



FINAL REPORT

**Developing and Demonstrating Replicable Protected Area
Management Models at
Nam Et -Phou Louey National Protected Area**



Prepared by:

**Wildlife Conservation Society &
NEPL Project Management Unit**

Period covering: February 2013 – March 2017

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ACRONYMS

AFD - Agence Française de Développement

CLiPAD - the KFW-funded Climate Protection through Avoided Deforestation Project

CUZ – Controlled Use Zone

FFEM - Fonds Français pour l'Environnement Mondial

MAF – Ministry of Agriculture and Forestry

METT – Management Effectiveness Training Tool

MONRE – Ministry of Natural Resources and Environment

NTFP – Non-Timber Forest Products

PAFO – Provincial Agriculture and Forestry Office

PONRE – Provincial Office of Natural Resources and Environment

TPZ – Total Protection Zone

USFWS – United States Fish and Wildlife Service

VFI – Village Focus International

VNRA – Village Natural Resource Agreements

INTRODUCTION

This final report for the GEF4 Project 'Developing and Demonstrating Replicable Protected Area Management Models at Nam Et -Phou Louey National Protected Area' outlines the achievements of WCS and the Nam Et Phou Louey (NEPL) National Protected Area (NPA) during the full project period, and specifies the implementation of the project by reporting against the Outcome Indicators. In addition, the report outlines the achievements made in the final, no-cost extension period.

During 2014, the GEF4 project was restructured, and this report will report against this updated structure. The component structure was updated as follows:

- 1. Community Engagement Model**
 - 1.1. Outreach/Social Marketing
 - 1.2. Participatory Land Use Planning (PLUP)
 - 1.2.1. Village Natural Resource Agreements
 - 1.3. Sustainable livelihoods aligned to conservation outcomes
 - 1.3.1. Eco-tourism
 - 1.3.2. Agroforestry & agro-ecology
 - 1.3.3. NTFP sustainable management & harvest
- 2. Protected Area Administration Model**
 - 2.1. Three-province NPA management model
 - 2.2. Human resource development
- 3. Resource Management and Protection Model**
 - 3.1. Management of externally-driven infrastructure
 - 3.2. Community-based natural resource protection
 - 3.3. Ranger sub-sector law enforcement
- 4. Planning, Research, and Development Model**
 - 4.1. Restructure and test wildlife monitoring model
 - 4.2. PA re-delineation
 - 4.3. Research and development
- 5. Project Management**

The results framework, and Annual Workplan and Budget (AWBP) were also reorganized to align with this structure. Achievement of this GEF4 project outcomes and indicators, and final year activity plan, is presented as follows:

1. Achievement of GEF4 Project Outcome indicators
2. Achievement of GEF4 Intermediate outcome indicators
3. Activities under each of the NEPL management components
4. The updated results framework – Table Annex 2
5. Achievement under the final work plan (no-cost extension period) – Table Annex 3

During the GEF4 Project implementation, WCS and the NEPL Management Unit (MU) have been developing and disseminating the 4 working models of NPA management as required under the project outcome indicators. These models are:

- Model 1 – Law Enforcement and Ranger Patrolling
- Model 2 – Ecotourism
- Model 3 – Biodiversity and Forest Cover Monitoring
- Model 4 – Community Outreach

In addition to the ongoing dissemination activities such as presentations at conferences, policy advocacy with Government, and support for other development partners and agencies supporting protected area management in Laos, a series of ‘Model Briefs’ have also been developed to ensure the lessons learned under this GEF4 project can be effectively disseminated and shared.

1. Progress towards GEF4 Project Outcome Indicators

Outcome Indicator 1: Extent of forest cover maintained

This indicator target has been achieved for the GEF4 period.

The targets to be achieved were set using the NPAW study in 2013, and are presented in Table 1 below, along with the final actual deforestation rates/cover. See Figure 1 for deforestation identified in the Total Protection Zone (TPZ) and the Controlled Use Zone (CUZ) through monthly deforestation analysis.

Table 1. Target and Actual Deforestation Rates at NEPL

	Baseline Forest Cover	NPAW loss rate target (2010 – 13)	Actual loss rates (2013 -2016)	Final Targets	Actual Forest Cover (2016)
Total	311,845	2,264 ha / yr	994 ha /yr	305,053 ha	309,136 ha (met)
TPZ	235,296	397 ha/yr	269 ha /yr	234,105 ha	234,597 ha (met)
CUZ	76,549	1,867 ha/yr	725 ha /yr	70,948 ha	74,539 ha (met)

Note: These deforested areas do not include those degraded during the extreme cold weather event in early 2016. Recovery in these areas is variable, and a true indication of any permanent deforestation will require further analysis after the 2017 wet season and beyond.

Figure 1 illustrates that deforestation is focused in a number of hotspot areas, especially the western corridor. Figures 2, 3 and 4 show the deforestation occurring in these hot spots in higher detail, and Tables 3, 4, and 5 specifies the recorded deforestation rates for these areas over the GEF4 period.

To directly determine annual deforestation rates for NEPL to record success against Outcome Indicator 1, the monthly deforestation records were used to calculate highly accurate annual rates. The monthly deforestation rates are determined by the WCS GIS team using available satellite imagery and a change analysis protocol, with detailed mapping provided for deforested areas. The primary purpose for this monthly deforestation reporting is to inform real time management of the protected area, however this data, when collated over a number of years, provides highly accurate annual deforestation rates.

To confirm the accuracy of using the monthly assessment data collated annually, the latest data (2014) available from the Hansen deforestation dataset was compared with the results derived under this method. The close agreement between the two estimates provides confidence in this approach (Table 2).

Table 2. Comparison of Hansen deforestation estimates with collated monthly estimates

	Total	TPZ	CUZ
Hansen deforestation 2014	1084	325	759
NEPL monthly assessment data - 2014	1149	373	776

