

Enhancing Food Security through Sustainable Management plan for Non-Wood Forest Products

(draft # 2)

I. Introduction

The Lao Peoples Democratic Republic is particularly endowed with valuable, productive and ecologically unique forests which are not only a vital economic resource but provide essential contributions to the nutrition and income of the rural population and, in particular, the rural poor. They also provide a habitat for the nation's rich natural biodiversity and protect its soils, watersheds and water resources. Some eighty percent of the population are heavily reliant on the forest for timber, food, fuel, fibre, shelter, medicines, condiments and spiritual protection. In rural areas, forests provide one of the few available economic activities and non-wood forest products often provide more than half of a family's total income.

They provide substantial quantities of non-wood forest products (NWFP)¹ for the daily needs of the population. Recent field surveys revealed the high proportion and high variety of gathered forest products in the daily diet of rural Lao families. Over 450 of these edible Non-Wood Forest Products (NWFP) have been recorded so far: edible shoots and other vegetables, fruits, tubers, mushrooms, small water animals, wildlife etc. The diversity of NWFP consumed reflects the rich agricultural biodiversity of the rural landscape in Lao PDR (Foppes, Ketptanh, 2004). The availability of this safety net is declining rapidly with rapid deforestation for timber logging and conversion of forests to agriculture. The challenge is to adopt land use systems that will keep enough forests in the landscape and allow access to forest resources for the poor. Another option is to domesticate wild species in agro-forestry systems and gardens. (Foppes, Ketptanh, 2004).

The priority threats to natural forests in Lao PDR are unsustainable forest management (including NWFPs) and forest conversion for agriculture and tree plantations. Root causes are increasing regional and global market demand for wood, forest products, and cash crops, in combination with weak institutional capacity to implement relevant policies and legislation. Short-term economic benefit from plantations (rubber, eucalyptus, etc) is leading communities and authorities to convert forested area without undertaking environmental impact assessment that considers the recognition of the potential of forest ecosystems to support local and national economic development.

Recognition of the true value of forest land as a critical component of poverty alleviation is key. Additionally, it's important to elaborate integral models to addressing these threats and root causes and which can feed regional demand while directly supporting local people.

¹ NWFP are products of biological origin other than wood derived from forests, other wooded land and trees outside forests. NWFP may be gathered from the wild, or produced in forest plantations, agroforestry schemes and from trees outside forests.

The National Agriculture Biodiversity Program recognized the importance of the NWFP resources to food security as well as poverty alleviation. It is under its Component 3 that the (Food Agriculture Organization of United Nations (FAO) and National Agriculture and Forestry Research Institute (NAFRI) implemented the project activity on “Enhancing Food Security through Sustainable Management Plan for NWFP”, which is directly related to the following outputs

- 1- Improved understanding of existing NWFP relevant to food security and sustainable livelihoods
- 2- Improved understanding of human management of and economic markets for NWFP contributing to food security and sustainable livelihoods
- 3- Demonstrate sustainable and profitable participatory management (harvesting, processing, marketing, domestication and cultivation) of NWFP at pilot project field sites (both sedentary and rotational cultivation)

Within this context, the project on enhancing Food Security through Sustainable Management Plan for Non-Wood forest Product (NWFP) started in the November of 2006 and its activities are being implemented in Savannakhet province. The project objectives are

- (i) demonstrate to policy makers and villagers the importance of NWFP biodiversity and its significance for food security and poverty alleviation, as well as the need to integrate the NWFP into forest management plan to ensure the long term access to food for the rural community;
- (ii) demonstrate to the policy makers and provincial and district staff the usefulness of the Market Analysis and Development (MA&D) approach.

The project started by an inception meeting in NAFRI with others key stakeholders (NAFRI institutions), SNV and Suford., where the methodology and site selection was discussed and work plan revised. The next step was to introduce this project to Provincial & District authority and villagers as well as the concept, activities planning and sites selection. The following villages were selected because they have rich NWFP diversity as well as already been involved within the FAO TCP/3002 on “Strengthening NWFP Marketing System in Lao PDR”. Involvement of local authorities was important. Training on the Market Analysis and Development Approach (MA&D) has been organized for the team by SNV trainer and was followed by the implementation. The team spent totally seven field trip to carry out all activities which is starting form introducing project concept, work plan, field assessment, planning with villagers and implementation and also nutrition study. Overall of time spent around 60 days in the field .In addition, the project has temporally field facilitator to regularly support the villagers.

The five villages that were eventually selected: Nathom Khok, Khon Khen, Sa-Le Tai, Aluay Mai and Aluay kham Noi. Among the five selected villages, one village was formerly the site of a TCP project on Non-Wood Forest Product for Marketing System Development. The map of the villages is presented below.

