<td>Dense forest makes it difficult to harvest rattan</td>
<td>Uneven skills among villagers</td>
<td>Low-quality product, using too much rattan and too many nails</td>
<td></td>
</tr>
<tr>
<td>Unstable prices</td>
<td>Rattan regrowth is very slow after harvesting; resources decrease dramatically. Villagers compete to harvest from the forest, causing depletion</td>
<td>Uneven skills among villagers</td>
<td>Uneven skills among villagers</td>
<td></td>
</tr>
<tr>
<td>Competition with other villages and traders. Insecure market</td>
<td>No resource management plan. No plantation and no development of production</td>
<td>Risk of fungus attack</td>
<td>Lack of design</td>
<td></td>
</tr>
<tr>
<td>District officers/tax collectors (foresters) confiscate rattan raw material if it has no permit</td>
<td>Village heads stop authorizing the collection of rattan from the forest</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Possible solutions</th>
<th>Markets/economy</th>
<th>Resource/environment</th>
<th>Social/institutional</th>
<th>Science/technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Village should improve the quality of products</td>
<td>Promote rattan plantation among villagers</td>
<td>Village regulations should be enforced (mechanisms)</td>
<td>Villagers need training and support in processing</td>
<td></td>
</tr>
<tr>
<td>Find new markets: Thai border or Vientiane</td>
<td>Develop a forest rattan management plan</td>
<td>Dialogue with authorities to obtain permission to collect rattan</td>
<td>Improve designs</td>
<td></td>
</tr>
<tr>
<td>Improve quality</td>
<td></td>
<td></td>
<td>Try to use less material – increase efficiency to reduce costs</td>
<td></td>
</tr>
<tr>
<td>Organize and promote road-side sales</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secure market</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

During the meetings, participants agreed on the NWFP selection criteria and scoring system. At this stage, the facilitator reminded participants that the objective was not to choose one product for phase 3 but to prioritize the products they wanted to start working with immediately in order to maximize project support. Future local entrepreneurs need to
understand that some products can be developed rapidly and with minor risks, but yield less profit; other products take more time to develop and incur more risks, but yield better profits. During this phase, it is important for the group to assess possible sources of financing for the pilot enterprises. A product assessment table (see example in Table 9) was used to assess each of the shortlisted products according to the criteria chosen by the group.

In this case, the group selected mushrooms and rattan as the best products to develop. For each criterion, a score was given as agreed by all target group members.

<table>
<thead>
<tr>
<th>Sample product selection table for Ban Lack 29</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criteria</td>
</tr>
<tr>
<td><strong>Market/economy</strong></td>
</tr>
<tr>
<td>Raw materials supply (quantity available)</td>
</tr>
<tr>
<td>Market potential (demand)</td>
</tr>
<tr>
<td>Competition (many traders buy)</td>
</tr>
<tr>
<td>Ease of marketing products</td>
</tr>
<tr>
<td>Profitability (benefits to villagers)</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
</tr>
<tr>
<td><strong>Resource management/environment</strong></td>
</tr>
<tr>
<td>Distance from forest (time to reach forest)</td>
</tr>
<tr>
<td>Area of resource (dense or sparse)</td>
</tr>
<tr>
<td>For forest products for only:</td>
</tr>
<tr>
<td>Regenerative potential</td>
</tr>
<tr>
<td>Impact of harvesting on species survival (less impact)</td>
</tr>
<tr>
<td>Impact of production on environment (less impact)</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
</tr>
<tr>
<td><strong>Social/institutional</strong></td>
</tr>
<tr>
<td>Indirect benefits to the community</td>
</tr>
<tr>
<td>Contribution to incomes</td>
</tr>
<tr>
<td>Previous experience of product</td>
</tr>
<tr>
<td>Potential number of villagers involved</td>
</tr>
<tr>
<td>Gender impact (positive impact for women)</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
</tr>
<tr>
<td><strong>Science and technology</strong></td>
</tr>
<tr>
<td>Local availability of processing companies in the area</td>
</tr>
<tr>
<td>Villagers’ interest and capacity to learn processing techniques</td>
</tr>
<tr>
<td>Number of villagers involved in product harvesting</td>
</tr>
<tr>
<td>Villagers’ skills and experience with the product</td>
</tr>
<tr>
<td>Infrastructure status</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

One important factor was the short two-year duration of the project. This allowed only one year to assist enterprises and work on mushroom and rattan handicraft production. In general, the target groups were familiar with the NWFPs that they selected. Future entrepreneurs’ confidence in their products was important.
Step 3: Create interest groups for shortlisted products

Once they had selected and thoroughly investigated the products to develop, the target group members started to organize interest groups for each of the potential enterprises. The set-up of an interest group was planned by target group members, but facilitators encouraged members to take an active role with their leadership, motivation and experience of small-scale marketing activities. Most interest group members could not write or calculate (especially women, as they have no access to school), so the project had to ensure that each group was led by a woman or man with sufficient literacy, experience and motivation. In all six villages, the village chiefs and existing village traders were involved and interested.

Table 9: Pilot enterprises set up by the target groups at the end of phase 2

<table>
<thead>
<tr>
<th>Village</th>
<th>NWFP enterprise</th>
<th>Interest group membership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ban Long Lead</td>
<td>1. Paper mulberry bark production</td>
<td>31 (10 women)</td>
</tr>
<tr>
<td>Ban Houay Hia</td>
<td>1. Paper mulberry bark production</td>
<td>48 (13 women)</td>
</tr>
<tr>
<td>Ban Nathong</td>
<td>1. Wild mushroom collection and mushroom cultivation</td>
<td>28 (18 women)</td>
</tr>
<tr>
<td></td>
<td>2. Bamboo handicrafts</td>
<td>11 (2 women)</td>
</tr>
<tr>
<td>Ban Alouay Kham Noy</td>
<td>1. Wild mushroom collection and mushroom cultivation</td>
<td>22 (13 women)8 (1 woman)</td>
</tr>
<tr>
<td></td>
<td>2. Bamboo handicrafts</td>
<td></td>
</tr>
<tr>
<td>Ban Lak 29</td>
<td>1. Wild mushroom collection and mushroom cultivation</td>
<td>21 (10 women)</td>
</tr>
<tr>
<td></td>
<td>2. Rattan handicrafts</td>
<td>35 (15 women)</td>
</tr>
<tr>
<td>Ban Lak 62</td>
<td>1. Rattan handicrafts</td>
<td>10 (5 women)</td>
</tr>
<tr>
<td></td>
<td>2. Bamboo handicrafts</td>
<td>16 (10 women)</td>
</tr>
</tbody>
</table>

PHASE 3: PLAN ENTERPRISE FOR SUSTAINABLE DEVELOPMENT

During phase 3, the enterprise strategy and business plans are prepared. Entrepreneurs are guided through a pilot phase and training, learning how to monitor progress and adapt when needed.
Phase 3 has eight steps
Step 1 – Examine the business environment of the selected product/enterprise.
Step 2 – Define the enterprise mission, goals and objectives.
Step 3 – Develop strategies in each of the four areas of enterprise development.
Step 4 – Formulate action plans to implement the strategies.
Step 5 – Calculate financial projections for the enterprise.
Step 6 – Obtain financing and hold a stakeholder meeting.
Step 7 – Initiate the pilot phase and training.
Step 8 – Monitor progress and deal with change.

Steps 1 to 5: Develop the pilot enterprise development plan
Steps 1 to 5 were carried out during a one-week training course at the village level. Participants of the training were representatives (heads, deputies, accountants, technical people) of the interest groups formed at the end of phase 2, assisted by the facilitators and, when required, business analysts with experience of financial planning for small enterprises. This exercise was the most difficult for the group because most of them could not read, write or calculate. To overcome this difficulty, the project hired local trainers in small-scale business development (EDC) with experience of supporting village marketing groups. Training materials and a format for the pilot enterprise development plan were developed and translated into the Lao language. The project also invited NWFP specialists to assist the entrepreneurs in selecting technology, costing and assessing market trends.

The target groups reviewed all the data and information collected during phases 1 and 2 in product assessment table, and checked that nothing was missing. Members of each group examined the business environment and learned more about the market and market chain analysis. Those who could write collated all the information and data into one report, briefly describing the enterprise and demonstrating that it was a good investment choice – that the product was competitive, responded to demand and had sufficient resources.
When the business environment of the product and most of the information were collated, the group started to formulate the enterprise development plan. Designing a plan encourages the group to think carefully about each phase of the business.

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**Sample assessment of the business environment for paper mulberry in Luang-Prabang**

**GEOGRAPHY, RAW MATERIAL AND CLIMATE**

Ban Long Lead is located on road 4 to Xayaboury province, 17 km from Xieng Ngeun district. The village is not far from the main potential clients, who are traders in the district town. In fact, distance from the market was not an issue for sales of dried mulberry bark, because traders usually come to buy products at the villages. However, distance was the main difficulty for villagers collecting and transporting products from the fields and forest to the village. Paper mulberry grows in fallow forest from 1 to 25 km away from Long Lead village. Freshly cut and collected paper mulberry trees are heavy to carry home for primary processing (removal and drying of bark) before selling.

Paper mulberry trees grow easily and quickly, and regenerate quickly in the fallow forest after slash-and-burn cultivation. In the areas of the two target villages, there is plenty of land for planting and cultivating paper mulberry, and the climate is also suitable; this was confirmed by the district officers who attended the workshop.

