

# LAW ENFORCEMENT AND RANGER PATROLLING

## In Nam Et-Phou Louey National Protected Area, Lao PDR

A central component of the Nam Et – Phou Louey (NEPL) National Protected Area (NPA) Management Program is law enforcement and ranger patrolling. The key focus of the NEPL ranger patrolling program is preventing and reducing hunting pressure and other threats inside the Total Protection Zone (TPZ) of the Protected Area. Because available resources are limited, a strategic approach is required to deliver the maximum level of protection over the key biodiversity areas of NEPL.

The Wildlife Conservation Society (WCS) has been supporting the NEPL Management Unit in planning and coordinating NEPL law enforcement and ranger patrolling since 2003. During this time, significant experience has been gained in several different approaches to law enforcement and ranger patrolling, and this brief explains how this range of approaches can be applied to effectively address the threats to protected areas.

The current structure for law enforcement and ranger patrolling at NEPL incorporates several different patrolling and response strategies, and uses high capacity monitoring, management and coordination to adjust these strategies to address current and emerging threats to wildlife and the integrity of the protected area. The most important aspects of this strategic approach include the use of monthly reporting and planning meetings with all ranger personnel, supervisors working with teams in the field, and the use of the Spatial Management and Reporting Tool (SMART) software to keep track of and analyse threats and patrolling efforts.

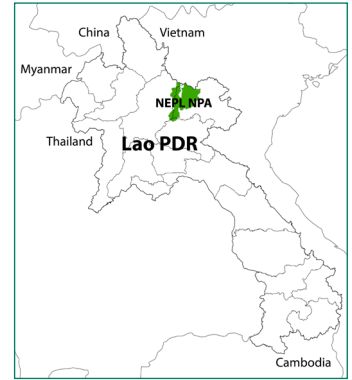
### In this brief:

1. Introduction to Nam Et – Phou Louey NPA
2. Substation Based Patrol Teams
3. Forest Mobile Patrol Teams
4. Response Team
5. Community Engagement in Law Enforcement
6. Coordination and Supervision
7. Conclusion and Key Recommendations



# 1. Introduction to Nam Et – Phou Louey National Protected Area

The NEPL NPA is located in the north-east of Lao PDR and is the second largest protected area in country (420,000 hectares). Spanning nine districts across three provinces (Houaphan, Luang Prabang and Xieng Khouang provinces), the protected area is marked by steep mountainous topography, with elevation ranging from 336 to 2257 m. The NEPL NPA is remarkable for its rich wildlife biodiversity with a wide range of species, many endangered, including Tigers, Leopards, Golden Cats, Dholes, Northern White Cheeked Gibbons, Phayres Langur, Sun Bears, Asiatic Sun Bears, Binturongs, Otters, Hornbills, and numerous species of civets, pangolins, and other primates. Altogether there are 19 carnivore species including six species of wild cats, roughly fifty species of mammals and 299 species of birds.



Living inside or immediately adjacent to the NPA are 30,000 villagers from 98 communities, many in some of the poorest districts of the country. There is a long history of human settlement in and around NEPL, with local people relying heavily on natural resources for their subsistence. To balance the protection of biodiversity, and the needs of local communities, the protected area is split into 2 primary zones: the Total Protection Zone (TPZ), where strict conservation is the primary objective, and no activities or access are allowed without permission, and the Controlled Use Zone (CUZ), where many villagers practice agriculture and day to day village activities.

WCS has been providing technical assistance and co-management support for the NEPL Management Unit since 2003. During this time WCS and NEPL have gained valuable experience regarding a range of management activities including: law enforcement and ranger patrolling, ecotourism development and promotion, outreach activities for community engagement, and monitoring of wildlife, forest cover, and threats.

---

Law enforcement and ranger patrolling strategy at NEPL has been adjusted over the years to ensure that limited resources are best used to address threats to the PA. These threats include: poaching with guns and snares, cattle raising in the Total Protection Zone (TPZ), agricultural encroachment into the TPZ, the sale of wildlife in markets, illegal fishing in the TPZ and through illegal methods, and the transport of wildlife through the NPA. Current and previous patrolling approaches to addressing these threats have included ranger substations in strategic locations, forest mobile teams, the response team, and community involvement in patrolling.