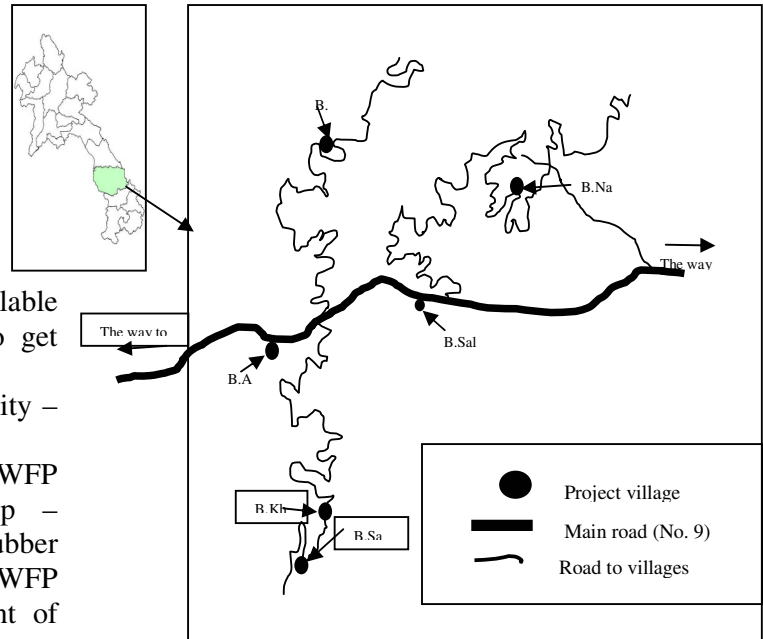
The activity team collaborated closely with the Sustainable Forestry and Rural Development project (SUFORD) which, funded by World Bank and Government of Finland is working in the same project area.,

The following steps were carried out around the 3 phases of the MA&D approach

Phase 1 – Identification of the NWFP Biodiversity and the livelihood of the local community. Carried out Village PRA, Forest survey, NWFP diversity.

Phase 2 – Identification of the available options for the local community to get long-term benefit of sustainable management of the NWFP biodiversity – nutrition survey,

Phase 3 – Set-up of the village NWFP management and marketing group – assessment of the impact of rubber plantation to the livelihoods and NWFP biodiversity as well as development of forest management. Set-up of incentive mechanism to local community to conserve NWFP. Set-up of market place along the roads to sell NWFP.



The map of project sites in Pin District, Savannakhet Province

Beginning of 2007, in the village of Nathomkhok, one the project site, the forest around the village (400 ha) started to be converted to rubber plantation. This conversion of forest to plantation have happened quickly without much consultation with the project. Thus created an opportunities for the project team to assess the impact of this change in the landscape at the social, economic and environmental aspects.

The project carried out PRA beginning of 2007, which is used as baseline information to analyse the impact of the rubber plantation on the landscape and livelihoods of the village of Nathomkhok. The project also met with the villagers to get some inside information to cross-check with the information given by the company. Meanwhile, the project team does not have enough detailed information to carry-out a deep analysis of the impacts. Some data and information from the social and environmental side is missing because the project team was not prepared to do this kind of analysis.

The project team in collaboration with Institute of public health, Ministry of Public Health. conducted study on nutrition in five targeted villages. The aims of the study is to assess the nutrition situation and various factors related to villagers' health and of food consumption. The study also look at the daily monitoring of the food consumptions and the energy intake of the 51 households interviewed.

Overall, the following outputs of this FNPP activity match with the expected outputs described in the NABP.

Outputs FNPP	Outputs NABP Component 3: Non-Wood Forest Products (including medicinal plants) and other Terrestrial Biodiversity residing outside forests
<p>Baseline survey using PRA and Forest Management (Phase 1, 2 of the MA&D) in project sites (general info. of targets villages, wealth ranking of village groups, Resource mapping, NWFP list and key constraints of NWFP for improvement, product selection & group formation</p>	<p>Output 3.1: Improved understanding of existing NWFP relevant to food security and sustainable livelihoods</p>
<p>Baseline survey using PRA and Forest Management (Phase 1, 2 of the MA&D) in project sites (general info. of targets villages, wealth ranking of village groups, Resource mapping, NWFP list and key constraints of NWFP for improvement, product selection & group formation</p> <p>Impact assessments on Agriculture Biodiversity & food security loss from the rubber plantation in project site.</p>	<p>Output 3.2: Improved understanding of human management of and economic markets for NWFP contributing to food security and sustainable livelihoods</p>
<p>Development of Forest/NWFP management plan in the 5 villages. Management plan link to village marketing group activities.</p> <p>Domestication activities on selected key NWFP activities – rattan, bong bark nursery and plantation.</p>	<p>Output 3.3: Demonstrate sustainable and profitable participatory management (harvesting, processing, marketing, domestication and cultivation) of NWFP at pilot project field sites (both sedentary and rotational cultivation)</p>
<p>Development of Forest/NWFP management plan in the 5 villages. This to promote conservation of NWFP diversity. Involvement of local authority.</p>	<p>Output 3.4: Develop and test mechanisms for regulation of consumption and trade in NWFP resources with a view to strengthen legal and policy frameworks</p>
<p>Capacity building to local authorities (PAFO,DAFO) through training on using MA&D approach and development of leaflet and poster</p>	<p>Output 3.5: Strengthen institutional and human capacity at the community and national levels to promote the sustainable use of NWFP</p>
<p>Data and information from activities will be shared with others activities: Development of Information Mechanism activity which is under NABP, NAFRI Library..etc.</p>	<p>Output 3.6: Establish a national level information exchange system (clearing house mechanism) on NWFP</p>
<p>NWFP species were collected during the filed work, will be used as reference for future research in term of monnitoring endangered NWFP species.</p>	<p>Output 3.7: Collect endangered NWFP species for conservation and development</p>