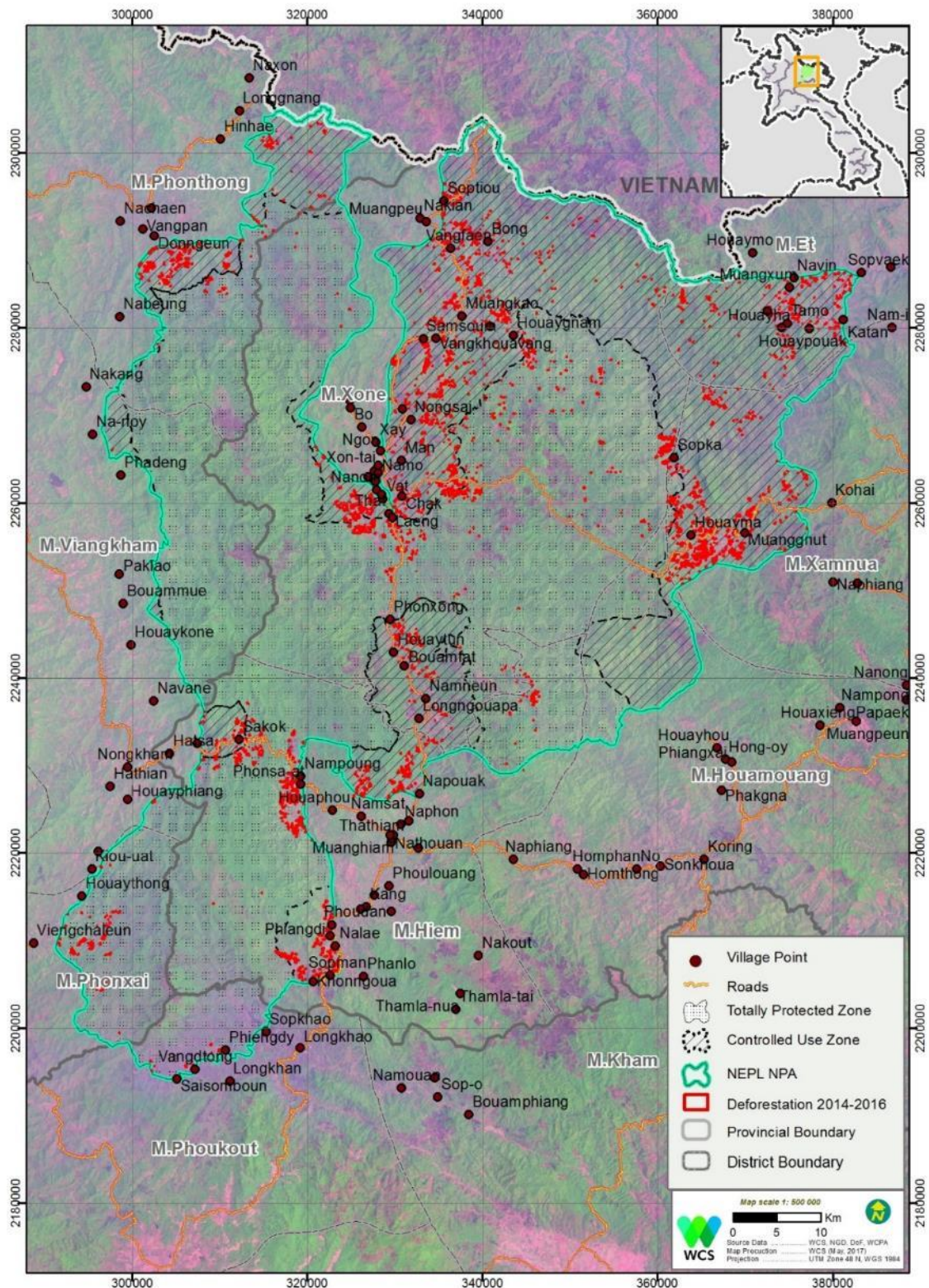


Figure 1. Deforestation hotspots around NEPL

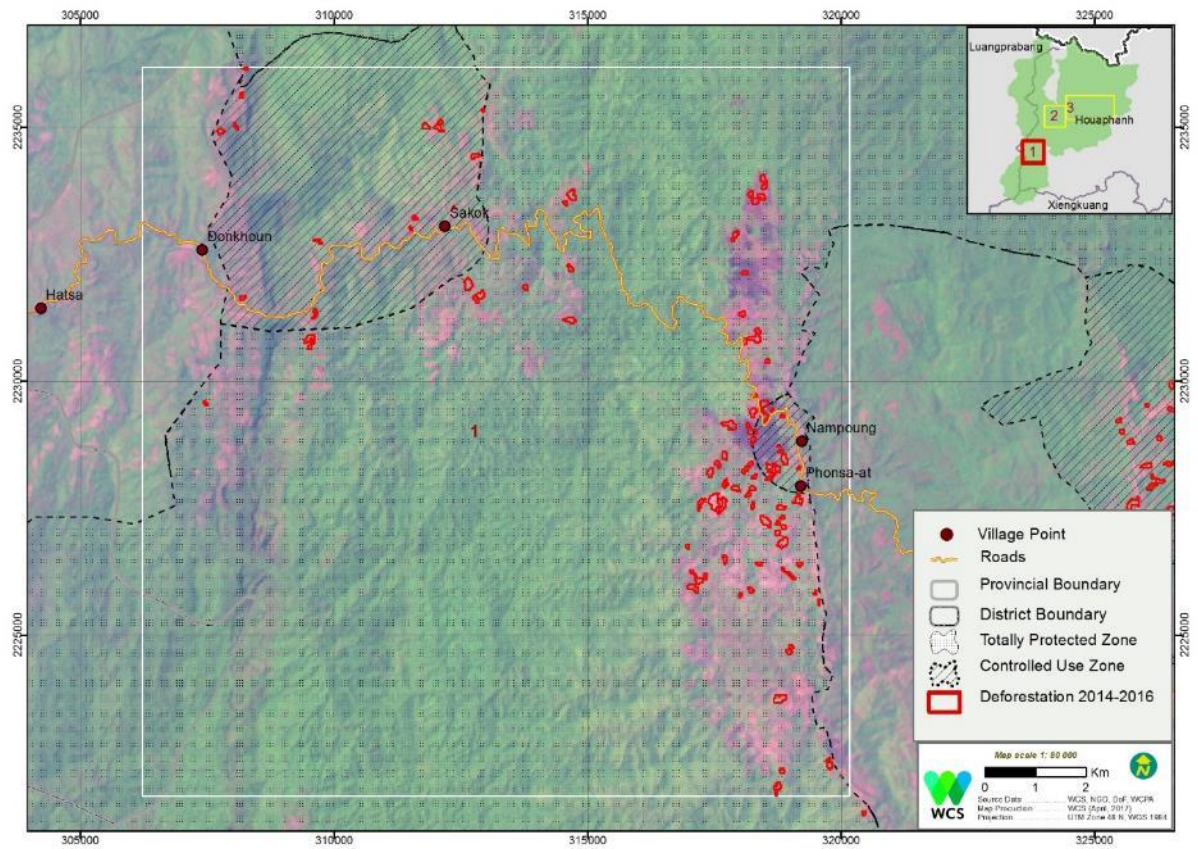


Figure 2. deforestation on the Western Corridor – Hiem

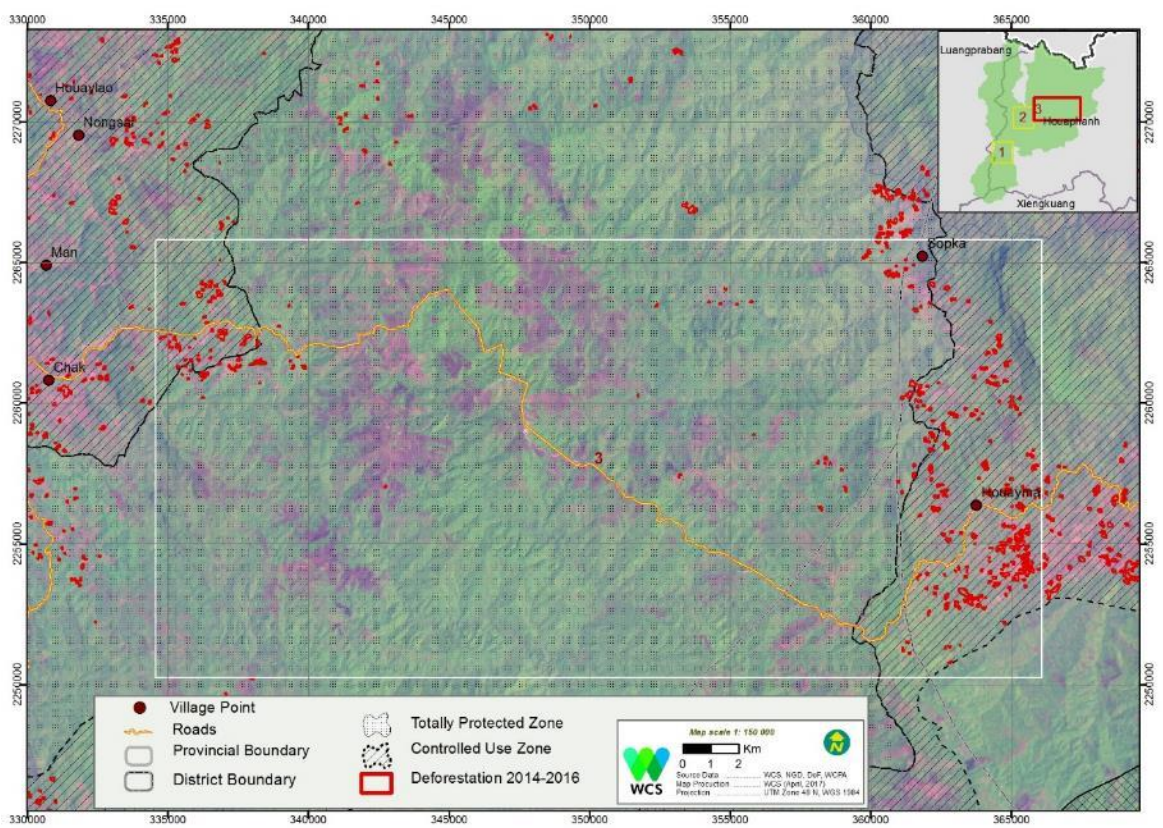


Figure 3. Deforestation along the Phathi Road

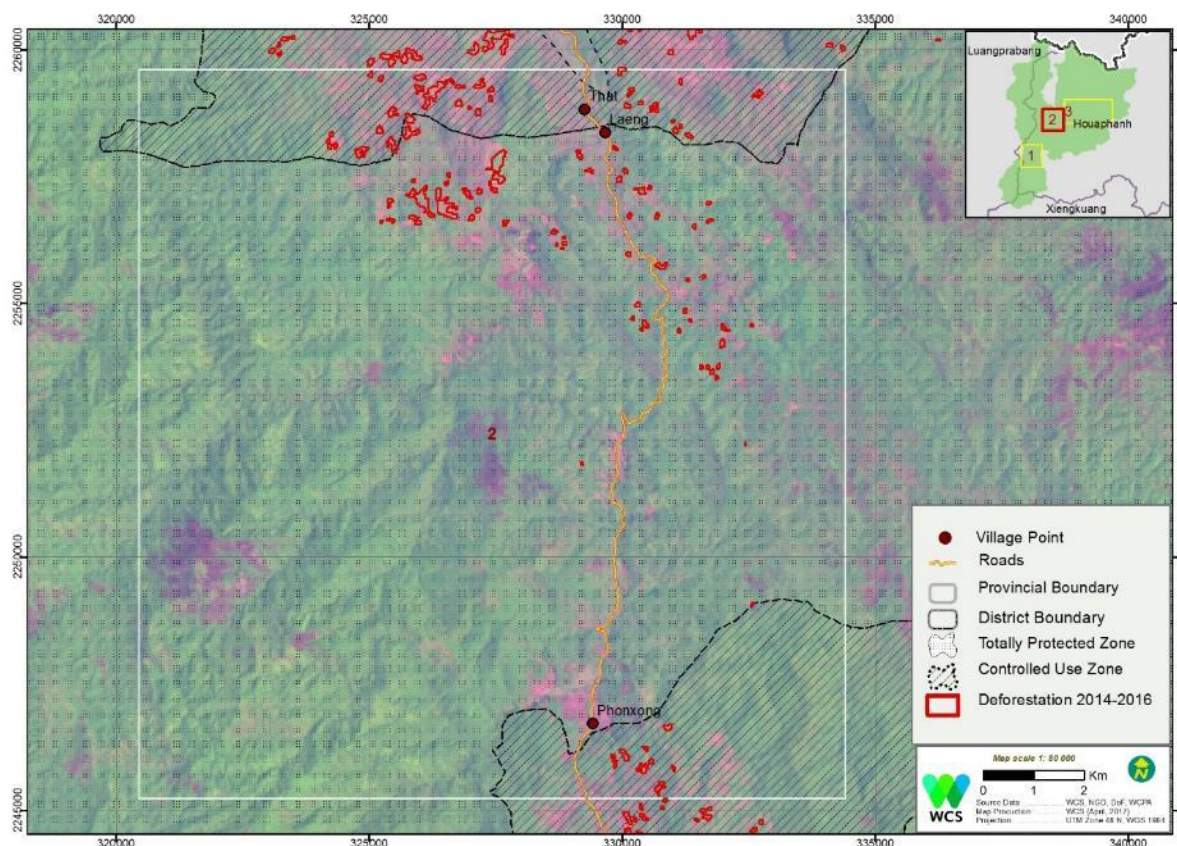


Figure 4. Deforestation between Phonsong and Ban Leng – Xone District

Table 3. Deforestation rates in hotspot areas.

Year	Western Corridor			Phathi Road			Xone - Central Corridor		
	TPZ (ha)	CUZ (ha)	Total	TPZ (ha)	CUZ (ha)	Total	TPZ (ha)	CUZ (ha)	Total
2014	178	31	209	73	67	140	39	30	69
2015	31	3	34	45	94	139	20	16	36
2016	59	18	77	60	180	240	54	37	91
Total	268	52	320	178	341	519	113	83	196

The baseline for this indicator is based on the NPAW project preparation where WCS was contracted to access deforestation at NEPL from 2000 to 2013. Only Mixed Deciduous and Evergreen forest categories were assessed and annual rates of deforestation were estimated for the TPZ and CUZ..

Extreme cold weather event in 2016

An extreme frost event led to widespread forest destruction and degradation in early 2016, with an estimated 46,661 ha affected. This event led to forest degradation through tree death due to extended periods of sub-zero temperatures, branch and tree fall due to the weight of ice formed on trees, and the subsequent widespread fires due to the high vegetation fuel load on the forest floor

after the event. The true extent of the damage will not be clear until after subsequent wet seasons, and will depend on whether these areas are burned repeatedly, or can recover enough structure to persist as forest. It is difficult to accurately ascertain degradation from satellite images due to fast 're-greening' of these area after the disturbance by ground vegetation and vines in many areas.

Alternative approaches to deforestation analysis trialed

In early 2017, WCS trialed a new approach to determining deforestation rates using available free satellite imagery, and using a machine learning algorithm developed to operate on the google earth engine. The intention was to develop a tool for easy assessments of deforestation. However, the tool was not able to meet the accuracy of the deforestation analysis conducted as part of the monthly analysis, and therefore the data presented here is that from the monthly analysis. This monthly analysis will be the standard approach applied into the future as it both provides highly accurate data, and allows for real time management regarding current and ongoing deforestation. The methodology is also relatively simple which will allow for government staff with standard GIS skills to be trained in the approach.

Outcome indicator 2: New critical wildlife species habitat gazetted to NEPL NPA

This indicator's target is near completion.

This indicator concerns the inclusion of 90,720 ha of the 'North West Extension' [See Figure 5] into the recognized boundary of the NEPL NPA. While the government-led process is still ongoing, key steps towards the approval and finalization of this extension occurred during the final 2 reporting periods:

1. WCS supported the Minister of MONRE in finalizing the documentation required for submission of the approval request for the North West Extension.
2. MONRE provided a letter to the Prime Minister on the **11th May 2016** recommending the extension be approved.
3. The Prime Minister provided a letter to the National Assembly on the **20th June 2016** recommending the extension be approved.
4. The Office of the Prime Minister wrote to the Minister of MONRE requesting more information on the **18 July 2016**. WCS provided this information to MONRE as requested in September 2017.
5. In June 2017, the National Assembly requested confirmation from MAF that there were no additional issues related to villager lands and access that would require further field assessments. MAF advised that this is not required, and it is believed that the final signoff of the NW Extension is imminent.

These letters are attached in annex 5.

The target set at end of year three under the GEF4 Outcome Indicator is 80,000 ha, recognized by Decree as a formal extension to NEPL. The actual proposed extension is for 90,772 ha, so when final approval is given and the decree enacted, this outcome will be achieved. WCS has limited influence over the progression of this extension at this point, as it is an internal government process, however

support to MAF, MONRE, The Prime Minister’s Office, and the National Assembly will be provided if requested.

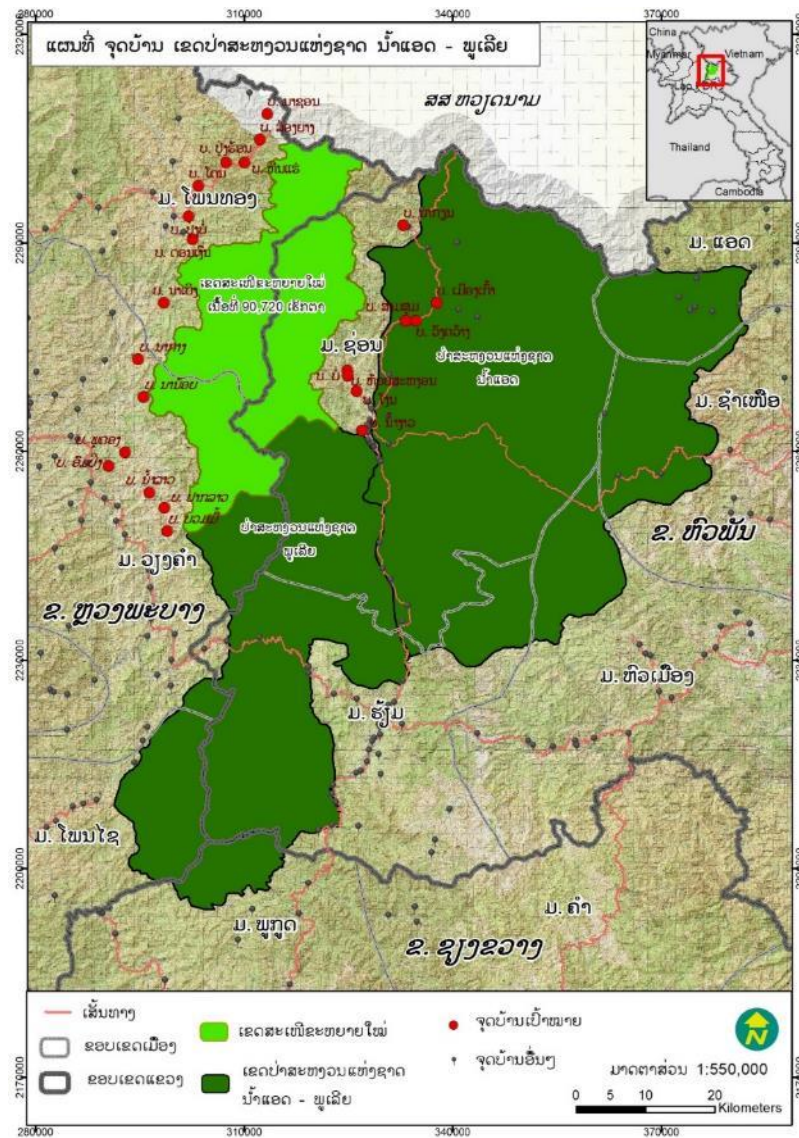


Figure 5. The Proposed North West Extension – in light green

Outcome Indicator 3: Protected area management effectiveness

This indicator target has been achieved.

This indicator is measured once a year applying a standardized assessment tool called The Management Effectiveness Tracking Tool (METT). The baseline was set at 38%, which was scored during the first World Bank mission to NEPL with a year 2 target of 40%, and a year 3 target of 44%. The actual year three score was 45 (44%), so this target has been achieved. The blue target line extending to 2020 in Figure 6 represents the target scores under the LENS2 Subproject.

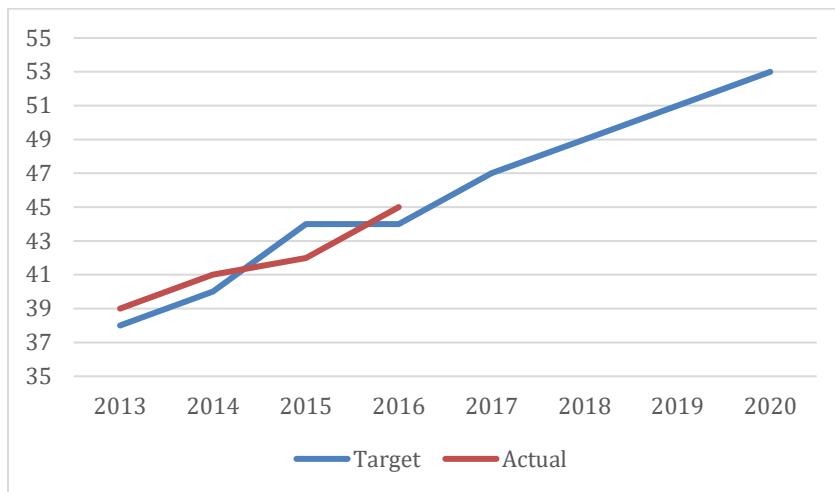


Figure 6. METT scoring target vs actual with future targets.

Outcome Indicator 4: Villages with signed Village Natural Resource Agreement compatible with approved mitigation plan for Phathi Road

The target for Indicator 4 is 3 Natural Resource Agreements - This indicator is partially met.

As indicated in second annual report on this GEF4 project, NEPL and WCS now embed the Village Natural Resource Agreement (VNRA) process within the Forest and Land Use Planning and Management Process. This is because NEPL and WCS implements the comprehensive 'Forest and Agricultural Land Use, Planning and Management' (FALUPAM) process developed by The Agrobiodiversity Initiative (TABI), and this process includes final agreements signed by all households that include natural resource agreements. While this process has been delivered for the Boumfat Cluster using GEF4 funding, with VNRAs produced for 5 villages, there have been delays at the Houay Ma-Phathi Cluster due to sharing of this responsibility between NEPL and the CLiPAD project. The final PLUP plans for the four Phathi Rd Villages – Houay Ma, Muanggnut, and Kohai and Sopka - have all been completed and submitted to DALAM for approval. When this approval is finalized, it will be signed by the Villages, and the requirements of Indicator 4 will be met.

The planning documents produced under this process in the Houay Ma Cluster will be used as the basis for developing community action plans (CAPs), and community conservation agreements (CCAs) under the World Bank's Community Engagement Framework (CEF) under the LENS2 Subproject. These agreements go further than the village natural resource agreements as they provide direct benefits to villages through LENS2 funding. Included in this CEF process will be the expected redelineation of the TPZ boundary to reflect realities on the ground, and allocate sufficient agricultural land to villages. The development of the CAPs and CCAs in the Bouamfat and Houay Ma Clusters are now funded through a Darwin grant of the UK Government, and will proceed as soon as the PLUPS are approved by DALAM.

The delays in the finalization of the FALUPAMs in the Houay Ma-Phathi cluster are due to 2 primary reasons:

1. The complexity and sensitivity of land use in the area. There have been a number of previous issues in the area regarding land use and illegal activities such as opium production,

poaching, and cattle in the core zone. Ranger patrol teams encounter heavily armed groups in the area, and are not trained for, or expected to confront this type of threat. Previous land use meetings conducted by government agencies at Houay Ma have led to walkouts by community members, and trust needs to be rebuilt. For example, the recent discussions regarding the construction of a new substation on the Western end of the Phathi Road have led to serious security issues for construction company and NEPL staff. This matter is now referred to the District Police, however this indicates some of the challenges for moving forward with the Phathi Road Plan according to earlier expected timeframes. WCS is supporting a measured approach that ensures both the safety of NEPL and government staff, and ensures the inclusion of villages in the process, so that an agreement satisfactory to all partners can be reached.

2. An agreement between WCS and Provincial Authorities implementing Land Use Planning for the KFW-funded Climate Protection through Avoided Deforestation (CLiPAD) was made in early 2016 that involved the CLiPAD funded Provincial team completing land use planning in the Houay Ma Cluster. The intention was that the provincial team take the lead on completing the third and final stage of the three-stage process commenced by WCS / NEPL. Progress under CLiPAD leadership was slow, and the plans were only completed in late 2016 and early 2017. In hindsight, NEPL / WCS should have retained the lead role in the development of these PLUPS to ensure their swift progress.

Additional Phathi Rd Information.

A series of updates have been made to the original Phathi Road Co-Management plan table in the original GEF4 ESMP. These have now been incorporated into the ESMP for the proposed NEPL LENS2 Subproject.

To inform both the development of the Phathi Rd mitigation plan, and the VNRAs developed under the PLUPS, VFI was contracted to conduct an assessment of issues related to the management of cattle and access to the TPZ of NEPL.

A report was generated in July 2016 and provided to two independent reviewers – Mirjam Koning of GIZ and Neil Dawson of the University of East Anglia - for consideration and to request advice on how to improve the proposed steps to updating the plan. This report was provided in the GEF4 year 3 final report.

Recent developments on the Phathi Road Mitigation Plan include the current construction of a substation on the western end of the road, and the re-location of the eastern substation to a site inside the TPZ.

Outcome Indicator 5: Models for sustainable use and protection of natural resources documented and disseminated

This indicator has been achieved, however a number of the final model brochures were disseminated after March 31 2017.

Nam Et – Phou Louey is arguably the best managed large national protected area in Laos, and NEPL and WCS have disseminated this success extensively throughout the implementation of the GEF4

Program. This dissemination has included presentation of models at international and national conferences, weekly and monthly advocacy with Senior government officials in the National Government, regular participation and presentation during the conservation dialogues of DFRM. In addition, results from research at NEPL have been published in international Journals. See table 4 for example dissemination activities

WCS will also propose an administrative model for the next 5 years of NEPL NPA that outlines the institutional arrangements needed to ensure NPA management in alignment with proposed national guidelines. The thematic models will be primarily disseminated as stand-alone documents that will be made available on the WCS Lao website, the NEPL website. The models also will be presented at the National Protected Areas Partners Meeting (English version) and the Technical Working Group on Protected Areas (Lao version) during 2017. Drafts of these have been produced:

1. Law Enforcement and Ranger Patrolling
2. Biodiversity and Forest Cover Monitoring
3. Ecotourism
4. Community Outreach

Table 4. Example Dissemination Events

Model	Aspect	Name	Details
1. Community Engagement Model	Outreach	Santi Saypanya	2015 27th International Congress for Conservation Biology; 4th European Congress for Conservation Biology, August 2-8, 2015 in Montpellier, France 2015. Saypanya, Santi, Troy Hansel, Arlyne Johnson, Annalisa Bianchessi, and Brooke Sadowsky. Using social marketing as education tool for tiger conservation in Nam Et Phou Louey
		Santi Saypanya	2013 North American Association for Environmental Education (NAAEE)-10th Research Symposium, Baltimore, Maryland, USA 2013 Saypanya, Santi, Troy Hansel, Arlyne Johnson, Annalisa Bianchessi, and Brooke Sadowsky. Using social marketing as education tool for tiger conservation in Nam Et Phou Louey National Protected Area, Lao PDR.
		Santi Saypanya	2013 Cornell University's Department of Natural Resources Graduate Student Association's Annual Symposium, January 17 - 18, 2013 Saypanya. S, Hansel. T, Johnson. A, Bianchessi. A and Sadowsky. B 2013. Combining social marketing with improved law enforcement to conserve tigers and their prey in Nam Et – Phou Louey National Protected Area, Lao PDR.
	Ecotourism	Janina Bikova and Sivilay Duangdala	Mekong Tourism Forum. May 2017. Ecotourism model presented in the Eco- and Wildlife Tourism Sessions
		Sean McNamara	Presentation of the Nam Nern Model at the 2016 Asia Pacific Ecotourism Conference in Sarawak, Malaysia - Guest Speaker
		Team	Award - 2014 World Responsible Awards - London
		Team	Awards - 2013 World Responsible Awards - London - Provincial staff and WCS attended award presentation.

		Janina Bikova	Masters thesis and presentations / discussions 'Ecotourism Governance in Nam Et-Phou Louey National Protected Area. Univesity de Maine, France. June 2016
		Team	Annual meetings with Lao Based Tourism Operators - Exotismo, Kiri Travel, Tiger Trails, Green Discover, Nakarath and others (total over 40 tour operators).
		Khaisy Vongphoumy	Ecotourism model presented at benefit sharing workshop conducted by SNV - May 2016
		Paul Eshoo	ITV Asia Presentation - 2015 - NEPL Ecotourism Model Presented
		Sivilay Duangdala, Khamphew Alounsai	Meetings with Government Authorities visiting sites and discussing the models - Tourism offices of Hiem , Vienkham and Houameuang.
	PLUP and Natural Resource Agreements	Sean McNamara	Meeting with NEPL Partners in May 2015 (NUOL, TABI, VFI) regarding PLUP implementation at NEPL
2. Protected Area Administration Model	Steering Committee and MU Structure	Sean McNamara	Presentation of the current and proposed management unit and steering committee oversight structure for NEPL at the Conservation Partners Dialogue October 2016
		Santi Saypanya	Frequent discussions with DFRM and MAF regarding numerous issues - Management Model
		Sivilay Duangdala and Bounpheng Phoomsavath	October 2016 - Meeting with DFRM regarding NEPL Structure

		Senior Staff	Ongoing direct communications with senior government officials regarding structure and content of updated Ministerial Agreement on the Management Authority and Steering Committee for NEPL
3. Resource Management and Protection Model	LE Draft Model Brief	Team	A Brief regarding the implementation and lessons learned from LE and Ranger Patrolling during the GEF4 Grant Period
		Ben Swanepoel	Presentation on patrolling models that use SMART at the SMART training workshop in Vientiane
		Ben Swanepoel	Discussions with other conservation partners at NPAs in Laos regarding Law Enforcement models
		Sean McNamara	Discussions with PES project proponents at NUOL and Australian National University - PES ranger patrolling at Phou Chom Voy
		Ben Swanepoel	POFI trainings - Cooperation between NEPL and POFI at NEPL September 2016
		Tony Lynam	Provincial Law Enforcement Action Plan for Houaphan Development in 2014
4. Planning Research and Development Model	Biodiversity Monitoring	Hannah O'Kelly	Presentation of ATBC - Association of Tropical Biology and Conservation Cambodia March 2015
		Akchou Rasphone	Presentations as part of DPhil degree with the WildCRU group at the University of Oxford, UK.
		Akchou Rasphone	Presentation of ATBC - Association of Tropical Biology and Conservation Cambodia March 2015
		Anita Bousa	Presentation of ATBC - Association of Tropical Biology and Conservation Cambodia March 2015 - Cryptic cats and elusive ungulates; using multiple methods to monitor large mammals in Northern Laos

2. Progress towards GEF4 Intermediate Outcome Indicators

Component 1: Community Engagement Models

Intermediate Outcome Indicator 1: Natural Resource Agreements approved and signed by communities and local government agencies

Baseline line: 0

Target: 15

This indicator is partially achieved with 8 completed VNRAs, and an additional 4 submitted to DALAM for final approval.

In 2013, 3 VNRAs were completed as stand-alone documents in Viengkham District. 5 Village Natural Resource Agreements (VNRAs) have been developed and signed for the Bouamfat cluster in Xone District, as part of the completed FALUPAM process, and will form the basis of further management plans for these natural resource use areas identified in the PLUPs. Final VNRAs as part of the FALUPAM plans for the 4 villages in the Phathi Cluster are pending final approval by DALAM. An additional 2 villages in Xone District are 2/3 through the full FALUPAM process, with expected finalization in late 2017/early 2018 under the LENS2 Subproject target village plan.

Intermediate Outcome Indicator 2: Village ecotourism contracts linked to conservation outcomes

Baseline line: 0

Target: 35

This indicator is not been achieved (26 total)

Village ecotourism contracts linked to conservation outcomes have now been signed with 26 villages – 14 for the Nam Nern Night Safari, and 12 for the new ecotourism products in the Ban Navene – Sakok – Nam Pong areas. Conducting this range of ecotourism activities requires significant resources, and it is unlikely that NEPL will look to increase the number of ecotourism products in the immediate term. Therefore, the number of additional villages signing ecotourism agreements is not expected to increase beyond the current 26 in the near future.

Meeting this target would involve expanding activities at an unsustainable rate that may negatively impact on cooperation between communities and the NPA. WCS will continue to focus on VNRAs in preparation for a more complete engagement through the CCA and CAP process.

Intermediate Outcome Indicator 3: Non-Timber Forest Product feasibility studies developed

Baseline line: 0 Target: 4

This indicator is achieved –4 feasibility studies completed: Bamboo, Coffee, Red Mushroom and Cardamom.

In the previous year FY14/15, WCS conducted two NTFP feasibility studies (bamboo by SNV and coffee by Saffron Coffee), meeting the year 2 target. Coffee training took place in Luang Prabang given by Saffron Coffee in December 2015.

The additional 2 feasibility studies were conducted in January to March 2017:

1. Management of **red mushrooms** including sustainable collection, processing and markets.
2. Underplanting and management of **cardamom** including both local species and introduced higher yield / value species.

These species are best grown in the understory of existing forest, or as part of a permanent cover agroforestry systems.

All studies have previously been provided to the World Bank, and are available on request.

Component 2: Protected Area Administration Model

Intermediate Outcome Indicator 4: Three-province-NPA management model developed

Baseline line: 0

Target: Three-province-NPA management model developed

Target achieved – three province agreement signed in 2015, being updated by MAF to meet the requirements of LENS2 in 2017

A WCS-supported ministerial agreement was signed in November 2015 formalizing the establishment of the NEPL tri-provincial steering committee and its responsibilities, as well as the responsibilities of the NEPL NPA Management Unit (NEPL NPA MU). In October 2016 this document was revised by WCS and DFRM, and is currently under review with the Ministry of Agriculture and Forestry, with the expectation that it will be updated to provide sufficient additional recognized legal authority to the NEPL NPA MU to ensure effective and sustainable management of the protected area. Included in the draft agreement are the necessary components of a functional NEPL Management Authority, Steering Committee, and Implementing Arrangements. Letters of support were provided to MONRE from the three provinces in late 2016, however the transfer of responsibilities for protected areas from MONRE to MAF has delayed the finalization of the updated agreement.

Further to this, WCS held discussions with DFRM to consider the possibility of developing a prime ministerial decree to provide further strength to the NEPL NPA MU. This option is still being considered by DFRM and MAF; no government decision has yet been made and the process – should it be agreed to – would take up to 24 months, and would include the recognition of NEPL as Laos' first National Park.

Intermediate Outcome Indicator 5: Training days delivered to non-WCS staff

Baseline line: 0

Target: 240

This indicator has been achieved

The cumulative year three target of 240 training days was achieved prior to the end of the year 3 period. Over 250 cumulative days had been met at the end of the Year 2 reporting period (August 2016). Training days are recorded on a training spreadsheet and database held at NEPL headquarters.

Component 3: Resource Management and Protection Model

Intermediate Outcome Indicator 6: Kumban where Community-led Law Enforcement Action Networks (CLEAN) initiated

Baseline line: 0

Target: 3 Operational Networks

This indicator has been achieved but with modification based on local conditions and circumstance.

Through a consultancy with the Lao Wildlife Conservation Association, the concept of Community - led Law Enforcement Action Networks (CLEANs) was investigated and developed with the intention to implement three networks in NEPL. The consultancy report provided to WCS in November 2015 included details of a series of workshops, and the development of recommendations for Kumbam committees, village ranger teams, and associated TORs and implementation timelines. In early 2016, a review of law enforcement, ranger patrolling, and community engagement by WCS and the NEPL Management Unit led to a shift in overall ranger patrolling strategy, with increased flexibility in law enforcement activities of the NEPL managed ranger teams a key component. This increased flexibility under the revised approach eliminated the need for a stand-alone, parallel law enforcement structure that involved Kuman committees and village ranger teams. Ranger teams are also increasingly drawing on local communities for staff, and NEPL can now deploy teams with community members in appropriate circumstances. Therefore, the community engagement aspect of the CLEANs was absorbed into the more effective and flexible, NEPL management unit led enforcement approach. As of June 2017, more than half of the NEPL rangers are community members, rather than government staff.

With the review and re-adjustment of ranger patrolling approach, structure and strategy, activities under this component were also restructured. NEPL/WCS has met this intermediate outcome indicator in 2 ways:

1. Starting with ecotourism villages, NEPL/WCS outreach staff have created a network with existing village leadership structures, to allow for monthly inputs from communities into the monthly NEPL strategy meetings. On the ground this will involve a once a month meeting by NEPL/WCS staff in the villages to allow for 2 way dialogue between communities and NEPL. This relationship is planned to be reinforced under the LENS2 Subproject, by providing funding for community led patrolling activities in these villages, starting in Houameuang and Boumfat Clusters.
2. As indicated above, community members are currently employed as rangers in all patrolling teams. NEPL/WCS will seek to better utilize this valuable resource, and under the new flexible arrangements can address different law enforcement issues with ranger teams that are appropriate for the activities. For example, when a collaborative approach is needed to address an issue, ranger teams with local community members might be more successful in achieving outcomes.

The above approach for law enforcement, ranger patrolling and community engagement fits with the broader approach of NEPL to draw on provincial, district, and community expertise and experience by engaging these groups during the implementation of specific activities, rather than establishing permanent committees and teams that may not be required all year round, or even every year. For example, a specific outreach campaign may require provincial and district government officials take part.

Intermediate Outcome Indicator 7: Grid cells patrolled in core zone

Baseline line: 1000 km²

Target: Yr 1 – 1100 km², Yr 2 - 1200 km² Yr 3 - 1400 km²

This indicator has been achieved

This target has been met for FY15/16 year (target 1400 in year 3, actual 1419 grid cells) and has been exceeded for the GEF4 project. In the no-cost period an additional 1572 km² have been patrolled.

Component 4: Planning, Research and Development Model

Intermediate Outcome Indicator 8: Area with up-dated wildlife surveys

Baseline line: 2008 Occupancy Survey

Target: Year 1 - 43,000 ha camera trapping survey Year 2 - 80,000 ha gibbon and carnivore survey, year 3 - 150,000 ha grid-based survey

This indicator has been achieved prior to March 2017: Year 1 and 2 targets met, Year three target 150,000 – actual 40,000 ha camera trapping plus 141,900 ha through grid based ranger patrolling. During the no cost extension period, an additional 2 camera trapping blocks were completed for an additional 40,000 Ha coverage, as well as an additional 157,200 Ha of grid cells passed through. Therefore, the targets have been exceeded.

Wildlife surveys were conducted in year 3 and the no cost extension period under three primary activities:

1. The scientific monitoring conducted by Akchousanh Rasphone comprising of camera trapping. The camera trapping was conducted for 2 of the 4 200km² blocks in the year 3 and 4 reporting period, with two additional 200 km² block being surveyed in April – June 2017
2. Ranger collected data from patrolling activities (including from cyber tracker as this is rolled out). Ranger patrolling covered 141,900 ha during year 3 as measured by grid cells passed through. During the no cost extension period an additional 157,200 ha was covered. This higher area covered in year three is due to the shift from substation based patrolling to centrally based teams.
3. Camera trap data of species from the new ecotourism hiking products along the 25 km of new trails (8 camera trapping sites). This data is proving invaluable for directing patrolling efforts through key areas and salt lick locations where select species visit regularly, and where poachers have been encountered.

Intermediate Outcome Indicator 9: Proposal for re-delineation of Nam-Et developed

Baseline line: N/A

Target: Re-delineation report for NEPL

This indicator is not on target to be achieved prior to March 31 2017, however addressing village level re-delineation is ongoing and planned

The re-delineation process is now controlled by DFRM / DOF, and there has not been significant progress in the NEPL NPA, other than the preliminary re-delineation process conducted by TABI in Luang Prabang Province.

NEPL/WCS will design a program of work to address ongoing issues at a large number of villages regarding the placement of the TPZ and CUZ boundary, and this will be an important early program of work under the LENS2 subproject focusing on the 50 target villages. Until the government-led forest category re-delineation process commences, WCS and NEPL will conduct re-delineation on a village-by-village basis.

3. Progress and activities under each of the NEPL management components, with a focus on the last 2 GEF4 reporting periods (Year 3 plus no cost extension period)

C 1. COMMUNITY ENGAGEMENT MODEL

During the year three and no cost extension period, the community engagement model has become more integrated, with outreach, land use planning, community agreements, livelihoods support and community patrolling linking more closely than in the past. See Figure 7 for the model implemented and proposed under the LENS2 Subproject.

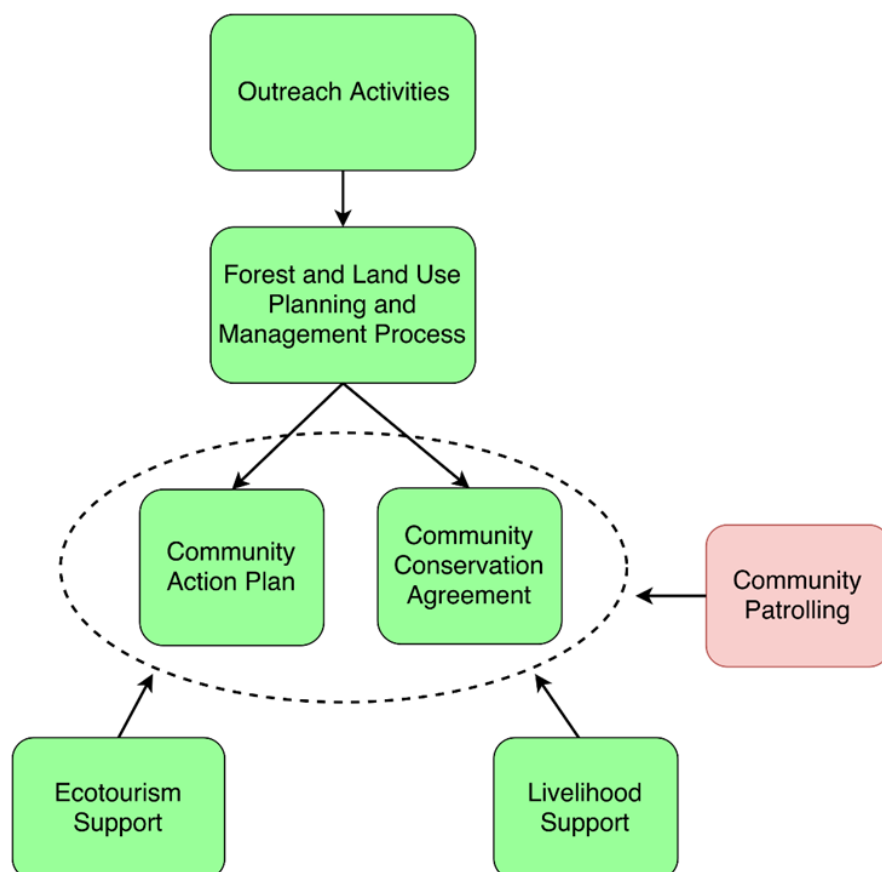


Figure 7. Community Engagement Model at NEPL

C 1.1 Outreach/Social Marketing

During the final work plan period, the outreach team focused on progressing a number of new key outreach activities, while supporting a number of ongoing core NEPL activities. Key activities that were conducted and progressed this year include:

9 District NEPL Wildlife Regulations. In the past, the regulations concerning wildlife and protected area management for districts surrounding NEPL have been developed on a district by district basis. While these regulations are mostly in alignment, there are some inconsistent sections. This inconsistency has been found to cause a number of problems for implementation of natural resource management activities. For example, the regulations related to informant rewards and division of fines can be variable across districts. To address the inconsistencies, a consistent set of regulations has been drafted for all 9 of the districts surrounding NEPL. These draft regulations were produced during the year 3 work plan period, and have been approved by the Provinces. These new regulations will form a foundation for updated outreach campaigns, and a reinvigoration of the wildlife crime hotline, which has been less effective than planned due to inconsistencies and delays in processing fines. Further activities are planned to ensure the integration of these regulations into District level activities and proceedings.

Collaboration with ProCEED for outreach campaigns in Houameuang and Xam Neua. WCS has been assisting ProCEED – Laos Promotion of Climate-related Environmental Education– in preparing materials for and conducting an outreach campaign in 17 villages in Houameuang and Sam Neua in August and October 2016. ProCEED is a CLiPAD related program and conducts wildlife and conservation forest related outreach activities.

Ongoing maintenance and placing of NEPL signs. In September to October 2016, the outreach team maintained NEPL signs along the roads in Hiem, Xone, Viengkham and Huameuang District. A series of new signs along the Totally Protected Zone (TPZ) near Ban Sopka were erected, and a village meeting held regarding wildlife regulations.

Other outreach activities. On 1 June 2016 and again in 2017, the outreach team participated in the tree planting day activities in Hiem District. In addition, from July 2015 to February 2016 the outreach team organized radio broadcast spots including the ‘Wildlife song’.

Outreach with Army Camps. During 2016 and 2017, NEPL and WCS have been communicating and conducting targeted outreach with army personnel located at camps in sensitive locations within the NEPL TPZ, to both ensure that these army camps assist with achieving the overall NEPL management objectives, as well as ensuring these camps do not become complicit in poaching activities.

C1.2 Participatory Land Use Planning (PLUP)

During year 3 and the final extension period, PLUP activities were primarily conducted in the Bouamfat cluster, and the Houay Ma- Phathi Cluster of villages.

Bouamfat Cluster

The full three stage pFALUPAM land use planning process was completed in the 5 villages in the Bouamfat cluster, and signed by the district governor of Xone District. The finalization of these plans highlighted issues regarding the boundaries of the TPZ in a number of villages. These issues ranged from:

1. Encroachment in the TPZ for agriculture
2. Cattle raising in the TPZ,
3. Inappropriate zoning of the TPZ boundary due to the GoL changing plans for the locations of villages and resettlements in the past (primarily in Phonesong village)
4. Mistakes in the initial TPZ zoning and GIS projection issues.

To ensure that the current boundary of the TPZ and village lands are clearly understood on the ground, a program of placing signs on the boundary of the TPZ/CUZ was undertaken in all 5 villages. These issues of the TPZ boundaries will be addressed in the coming year. It is expected that similar issues exist around the boundary of NEPL in all 9 districts. Therefore, a consistent and effective approach to addressing the boundaries must be developed and implemented.

In addition to the PLUP and demarcation activities, NEPL/WCS has also supported the development of forest protection plans and regulations for village forest that is currently used for multiple purposes in the villages. More detail on these activities is presented in the section on Village Natural Resource Agreements (VNRAs) below.

Houay Ma – Phathi Cluster

Initially planned to be conducted by CLiPAD, NEPL/WCS took responsibility of the 4 villages in this cluster due to their importance to the Phathi Road Mitigation Plan, and due to a range of sensitivities in these villages regarding access to TPZ areas for cattle raising. Stages 1 and 2 of the pFALUPAM process were completed by the NEPL/WCS team in late 2015. The data and plans produced under stages 1 and 2 were supplied to CLiPAD, who took responsibility for their finalization so that the land use plans could align with CLiPAD funded village forest management plans. WCS intended to act as a participant in this process to ensure that village natural resource agreements were incorporated into the final land use plans, as well as ensure plans were aligned with Phathi Road mitigation plans. After delays mentioned above, these FALUPAMS were completed in late 2016/early 2017, and have been submitted to DALAM for final approval.

C 1.2.1 Village Natural Resource Agreements

The development of VNRAs is now nested inside the PLUP process. As part of the finalization of the Bouamfat cluster land use plans, natural resource regulations were developed for 5 villages and included 34 forest management zones (see table 5). These are developed for village forest areas within the forest boundary in the controlled use zone of NEPL. As part of the PLUP process, the discussions and decisions related to the use of these areas were conducted in a participatory manner, with agreement sought at village meetings. These natural resource agreements included red mushrooms, bamboo, and honey collection areas (cliffs).

Table 5. Village natural resource agreements (village forest zones within the controlled use zone)

Village	Number of zones with regulations developed	Total village forest area with regulations developed
Phone song	9 zones	7028 ha
Houay Teun	6 zones	3500 ha
Boumfat	6 zones	4003 ha
Nam Nern	6 zones	6102 ha
Long Ngoi Pa	7 zones	1759 ha

As mentioned above, NEPL/WCS supported the CLiPAD project in Houay Ma and completed FALUPAMS have been submitted to DALAM for approval.

Under the proposed LENS2 program of work, NEPL/WCS will seek to engage 50 villages through CAPs and CCAs under the CEF. Under this process the already produced VNRAs will provide one

component of a more detailed agreement and management plan for these areas. See Figure 8 for the locations of the LENS2 target villages.

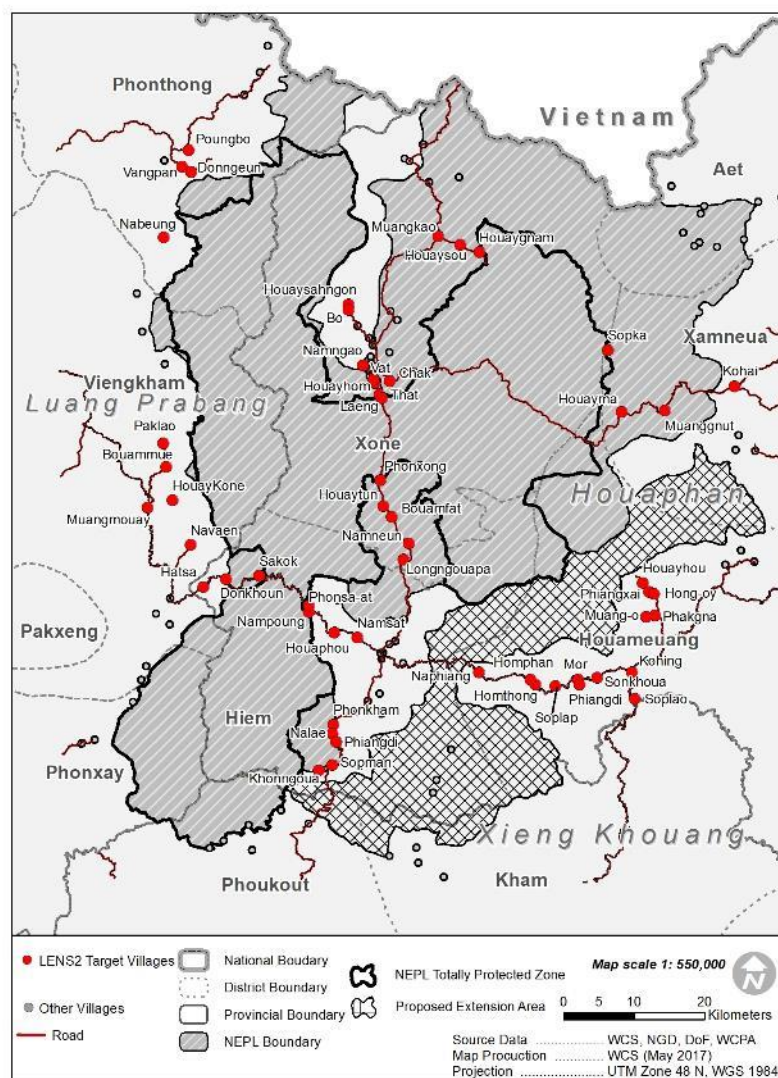


Figure 8. Target villages under LENS2 including the GEF 4 villages in Bouamfat and Houat Ma Cluster.

C.1.3 Sustainable livelihoods aligned to conservation outcomes

C.1.3.1 Eco-tourism

The Nests and Cloud Forest trekking.

During the year 3 and no cost extension periods, work on the Phou Louey Summit trail (Cloud forest climb) and the nest and wildlife hide was finalized. A soft opening was conducted in May 2016, with a full opening in October 2016, at the end of the wet season. Key aspects finalized during the final year of the GEF4 project include:

1. Construction of the wildlife hide at the Nam Phoung Salt lick (image 1);
2. Construction of the nests overnight accommodation near the Nam Pong Salt lick site (Image 2);

3. Three visitor centers at villages at the starting / ending points of the new trails – Ban Nam Pong, Ban Sakok, and Ban Navene (Images 3 and 4).
4. The official opening of the tours and the first year's tours conducted.



Image 1. Wildlife hide at Nam Pong



Image 2. The nests overnight accommodation



Image 3. Visitor Centre



Image 4. Visitor Centre village ceremony

Ecotourism agreements have been signed with the 12 villages engaged in the new ecotourism products, bringing the total number of villages participating in the NEPL Ecotourism schemes to 26. A number of trainings were conducted for the village service groups for the new products, including cooking, catering and handicraft training in Luang Prabang, guiding training and trail maintenance.

WCS and NEPL continue to develop and support the expansion and improvement to the Nam Nern Night Safari, and significant progress in terms of visitor numbers and marketing have been made (see Annex 6 for more information on the ecotourism products, updated to March 2017).

NEPL/WCS has paused discussions regarding a planned public private partnership for the ecotourism products, while uncertainty remains regarding the construction of the proposed Nam Nern 3 hydropower project. The current plan for this project will flood the full extent of the Nam Nern Night Safari camp and tour.

C.1.3.2 Agroforestry and agro-ecology

NEPL/WCS work on agroforestry and agro-ecology this year focused on engaging with potential and current coffee growers. Shade grown coffee systems have a number of favorable characteristics regarding sustainability and conservation, and some villages have been identified as having highly suitable conditions for producing high quality beans for national and regional markets. NEPL/WCS continues discussions with Saffron Coffee, and farmers from NEPL target villages area already supplying this company with a low quantity of high quality beans. There are a number of issues to be

resolved before moving forward with a more direct engagement with coffee production as an alternate sustainable livelihood in selected NEPL villages, however these will be addressed through the community conservation agreement. When compared to other commodities being produced around NEPL, such as maize, coffee stands out as promising on a number of aspects including income and environmental sustainability. A series of small demonstrations are planned for establishment in July 2017.

C.1.3.3 NTFP Sustainable Management and Harvest

Four feasibility studies for potential NTFPs – coffee, bamboo, red mushroom, and cardamom – have been produced for villages in the Bouamfat and Houay Ma-Phathi Cluster.

NEPL/WCS work in this area this year focused on the VNRA that were produced under the PLUP. In other protected areas in Laos, WCS is currently engaging with villages in assessments of NTFPs in village forest areas, and is working with villages to develop regulations for sustainable extraction based on scientific surveys of a number of key species. As part of the CCA process, NEPL/WCS plans to also conduct more detailed management planning for the forest areas that have VNRA identified under the PLUP. To conduct this activity WCS has secured Darwin funding from the UK Government and will also include this activity in the NEPL proposed LENS2 Subproject. In addition, NEPL/WCS will continue to discuss the possibility of linking with GRET for the purposes of supplying bamboo products and raw materials into existing value chains, especially from the Houay Ma/Phathi area.

C 2. Protected Area Administration Model

C 2.1 Three-province NPA management model

A WCS-supported ministerial agreement was signed in November 2015 formalizing the establishment of the NEPL tri-provincial steering committee and its responsibilities, as well as the responsibilities of the NEPL NPA Management Unit (NEPL NPA MU). In October 2016 this document was revised by WCS and DFRM, and is currently under review with the Ministry of Agriculture and Forestry, with the expectation that it will be updated to provide sufficient recognized legal authority to the NEPL NPA MU to ensure effective and sustainable management of the protected area. Included in the draft agreement are the necessary components of a functional NEPL Management Authority, Steering Committee, and Implementing arrangements. Most recently, on 28th November, DFRM requested that the three provinces supply letters of support for the required amendments.

DFRM has advised that this modified ministerial agreement is considered to be comprehensive enough to recognize legal authority to the NEPL NPA MU to ensure effective and sustainable management of the protected area, including financial management and accounting, and should meet requirements of LENS2 direct funding. WCS considers this important progress toward achieving the intermediate outcome indicator.

Further to this, WCS held discussions with DFRM to consider the possibility of developing a prime ministerial decree to provide further strength to the NEPL NPA MU. This option is still being considered by DFRM and MAF; no government decision has yet been made and the process – should it be agreed to – would take up to 24 months.

C 2.2 Human resource development

During the year three and no cost extension periods, effort was made to more closely align and embed WCS advisors into the government NEPL structure, which includes 6 sections head: Ecotourism, PLUP, Law Enforcement, Monitoring, Administration, and Outreach. WCS now has a lead technical staff member to work with each of the assigned sections heads. This arrangement is intended to provide ongoing human resource development for government staff, and allow for a move towards government implementation of the NEPL program, with WCS undertaking more of an advisory role in the coming years.

In addition to the day to day mentoring that the new structural alignment described above, WCS provides additional trainings regularly. These include law enforcement, GIS/GPS, monitoring, first aid, and ecotourism training.

C 3. Resource Management and Protection Model

C 3.1 Management of externally-driven infrastructure

In October 2016, WCS/NEPL was notified of the intention to build a hydropower project – the Nam Nern 3 – on the Nam Nern River upstream of Ban Son Khoua (see Figure 9). The construction of this dam, if approved, will flood the Nam Nern Night Safari camp and require the closure of this ecotourism product. WCS and NEPL are currently engaged with the developer, district and provincial government, and with MAF to provide information on the impacts of this dam, and to ensure that all parties are aware of the implications on the protected area and ecotourism if the dam is approved. Toward this, WCS met with the Minister of MONRE in mid-October to present an assessment of the impacts that the dam development will have economically, socially and environmentally. WCS also sent the assessment to the Minister of MAF and had direct meetings with DFRM. Along with the Director of NEPL NPA, WCS participated in a stakeholders workshop held in Xieng Khouang Province in late November; during this meeting NEPL/WCS further presented the assessment of impacts. An ESIA was submitted to DFRM prior to November 2016. A stakeholder meeting regarding the impacts was held between the developer, government, international donors including KfW and EU, and WCS was held in May 2017, with additional meetings planned to ensure that the full impacts of the dam are understood by all parties, and that fair compensation can be provided in the event the dam is approved and causes irreversible impacts.

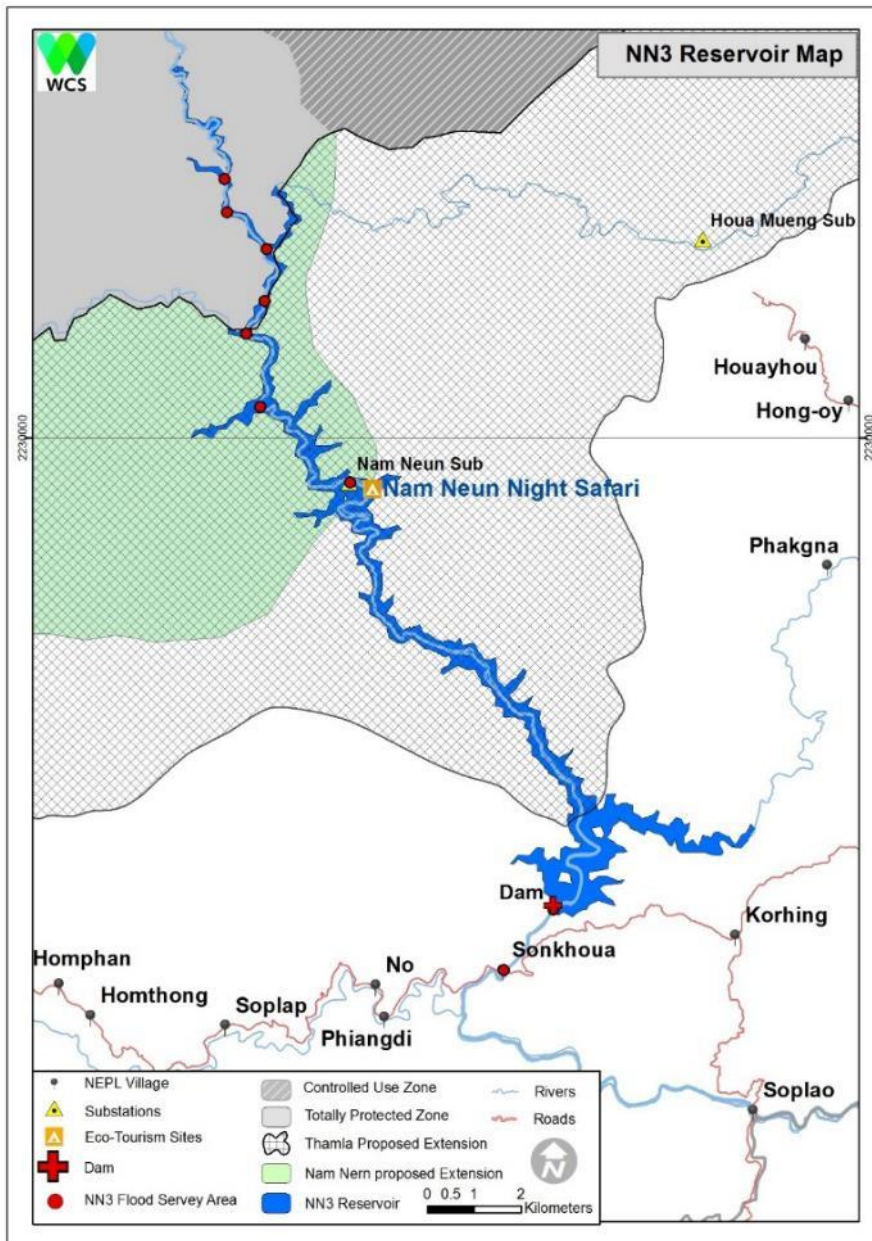


Figure 9. Proposed Location of the Nam Nern 3 Hydropower reservoir.

The Phathi Road remains an issue for the integrity and connectivity of the NEPL core zone in the North East Section of NEPL (Figure 10). Through a mitigation plan embedded in the environmental management plan, and through the inclusion of the Phathi Road in the ESIA developed under the proposed LENS2 sub-project, NEPL/WCS will continue to manage and plan activities that will reduce the threats to NEPL posed by activities that the access from the road provides. During the second half of 2015, WCS commissioned VFI to conduct a report on the issues related to communities in the Phathi Road area, to fully understand the social context before further planning and implementation of activities. In addition, a new anger substation is currently under construction on the western end of the Phathi Road, and the existing ranger substation on the Eastern end of the Phathi Road will be relocated to inside the TPZ.

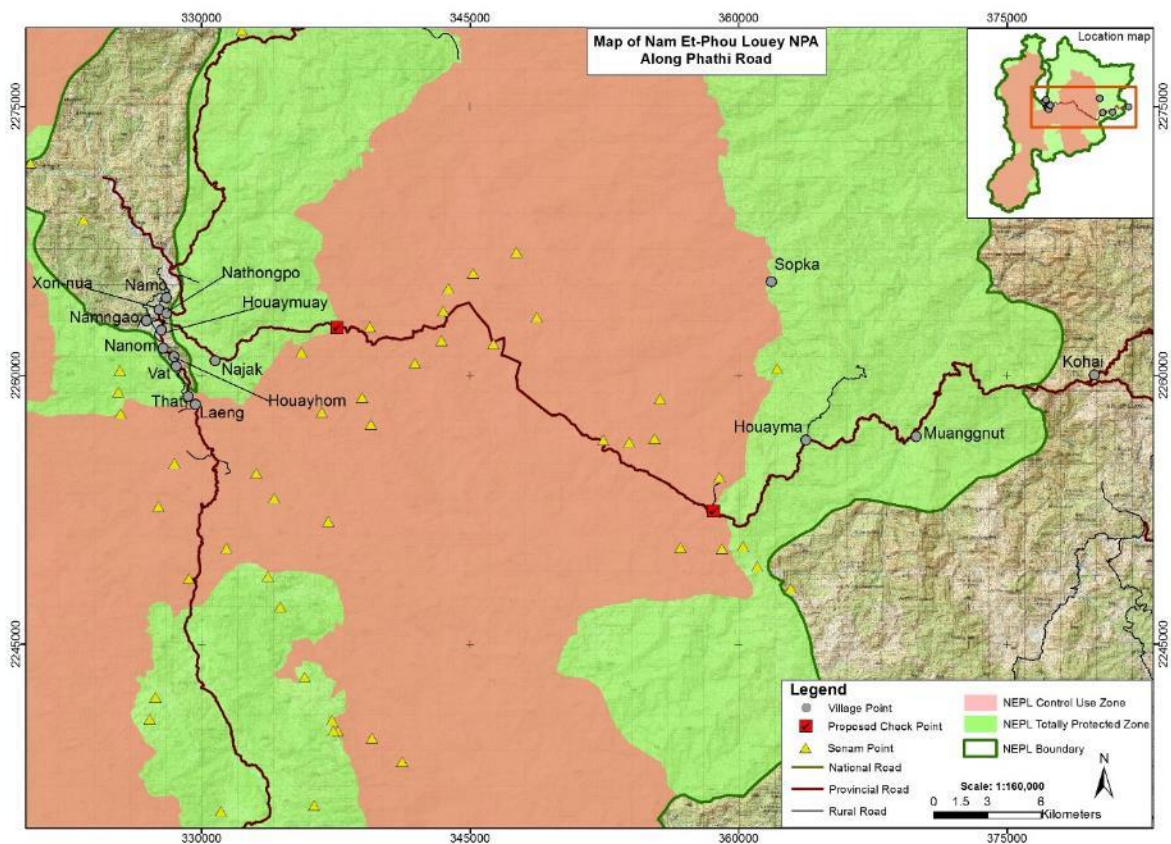


Figure 10. The Phathi Road Management Area indicating villages, cattle raising sanams, and proposed checkpoints (after nearby substations have been relocated).

C 3.2 Community-based natural resource protection

Community acceptance and involvement in natural resources protection is critical to the success of the NEPL program. There are up to 100 villages living on or near the boundary of NEPL, and without successful buy in from communities many activities are likely to be of reduced effectiveness. The NEPL/WCS program seeks to engage local communities in natural resource protection, including through the inclusion of community members on ranger teams. This engagement is especially successful when the community has a direct interest in the protection of the resource, or in the case of ecotourism – infrastructure, and where the threats originate from outside the village area. There are two primary means by which WCS engages with local communities – by including community members on ranger patrol teams, and by using an established network that links law enforcement personnel with the relevant committees in villages.

Community involvement in patrol teams. There are currently a number of ranger staff that are from local communities around NEPL. The local knowledge these community rangers bring is invaluable to the NEPL patrolling program. In the future, NEPL/WCS would like to develop local community teams that can be tasked with appropriate activities, such as incentivized snare collection and reduction in areas near villages.

Community Law Enforcement Network. Starting with the villages participating in the ecotourism products, NEPL/WCS has established a network that allows for two-way communication between village leadership and NEPL/WCS staff. The intention is that this activity is managed by the outreach section of NEPL, and can be used as a forum for villagers to raise issues related to natural resource protection, and ranger patrolling activities in their village areas, directly with NEPL staff.

C 3.3 Ranger subsector law enforcement

During the GEF4 period from 2013 until March 2017, a number of different ranger patrolling strategies were implemented. The initial strategy in 2013 was based around teams at 8 substations conducting sector based patrolling. This substation patrolling incorporated a grid-based approach in 2014 to ensure a higher coverage of the Protected Area TPZ. This system remained in place until mid 2016, when the recommendations of a law enforcement review in May 2016 were implemented. The new system involved a combination of substations in key locations, centrally based teams (now called forest-mobile teams), often led by trained community members, and a stand-alone response team (previously called the mobile team) to address emerging issues. This review and restructure of the ranger patrolling approach was undertaken, due to both an intention to increase the effectiveness of the teams, and due to limited available resources. Key aspects of the restructure included:

1. Removing the permanent presence of rangers at 6 of the 8 ranger substations. Over time the effectiveness of substations at reducing hunting threats reduces, as hunters become aware of the location of the substation and regular nearby patrolled areas. In addition, a significant number of person days are spent protecting the substation. The 2 CLiPAD funded substations in Nam Nern and Phathi continued to be funded until December 2016, at which time CLiPAD funding for these teams ceased.
2. Basing 4 teams at the NEPL headquarters. These 'forest mobile' teams are tasked with a total of 14 days forest patrolling per month, often conducted as 2 separate, 7 days patrols.
3. Flexible patrolling to address key threats. While the grid based patrolling has been very effective at ensuring patrols cover more area of NEPL, the reduced number of teams meant that the available ranger patrols needed to be used more strategically. For example, during 2016, one ranger team has been repeatedly tasked with mapping and patrolling a corridor area between Ban Nam Pong and Ban Sakok, as part of a broader engagement and redelineation program along this 'western corridor'. The more flexible team arrangement has allowed for NEPL/WCS to directly address this critical connectivity issue.
4. Changing team structure. The 'forest mobile' teams consist of 2 ranger staff, and 2 army personnel. These teams have an increased army presence to better confront poachers, and retains 2 rangers so that when additional resources become available, the number of ranger teams can be rapidly increased. This also serves as an opportunity for new staff to spend time patrolling under senior staff.
5. Changing the incentive scheme to only include 'behavior changing' actions. The previous incentive scheme, developed by Panthera for NEPL, allowed for verbal warnings to contribute to the incentive scheme scoring that was used to calculate the incentives provided to rangers. It was found that this, along with the grid based patrolling scheme implemented over 2014 and 2015, led to increased kilometers patrolled and snares encountered, but was not as effective in increasing the number of higher level behavior changing actions such as fines, confiscations of weapons, and arrests. The system was reviewed and altered in June 2016 to increase patrolling effectiveness in this area.

The new teams, under the direction the government law enforcement section head and with the support of WCS staff Jay White made significant progress during year three and in the no cost

extension period, with an increased number of successful operations to disrupt hunting and illegal logging being conducted (see images 5 and 6). Also supported through WCS sourced co-funding was a gun handover process in villages in Hiem as part of a provincial initiative to reduce hunting weapons. This initiative has been highly successful and has been used as a model for the LENS2 subproject planning (Image 7). The NEPL law enforcement team continues to be supported by Ben Swanepoel, the WCS Senior technical advisor for PA Management.

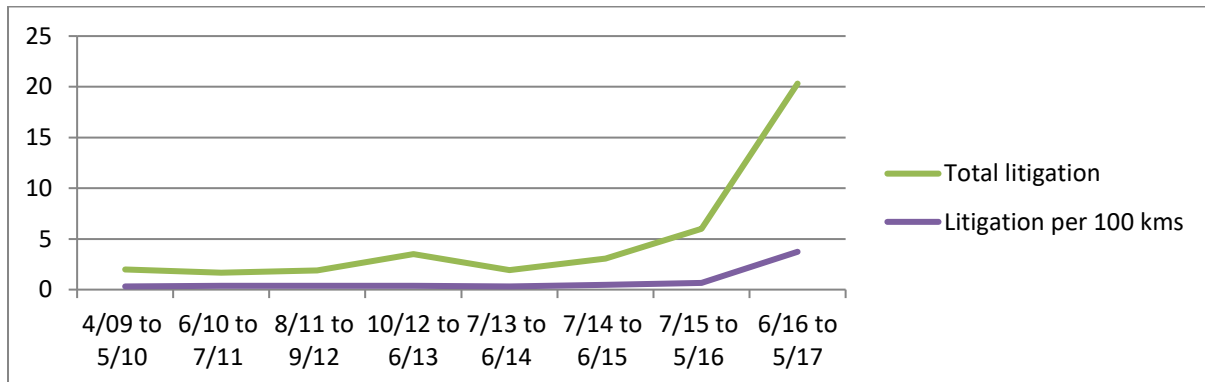


Figure 11: Yearly litigations made and litigation made by all law enforcement teams per 100 km since the start of using the MIST system (later SMART). Sharp increase after the formation of forest mobile teams replacing many sub-station based teams.



Image 5. Confiscated illegally logged timber at the NEPL headquarters



Image 6. A confiscated Golden Cat killed by a hunter near Ban Sakok



Image 7. More than 200 guns collected in Hiem District in December 2016 with WCS Co-funding support. This activity was also conducted in other districts with over 2000 guns removed from Districts surrounding NEPL.

The July 2015 – June 2016, and the July 2016 – March 2017 SMART reports are available on request. Some key statistics based on the period from the commencement of the SMART system (August 2014) to March 2017 are presented below: Table 6 – Patrol Data, Figure 12 - Patrol locations and Density, Figure 13 – Hunting threat map, Figure 14 – Actions taken.

Table 6. Patrol data from the commencement of the SMART system (August 2014) to March 2017.

Substation/Team	Number of Days	Number of Patrols	Distance (km)
Hiem Team 1	145	21	1235
Hiem Team 2	127	20	1293
Mobile_Team	149	67	2156
Nam Neun	539	89	3208
Nampoung	308	53	1814
Navene	314	48	2176
Phadeng	318	45	1591
Phathi	329	63	2831

Substation/Team	Number of Days	Number of Patrols	Distance (km)
Phonesong	347	51	2351
Phouphasiphou	281	54	1949
Sun Ong	276	56	1819
Viengkham Team	104	15	916
Xone Team	146	21	1404

(note: after the restructure in May/June 2016, four new teams – Viengkham, Xone, Hiem 1 and Hiem 2, replaced substation teams Nampoung, Navene, Phadeng, Phonesong, Phouphasiphou and Sun Ong.

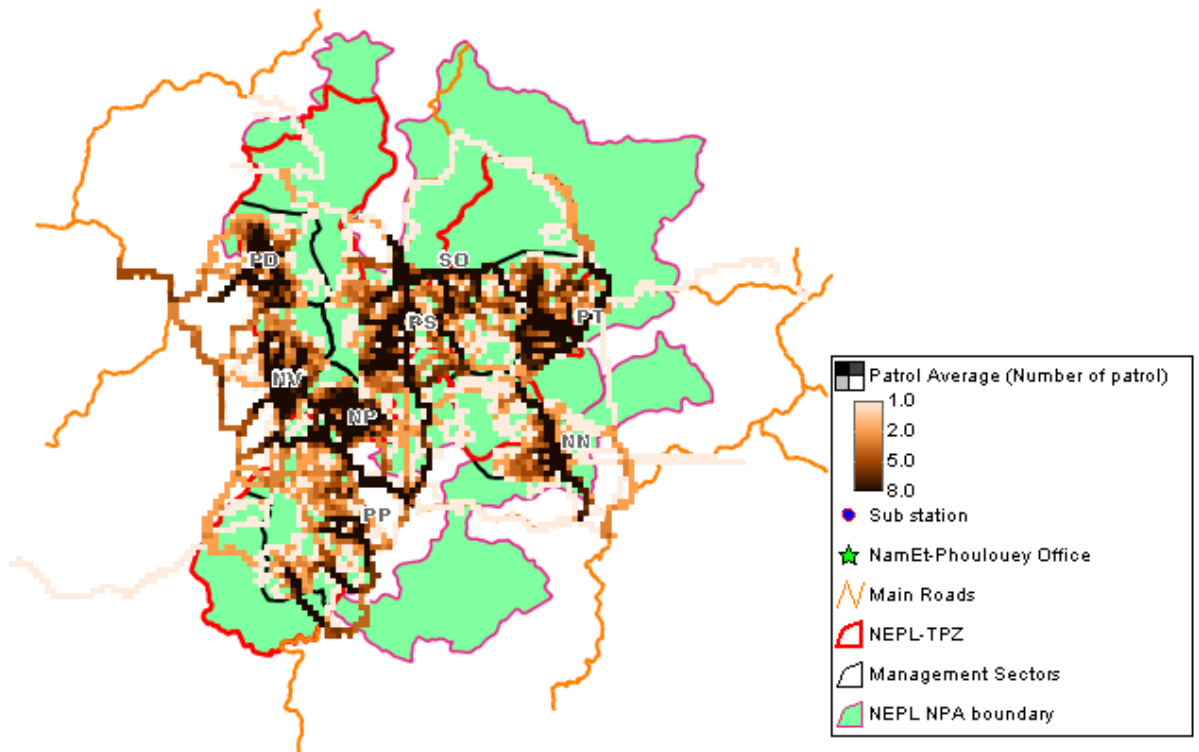


Figure 12. Patrol locations and density: August 2014 – March 2017

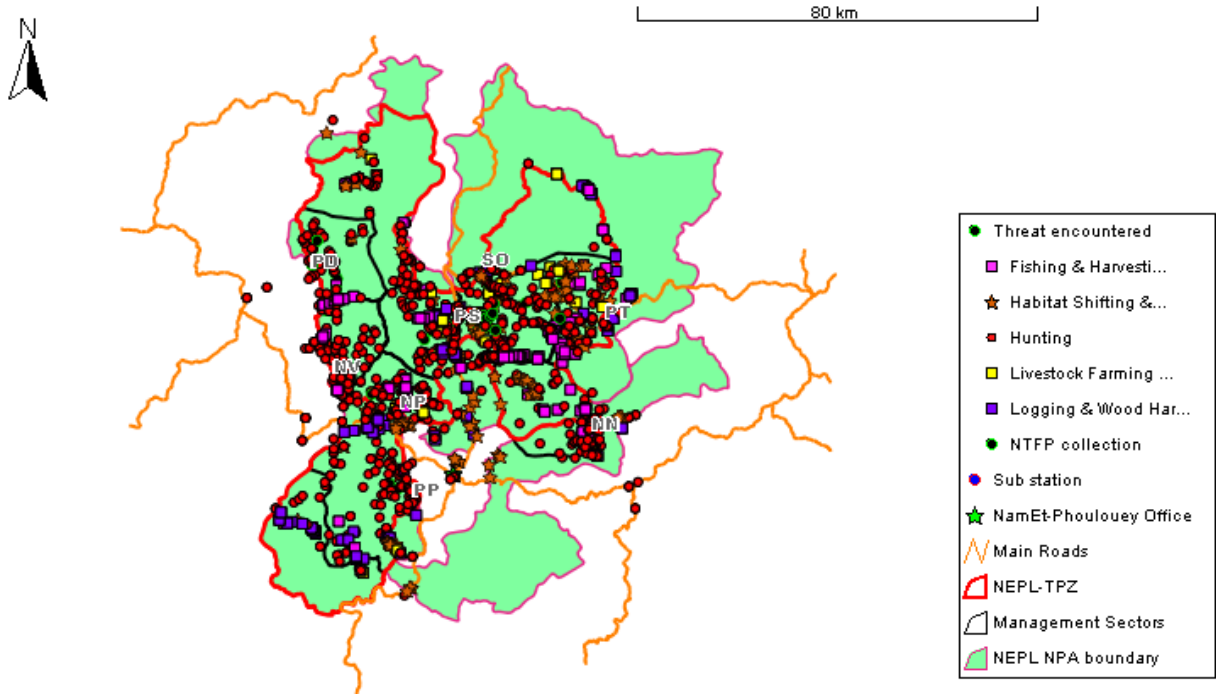


Figure 13. Threats encountered: August 2014 – March 2017

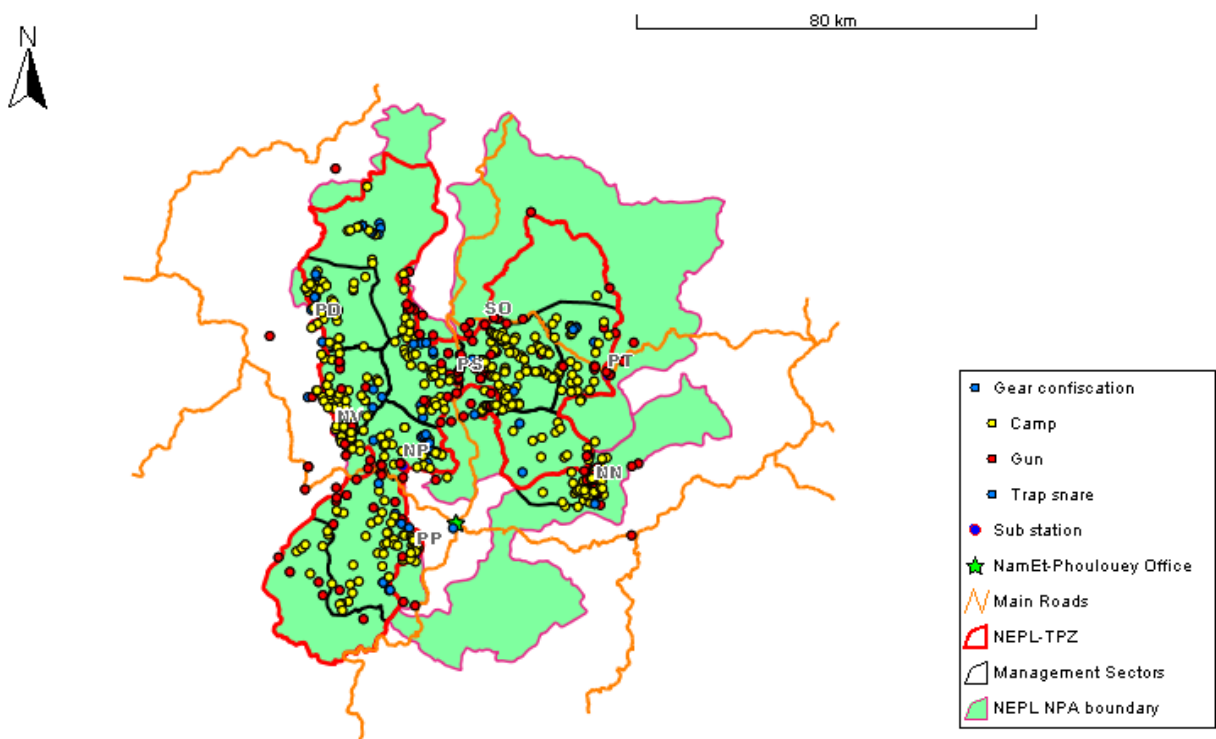


Figure 14. Actions taken: August 2014 – March 2017

C 4. Planning, Research, and Development Model

C 4.1 Restructure and test wildlife monitoring model

During the year 3 and no cost extension period of GEF4, monitoring continued through the PhD studies conducted by Akchousanh Rasphone, as part of the WildCru team of Oxford University, and through SMART data collected through ranger patrolling. At the end of February 2016, a camera trap survey was conducted in the third and fourth survey blocks (Phoupha-Siphou and Nam Pong / Navene; see Figure 15) to complete the second survey season for this research. The temporal replication of this study is developed for studying changes in status of carnivores and their prey and understand factors contributing to the changes for management purposes as well as to increase the amount of data for complex modeling and analysis to study interactions of large carnivores within the site.

The standard WildCRU clouded leopard survey protocol and design were implemented. There were 80 camera stations at 1 to 1.5km spacing and the survey was over 50 day-period. Due to the previously unusually frosty winter that we had this year, the habitat was left with lots of broken dead trees which caused forest fire to spread easily, resulting in our cameras being burnt at a couple of our survey stations.

Over 3003 trap nights, 5769 wildlife photographs were captured where felids and other large carnivores accounted for 12.14% of the total records. There were records of four species of felids, dhole and a species of bear (Fig.14). Our preliminary data analysis results (Table 7) shows that the rate of capture (RC) of clouded leopard *Neofelis nebulosa* slightly decreased in the Phoupha-Siphou block (or Block 3), compared to that of the previous survey. Clouded leopard however still showed to be more common in Block 2 & 3 than in Block 1. RC of dhole *Cuon alpinus* showed to dramatically decrease in Block 3 while the rate increased by half in Block 2 over the years. The results also showed RC of the sun bear *Ursus* decreased by about half in Block 3 while increased by about two and three times in Block 1 & 2 respectively, compared to the previous season. For Asian golden cat *Catopuma temminckii*, there was a little to no change in RC within Block 1 & 3 while there was quite a notable decrease in RC over the years in Block 2. The results also indicated a clear level of increase and decrease in RC in Block 3 and 2 respectively for the marbled cat *Pardofelis marmorata*. RC of leopard cat *Priornailurus bengalensis* was the most commonly detected within the Phoupha-Siphou block and also for all three sites. Interestingly, RC of leopard cat was much higher in the second survey season.

Overall there is a declining trend in RC of large and medium-sized carnivores over the two seasons across Block 3. This is also consistent with an increase in human presence within the area which manifested through a total of 30 cameras stolen and destroyed. This was considered to be quite a lot compared to any other surveys that we have ever conducted in the NPA. The decline in RC of some species was also probably related to the loss of data in those stolen/damaged cameras. As the findings showed a decrease in large and medium-sized carnivores, we saw an overall pattern of small felids like marbled cat and leopard cat increased over the seasons. Despite the problems encountered, this survey has yielded some very useful data for monitoring and assessing the status of the NPA's species and as a result of this survey, the park management team is working towards modifying their management strategies. Besides, the data from these complete two survey seasons will be combined and analysed to investigate the interactions of felids and other large carnivores.

In the very near future, we are aiming to complete the estimation of clouded leopard density as well as spatial and temporal distribution analysis for all the felids and other carnivores. We will also investigate the interactions amongst those species as well as relationships with their prey species.



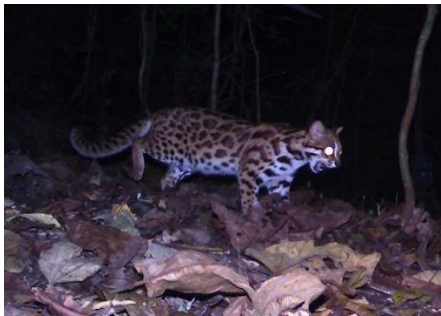
Clouded leopard *Neofelis nebulosa*



Golden cat *Catopuma temminckii*



Marbled cat *Pardofelis marmorata*



Leopard cat *Prionailurus bengalensis*



Dhole *Cuon alpinus*



Sun bear *Ursus malayanus*

Fig 14: Felid, dhole and sun bear photographed during the March - May 2015 survey in Nam Et-Phou Louey, Laos

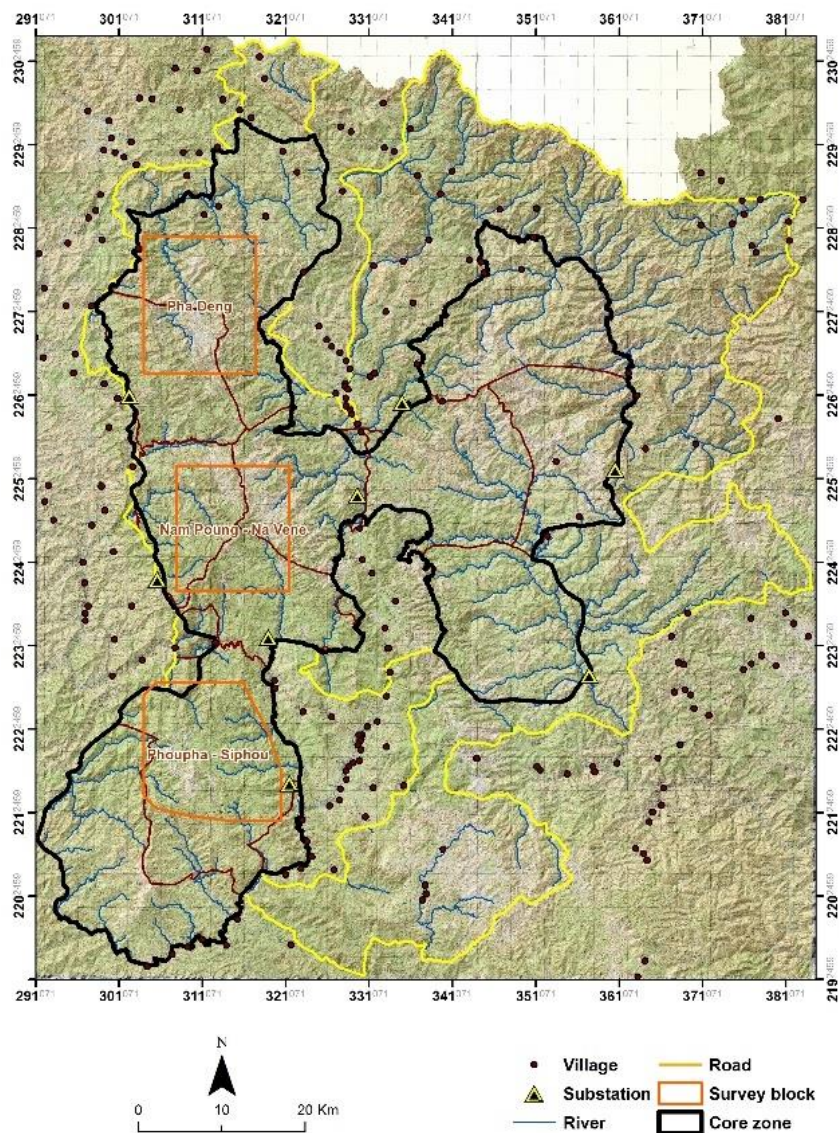


Fig. 15: Map of three survey blocks in Nam Et-Phou Louey, Northern Laos.

Table 7: Rate of capture (RC) of felid and other large carnivores across three survey areas over two survey seasons

Species		RC (detections/100 camera trap nights)					
		2013 – 2014 (Season 1)			2015-2016 (Season 2)		
		Block 1	Block 2	Block 3	Block 1	Block 2	Block 3
Clouded leopard	<i>Neofelis nebulosa</i>	0.17	0.51	0.81	0.19	0.67	0.60
Dhole	<i>Cuon alpinus</i>	0.5	0.3	1.36	0.56	0.79	0.57
Golden cat	<i>Catopuma temminckii</i>	0.45	1.19	0.49	0.44	0.15	0.43
Leopard cat	<i>Prionailurus bengalensis</i>	0.35	0.6	0.09	1.09	0.98	1.47
Marbled cat	<i>Pardofelis marmorata</i>	0.35	0.87	0.15	0.34	0.30	0.73
Sun bear	<i>Ursus malayanus</i>	0.62	0.27	0.84	1.34	0.98	0.40
Tiger	<i>Panthera tigris</i>	0.47	0.05	0	0	0	0

In addition to the monitoring conducted by Akchousanh Rasphone, monitoring of wildlife is also conducted by the forest mobile patrol teams. Rangers record observations of wildlife and wildlife signs in addition to the threats to wildlife during standard patrolling. This monitoring data is

reported at the monthly meetings, and used to direct strategic planning of patrolling activities. See Figure 16 Below for SMART recorded location data of wildlife encounters.

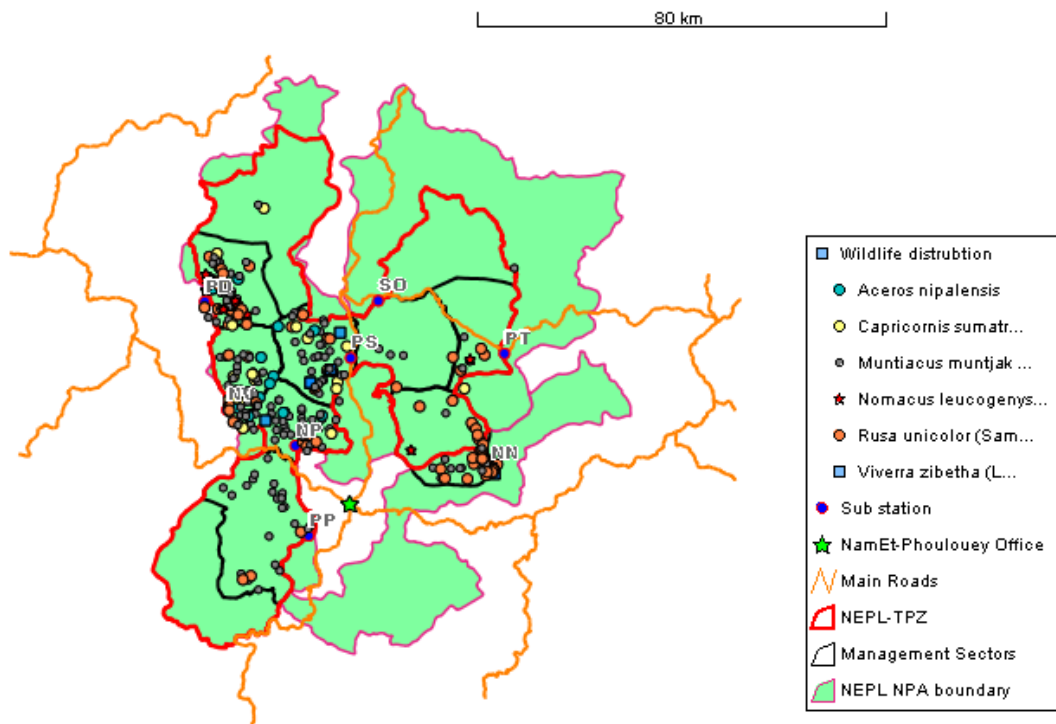


Figure 16. Patrolling Wildlife encounters: August 2014 to March 2017

Gibbon Survey 2014/2015

In 2014, extended into 2015, a gibbon listening post survey was performed in the west and north-west of the NPA to estimate population and density in what is believed to be the areas with the highest gibbon density of the NPA. The research was led by Khamkeo Thor and is the basis of his master's study ongoing at King Mongkut University in Thailand. The method for the survey was using linear arrays of listening posts in grid cells across these areas known already to be of high gibbon density from NEPL ranger reporting. By operating these listening posts over several consecutive mornings and triangulating the bearings made towards gibbon calls heard by the posts estimates of the number of groups could be made for the grid cells which were extrapolated to estimate number of individuals. The results of this work are currently being written as Mr. Khamkeo Thor's thesis and are expected to result in a publication in the near future. See Figure 17 for the locations of Gibbon groups identified in this study overlaid with gibbon groups recorded by rangers through the SMART system.