**MARKET CHAIN AND BUSINESS SUPPORT**

Villagers from Ban Long Lead usually sell their product to intermediaries – village traders who sell the products on to district traders. District traders sell to NWFP export companies in Luang Prabang province. This kind of marketing channel works satisfactory. However, when there was high market demand, village traders had to compete to buy, which artificially raised prices. When selling on to traders further along the chain, to make a profit from the already high-priced product bought, the traders tried to cheat over product weights by adjusting scales or mixing stones or sticks in bunches of dried mulberry bark. In other case, because producers had to compete in terms of time (demand pressure), they sold badly dried mulberry bark, which became moldy later on. These issues were raised and discussed among the villagers and traders at a multistakeholder meeting. It was agreed that villagers would ensure good-quality product and use standard scales when selling to village and district traders. The traders themselves were pleased to cooperate with these ideas.

There is no formal business support mechanism, but all stakeholders are very supportive, especially the district authority – through the District Agriculture and Forestry Extension Office and the trade office. The district authority exempted traders from the forest replenishment fee, and collects only 2 percent profit tax. At the stakeholder meeting, it was emphasized that the authority would help to manage competition from illegal traders and assist with land and forest allocation for livestock raising and tree plantation. The district extension office is also planning technical training workshops for villagers.
1. GOAL OF THE ENTERPRISE
The name of the enterprise is Ban Long Lead’s Paper Mulberry Production and Trading Group. It aims to boost productivity to 5 tonnes/household by 2010 (this is the long-term vision), while obtaining standard quality, minimizing deforestation and promoting product processing.

2. ORGANIZATIONAL STRUCTURE OF THE ENTERPRISE
There are 21 members, of whom the management team accounts for three representatives of households. Mr Bounthong is the head (general supervisor), and Ms Bouavan and Mr Pheang are deputees. Ms Bouavan is in charge of accounting and Mr Pheang is responsible for organization, planning and finance. The group is divided into four subgroups, each with a leader who supervises production and quality control. The heads of the subgroups are Mr Khammanh, Mr Hean, Mr Kham On and Mr Chon Nia Her.

3. SALES TARGETS, MARKETS AND PROMOTION STRATEGIES OF THE ENTERPRISE
The group expects to produce 48 393 kg of paper mulberry in 2005/2006, increasing this nearly twofold to 85 183 kg in 2006/2007. Group members will increase sales by enhancing their negotiation power with traders through a collective voice and the upgrading of product quality. The target markets are trade intermediaries in Xieng Ngeun district and import–export enterprises in the province.

4. DISTRIBUTION OF BENEFITS/SOCIAL STRATEGY OF THE ENTERPRISE
- 50 percent of the total income will go to the enterprise fund.
- 40 percent will be distributed to members.
- 10 percent will be used for group management costs.

5. TRAINING NEEDED FOR THE ENTERPRISE
Group members attended a five-day enterprise planning training course covering such topics as marketing mix, the market chain, cost calculations, price setting, strengths, weaknesses opportunities and threats (SWOT) analysis, and business planning. Group members expect more training courses on techniques for paper mulberry plantation and harvesting, group management, paper mulberry handicrafts, bookkeeping, group fund formation, price setting, and technical expertise for value addition, sale negotiation and profit and loss calculation.

6. POTENTIAL FUTURE COLLABORATION OF THE ENTERPRISE
District NWFP traders in Xieng Ngeun district are willing to continue buying paper mulberry from villagers. They will be even more enthusiastic if the villagers can ensure the quality and product grading specified in the plan. The district authority, with project support, will provide technical support (plantation and collection techniques). It will also help to stop illegal traders from competing with legal traders buying from villagers. It will assist the establishment of a village development fund. If a group enterprise has difficulties in establishing rules for buying and selling dried paper mulberry barks, the district authority will also assist this process and ensure harmony among villagers. The village receives additional assistance from the SADU project, which also works with paper mulberry bark in a cluster of villages in Xieng Ngeun. FAO and SADU have established partnerships for longer-term support to the paper mulberry pilot enterprise.

An example of a detailed enterprise development plan is presented in Annex 1.
**Stakeholder meeting:** When the pilot enterprise groups had developed their enterprise development plans, the facilitator organized a stakeholder meeting at the district level. The purpose of the meeting was for the groups to present their enterprises to all the main stakeholders. The meeting provided a platform for discussion and negotiation between the groups and the stakeholders, who were local and national traders and representatives of the local authority, financial service providers (agricultural banks, etc.), international NGOs working in the area, other service providers, etc. One of the main issues discussed was the pilot enterprises’ difficulties in obtaining credit and BDS. The meeting was divided into three main sessions. The first session was for opening and orientation, when all the government, private sector and village representatives introduced themselves. In session two, representatives of the enterprise groups presented a summary of business plans. Questions and answers clarifying the plans followed. The third session was the main session, when all parties shared their expectations and services. To start this session, the facilitator made a brief presentation about the market chains for the products that business plans were being formulated for.

During the presentation, stakeholders involved in each stage of the market chains were identified. After the business plans were presented, participants split into two groups to discuss two questions: “What do we expect from other stakeholders?” and “What can we provide to other stakeholders to help implement the business plans and develop enterprises in general?”. The results of these discussions were then presented.

The final session was a general discussion about the stakeholders’ expectations and the service provision of each group, assessing whether these matched or whether there were gaps. The results of this were satisfactory, with most expectations being matched by the contributions of other stakeholders.

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### Issues at the stakeholder meeting in XiengNgeun district, LuangPrabang province

- **Product quality and buying competition.** The products supplied were not of standard quality. The suppliers (villagers) mixed bark with stones or sticks and even included poorly dried mulberry barks. There was also competition between illegal and official traders (who had signed agreements with the district authority and were paying taxes). Villagers could sell large volumes of their products to illegal traders, who could afford to pay higher prices than official traders because they were not paying taxes. Illegal traders also often used scales that had been modified (so that instead of buying 1 kg, as shown on the scales, they were buying 1.5 kg). After discussing this issue, it was agreed that villagers would aim to assure good-quality product supply. They aimed to supply graded products, probably starting with grade B. The district authority agreed to assist villagers and traders in dealing with illegal traders.

- **Group organization in Ban Houay Hia.** This group anticipated difficulties in managing the group collection of paper mulberry in its village. Members expected that the group might not be able to compete with other traders. There might be conflict over benefits with existing village traders. The district authority, with the help of the project, agreed to assist villagers in setting up group rules in a participatory way and to provide advice on how to manage the group.

- **Technical training.** In coordination with district and provincial offices, the project agreed to provide technical training and support to villagers.

- **Taxes.** Villagers accepted the payment of taxes and regarded them as reasonable. The authority exempted paper mulberry from the forest replenishment fee.

- **Annual trade stakeholder meetings.** It was suggested that there be an annual meeting. Similar meetings were already being held, but did not involve producers. In the future, producers will be taken into consideration.
Step 6: Obtain financing
During the calculation of financial projections, the participants discussed which items and what kind of costs and investment would be covered by their own contributions. Their contributions covered mainly the costs of locally available materials and tools that they already possessed. Some groups planned to raise small contributions from members to contribute to the business. In many cases, participants planned to borrow, but they did not know where to apply for this. This issue was discussed, and sources of financing were clarified. Some participants expressed a strong demand for grant money from the project or other donors. The project identified the following financial services: (i) the Agriculture and Promotion Bank; (ii) the Savings and Credit Union; and (iii) projects. The project worked with Lao Women’s Union to provide financial and group organization training.

It was difficult for the pilot enterprise groups to obtain seed capital from the Agriculture and Promotion Bank and the Savings and Credit Union. The main reasons for this were: (i) group members (most of whom are poor) have no capital to put up as collateral; and (ii) loan procedures are cumbersome and take a long time, which demotivates people. It was agreed that pilot enterprise members and village representatives would set up village funds to support the pilot enterprises and other activities. Financial and management training were provided during implementation of the pilot enterprise.

Step 7: Initiate the pilot phase and training
The aim of this step was to build the groups’ capacity to manage their enterprises, finalize the technical aspects and test the first samples of production in the target markets. First, training needs were identified, and training was organized. The project organized the following training for group members (depending on the needs they identified):

- rattan handicrafts, to improve designs and methods of handicrafts;
- mushroom cultivation;
- bamboo handicrafts, to improve designs and methods of handicrafts;
- paper mulberry drying process, to improve the quality of the bark;
- financial management, such as basic accounting systems and monthly reports;
- enterprise management.

The project also assisted the pilot enterprise in:

- improving agro-forestry techniques and expanding paper mulberry plantation by 2 ha in Ban Long Lead and Ban Houay Hia;
- setting up 5 ha of rattan plantation under natural forest with a management plan in Ban Houay Kheua;
- setting up road-side sales in Ban Nathong, Alouay Kham Noy and Ban Lak 29.

At the beginning of the pilot phase, the project facilitators played an important role in supporting the groups’ negotiations with traders, as well as responding to questions raised by each group. The facilitators provided advice through regular visits/meetings to review the results of the pilot phase and assess whether the enterprise development strategies needed adjustment or change. Because of the lack of business services at the district and province levels, the project facilitators had to advise pilot enterprises about marketing, available technology, etc. This lack of business services (technical and financial) was one of the main obstacles faced by the project in supporting pilot enterprises.
Example of an activity: paper mulberry plantation for bark production in Ban Long Lead

The group obtained the village committee’s approval to use 1 ha of village land (degraded forest) to plant paper mulberry in the following association with banana and pineapple:

Banana – 4 x 4 m²; paper mulberry – 1.5 x 1.5 m²; pineapple – 0.5 x 0.5 m².

The group designed this agroforestry system with inputs from a forestry expert from NAFRI. Paper mulberry is harvested twice a year (six months after harvesting for the bark), pineapple once a year (after three years) and banana twice a year.