## 2. Substation Based Patrol Teams



A ranger substation is a semi-permanent building constructed in a strategic location within the NPA. Substations provide a constant law enforcement presence at sensitive locations and function as a base of operations for teams close to the area of their patrols. Between 2008 and 2010 NEPL designated 8 sectors to cover most of the TPZ and built 8 substations to house teams to patrol each corresponding sector. Substation teams usually consist of 6 people: 2 NEPL rangers (government staff or community members), 2 soldiers, and 2 local village support staff. Half the team is typically patrolling, while the other half remains at the substation. Each substation team performs a combined 18 days of foot patrolling in the TPZ. Every month, one of the NEPL rangers of each substation travels to the NEPL central office for the NEPL monthly management meeting to report the team's activities, provide monitoring data, collect allowances, and make plans with management for the next month's patrols.

There are advantages to having a permanent presence at a substation location. For example, villagers have reported that permanent substations act as a deterrent to using the areas of TPZ around these buildings and the entrance points into the TPZ where they are located. Staff at substations can also develop constructive relationships with nearby villages, especially when villagers are part of the substation team. However, these same attributes of the substation approach can also present significant challenges. For example, the isolation rangers can experience at these locations, and time spent away from family and friends, can result in sub-par performance of duties, and even tolerance and co-operation with poachers and illegal agricultural activities in the immediate area in extreme cases. Ways to ensure that substation performance is maintained include: the rotation of rangers and teams into different locations; ensuring senior law enforcement staff accompany patrols periodically to ensure quality, and conducting unscheduled substation checks. In recent times, NEPL has reduced its reliance on substation teams, and moved towards a mix of substation teams and forest mobile teams.

### SUBSTATION BASED PATROLLING - AT A GLANCE

**Personnel:** 2 NEPL rangers, 2 local villagers, 2 army soldiers

**Makeup of each patrol:** 1 ranger, 1 soldier, 1 villager

**Patrol Days:** 18 per month (9 days per patrol)

**Cost:** 1800 USD per month

#### SUBSTATION PERSONNEL AND PATROLLING:



2 NEPL NPA Rangers - 2 Local villagers - 2 Army soldiers



#### Advantages

- 24/7 presence on the ground
- Positive relationships with local communities
- Rangers that are well informed of local issues

#### Disadvantages

- Performance and quality issues can emerge
- Poachers can more easily monitor and avoid ranger activity
- Staff required to stay at substation

### 3. Forest Mobile Teams

Forest mobile teams are based at the NPA headquarters. This allows for greater flexibility, and avoids many of the problems that can emerge with a traditional substation based approach. For example, by rotating teams around the protected area, the problem of one particular team becoming familiar and complacent with a specific threat or group of people can be avoided.

Greater flexibility allows the teams to conduct a broader range of activities than a substation based team such as patrolling with timing and location that is unpredictable to offenders and addressing poaching vs. habitat alteration threats with different tactics. Forest mobile team leaders remain in close contact with management and senior protected area staff, being in the office when not in the field, and have proven to be more effective at addressing threats directly.

#### FOREST MOBILE TEAM – AT A GLANCE

**Personnel:** 1 or 2 NEPL rangers, 2 or 3 soldiers  
**Makeup of each patrol:** the full team on all patrols  
**Patrol Days per month:** 14 days  
**Costs:** 1200 USD per month

#### Advantages

- Motivated rangers with close contact to headquarters
- More effective when secrecy of operations is required
- Greater ability at confronting threats to the NPA

#### Disadvantages

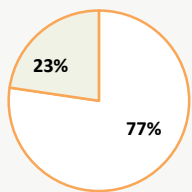
- Only on the ground while on patrol, no permanent law enforcement presence
- Less engagement with local communities



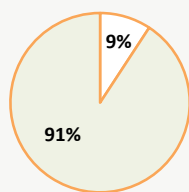
PERSONNEL AND PATROLLING:



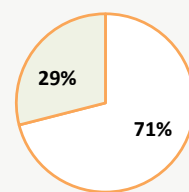
#### COMPARISON - GRID VS NON-GRID PATROLLING\*



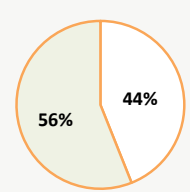
Weapons encountered



Snares destroyed



People encountered



Wildlife seen

Non-grid system (8/2013 – 2/2014)

