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ENHANCING FOOD SECURITY THROUGH SUSTAINABLE MANAGEMENT PLAN FOR NON-WOOD FOREST PRODUCTS

Non-Wood Forest Products (NWFPs) play an important role for Lao people's daily livelihoods, especially in rural areas. They are used for food, medicines, provide a source of income and have many other uses. NWFPs are estimated to make up over 40 percent of total rural income in Lao PDR, and they play a central role in maintaining food security .

Recent field surveys revealed the high proportion and variety of gathered forest products of importance to the daily diet of rural Lao families. In upland and arid areas, for example, rural people have limited access to paddy fields or fertile land, and hence directly depend upon NWFPs. In Lao PDR, NWFPs such as various species of wild tubers are considered "safety nets", acting as buffers during seasonal and emergency food shortages. Fish from forest streams play a critical role in food security and nutritional diversity – a major source of protein, fish accounts for as much as 70-90% of protein intake in lowland areas of Lao PDR².

On average, it has been estimated that forest foods provide 11% of the total value of food consumption during dry season, and up to 19% in the wet season. In poorer families, NWFPs can account for over 50% of the diet, especially when tubers, roots and

bamboo shoots replace rice. Over 450 of edible NWFP have been recorded so far, and include edible shoots and other vegetables, fruits, tubers, mushrooms, small water animals and wildlife. The diversity of NWFP consumed reflects the rich agricultural biodiversity of the rural landscape in Lao PDR.

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



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

institutional capacity to implement relevant policies and legislation. Short-term economic benefit from plantations (rubber, eucalyptus, etc) is leading community 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.

The National Agricultural Biodiversity Programme recognizes the importance of the NWFP resources to food security as well as poverty alleviation and includes it as one of the five thematic components.

The National Agriculture and Forestry Research Institute (NAFRI) has been involved in improving understanding of existing NWFPs relevant to food security and sustainable livelihoods, and of human management of economic markets for NWFP contributing to food security and sustainable livelihoods. Sustainable and profitable participatory management (harvesting, processing, marketing, domestication and cultivation) of NWFPs at pilot project field sites (both sedentary and rotational cultivation) have also been demonstrated.

1 Lao PDR National Agricultural Biodiversity Programme
 2 Non Timber Forest Prorest Products in the Lao PDR.
 3 A manual of 100 commercial and traditional products (2007)
 3 *ibid*



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As an example, in Savannakhet, activities were undertaken in five pilot villages to (i) demonstrate to policy makers and villagers the importance of NWFP biodiversity and its importance for food security as well as poverty alleviation, and the need to integrate the NWFP into forest management plan to ensure the long term access to food for the rural community; and (ii) demonstrate to the policy makers and provincial and district staff the usefulness of the Market Analysis and Development (MA&D) approach aiming at increased income generation based on NWFP while conserving the resource base.

Some of the outcomes of these activities have been:

- Capacity building of farmers and district authorities on forest and sustainable NWFP management and domestication, and on the MA&D approach for increased income generation;
- Case study on the impact of rubber plantation to the forest ecosystem and livelihood;
- Establishment of NWFP Marketing groups and NWFP markets along the road;
- NWFP Plantations and NWFP Management Plan;
- Fish production techniques; and
- Nutrition study on role of NWFP in diet of communities; networking with authorities and other organizations.

Furthermore, a result of these activities has been to bring to the forefront the importance of NWFPs to the livelihoods of rural peoples, as well as the value of NWFPs for the forest ecosystem. Results of the field experience confirmed the importance of NWFPs 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 NWFPs can have a negative economic, social and cultural impact to the local community.



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