- Income expected in the first year = 6,955,000 K:
  - banana = 1,000,000 K;
  - paper mulberry bark = 5,955,000 K.
- Income expected in the second year = 6,955,000 K;
- Income expected in the third year = 11,955,000 K:
  - banana = 1,000,000 K;
  - paper mulberry bark = 5,955,000 K;
  - pineapple = 5,000,000 K.

Example of activity: bamboo handicrafts in Ban Houay Keua, Champasack province

A bamboo trainer spent two weeks at the village to train the pilot enterprise group in bamboo handicrafts. Designs were selected based on market demand. The pilot enterprise established contact with Bachang Company, which produces and exports tea. It ordered 400 tea boxes in bamboo from the enterprise (for June to September 2006). One box sells at 2,800 K, and costs 1,800 K to make. The enterprise therefore made 400,000 K profit.
Step 8: Monitor progress and assist changes
At this stage, the project ensured regular visits to the ten pilot enterprises to provide advisory support, monitor training programmes and identify new activities and adjustments to the enterprise development plans with entrepreneurs. During the one-year pilot monitoring of enterprise implementation, it was found that all necessary training had been provided and all activities carried out.

**Example of outputs**

**RATTAN HANDICRAFTS GROUP IN BAN LACK 29**

After six months, the entrepreneurs learned new designs and improved their handicraft processes (making them less costly) in order to improve the quality of the final product. This small intervention allowed the group to sell each set – of one table and four chairs – for 600,000 K instead of 500,000 K. In the meantime, the establishment of a road-side market increased the number of sets sold.

**MUSHROOM PRODUCER ENTERPRISE IN BAN NATHONG**

The enterprise group set up a mushroom growing house, and the first sales (after three months) brought members additional income of 1,058,000 K. Women are the main actors in this enterprise.
<table>
<thead>
<tr>
<th>Location</th>
<th>Enterprise</th>
<th>Actions</th>
</tr>
</thead>
</table>
| 1 Ban Long Lead | Paper mulberry bark production            | Increase production by increasing plantation area (associated with other crops) – two harvests per year  
Improve quality product (using the boiling method) and grading  
Strengthen organizational structure of the enterprise  
Set up a village development fund  
Meetings with the district and traders  
Links to SADU activities |
| 2 Ban Houay Hia | Paper mulberry bark production            | Increase production by increasing plantation area (associated with other crops) – two harvests per year  
Improve quality product (using the boiling method) and grading  
Strengthen organizational structure of the enterprise  
Set up a village development fund  
Meetings with the district and traders  
Links to SADU activities |
| 3 Ban Nathong   | Wild mushroom collection and mushroom cultivation | Organize training on mushroom growing techniques  
Finalize agreement with local spore producers in Savannakhet  
Cultivate mushrooms from November to April (dry season)  
Sell wild mushrooms during rainy season  
Strengthen the road-side market  
Establish a village development fund  
Cooperation with SUFORD and Ban Alouay Kham Noy  
Advisory support from FAO agrobiodiversity activities in 2006/2007 |
| 4 Ban Nathong   | Bamboo handicrafts                        | Continue to produce bamboo handicrafts for local market demand  
Advisory support from FAO agrobiodiversity activities in 2006/2007 |
| 5 Ban Alouay Kham Noy | Wild mushroom collection and mushroom cultivation | Organize training on mushroom growing techniques  
Establish a village development fund  
Finalize agreement with local spore producers in Savannakhet  
Cultivate mushrooms from November to April (dry season)  
Sell wild mushrooms during rainy season  
Strengthen road-side market  
Cooperation with SUFORD and Ban Nathong  
Advisory support from FAO agrobiodiversity activities in 2006/2007 |
| 6 Ban Alouay Kham Noy | Bamboo handicrafts                        | Continue to produce bamboo handicrafts for local market demand  
Advisory support from FAO agrobiodiversity activities in |
<table>
<thead>
<tr>
<th>Ban Lak 29</th>
<th>Wild mushroom collection and mushroom cultivation</th>
<th>Cultivate mushrooms from November to April (dry season)</th>
<th>Sell wild mushrooms during rainy season</th>
<th>Strengthen road-side market and improve sales in local market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ban Lak 29</td>
<td>Rattan handicrafts</td>
<td>Improve quality of products (to obtain higher prices) and diversify products (link with markets in Vientiane and Thailand)</td>
<td>Increase sales</td>
<td>Maintain road-side market</td>
</tr>
<tr>
<td>Ban Lak 62</td>
<td>Rattan handicrafts</td>
<td>Manage the 5 ha plantation and rattan resources in the village forest</td>
<td>Improve handicraft techniques</td>
<td>Increase sales</td>
</tr>
<tr>
<td>Ban Lak 62</td>
<td>Bamboo handicrafts</td>
<td>Annual contract with Bachang company to produce tea boxes</td>
<td>Improve handicraft techniques</td>
<td>Increase sales via road-side market</td>
</tr>
</tbody>
</table>
Chapter 3: Outcomes and lessons learned from MA&D implementation

SITE SELECTION, GROUP FORMATION PROCESSES
In Lao PDR, 80 percent of the population live in rural areas, 41 percent of which are covered by NWFPs. Rural communities depend on NWFPs for their livelihoods. In its NGPES, the Lao government has identified the 47 poorest districts where development activities should focus. Project sites were selected in these 47 districts, with additional selection criteria such as proximity to forest and access to roads and markets. These sites were appropriate for successful NWFP pilot enterprises. Target groups were identified as women and men, especially the poorest, involved in NWFP collection, processing, marketing and transport. In each of the six project villages, target groups included a mixture of rich and poor villagers. During project implementation, the main difficulties were lack of leadership, low literacy and little knowledge of marketing. To overcome these challenges, training material was made as simple as possible, using drawings and photographs. Additional meetings and visits to the villages were necessary.

UNDERSTANDING NWFPs’ ROLE IN LIVELIHOODS
NWFPs are ranked second as a source of income for rural communities living close to forest. The project helped target groups to obtain more benefits, increased incomes and the capacity to organize themselves to improve marketing, cultivate produce and manage their forests. It also helped the poorest people in local communities to participate (building their confidence) and brought them more income. The project demonstrated to local communities, local authorities and policy-makers the important role that small-scale NWFP enterprises can play in alleviating poverty in rural areas. It also brought revenue to the national economy through marketing and trade.

NWFP MARKETING AND GENDER ANALYSIS
Women and men have different knowledge concerning the forest resources used for food, income generation, local medicines, etc. Women are interested in NWFPs as a source of food for daily household consumption, rather than for income generation, while men consider forest as a source of income rather then subsistence. In the six villages, there were no existing institutional arrangements to include or facilitate women’s participation in NWFP activities at the village level. Forest-related activities, particularly forest management, tend to have an extremely poor gender balance in their staffing structures.

Participation in NWFP management and marketing is a new concept in Lao PDR – not only for women and men villagers, but also for organizations. Tradition and culture prevent, or at least discourage, women from participating in public and community affairs. In the ten pilot enterprises, women play important leadership roles. During the process, the project facilitated discussion for men and women, and both women and men were involved in market chain analysis. The experience gained from the pilot enterprises is benefiting women more than men. First, because their roles in the enterprises are recognized (giving them social status), and second because they have control over incomes from selling products (at road-side and local markets and to local traders).

SELECTING PRODUCTS FOR MARKET IMPROVEMENT
The diversity of NWFPs is huge in Lao PDR. In each of the six pilot areas, the target groups listed between 20 and 60 products as sources of food, shelter, medicine and income. The NWFPs selected (rattan, bamboo, mushrooms, paper mulberry) are all products that the target groups were confident about working with. The groups did not have enough experience or
knowledge of marketing and investment to start an enterprise based on a product that they knew nothing about. Because of the project’s short duration, it was important to select products for which activities could be implemented over a short period. One year to facilitate the ten pilot enterprises’ setting up of activities was too short. To ensure continued support to the enterprises, the project linked them to other projects (SADU, SUFORD, GAPE, the World Wide Fund for Nature [WWF]). The ten pilot enterprises did however manage to implement activities and start to sell products during the project period.

**MARKET CHAIN ANALYSIS**
Market chain analysis was one of the activities that target groups liked the most during the development process. It helped them to understand what a market is, demand (in terms of quality, quantity and price), the importance of storage, the roles of the different actors, and the importance of value-added processing. By doing the market chain analysis themselves, local entrepreneurs met many actors (local and national traders, processors, retailers, financial service providers, etc.) along the chain and established agreements and contracts (with mushroom spore providers and rattan and bamboo purchasing companies, etc.) to support the development of their pilot enterprises. Another outcome of the market chain analysis was the identification of five types of NWFP marketing chain.

Stakeholder meetings facilitated by the project played an important role in building local entrepreneurs’ confidence. For the first time, local communities, district authorities, financial service providers and the private sector had an opportunity to discuss issues and develop alternatives related to NWFP production, management and marketing. The project organized a visit for future entrepreneurs to other villages in Lao PDR, where local NWFP enterprises were already running successfully. It was important to have farmer-to-farmer discussions, and not just information from project and government extension staff. The impact of the visit will be assessed.

**SELECTING ACTIVITIES AND WRITING BUSINESS PLANS**
The writing of business plans was difficult because of low literacy levels (few entrepreneurs could read or calculate) and the dynamics of working in a group. Before the project, villagers sold products to village or local traders at prices fixed by the traders. Villagers were often desperate to sell their products in order to buy rice. In this context, it took time for the group to establish organization, define goals and understand the concept of business plans (terminology, financial plan, etc.). When the business plans had been formulated, financial management and group strengthening training was provided. The entrepreneurs selected activities (e.g., improving techniques for bamboo and rattan handicrafts, mushroom cultivation, paper mulberry debarking processes, plantations, establishment of road-side markets) based on the outcomes of the market chain analysis, the resources assessment survey and social and policy assessments. Timing of the activities was defined according to the rice cropping and the logging seasons.