Grid system (8/2014 – 2/2015)

When on patrol, teams typically follow major streams, trails, and ridgelines. In 2014, a new system of patrolling grids was introduced for ranger teams at NEPL. Under this system patrols were assigned as grids of cells in which each cell required visitation. This system led to teams walking many more small streams and ridgelines and in doing so they had a boost in the numbers of snares they collected and wildlife they encountered. However, as they were spending less time on main poacher traveled routes their arrests and gun confiscations were reduced. Both grid based, and non-grid based patrolling methods are an important component of the ranger patrolling strategy, as each is more effective at targeting different threats.

\* percentage of the totals from the combined results of the two approaches, measured in two different periods.

## 4. Response Team

The response team works in a similar way to the forest mobile patrol teams, however at NEPL they perform a more responsive and road based role, rather than conduct scheduled patrols in the forest. The response team also works closely with district authorities, such as the district police and administration offices.

The response team was first formed in NEPL in 2008 to address threats occurring along the roads and periphery of the protected area. It is made up of more senior government staff, and addresses emerging issues which are often brought to the attention of the management unit through tip offs, the wildlife hotline, or by village or district authorities.

Key activities of the response team have included temporary road blocks at strategic locations, investigations and seizures of wildlife and illegal timber products at local markets and restaurants, collection of illegal firearms and hunting weapons, confrontation of illegal logging and habitat encroachment, operation of and response to an informant hotline, and pursuit of litigations made by NEPL patrol teams.

### RESPONSE TEAM - AT A GLANCE

**Personnel:** One or two NEPL government staff coordinating with district police and other local government agencies

**Makeup of each patrol:** as required

**Patrol Days per month:** as required

**Costs:** 500-600 USD per month (activities only, government salaries not included)

#### Advantages

- Staff on hand to specialize in local trade and smuggling of wildlife and illegal timber
- Can respond quickly to the informant hotline and tip offs
- Can work directly with multidisciplinary district teams to conduct special and ongoing investigations

#### Disadvantages

- Only on the ground while on patrol, no permanent law enforcement presence
- Can tend to be reactive, rather than proactive with regards to threats



In December 2016 NEPL and WCS supported Hiem District to conduct illegal gun handover activities as part of a broader provincial campaign to reduce the number of poaching weapons in villages

## 5. Community Engagement in Law Enforcement and Patrolling

Community engagement is a critical component of protected area law enforcement strategy in Laos, due to the many communities and community members living nearby, adjacent to, or inside protected areas, and utilizing the natural resources. Community engagement in law enforcement can be through a variety of methods including community participation in patrol teams, direct engagement with village authorities, and community led patrolling.

At NEPL, community members have been trained and given positions as rangers within the NEPL ranger team structures, and are often among the highest performing ranger staff. Community members as rangers have direct links with the local communities, have a vested interest in addressing threats from non-residents, and have an excellent knowledge of local topography, trails, threats and wildlife distributions and habitat preference.

There are times when community patrolling is not appropriate for addressing a specific threat. For example, many patrols need to be conducted in secret to be effective, and the involvement of community members in patrols can tip off hunters as to when and where a patrol is going to be conducted. In addition, community members are often understandably reluctant to apprehend or inform against community members from their own villages, due to close village and family connections.

Additional issues with community members on patrols that need to be addressed are: the locations of high value rare wildlife populations being communicated within the village, and inadvertently to local poachers, who may use this information; and the fact that the powers to arrest and deal with wildlife crime often sit with government officers in relevant departments.



### COMMUNITY PATROLLING ADVANTAGES AND DISADVANTAGES

#### Advantages

- Local communities are directly involved in law enforcement and have a vested stake in conservation
- Relationships are developed between law enforcement and local communities
- The protected area can keep well informed of emerging threats, such as illegal logging by outsiders

#### Disadvantages

- Reluctance of local communities to inform against and confront other community members
- Difficulty in keeping the details and movements of patrol teams secret when necessary
- Encounters with rare wildlife inadvertently or deliberately communicated to community members to the benefit of local poachers
- While the cost per team might be cheaper than a protected area patrol team with staff, when effective monitoring, equipment and allowances are considered, actual savings may be minimal.