II. Outcomes

The main results accomplished by the project are

Capacity building for farmers and local authority (District) on forest and NWFP management and domestication – Villagers participation all along the process and so they learned through formal training as well as on-job training. Involvement of the district staff in all the activities built also their capacity in MA&D approach, nutrition survey and establishment of forest management.

Capacity building at NAFRI level on MA&D approach and NWFP Biodiversity Conservation and Management activities. Lessons learned from activity implementation, as well as participation in the International conference to share experience with others improved knowledge and confidence of the NAFRI -FNPP management group on the importance to develop national approach on NWFP Sustainable Management.

Development of poster and leaflet.- Awareness raising on the importance of sustainable management of NWFP – Local communities through the participatory process realized the importance of conserving the diversity of NWFP for their livelihood. They also could compare with the impact of the rubber plantation to the forest ecosystem. This helped the communities to set-up a forest management plan. awareness session were carried out for the village target group on the presence of the NWFP biodiversity in the forest, their use in home gardens and their importance to food security, nutrition and incomes at village level;

Case study on the impact of rubber plantation to the forest ecosystem and livelihood – The project assess the impact of a conversion of 400 of natural forest to rubber plantation. This case study give the opportunity for NAFRI to discuss with policy makers, especially with the Land National regarding land use planning, land allocation and plantation development. Some guidelines can be withdraw from the case study. This land conversion

Set-up of NWFP Marketing Group and NWFP market along the road - The Establishment of village Management Plan(s) for NWFPs is the part of Government policy for Khum Ban Phathana (Village group development Plan). This activity will help villagers to earn income from selling their produces. Currently, Pin District is place where tourists take a short break before continue travel to Vietnam and Thailand. It is opportunities for villagers to sell their handicrafts and produces in the future.

NWFP Plantation and NWFP Management Plan – plantation of rattan and bong bark trees (*Persea lanceolate*) as well as set-up of forest management plan for sustainable NWFP harvesting

Fish Production - The fish production is part of incentive for villagers to participate in project activity. They received the training on fish production techniques. It is also a source for their food during the hard time.

Study on nutrition – The study provided interesting information on nutrition situation and various factors related to villagers' health and of food consumption as well as the roles of the NWFP in the diet of the local communities.

Collaboration and network – implementation of the activity involved many actors, from national authority and international organizations.

III. Conclusion

The FNPP Activity played an important role to bring forward the importance of NWFP diversity to the livelihood of rural people as well as for the forest ecosystem. Results and the field experience confirmed the importance of the NWFP as source of food, quantitatively and qualitatively, as well as source of local medicine and cash. The case study on natural forest conversion to rubber plantation demonstrated that loss of NWFP diversity can have a negative economic, social and cultural impact to the local community. It is crucial to support local community in the forest management but also to assist them so, they can organize themselves in “village marketing group” that will allow them to get more benefit from the NWFP resources and thus get incentives to conserve natural resources. Conservation of the NWFP will have to be associated with mechanism such as MA&D.

Lessons learnt from this activity have been shared with district, provincial authority as well as inside NAFRI and with others partners organization such as Ministry of Health, Suford and SNV

The next step is to present the field experience to policy makers and to turn it to appropriate policy and strategy.

IV. Recommendations

The FNPP Activity main recommendations are as followed.

- Propose to continue apply-research on NWFP biodiversity and managements as well as the relationship NWFP-nutrition by NAFRI and Ministry of Health, as well as to initiate partnership with others organizations.
- Lessons learnt should be presented under a technical paper that would be shared to policy markers as well as with international organization.
- Used the lessons learnt to provide some advises to SUFORD for follow-up activities..
- Elaborate participatory rules/regulations and apply them in others projects.
- Organize meetings with Department of Forestry, in charge of policy, to identify best NWFP harvesting and management practices and this can be translated in rules and regulations.
- Continue to develop expertise on MA&D in NAFRI and NAFES in order to scale – up activities
- Develop mechanism to empower village group (village development committee, youth union, village’s guards, village Lao women Union and others) to be able to speak out/reporting and have clear responsibility on right and duty to implement the rules & regulation .
- Initiate discussion with the Land National Management Authority to assist province and district with mechanism regarding land use planning and land allocation in order to avoid future loss of forest ecosystem and therefore biodiversity. Discussion on compensation to local community as well as to apply EIA..
- Need to do more research to understand well on village livelihood (what they need, when they are available to work with project).There is need to promote successful model to other village. Writing and publication of case study