The target groups found the stakeholder workshops very useful in providing them with their first opportunity to discuss issues openly with local authorities and the private sector. They were proud to present their enterprise development plans. Such exercises should continue to be supported. Lack of leadership was another issue during the formulation and implementation of business plans. This required that the project and facilitators built the target groups’ confidence, supporting group members (often women and young men) who have skills but need help in taking the lead.

**IMPLEMENTATION**
Implementation of activities was organized through provincial and district government organizations. The project decided to involve the agriculture and forestry sectors as well as the trade department, which is responsible for monitoring NWFP trade and collecting taxes. Both PAFO and Trade Department staff acted as MA&D field facilitators. Management and
guidance were provided by a national-level technical institution (NAFRI), which received support from FAO and SNV advisers. This institutional setting allowed the capacity building of national and local-level extension staff on the MA&D approach, NWFP marketing and management and MIS. Field staff had weak marketing and project management capacity, and required more training and support from the project before they could assist target groups. Because the project period was only two years, it was not possible to provide longer support to the pilot enterprises. The project established collaboration with other partners working in the same district, some of whom agreed to organize monitoring visit to the pilot enterprises.

FINANCIAL AND BUSINESS DEVELOPMENT SERVICES
Accessing financial support for rural communities is very difficult. The four largest microfinance institutions in Lao PDR collectively reach only about 6 000 clients. The government-established Agriculture and Promotion Bank serves only 14 percent of the country’s households, mostly in urban areas, with only about 2 percent of rural households being served. It was therefore a major challenge for the ten pilot enterprises to obtain the capital necessary to implement activities. One solution developed by the project was to set up village development funds, accompanied by training to strengthen the capacity of pilot enterprise management committees in group and financial management (bookkeeping, formulation of interim financial management plans) and to facilitate the identification of sustainability issues faced by the enterprises.

MONITORING AND EVALUATION OF THE MA&D PROCESS
The MA&D process and field activities were monitored through regular field visits and interviews with target groups. Two informal meetings between target groups and national experts were made at the village level (during and after project interventions). Overall, members of the pilot enterprises were pleased by the support provided by the project and learned a lot through the MA&D process. It was felt to be a very participatory process. It took time for the target groups to understand that the project would not provide all the seed capital needed to set up pilot enterprise. The main reasons for this were: (i) most villages had previously received support from development projects that provided everything; and (ii) access to credit is very difficult for rural communities, so they rely on external funding. The development of micro-credit facilities should be a priority for the Government. With assistance from the Regional Community Forestry Training Center for Asia and the Pacific (RECOFTC) the project developed a MA&D training programme as well as a monitoring and evaluation system for measuring the impact of MA&D training.
Chapter 4: NWFP policy review: results and lessons learned

During the two-year project period, national NWFP policy, rules and regulations were analysed and ways of improving them were proposed. The review process involved line ministries. A policy working group was set up, with main actors from the Department of Forestry (forestry policy mandate) and NAFRI.

The forestry sector, particularly the NWFP subsector, suffers from several weaknesses, such as continuing deforestation, resource degradation, the lack of reliable and consistent statistics, inadequate skills and capabilities, and so on. Although some commercial NWFPs in Lao PDR are sourced from non-forest areas (e.g., private farms, home gardens), most are gathered/harvested from forest areas.

The NWFPs of Lao PDR include a wide variety of products, and vary in importance from region to region (and from locality to locality). Analysing the situation\(^1\) at the six project villages, the project identified 14 items as priority NWFPs. Nationally, many more items are collected (and exported), but these are not fully recorded. In general, the more valuable the item (e.g., medicinal and aromatic plants), the less likely its removal is to be recorded or accounted. There are also some potential NWFPs that are not currently extracted because market access and promotion are lacking; some of these are in considerable demand in other countries. Overall, the NWFP subsector has been neglected and lacks assessments and inventories of resources, scientific studies on active ingredients, product research, promotion, etc.

Considering the complexity of NWFP resource management and the enormity of the issues to be addressed, the project suggested that a multi-pronged approach be adopted for developing NWFPs through supporting grassroots initiatives (such as village-level NWFP production and marketing groups) and promoting national-level policy and institutional support. There is need to establish clear priorities, technical and policy guidelines, phased plans and programmes and research.

The project made some recommendations (see Annex 3), but two years were insufficient to analyse the gaps in NWFP policy and propose solutions. The project could not make appropriate changes to support the ten pilot enterprises at the district and provincial levels; these would have entailed changes to the taxation system, clearer forest management rules, and recognition of the pilot enterprises. Policy change is complex, sensitive and time-consuming.

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\(^1\) Most of this information concerned the NWFPs purchased by local agents, at the lower end of the chain of intermediaries.
Chapter 5: Market information systems

RATIONALE, PROCESS, WORKSHOPS AND TASK FORCES
Lack of market information is a key impediment to economic development. It is difficult to link farmers to markets if they lack information on prices, quality requirements and markets. It is difficult to promote national exports if potential foreign buyers cannot obtain information about the resources available from Lao PDR. These issues have been identified as priorities. Other countries in the region benefit from various forms of MIS. Such systems often rely on the combined efforts of various stakeholders: primary producers, traders and government. In this context, the project facilitated cooperation among line ministries in setting up MIS task forces, which organized two national workshops to:

- identify market information needs and issues in Lao PDR;
- share experiences, concepts and expectations on the impacts of MIS;
- identify and agree on follow-up activities that lead to functioning MIS at the district, province and national levels.

STAKEHOLDERS’ PERSPECTIVES, OUTPUTS AND LESSONS LEARNED
A great number of national and international organizations shared ideas and experiences of MIS. The following common elements emerged:

- identifying products and traders, mapping out market chains, overviewing market information at the province or district level;
- linking farmers to markets, strengthening farmers’ groups, clustering villages, organizing exchange visits and study tours to traders in neighbouring countries, etc.;
- identifying options for adding value through planned production, improving quality, processing, storage, making business plans, etc.;
- stakeholder agreements to circulate market information at the village, district and provincial levels through regular workshops, weekly market information sheets, etc.;
- arrangements for contract farming, input supply and technical information;
- national-level information databases, policy support mechanisms.

MIS DEVELOPMENT IN LAO PDR
The main issues and opportunities for developing agriculture and NWFP MIS in Lao PDR have been identified and a framework has been designed. Through meetings and workshops, as well as the MIS pre-task forces, the project created a dynamic for considering the different options for future development of MIS at the national and provincial levels. International organizations are already supporting initiatives at the provincial level. MAF and the Ministry of Commerce are discussing the institutional framework of MIS and follow-up actions.
Chapter 6: Impact of the pilot project and lessons learned

IMPACTS ON POVERTY ALLEVIATION

The six project villages are located in the poorest part of the country. Average annual household income varies from US$200 to $800. The project helped villagers to gain more benefits from sales of NWFPs, while practising sustainable harvesting and production. Overall the project had the following impacts:

- The MA&D approach resulted in the establishment of ten community-level enterprises (involving 239 people), creating employment and income for local residents.
- The benefits that villagers earned from the pilot enterprises varied from village to village, ranging from US$5 to $70 per household (depending on the product and covering only the six-month pilot period). This additional income was invested in the enterprise and also used for buying food and paying school fees and medical expenses.
- Village development funds were set up to fill the gap in financial services and to help villagers implement the pilot enterprises.

Projected estimated benefits from pilot enterprises

Activities in the pilot enterprises depend on each village’s seasonal calendar and activities, as well as the weather.

*Estimated benefits (in K per household) to enterprise group members (March to July 2006)*

<table>
<thead>
<tr>
<th>Village</th>
<th>Product sold</th>
<th>Estimated total earnings</th>
<th>Estimated earnings per household</th>
<th>Estimated increase on previous income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ban Lak 29</td>
<td>Rattan handicrafts</td>
<td>2 000 000 K</td>
<td>550 000 K</td>
<td>30%</td>
</tr>
<tr>
<td>Ban Lak 62</td>
<td>Bamboo handicrafts</td>
<td>700 000 K</td>
<td>150 000 K</td>
<td>40 to 50%</td>
</tr>
<tr>
<td>Ban Long Lead</td>
<td>Paper mulberry bark (with new processing and plantation)</td>
<td>500 000 K</td>
<td>43 000 K</td>
<td>15%</td>
</tr>
<tr>
<td>Ban Houay Hia</td>
<td>Paper mulberry bark (with new processing and plantation)</td>
<td>500 000 K</td>
<td>39 000 K</td>
<td>15%</td>
</tr>
<tr>
<td>Ban Nathong</td>
<td>Mushrooms</td>
<td>800 000 K</td>
<td>28 000 K</td>
<td>20%</td>
</tr>
<tr>
<td>Ban Alouay Kham Noy</td>
<td>Mushrooms</td>
<td>650 000 K</td>
<td>29 545 K</td>
<td>20%</td>
</tr>
<tr>
<td>Ban Nathong</td>
<td>Bamboo handicrafts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ban Alouay Kham Noy</td>
<td>Bamboo handicrafts</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ENVIRONMENTAL IMPACTS
NWFPs are available from the natural forest and village home gardens. Resources are overexploited and deforestation is rife. Around the six villages, NWFPs are still available, but villagers have to walk increasing distances to reach them. The project impacts could be measured via:

- increased rattan (*Calamus viminalis, tenuis*) and paper mulberry (*Brousssetia papyfera*) resources through plantation under natural forest and agroforestry;
- villagers’ establishment of village forest management plans;
- improved rattan, paper mulberry and bamboo harvesting methods that link extraction rates to the availability of the resource;
- increased environmental knowledge and awareness of NWFP biodiversity and its role in alleviating poverty among national and provincial policy-makers.

GOVERNANCE/POLICY IMPACTS
The Government of Lao PDR recognizes the importance of NWFPs in alleviating poverty and supporting national economic development. The government has developed a policy direction, enacted the relevant legal framework, and strengthened institutions to support this. However, the lack of such important factors as clear legal guidelines and enforcement, appropriate sustainable development systems, support services, and institutional capacity and resources has been a major constraint. The project facilitated the creation of NWFP policy working groups involving national stakeholders. At the provincial level, stakeholder meetings were held involving local communities, the private sector and local authorities. It is difficult to assess the impact at the policy level, but the following should be mentioned.

- At the national level the following constraints and opportunities concerning NWFP policy issues (management, production, harvesting and marketing) were identified and steps for improvement proposed:
  - The main opportunities for the NWFP subsector are:
    1. existence of relatively substantial NWFP resources;
    2. availability of suitable land for establishing plantations of NWFPs;
    3. intention to establish and promote democratic village-level decentralization;
    4. renewed efforts to develop vital infrastructure;
    5. initiatives for developing country capability;
    6. existence of markets for products from Lao PDR in neighbouring countries.
  - The main constraints are related to:
    1. resources;
    2. products and production;
    3. markets;
    4. technology;
    5. information;
    6. institutions.

---

**Projected benefits of pilot enterprises for 2006**

<table>
<thead>
<tr>
<th>Village</th>
<th>Income projection in K</th>
<th>Income projection in US$</th>
<th>Income projection in US$ per household</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ban Lak 29</td>
<td>67 122 000</td>
<td>6 713</td>
<td>200</td>
</tr>
<tr>
<td>Ban Lak 62</td>
<td>22 357 710</td>
<td>2 258</td>
<td>151</td>
</tr>
<tr>
<td>Ban Long Lead</td>
<td>118 035 308</td>
<td>11 803</td>
<td>347</td>
</tr>
<tr>
<td>Ban Houay Hia</td>
<td>12 410 359</td>
<td>1 241</td>
<td>310</td>
</tr>
<tr>
<td>Ban Nathong</td>
<td>68 000 000</td>
<td>6 800</td>
<td>162</td>
</tr>
<tr>
<td>Ban Alouay Kham Noy</td>
<td>24 068 000</td>
<td>2 407</td>
<td>75</td>
</tr>
</tbody>
</table>
At the provincial level the following developments were recorded:
- The tax system in Luang-Prabang province for paper mulberry (plantations and marketing) has been changed and improved – export taxes on paper mulberry have been cancelled. Through meetings and workshops, in partnership with SADU and SNV, the project facilitated revision of the tax system.
- There is increased recognition of community/village-based NWFP enterprises in participatory forestry management.
- The success of MA&D implementation in the field has encouraged national and local authorities to adopt and apply the MA&D approach in other projects.
- The outcomes of the project’s two national workshops on MIS were:
  - establishment of national-level task forces to develop a framework and working mechanisms for national-level MIS;
  - review of policies to create an enabling environment for involving the private sector;
  - provincial MIS for the collection and diffusion of prices, quantity, quality and date controls in some provinces;
  - Ministry of Commerce and MFA coordination of national MIS establishment, with sections for the north, centre and south of the country.

CURRICULUM DEVELOPMENT
The project involved the National University of Lao PDR (NUOL) by contracting students and professors to carry out specific research activities. The project facilitated collaboration between NUOL and NAFRI with the following outcomes:

- Professors from the university’s faculties of forestry and biology were exposed to and learned about the MA&D approach through a workshop and field research survey.
- The MA&D approach and tools will be integrated into the courses for Bachelor, Diploma and Master degrees in 2007.

CAPACITY BUILDING
One of the main project components was strengthening the capacity of national, provincial and district staff in NWFP marketing and management (the MA&D approach, MIS), collaboration and networking.
Experience of cooperation with the NWFP project, presented by Mr Khamla Chittaphay of Ban Hoay Hay

Ban Hoay Hay village is in Xieng Nguene district. It was established in 1913 on road 13, about 36 km from Luang-Prabang and 3 km from Xieng Nguene district.

Situated at 827 m altitude in a mountainous area with little flat land and a total population of 493 people (including 250 women), the village’s main occupation is upland rice farming and livestock raising. People belong to the Kasath minority group; some families are Christian, and some animist. The village has good infrastructure, including electricity, a church and a primary school, which was funded by an international organization. The education level is very low because of low incomes, which derive mainly from livestock and NWFP sales. Villagers normally sell to intermediaries in their own and other villages. Ban Hoay Hay shares its borders with four other villages:

- Ban Done Mo to the north;
- Ban Kiet Gna to the south;
- Ban Kiet Cha Louane to the west;
- Ban Houay Kuk to the east.

Summary report from the marketing group representative before and after project activities

Before project:
- Low-quality mulberry paper bark.
- Competition to sell products.
- Unreliable scales for weighing products.
- Lack of groups.
- No power to lobby and negotiate with traders.
- Lack of appropriate techniques for paper mulberry cultivation.
- Fluctuating prices for dried bark.

After the project built the capacity of interest groups:
- Group of 48 interested families.
- Members received five days of training on setting up business plans.
- Five days of training in financial management.
- Two participatory market chain study tours to Vientiane and Bokeo province.
- Study tour to Ban Nampheng, Udomxay province.
- Use of standard scales.
- 12 rolls of barbed wire.
- One calculator and notebooks for account transactions.
- 1 ha plantation of paper mulberry and banana.
- Village fund of 900 000 K every three months.

Short-term action plan

The group will accumulate funds by collecting money form group members: 5 000 K per month. This will be reinvested to buy paper mulberry dried bark from nearby villages at 3 000 K/kg, which will be sold to a company in Luang-Prabang at 3 500 K/kg. The group will also use its regulations as collateral for money advances from the company to buy dried bark, and will collect price information to disseminate to villagers and group members (MIS).

Long-term action plan

- The group will build storage for paper mulberry dried bark.
- It will expand paper mulberry plantation to 10 ha by 2010.
- It will establish regulations controlling animal grazing to avoid destruction of the plantation, according to district laws and regulations.
- It will expand into sticklack raising.
- It will expand to oil fruit plantation for biodiesel (local name, mak nam mane).
The following outcomes were achieved:

- Collaboration among national institutions, the private sector and international organizations and projects has been strengthened, and coordination and partnerships for better service delivery to local communities have been improved. The project established partnerships with projects supported by the International Centre for Tropical Agriculture (CIAT), the World Bank and international NGOs.
- Village entrepreneurs improved their knowledge of marketing, small-scale enterprise management and organization. They also learned about specific product requirements (processing, marketing and environmental).
- The MA&D approach has been recognized as promoting community-based NWFP enterprises.
- The National Agriculture and Forestry Extension Services are discussing use of the MA&D approach and tools in the national extension programme.
- Provincial MIS initiatives were developed.
- National and technical field staff of NAFRI have gained knowledge and confidence about MA&D, NWFP marketing, community-based NWFP enterprises, BDS and village organizational issues.
- MA&D training materials, a video and a field guide have been produced.
- The MA&D approach will be introduced into the Forestry Department. Ten students from NUOL carried out field research for the project.
- Provincial and district agriculture and forestry extension service providers are confident about applying the MA&D approach.
- The role of community-based NWFP enterprises in poverty alleviation and socio-economic development is being disseminated through networking, meetings, workshops and conferences about lessons learned.

**DOCUMENTATION AND DISSEMINATION**

Throughout the two-year project period, the following documents were produced and disseminated (see References):

- Technical papers on NWFP marketing and policies in Lao PDR and Southeast Asia were disseminated through various networks (NAFRI, FAO, the Lao NWFP Network).
- Project national coordinators participated in national and regional workshops and conferences (in China, Viet Nam, Thailand, Nepal and Costa Rica) to present experiences of the MA&D approach from Lao PDR and to exchange and share new developments.
- A video and field guide on the MA&D approach in Lao PDR were produced and distributed to all appropriate national institutions.
- National workshops were held to present results, exchange experiences and discuss follow-up activities.

**PARTNERSHIPS WITH OTHER ORGANIZATIONS**

The project’s approach was to involve key stakeholders at the national and local levels that could have an impact on the village pilot NWFP enterprises.

- During the two-year process, the project involved seven others organizations (the World Bank, CIAT, SNV, GAPE, VFI, BTC, the Japanese International Cooperation Agency [JICA], and the Swedish International Development Authority [SIDA]) in MA&D training, workshops, networking and field visits.
- Specific partnerships for implementing joint activities (workshops, training, study tours) were made with CIAT, SIDA, GAPE and World Bank projects.
Numerous national institutions were involved in workshops, meetings and field studies. Dialogue among line ministries (particularly MAF and the Ministry of Commerce) was initiated.
Chapter 7: Recommendations for NWFP market development in Lao PDR

Building on the experience of development practitioners in Lao PDR and the NWFP project, a conceptual framework was proposed for developing a marketing system for NWFPs in the country. This framework suggests ways of upscaling the pilot initiatives of the NWFP project and focuses on the components necessary for building national capacity in promoting sustainable practices and competitiveness in the NWFP subsector, village enterprises and marketing systems to increase rural incomes.

The framework focuses on components and institutional capacities and processes within the NWFP marketing system that achieve: (i) increased incomes for a large number of poor women and men; (ii) improved capacity and business practices of enterprises, leading to better technology, productivity and efficiency; (iii) sustainable supplies of demand-based services for enterprises and other actors, to improve their capacity and practices; (iv) sustainability of the resource supply; and (v) competitiveness in the value chain/industry.

The framework (see Figure 4) is based on four critical components: (i) sustainable resource management and production systems; (ii) enterprises/marketing groups; (iii) BDS and service providers; and (iv) financing and financial mechanisms. These components are conditioned or enabled by policy provisions and implementation, research and marketing information, and collaboration, linkages and learning mechanisms. The NWFP marketing system is embedded in a broader environment (social/political, economic/market, science/technology, and resource/natural environment), whose components influence each other. It is the mix and alignment of activities that define the strategy applied and are responsible for achieving outcomes.
Figure 4. Conceptual framework for developing a NWFP marketing system developed by the FAO project
Chapter 8: Conclusions

Implementation of the MA&D approach in Lao PDR was not easy because it involved not only changing the attitude of communities and empowering them with the skills to control, protect and manage their natural resources and the environment, but also creating an enabling environment (rules, BDS) to support the village enterprises. The process was innovative in creating synergy and collaboration among local communities, district and provincial authorities and the private sector and financial service providers. Once the communities had started to understand the benefits, the MA&D approach expanded greatly and was instrumental in initiating a review of NWFP policies, gaps and weaknesses and proposing solutions.

The project demonstrates a successful experience of promoting village-level enterprises in ten villages in three provinces. NWFP pilot enterprises were established and received training in technical skills development and other capacity building support to implement their business plans. Demand for NWFP products from local, national and regional markets is increasing. The pilot enterprises established strong linkages with local and national traders as well as technical and financial service providers (the Credit Union at the provincial level, assisted by the Lao Women’s Union). Successful results from the village groups provide a model for extending similar enterprise development activities to surrounding villages.

NAFRI and provincial authorities have accepted the MA&D approach as supporting the development of NWFP community-based enterprises as a vehicle for alleviating poverty in rural areas and engaging local communities in forest management. The project played a catalytic role by addressing and providing options to solve the challenges facing the forestry sector, specifically the NWFP subsector, regarding the sustainable management of resources to support poverty alleviation.
References

Nicholson, K. 2004. MA&D training materials guidelines for Phases 1, 2 and 3. RECOFTC.

Project documents
FAO. 2004 to 2006. Project progress reports.
FAO. 2004 to 2006. Project international and national mission reports.
NAFRI. 2006. MA&D adapted training forms in local languages.
NAFRI. 2006. MA&D adapted field guide in Lao languages.
TCP/LAO/3002 CD Rom. 2006. List of all documents, pictures and videos from the project.
Vongkhamsao, V. 2006. Experience on application of MA&D in Lao PDR. Video.
ANNEX 1 - EXAMPLE OF ENTERPRISE DEVELOPMENT PLAN – PAPER
MULBERRY BARK PRODUCTION IN BAN LONG LEAD

Enterprise: Mushroom Production and Trade Group-Ban Lak 29,

Facilitator: Ms Souphonesa

Date Prepared: 26/10/2005

Enterprise: Mushroom Production and Trade

Name of Representative: Ms Phet and Ms Boundavong

Address: Lak 29 village, Pathomphone District, Champasack

Box Description of the Enterprise

Grow mushroom (Jew's ear, oyster, agaric, and straw mushroom) in order to sell in provincial markets. Mushroom that could not be sold will be processed/dried for both internal and external markets (e.g. Thailand and Japan).

Box Characteristics of the market

<table>
<thead>
<tr>
<th>Similar producers in Pakse</th>
<th>Competitors selling</th>
<th>Target market</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 000 (sell at production spot)</td>
<td>Pakse District</td>
<td>- Sell at the market when the demand is high.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Sell at production spot when the demand is high.</td>
<td></td>
</tr>
</tbody>
</table>

Box Describe the advantages of your own products compared with competitors

- We received more technical training.
- Surrounding villages have not yet grown mushroom (they are our potential market).
- Working in group results in more power to negotiate with traders.
- Working in group also allows us to exchange information.

Box Build a kiosk for selling mushroom beside Road No. 9 ("mushroom selling kiosk of Ban Lak 29")

Box Market area and target

~ Ordinary population.
~ Restaurants.

Box Description of the enterprise (goals) and organizational structure

Goals: Ban Lak 29 Plantation and Trade Group aims to upgrade living conditions through increased income. This can be done by increasing capacity of natural mushroom collection and plantation.

Organizational Structure: The management team consists of 3 representatives of the households. Particularly, the first member is the head (general supervision), the second person is the first vice head who is in charge of accounting and the third member is the second vice head who is responsible for production. Every decision is made based on consensus agreement among the management team. However, every member has the right to advocate their voice and comment on the management team’s performance.

<table>
<thead>
<tr>
<th>Required personnel</th>
<th>Function</th>
<th>Time needed</th>
<th>Experience</th>
<th>Salar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms Phet</td>
<td>Leader</td>
<td>2</td>
<td>Communication/Marketing</td>
<td>10% of total profit among 3 members of the management team</td>
</tr>
<tr>
<td>Ms Bounduang</td>
<td>First</td>
<td>2</td>
<td>Accountant</td>
<td></td>
</tr>
<tr>
<td>Ms Deena</td>
<td>Second</td>
<td>2</td>
<td>Production</td>
<td></td>
</tr>
</tbody>
</table>

Note: decision I made based on the consensus of management team members; other group members have the right to share their views.
### Box 7: Production system

<table>
<thead>
<tr>
<th>Total production (kg)</th>
<th>Period</th>
<th>Collection period</th>
<th>Production risks</th>
<th>Risk prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>180 kg/day</td>
<td>45 days</td>
<td></td>
<td>Fungus disease</td>
<td>Ensure cleanliness at every step of production; use mushroom house to protect against bacteria and germs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Worm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Temperature</td>
<td>Use appropriate materials to protect from sun, plastic materials, thatch grass, etc.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mushroom does not grow well</td>
<td>Ensure appropriate formula of mushroom ferment/yeast</td>
</tr>
</tbody>
</table>

### Box 8: Sales targets (1 year)

<table>
<thead>
<tr>
<th>Products</th>
<th>Rate/kg</th>
<th>Quantity</th>
<th>Unit</th>
<th>Total (Kip/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jew's ear mushroom (dry)</td>
<td>18 000</td>
<td>kg</td>
<td></td>
<td>50 000 000</td>
</tr>
<tr>
<td>Jew's ear mushroom (fresh)</td>
<td>5 000</td>
<td>10 tonnes</td>
<td>kg</td>
<td>50 000 000</td>
</tr>
<tr>
<td>Common white mushroom</td>
<td>8 000</td>
<td>10 tonnes</td>
<td>kg</td>
<td>80 000 000</td>
</tr>
<tr>
<td>Het Bot (dry)</td>
<td>8 000</td>
<td>10 tonnes</td>
<td>kg</td>
<td>80 000 000</td>
</tr>
<tr>
<td>Het Bot (fresh)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total: **210 000 000**

### Box 9: Fixed assets (1 year)

<table>
<thead>
<tr>
<th>Description</th>
<th>Rate/kg</th>
<th>Quantity</th>
<th>Unit</th>
<th>Total (Kip/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water tank</td>
<td>150 000</td>
<td>45</td>
<td>Piece</td>
<td>2 250 000</td>
</tr>
<tr>
<td>Spade</td>
<td>8 000</td>
<td>15</td>
<td>Piece</td>
<td>120 000</td>
</tr>
<tr>
<td>Watering can</td>
<td>25 000</td>
<td>15</td>
<td>Piece</td>
<td>375 000</td>
</tr>
<tr>
<td>Water sprayer</td>
<td>750 000</td>
<td>2</td>
<td>Piece</td>
<td>1 500 000</td>
</tr>
<tr>
<td>Oven (brick-lined hole in earth)</td>
<td>50 000</td>
<td>15</td>
<td>Piece</td>
<td>750 000</td>
</tr>
<tr>
<td>Mushroom planting house (3 x 6 m)</td>
<td>3 722 000</td>
<td>6</td>
<td>House</td>
<td>5 865 000</td>
</tr>
<tr>
<td>Metal ring</td>
<td>15 000</td>
<td>30</td>
<td>Piece</td>
<td>450 000</td>
</tr>
</tbody>
</table>

Total: **11 310 000**

### 9.1. Calculation of buildings/fixed assets (example: shop)

<table>
<thead>
<tr>
<th>Items</th>
<th>Rate</th>
<th>Quantity</th>
<th>Unit</th>
<th>Total (Kip/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>240 000</td>
<td>1</td>
<td>Truck</td>
<td>240 000</td>
</tr>
<tr>
<td>Gravel</td>
<td>270 000</td>
<td>1</td>
<td>Truck</td>
<td>270 000</td>
</tr>
<tr>
<td>Bamboo</td>
<td>5 000</td>
<td>84</td>
<td>Truck</td>
<td>420 000</td>
</tr>
<tr>
<td>Cement</td>
<td>700 000</td>
<td>2</td>
<td>Tonne</td>
<td>1 400 000</td>
</tr>
<tr>
<td>Steel bar (6)</td>
<td>20 000</td>
<td>48</td>
<td>Piece</td>
<td>960 000</td>
</tr>
<tr>
<td>Plastic mat</td>
<td>6 000</td>
<td>216</td>
<td>m</td>
<td>1 260 000</td>
</tr>
<tr>
<td>Metal wire</td>
<td>5 000</td>
<td>5</td>
<td>Roll</td>
<td>25 000</td>
</tr>
<tr>
<td>Sun-screen plastic</td>
<td>5 000</td>
<td>258</td>
<td>M</td>
<td>1 290 000</td>
</tr>
</tbody>
</table>