## 6. Coordination and Supervision

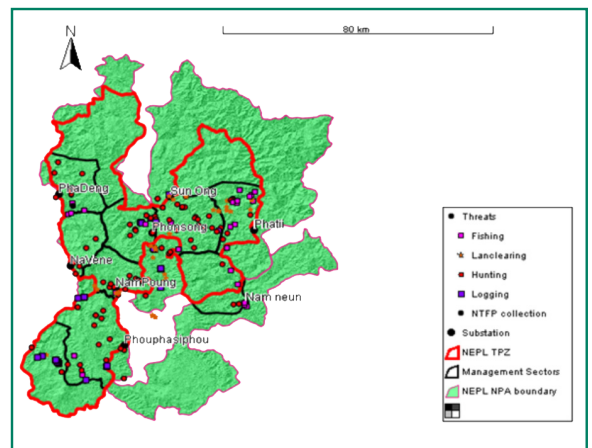
Effective strategic and operational planning and coordination is critical for the law enforcement program. At NEPL, the management of law enforcement teams, activities, and strategy is delivered by government law enforcement coordinators with the assistance of WCS technical advisors implementing several information collection and analysis technologies. The three most important aspects of law enforcement management are:

1. Maximized communication between law enforcement personnel,
2. Supervision and quality control of ranger teams by senior staff accompanying patrols, and
3. Collection and analysis of spatial and observational data with GPS, GIS, and SMART technologies.

### SMART

SMART (Spatial Management And Reporting Tool) is a software tool specifically designed for protected area law enforcement managers. In the field, forest rangers and response team members record all observations of wildlife, wildlife signs, offences under NPA regulations, and signs of additional threats to biodiversity using special SMART forms to specify the necessary details of these encounters.

These forms along with GPS tracks and waypoints are delivered to the office once a month by substation teams and after every patrol or investigation by the office based teams. In the office, the data technician inputs these data into the SMART software.



The data is stored permanently in the SMART system and can be used to generate reports with accompanying charts, graphs, and maps. These reports can be generated immediately and be specific to any area, time period, team, law enforcement individual, threat, species, or any combination of these. This access to information improves the knowledge and objectiveness of management when it comes to managing teams and strategy and improves the ability to act preventively rather than in reaction to threats.

Learn more about SMART at: <http://smartconservationtools.org/>



## 7. Conclusions and Key Recommendations

Law enforcement and ranger patrolling is a core pillar of protected area management and is most effective when fully integrated into the broader protected area program. For example, in NPAs that have many villages living adjacent to and inside the protected area, law enforcement without effective community engagement and outreach will have limited effectiveness and conversely engagement and outreach in these villages without any ranger patrolling is similarly likely to be limited in effectiveness. In addition, different activities and strategies in a law enforcement and ranger patrolling program will be appropriate under different circumstances. Over the past 14 years the NEPL Management Unit and WCS have worked towards understanding how best to use different approaches in different circumstances and how to strike the balance between patrolling and the other PA management activities such as outreach, livelihoods, ecotourism and monitoring.

Key lessons learned during this period include:

- A strategic approach to addressing the key threats specific to each protected area is critical - develop plans and activities with input from key stakeholders including local government, communities, and development partners
- Monitor and understand the threats to the protected area – utilize information from communities, biodiversity monitoring programs, and ranger monitoring (SMART) to tailor the law enforcement program
- Use a range of patrolling strategies appropriate to address these threats – there is no ‘one size fits all approach’ and resources are often limited
- Community engagement is key to success when threats are from outside of the area, however community patrolling might not be an effective strategy when threats emerge from within the local community
- Monitor law enforcement and ranger patrolling performance monthly, and deal with emerging performance and quality issues as they arise – a poorly performing patrol team can be worse than no patrol team at all.

DEVELOPED BY:



### WILDLIFE CONSERVATION SOCIETY LAOS AND NAM ET-PHOU LOUEY NATIONAL PROTECTED AREA

Published in 2017

For further information, please contact WCS Laos country office:

Web: <https://programs.wcs.org/laos/>  
[www.NamEt.org](http://www.NamEt.org)

Photo Credits: WCSLaos/NEPL NPA, Jay White, Janina Bikova, Dominique Le Roux

WITH SUPPORT FROM:

