

## Patrolling and Law Enforcement for Elephant Management in Nam Pouy National Protected Area, Xayabouly Province, Lao PDR

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The Nam Pouy National Protected Area (NPNPA) has been identified as the second most important area in Laos for Asian Elephants (Khounboline 2011). Covering 1912 km<sup>2</sup> in Xayabouly Province NPNPA consists of a large complex of evergreen forest and bamboo. Large intact forest areas are becoming increasingly rare throughout Southeast Asia and are under constant pressure from agricultural and human encroachment as well as illegal hunting, in particular to support wildlife trade markets in Vietnam and China.

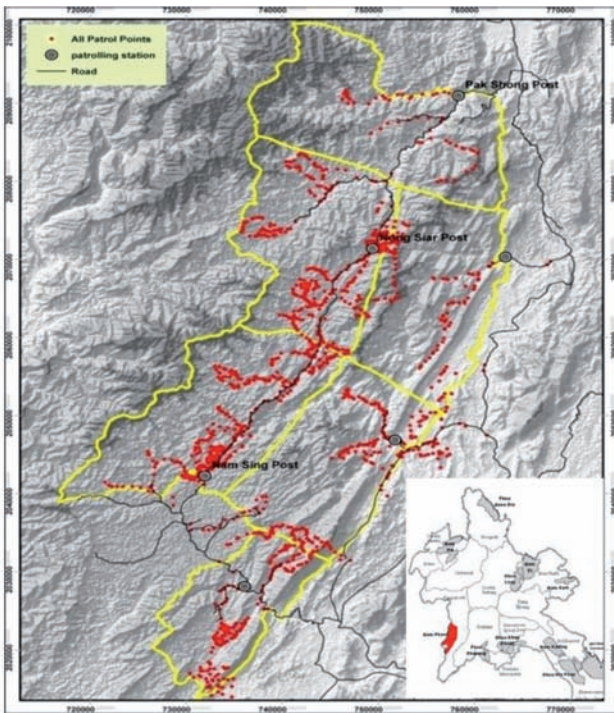
NPNPA has a contiguous, largely undisturbed forest cover (93%), mainly represented by mixed deciduous (88%) and dry evergreen forest (5%). Additional forest types (1%) include tropical montane evergreen and lowland semi-evergreen forest (Salter *et al.* 1991; Berkmüller *et al.* 1995). However, only 40% of the habitat comprises dense and mature forest. The landform is steep and rugged, with more than 90% lying above 500 m. The drainage is generally eastwards, into the Mekong river.

There are five established settlements within the NPNPA. Ban Na Sampan, Ban Na Nguen, Ban Na Ven, and Ban Pak Xong are located in the northern part of the NPNPA, along the Nam Phui river; and Ban Mai lies in the central region, just inside the eastern boundary. The majority of the villagers in the northern settlements comprise the Lao Theung and Lao Soung ethnic groups, while the community at Ban Mai is Lao Lum. All these villagers practice paddy and shifting cultivation, and gather a wide range of forest products. Besides villages, there are several military camps and outposts scattered throughout the NPNPA. Also, there is a nomadic group of primarily gatherers, known as 'Tong Leurng' (Yellow Banana Leaf People), present within the

central part of the area. Nothing much is known about this group of 'forest' people. They have occasional contact with settled villages outside the NPNPA, which they visit periodically to trade forest produce such as bees' honey and edible shoots with clothes, salt, rice, etc. In the extreme southwest, a new district of 16 Lao Lum villages, Muang Thong, forms an enclave within the NPNPA.

In 2008 WWF Lao and the Provincial Agriculture and Forestry Office supported a Protected Area Management Workshop for managers and forestry staff working in the NPNPA. The focus of the meeting was to discuss the elephant management issues and steps required to address them. The primary threats identified were illegal elephant poaching, hunting and forestry activities, which have resulted in large declines in wildlife populations in the area. The workshop outcomes included an agreement by the Provincial Agriculture and Forestry Office and the protected area managers to improve coordination between all relevant government authorities in the area and that specific support was needed for increasing patrolling efforts in and around the national protected area.

The project started in February 2011 with the goal of improving protected area management in the NPNPA to maintain connectivity to support elephant populations. The objectives of the project were to increase patrolling (Fig. 1) and law enforcement capacity, assist military and local villagers to improve their management practices and to ensure that NPNPA staff and villagers are equipped to address issues of human elephant conflict and poaching. Staff were trained on patrol techniques, data collection, map reading, GPS techniques, compass reading. Some basic



**Figure 1.** Map showing the patrolling trails in NPNPA.

infra structure, was added, including a patrolling post within the area, internet for the field office, and equipment for conservation outreach.

Illegal activities occurred throughout the year with some seasonal variation in particular activities (Fig. 2). During the dry season (January to March) food resources are low, and villagers undertake annual burning to increase the ease of hunting and plant collecting. The rainy season starts after June, when new vegetation start to grow, providing animals with sufficient food. Animals are usually found in open areas or grasslands during this time and breeding begins. Tree cutting increased in the latter half of the year (Fig. 2) and cut trees were transported in January to March. Most villagers said that they cut trees in the forest near rice fields rather than in far away forested areas because of difficulty of access.

The commonest methods used for hunting arboreal animals and medium to large terrestrial wildlife are crossbows and guns, followed by snares. Results of confiscated material and reports

by rangers indicated that the animals hunted with guns were primarily small arboreal mammals and birds, and a few terrestrial mammals larger than 2 kg in size such as muntjac and pig. Those most commonly collected with snares were primarily terrestrial mammals and birds. Smaller animals such as turtles, frogs, pangolin, bamboo rats, and lizards are mostly hand collected.

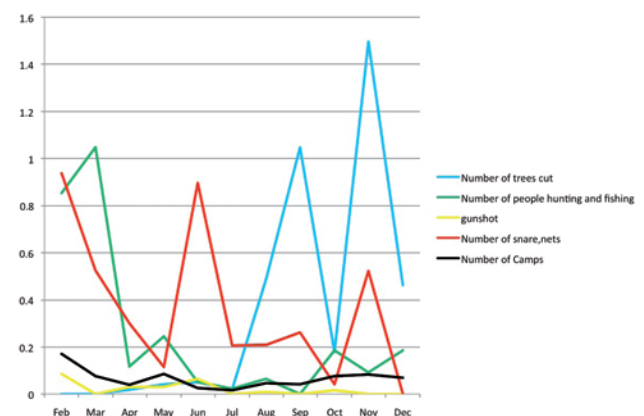
Villagers reported that wildlife hunting is more difficult now compared to the past 20 years. They also said that all natural resources had reduced, due to increased rates of collection. For example, in the past they collected 1 kg of fish in an hour or two, but today they have to spend one day to collect the same amount.

## References

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**Figure 2.** Number of illegal activities detected per km patrolled (February to December 2011).