Total: **5 865 000**

*1: entrepreneurs' own contribution, 2: grant or loan.*
### Box 10. Depreciation (see No. 9)

<table>
<thead>
<tr>
<th>Items</th>
<th>Total item cost (Kip)</th>
<th>Life span (years)</th>
<th>Depreciation /unit/year (Kip)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water tank</td>
<td>2 250 000</td>
<td>3</td>
<td>750 000</td>
</tr>
<tr>
<td>Spade</td>
<td>120 000</td>
<td>1</td>
<td>120 000</td>
</tr>
<tr>
<td>Watering can</td>
<td>375 000</td>
<td>2</td>
<td>187 500</td>
</tr>
<tr>
<td>Water sprayer</td>
<td>1 500 000</td>
<td>5</td>
<td>1 125 000</td>
</tr>
<tr>
<td>Oven</td>
<td>50 000</td>
<td>5</td>
<td>10 000</td>
</tr>
<tr>
<td>Mushroom planting house (3 x 6 m)</td>
<td>5 865 000</td>
<td>5</td>
<td>1 173 000</td>
</tr>
<tr>
<td>Metal ring</td>
<td>450 000</td>
<td>3</td>
<td>150 000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>2 690 500</strong></td>
</tr>
</tbody>
</table>

*Per month: 224 208.33 Kip

### Box 11. Variable costs (1 year), including labour in table 11.1

<table>
<thead>
<tr>
<th>Item</th>
<th>Rate/item</th>
<th>Qty</th>
<th>Unit</th>
<th>Balance</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour wages</td>
<td>3 675 000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mushroom yeast/ferment</td>
<td>1 500</td>
<td>90</td>
<td>Bottle</td>
<td>135 000</td>
<td></td>
</tr>
<tr>
<td>Sawdust</td>
<td>150</td>
<td>7 500</td>
<td>kg</td>
<td>1 125 000</td>
<td></td>
</tr>
<tr>
<td>Elastic ring</td>
<td>12 000</td>
<td>3</td>
<td>bag</td>
<td>36 000</td>
<td></td>
</tr>
<tr>
<td>Plastic bag</td>
<td>23 000</td>
<td>45</td>
<td>kg</td>
<td>1 035 000</td>
<td></td>
</tr>
<tr>
<td>EM</td>
<td>10 000</td>
<td>15</td>
<td>litre</td>
<td>150 000</td>
<td></td>
</tr>
<tr>
<td>Gypsum</td>
<td>500</td>
<td>23</td>
<td>kg</td>
<td>115 000</td>
<td></td>
</tr>
<tr>
<td>Rice barn</td>
<td>1 500</td>
<td>375</td>
<td>kg</td>
<td>562 500</td>
<td></td>
</tr>
<tr>
<td>Lime</td>
<td>5 000</td>
<td>15</td>
<td>Tub</td>
<td>75 000</td>
<td></td>
</tr>
<tr>
<td>Residual sugar</td>
<td>1 000</td>
<td>75</td>
<td>litre</td>
<td>75 000</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>7 293 500</strong></td>
<td></td>
</tr>
</tbody>
</table>

**11.1. Labour**

<table>
<thead>
<tr>
<th>Item</th>
<th>Labour/day/prs</th>
<th>Qty</th>
<th>Total</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour for building</td>
<td>30 000</td>
<td>5</td>
<td>1 800 000</td>
<td></td>
</tr>
<tr>
<td>Labour for mixing food</td>
<td>5 000</td>
<td>750</td>
<td>375 000</td>
<td></td>
</tr>
<tr>
<td>Labour for hai bao</td>
<td>100</td>
<td>15 000</td>
<td>150 000</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>3 675 000</strong></td>
<td></td>
</tr>
</tbody>
</table>

*1: entrepreneurs’ own contribution, 2: grant or loan

#### Contribution of entrepreneurs:
- Loan: -
- Grant: -
- Total: -

### Box 12. Fixed assets

<table>
<thead>
<tr>
<th>Item</th>
<th>Rate/unit</th>
<th>Qty</th>
<th>Unit</th>
<th>Total</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water supply</td>
<td>400/m³</td>
<td>20m³</td>
<td>Month</td>
<td>8 000</td>
<td></td>
</tr>
<tr>
<td>Telephone</td>
<td>20 000</td>
<td></td>
<td>Month</td>
<td>20 000</td>
<td></td>
</tr>
<tr>
<td>Transportation (bus to sell mushroom)</td>
<td>100 000</td>
<td></td>
<td>Month</td>
<td>100 000</td>
<td></td>
</tr>
<tr>
<td>Food (while selling)</td>
<td>150 000</td>
<td></td>
<td>Month</td>
<td>150 000</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>278 000 Kip/month</strong></td>
<td></td>
</tr>
</tbody>
</table>

*1: entrepreneurs’ own contribution, 2: grant or loan

#### Contribution of entrepreneurs:
- Loan: -
- Grant: -
- Total: -
### Box 13  Total capital needs (1 year)

#### a) Fixed Assets
- Fixed assets - See No. 9

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total 13a</td>
<td>11,310,000</td>
</tr>
</tbody>
</table>

#### b) Working capital
**Time period: 1 year**

- Variable costs - See No: 11
- Fixed costs – See No: 12

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total working capital:</td>
<td>10,629,500</td>
</tr>
</tbody>
</table>

#### c) Total working capital (13a + 13b):
*(Total of fixed assets (a) and working capital (b)*)

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total 21,939,500</td>
<td></td>
</tr>
</tbody>
</table>

### Box 14  Sources of capital

#### > Own investment (own contributions)
- See No. 9
- See No. 11
- See No. 12

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total 21,939,500</td>
<td></td>
</tr>
</tbody>
</table>

#### > Description of members' investment (villagers' contribution)

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
<th>Number of members</th>
<th>Per member</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of labour, bamboo and water supply</td>
<td>4,191,000</td>
<td>15</td>
<td>279,000</td>
</tr>
<tr>
<td>Villagers' contribution</td>
<td>750,000</td>
<td>15</td>
<td>50,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
<th>Per member</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>4,941,000</td>
<td>329,000</td>
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</tbody>
</table>

#### Loan

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
<th>Interest/month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borrow from banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Borrow from village fund</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Borrow from relatives</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Grant

<table>
<thead>
<tr>
<th>Description of grant</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Grant for working capital</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>
### Box 15 Interest

**a. Monthly interest charge (%) :**

\[
\text{Annual interest} = \text{Monthly interest charge} \times 12 \text{ months} \%
\]

**b. Interest expenses**

<table>
<thead>
<tr>
<th>Monthly interest charge (%)/100 X Number of months loan is needed</th>
<th>X Total loan amount</th>
<th>Interest expense</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>-</td>
</tr>
</tbody>
</table>

**c. Payment schedule**

<table>
<thead>
<tr>
<th>Description</th>
<th>Total in one year</th>
<th>First payment</th>
<th>Second payment</th>
<th>Last payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payment on principal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Calculation of product unit cost

<table>
<thead>
<tr>
<th>Cost components</th>
<th>Product 1</th>
<th>Product 2</th>
<th>Product 3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct material</td>
<td></td>
<td></td>
<td>7 293 500</td>
<td></td>
</tr>
<tr>
<td>Direct labour</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overheads and depreciation</td>
<td></td>
<td></td>
<td>6 026 00</td>
<td></td>
</tr>
<tr>
<td><strong>Total cost</strong></td>
<td></td>
<td></td>
<td>13 319 500</td>
<td></td>
</tr>
<tr>
<td>Product quantity</td>
<td></td>
<td></td>
<td>3 tonnes</td>
<td></td>
</tr>
<tr>
<td><strong>Unit cost</strong></td>
<td></td>
<td></td>
<td>4 440 Kip</td>
<td></td>
</tr>
<tr>
<td><strong>Competitors' price</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Selling price</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Box 16  Profit (or loss) 1 year

a) Income:
Total income from sales - See No: 6 210 000 000

b) Expenses:
- Depreciation - See No: 9 2 690 500
- Variable costs - See No: 11 7 293 500
- Fixed costs - See No: 12 3 336 000
- Interest - See No: 15 540 000
Total expenses 13 860 000

c) Profit or loss (a - b):
Income (a) less Total expenses (b)
210 000 000 less 24 620 000
= 185 380 000

d) Net profit:
Profit (See 17 c) less Taxes and other fees
185 380 000 less 0
= 185 380 000

Box 17  Return on investment (ROI)

ROI (%) = \( \frac{\text{Profit including labour (16c)}}{\text{Total investment (No. 13)}} \times 100 \)

ROI (%) = \( \frac{185 380 000}{24 620 000} \times 100 = 753\% \)

18  Environmental strategy
Promote replanting of rattan
Organize rattan handicraft group using raw materials sustainably
Manage rattan collection

19  Social strategy
Encourage unemployed villagers to join the rattan handicraft group
Encourage group members to establish and enforce regulations for rattan management

20  Technology strategy
Need to train on cutting rattan in appropriate way
Need to train on planting
Need to train on producing handicrafts

21  Conclusion of the analysis
We can see that the return on investment rate is 80% higher than the deposit interest rate, which means that it is better to invest and follow this plan.
All members have agreed to set up regulations for the sustainable use of natural resources
## Annex 2: Summary of Business Plan – Savannakhet, Champasak and Louang-Prabang

