

# Use of Living Aquatic Resources in the Livelihood of Rural People and Fisheries Management in the Nam Ou River

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Country : Laos

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## Introduction

The main ecosystem for living aquatic resources in the north of Lao PDR is the Nam Ou or Ou River and its associated waterways and wetlands, which provide a myriad of habitats for the richness of aquatic life forms in the country. The fisheries ecology of the Nam Ou basin is intimately linked to, and influenced by, the morphological and hydrological characteristics of the basin. One of the main driving forces for fishery ecological processes is the physical separation of important wet season feeding habitats and dry season habitats. The fish and other aquatic resources from this ecosystem that are not domestically consumed are commercialized and generate income for the primary producer as well as for the people involved in fish preservation and marketing. As well as being an important source of income for many rural households, fish and other aquatic products also directly contribute to the food security of the Lao PDR population.

The research survey is very important to find out the problems and challenges to further sustainable development in Laos in the areas of water resource management, fisheries and fisheries management, aquatic resource use and conservation.

## Research Objectives

1. To assess the ecological importance of river and stream, and to examine the indigenous fish species, other edible aquatic animals and aquatic plant diversity in the Ou River.
2. To investigate rural people's methods of fishing/collecting edible aquatic animals and hydrophytes (e.g. application techniques, equipment usage); to examine the use of aquatic resources and identify their role in household economies and to investigate the importance of aquatic resources to the people in the Ou river basin.



*Fig 1. The photo of upstream river in Tay village, Gnot Ou district Phongsaly province.*



*Fig 2. The photo of downstream river in Pak Ou village, Pak Ou district Luangphabang province.*

3. To study aquatic resource management such as Fish Conservation Zone or Deep pool method by a rural upland Lao community, in order to understand the links between indigenous knowledge and traditional access to resources.
4. To observe the different practices in fisheries management among the variety of ethnic groups in the Ou River area.
5. To contribute research in the area of sustainable aquatic resource use in Lao PDR.

## Research output

The Ou River is the longest in the northern region of Lao PDR. It originates at Lantoug Gnai Village near the Lao-China border and flows to the south. It has a total length of 390 km to the confluent point with the Mekong River. The total drainage area is 25,000 sq km covering Phongsaly province, one-third of Oudomxay province, and half of Luang Prabang province. The annual discharge is 12,276,964,800 m<sup>3</sup> (WEAP, 2006). Along the Ou River basin, there are many residents who practice upland shifting cultivation systems. In shifting cultivation farming, forests are burnt down to some extent and the land is cultivated. When the productivity of the soil has declined in previously cultivated area, the farmers move to new areas. Under this practice water resources are affected.

A field research survey taken along the Ou River from the beginning of August to the end of September 2007, covered six districts and two provinces including Phongsaly province (District of Gnot Ou, Phongsaly, Samphan and Koa) and Luang Prabang province (District of Ngoy and Pak Ou).



*Fig 5. Villagers' group discussion at Pak Bak village, Gnoy district Luangphabang*

The river is divided into three parts (Upstream River, Midstream River and Downstream River) with two target villages selected per section. In total, six villages were used for data collection such as interviews with 64 fishermen, group discussions in four villages, secondary data collection at Provincial Agriculture and Forestry Office (PAFO) and District Agriculture and Forestry Office (DAFO), river ecology and environment observation, water quality analysis, fishing and fish sampling and other data pertinent to this survey. The field survey activities mentioned above are crucial to the development of my pre-doctoral thesis. Moreover, as I gain more fieldwork experience, I'm better able to understand local people and their livelihood in my survey area.



*Fig 3. Fishing, Fishes sampling and observation of ecology and environment of Ou river in Pak Bak village, Gnoy district Luangphabang province.*



*Fig 4. Some fish species were caught by fisherman.*

## Research reflection

The field research survey was carried out during the rainy season, from the beginning of August to the end of September 2007, is a primary survey of my pre-doctoral thesis. However, to support the writing of my thesis at Graduate School of Asia and Africa Area Studies (ASAFAS), I would like to make another field research survey during a different agricultural season in order to collect more fish for sampling and analysis, spend more time in discussion with local people and increase the number of fishermen informants in my survey. I believe that more fieldwork activities will help guide my deeper understanding of the research sites. Finally, I would like to learn more about research theory and methodology in ASAFAS and other education institutes.



*Fig 6. The photo of Soukouan ceremony (Laotian traditional ceremony) to warmly welcome the research team and show their good*