<table>
<thead>
<tr>
<th>No.</th>
<th>Business name</th>
<th>Name Business</th>
<th>Sale (Lao)</th>
<th>Fix (Lao)</th>
<th>Raw (Lao)</th>
<th>Expense (Lao)</th>
<th>Labou (Lao)</th>
<th>Total Capital needed (Lao)</th>
<th>Profi (Lao)</th>
<th>ROI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bamboo Group at Nathon</td>
<td>Ban Savannakhe province</td>
<td>29,934,00</td>
<td>12,126,00</td>
<td>9,555,20</td>
<td>12,801,25</td>
<td>5,400,00</td>
<td>16,406,20</td>
<td>5219,00</td>
<td>54,00</td>
</tr>
<tr>
<td>2</td>
<td>Mushroom markets Nathon</td>
<td>Ban Savannakhe province</td>
<td>188,512,50</td>
<td>3,827,00</td>
<td>957,20</td>
<td>52,513,17</td>
<td>-</td>
<td>4,729,00</td>
<td>805,20</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>Bamboo Group at Alouykhanoi</td>
<td>Ban Alouykhanoi Savannakhet province</td>
<td>82,830,00</td>
<td>5,818,00</td>
<td>73,836,00</td>
<td>76,573,81</td>
<td>1,125,00</td>
<td>76,379,00</td>
<td>3,283,00</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>Mushroom and collecting Ban</td>
<td>Ban Alouykhanoi Savannakhet province</td>
<td>57,400,00</td>
<td>16,290,00</td>
<td>2,521,00</td>
<td>32,064,33</td>
<td>17,900,00</td>
<td>8,555,00</td>
<td>-</td>
<td>28,866,00</td>
</tr>
<tr>
<td>5</td>
<td>Rattan Group Ban Houykeu</td>
<td>Ban Champasac Province</td>
<td>66,200,00</td>
<td>33,299,00</td>
<td>20,565,00</td>
<td>23,082,20</td>
<td>3,640,00</td>
<td>47,655,00</td>
<td>3,000,00</td>
<td>2,454,00</td>
</tr>
<tr>
<td>6</td>
<td>Bamboo Group Ban Houykeu</td>
<td>Ban Champasac Province</td>
<td>30,900,00</td>
<td>7,365,00</td>
<td>5,919,00</td>
<td>8,542,29</td>
<td>-</td>
<td>5,889,00</td>
<td>5,919,00</td>
<td>1,476,00</td>
</tr>
<tr>
<td>7</td>
<td>Mushroom group Ban Lak Houykeu</td>
<td>Ban Lak Champasac Province</td>
<td>210,000,00</td>
<td>3,336,00</td>
<td>7,293,50</td>
<td>24,620,00</td>
<td>3,675,00</td>
<td>10,311,50</td>
<td>3,000,00</td>
<td>4,953,00</td>
</tr>
<tr>
<td>8</td>
<td>Rattan Group Ban Lak</td>
<td>Ban Lak Champasac Province</td>
<td>445,680,00</td>
<td>39,460,00</td>
<td>176,292,00</td>
<td>307,278,00</td>
<td>3,960,00</td>
<td>121,180,00</td>
<td>27,000,00</td>
<td>39,600,00</td>
</tr>
<tr>
<td>9</td>
<td>Producing, and selling dry Sa Ban</td>
<td>Ban Luangpaban province</td>
<td>359,494,90</td>
<td>30,384,00</td>
<td>-</td>
<td>241,158,59</td>
<td>230,490,00</td>
<td>258,975,00</td>
<td>5,935,00</td>
<td>-</td>
</tr>
<tr>
<td>10</td>
<td>Por Sa Group Houyhi</td>
<td>Ban Luangpaban province</td>
<td>42,000,00</td>
<td>14,270,00</td>
<td>-</td>
<td>29,205,81</td>
<td>25,780,00</td>
<td>12,490,00</td>
<td>2,730,00</td>
<td>807,00</td>
</tr>
</tbody>
</table>

Total Capital needed = Sale + Fix + Raw - Expense - Labou

ROI = (Total Capital needed - Fixed Capital) / Total Capital needed
## Annex 2: Summary of Business Plan – Savannakhet, Champasak and Louang-Prabang

<table>
<thead>
<tr>
<th>No.</th>
<th>Business name</th>
<th>Name</th>
<th>Sale (Lao)</th>
<th>Fix (Lao)</th>
<th>Raw (Lao)</th>
<th>Expense (Lao)</th>
<th>Labou (Lao)</th>
<th>Total Capital needed (Lao)</th>
<th>Profi (Lao)</th>
<th>ROI</th>
</tr>
</thead>
<tbody>
<tr>
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<td>12,126,00</td>
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<td>5,219,00</td>
<td>54,00</td>
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<td>2</td>
<td>Mushroom markets Nathon</td>
<td>Ban Savannakhe province</td>
<td>188,512,50</td>
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<td>3,283,00</td>
<td>-</td>
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<td>-</td>
<td>8,555,00</td>
<td>-</td>
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<td>Ban Champasac province</td>
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<td>20,565,00</td>
<td>23,082,20</td>
<td>3,640,00</td>
<td>47,655,00</td>
<td>3,000,00</td>
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<td>Bamboo Group Ban Houykeu</td>
<td>Ban Champasac province</td>
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<td>7,365,00</td>
<td>5,919,00</td>
<td>8,542,29</td>
<td>-</td>
<td>5,889,00</td>
<td>5,919,00</td>
<td>1,476,00</td>
</tr>
<tr>
<td>7</td>
<td>Mushroom group Ban Lak</td>
<td>Ban Lak Champasac province</td>
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</tr>
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<td>8</td>
<td>Rattan Group Ban Lak</td>
<td>Ban Lak Champasac province</td>
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<td>176,292,00</td>
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<td>27,000,00</td>
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<td>-</td>
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<td>258,975,00</td>
<td>5,935,00</td>
<td>-</td>
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<td>Ban Luangpaban province</td>
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<td>14,270,00</td>
<td>-</td>
<td>29,205,81</td>
<td>25,780,00</td>
<td>12,490,00</td>
<td>2,730,00</td>
<td>807,00</td>
</tr>
</tbody>
</table>
ANNEX 3: RECOMMENDATIONS OF THE INTERNATIONAL NWFP POLICY EXPERT

Recommendations for immediate action

**Relating to policy and institutional aspects:**
- Compile policy (and policy-like) statements, laws, rules and regulations relating to NWFPs (and forestry); sort out those that are currently valid; categorize the currently valid policy(ies), laws, rules and regulations as they apply to specific aspects of NWFPs; identify overlaps, conflicts, gaps and other inadequacies.
- Conduct a quick survey of alternative institutional arrangements existing for NWFP-related enterprises in the country (e.g., trader-influenced activities, SHGs, product/marketing groups, cooperatives, etc.) and their relative strengths and weaknesses; identify the policy and legal means for enhancing the institutional arrangements and removing constraints at different levels, also taking into consideration lessons learned from elsewhere.
- Analysing the above information, establish and propose: whether, where and what form of changes, bridging of gaps and strengthening are required in the policy field as well as in the area of legal framework and enterprise institutions.
- Lead responsibility for undertaking the above tasks may be assigned to the Department of Forestry, with support from collaborating agencies and stakeholders.
- Extension of TCP/Lao/3002A or support through a new FAO/TCP may be sought, in this regard.

**Relating to production and technological aspects:**
- Simultaneous to the above, carry out a quick survey of important commercial NWFPs at the decentralized levels (provinces, districts), as well as of candidate species with potential. (There are already several reports dealing with this subject, on which action is pending. What is required in most cases is to review such reports with reference to real field situations, market changes, etc., to consolidate the information and to identify modifications needed.)
- Gather available technical (cultivation, management, processing) and management information regarding the NWFP species from various relevant sources.
- Assess/assemble the resource situation in respect of major NWFPs.
- Analyse the current production/potential and resource position and prioritize/specify NWFPs for promotion in the various parts of the country. Prepare guidelines/prescriptions for growing, managing, harvesting and utilizing the priority NWFPs with a view to enhancing productivity and competitiveness in the market.
- Here again, the Department of Forestry may be assigned the lead role, with support from other relevant agencies and major stakeholders.
- The task may be taken up under the umbrella of Forestry Strategy 2020 (FS 2020), with funding from the donor community.

Recommendations for medium and long-term action

Enhancement of policy and policy instruments (laws, rules, regulations and organizational structure) needs to be reflected in implementable plans and programmes for balanced and sustainable development of the NWFP subsector. The specific programmes and related activities should cover all aspects of NWFPs – resource management, production, processing, value addition, trade and marketing, capacity building, technology development/upgradating, research and extension and institutional strengthening. Accordingly:

- Develop a master plan (a long-term perspective plan) for NWFP development consistent with the overall forestry development plan or strategy, defining activities by phases, thus providing an agenda for NWFP development.
- Also in the medium term, examine the advantages of establishing a fully fledged, formal and legislated national forest policy (or national NWFP policy), and follow through with the decision.
Considering that FS 2020 has been approved for implementation, development of NWFPs in Lao PDR can advantageously be linked to it, to serve as a vehicle for following up on the recommendations, if found acceptable.

However, only an institutional reorientation can secure the sector’s value-based goals: poverty alleviation, fairer distribution of benefits, and good governance. This calls for innovative and effective institutions on the ground that empower the community. Improved technology, although capable of capturing the full economic potential of NWFPs, can only support, and not substitute for, socially committed institutions with a “human face”.

These, and such other imperatives and goals for forestry, need to be mandated by a national policy if they are to gain wider acceptance and support.