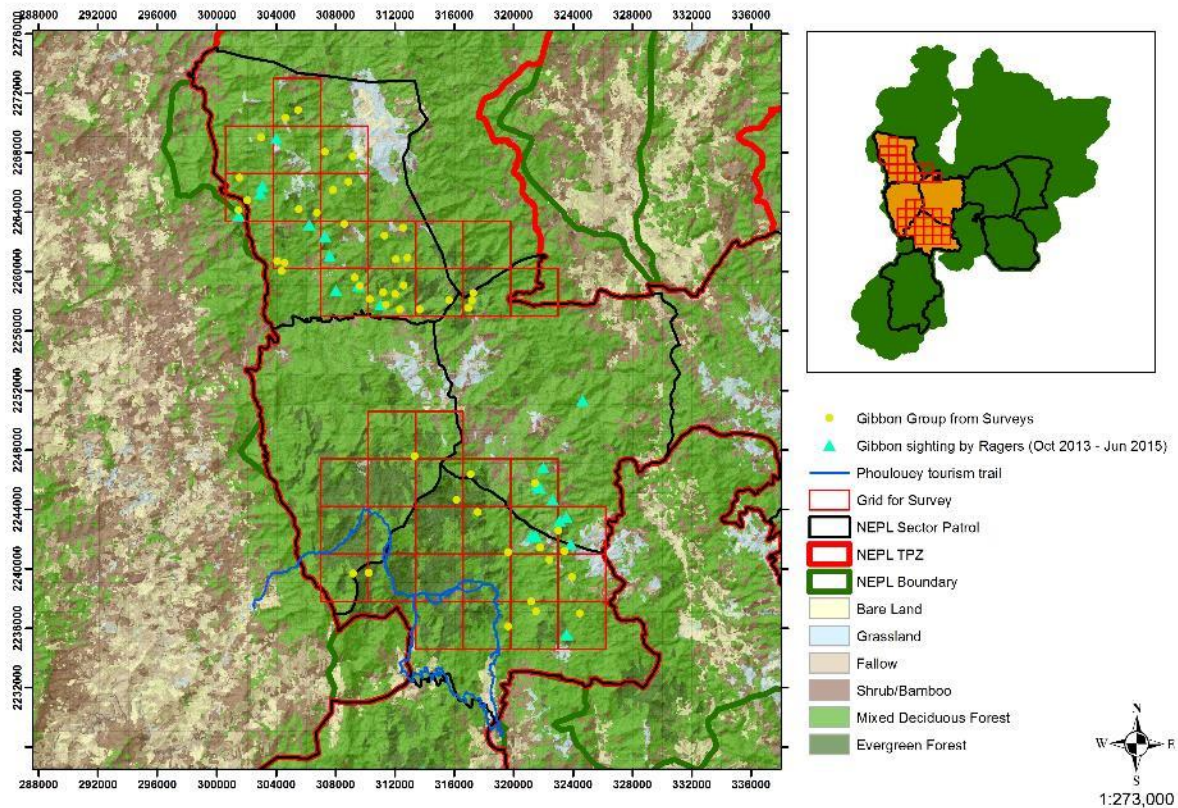


Figure 17. Gibbon group locations recorded through the gibbon survey on 2014/15, and by ranger patrols using SMART.

C 4.2 PA re-delineation

Re-delineation of 3 forest types

Re-delineation of the three forest types under the Prime Ministers direction is now under the management of DFRM, and during the year 3 work plan period there were not any on the ground activities conducted at NEPL. WCS/ NEPL will engage with DFRM for this re-delineation process as required to ensure the effective re-delineation of the outer boundary of the protected area.

Village boundary Issues

The delineation of the TPZ and village boundary in many village areas remains an ongoing issue at NEPL as mentioned earlier in this report. These boundaries were initially determined by NEPL and the Districts, supported by WCS in the past. A number of issues remain regarding the location of the total protection zone that must be addressed in the future.

- In some areas, village relocations that were planned by government at this time did not occur, and therefore the current boundary is not observed in reality on the ground.
- In some areas, villages' agricultural land has expanded rapidly into the TPZ, often driven by maize production on illegal roads built into the TPZ, and trader supported maize production schemes
- As cattle raising increases in the area, more people are seeking suitable areas to raise their cattle. Some people are returning to old village lands and establishing new sanams, while a number of other sanams have been operating in the TPZ for many years with no effort to remove or address these issues. Cattle raising is a complex and difficult issue for NEPL and will be addressed below in further details

In the first half of 2016, WCS and NEPL conducted a TPZ boundary demarcation activity for all villages in the Bouamfat cluster. This activity identified many of the issues discussed above, and will require a comprehensive village consultation and engagement to resolve. This consultation will commence as part of the CAP and CCA process planned to commence with LENS2 funding.

The correction and negotiation of the TPZ boundary associated with villages will be embedded in the CCA process to be conducted under the LENS2 Subproject. Agreement on the final boundary is considered a precondition for the implementation of any village agreements such as the CCAs

C 4.3 Research and development (R&D)

Patrolling review

As mentioned earlier, WCS/NEPL implemented a new ranger patrolling strategy in 2016, to both increase the effectiveness of the teams in addressing and confronting threats, and to realize necessary efficiencies for the overall patrolling effort. The monitoring results generated by SMART will be used to determine the success of this new strategy, in the context of more traditional substation based approaches. The increase in litigations and ranger coverage specified in this report are some of the broader results of this approach.

Protected Area Models

Under this component is the development and dissemination of the lessons learned from the GEF4 project regarding NPA management models. This will be through conference and meeting attendance, and the dissemination of model briefs. These briefs include:

1. Conservation Outreach activities
2. Law Enforcement and Ranger patrolling
3. Monitoring Wildlife and Forest Cover
4. Ecotourism

Cyber Tracker and paperless data collection

After some initial problems with integration of the Cyber tracker software with the SMART system, WCS/NEPL continues to test the function of this software/hardware product with the intention of eventually moving towards a fully integrated system that negates the requirement for taking physical notes in the field. When this system is successfully implemented, it is expected to provide much higher quality, location specific data for the SMART monitoring system, while at the same time reducing and simplifying ranger workloads.

While not funded by the NEPL/WCS program, an important paper was published this year with valuable information on the past experience with the NEPL program: *Johnson, A., et al. (2016). "To protect or neglect? Design, monitoring, and evaluation of a law enforcement strategy to recover small populations of wild tigers and their prey." Biological Conservation 202: 99-109.*

WCS and NEPL are currently testing and planning to implement a range of new technologies to better address issues and manage the NPA. These tools include drones for boundary demarcation and assessment of agricultural encroachment, surveillance cameras to address poaching in important wildlife areas, and radio systems for better tactical coordination.

C 5. Project Management

As described under the human resources development above, WCS and NEPL staff are closely aligned under the Government Section Head / WCS Technical Advisor arrangement. This arrangement will fit well with the proposed LENS2 subproject, as WCS intends to continue in its current role of both technical advisor and direct technical support to program implementation, with the intention to transfer implementation roles to GoL as capacity and experienced staff capable of conducting the various roles are in place. (see Figure 18).

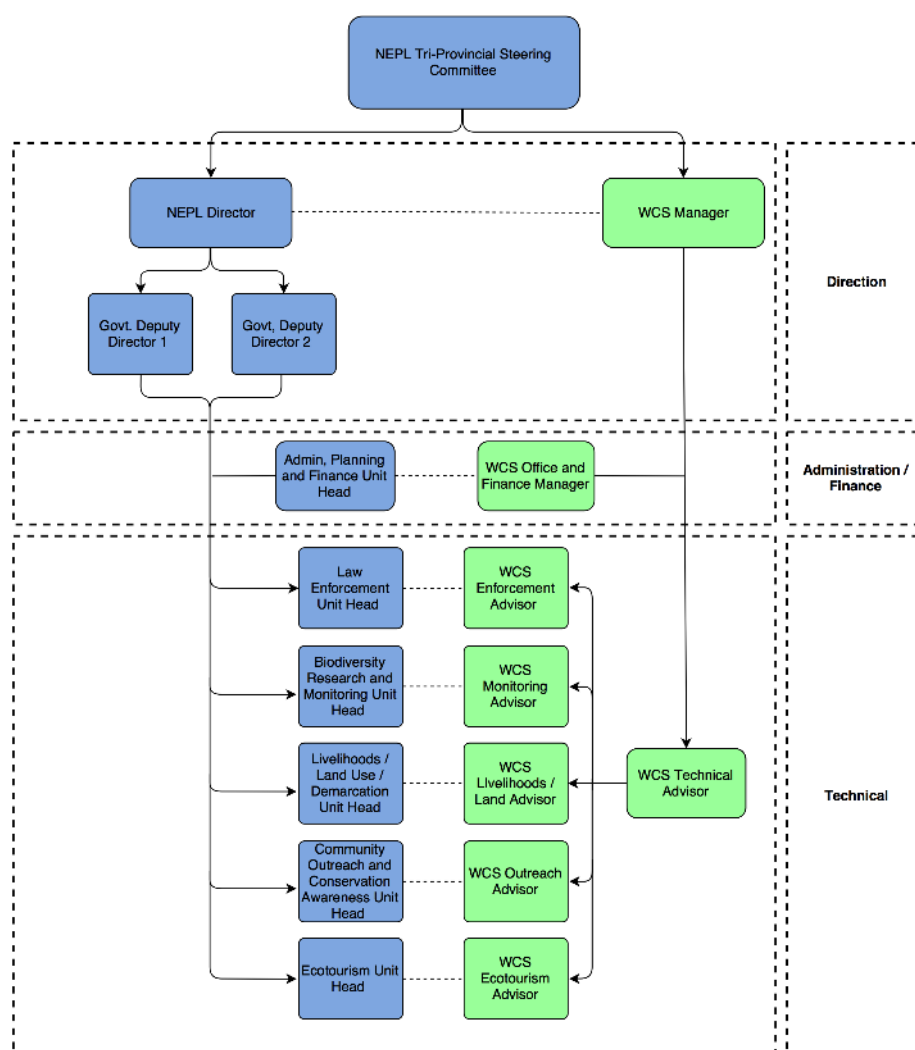


Figure 18. WCS/NEPL coordination structure at NEPL

METT scoring was conducted in January 2017, with an increased score from 45 (44%). The full METT scoring file is available on request.

C 4. REPORTING AND ADMINISTRATIVE ASPECTS

WCS NEPL Program Restructuring

A request for restructuring of the GEF4 project was sent to the World Bank Country Director in 2015 and approval was granted in this work plan year. A no cost extension was also granted until April 2017.

Monitoring and Evaluation

Due to the no cost extension, the full realization of some outcome indicators was only achieved by March 31 2017. However, a number of indicators were achieved in the second half of 2016, as the will be required for the development of the LENS2 Subproject proposal.

Opportunities and Challenges

During FY 16/17 GEF funding allowed the leveraging of additional funds from the European Union, AFD/FFEM, USFWS and the CLiPAD project, an indicated in Annex 1 below. There are currently a number of other funding opportunities being explored:

1. The EPF LENS2 subproject proposal was submitted in January 2017. This Subproject will provide a source of ongoing and significant financial resources to improve the management of NEPL, and the capacity of the NEPL Management Authority.
2. The UK Government's Darwin initiative has provided funds to conduct CCAs and associated NTFP, Agroforestry and Agrobiodiversity activities in the Bouamfat Cluster and Houay Ma. This 4 year project funding will support activities in 10 villages, and can act as a piloting exercise for the implementation of the CEF. Village Focus International has been contracted under this grant to assist with the development of the CCA process.
3. The KfW Village Forest Management Project – WCS has been approached to propose the participation of NEPL and WCS under this project. The project is likely to focus on Phonthong Cluster in Luang Prabang Province, and the resources that this project will bring to a traditionally difficult to access area on the boundary of NEPL is a significant opportunity.
4. WCS is currently applying for three years additional funding from the USFWS to support ranger patrolling and community activities, specifically in areas important for the white-cheeked gibbon.

In addition to these funding opportunities, there has also been a strengthening of the partnership between the NEPL Management Unit and WCS management through the assigning of a new NEPL Director from the Provincial Agriculture and Forestry Office Houaphan – Mr Bounpheng Poomsavarth. WCS is confident of effective relations and implementation success while NEPL is under the directorship of Mr Bounpheng.

While there has been good progress towards individual projects, and overall NEPL program goals this year, there have been a number of challenges. For example, the move of PA management to MAF / PAFO has led to some staff being reassigned, and this loss capacity is likely to present challenges for implanting core activities. Additionally, delays at the central level due to this transfer of responsibility have delayed the implementation of some activities, as well as the LENS2 Subproject preparation, and the new Ministerial agreement regarding the NEPL Steering Committee and Management Authority.

There have also been some issues regarding utilizing individual project funds in an integrated way to achieve overall program goals. For example there have been delays and reallocation of CLiPAD funding that was intended to support wildlife monitoring, and camera trap monitoring for some blocks has been delayed or suspended until further funds become available.

Conclusion

During the GEF4 program, there have been significant gains in terms of management of the NEPL protected area:

- The NPA is moving towards a true tri-provincial managed protected area – the first in Laos
- The expected imminent approval of the NW extension will make NEPL Laos' largest NPA at 498,000 ha, with plans to become the first National Park
- Law enforcement has seen significant effectiveness and efficiency gains, with increasing community inclusion and acceptance
- Villages have been engaged more effectively through programs such as the ecotourism products, with this program almost doubling in size.
- Improved partnerships and coordination with the 9 districts has led to gains in NPA recognition and coordination
- The models for implementation have been disseminated, and continue to be disseminated through new products – NEPL is increasingly seen as the leading protected area in Laos in terms of effective management and use of limited resources.
- The increase in management effectiveness as indicated by the achievement of METT targets
- The securing of funds for the medium-term management of NEPL including LENS2 and WCS sourced funds through donors: EU, AFD, USFWS, Margot Marsh.

The models for protected area management established under GEF4 and co-funding will allow for the successful scaling up of the NEPL program the funding secured, and into the longer term.

ANNEX 1. Financial report

Contribution by Donors to NEPL Program FY 2013 – 2017

Component	GEF	ClipAD	NICFI	EU	AFD	USFWS	Total
1. Community Engagement Models	189,588	123,126	231,192	137,316	89,245	421	770,888
2. Protected Area Administration Model	5,564	170,311	116,535	99,727	63,625	7,448	463,210
3. Resource Management and Protection Model	362,299	16,662	112,752	40,400	65,923	109,980	708,016
4. Planning, research and Development Model	46,151	95,533	86,966	55,784	44,541	2,162	331,137
5. Project Management	231,398	84,288	49,070	56,724	45,971	3,846	471,297
Management cost	37,729						37,729
Total	872,729	489,920	596,515	389,951	309,305	123,858	2,782,277

GEF 4 budgeted versus actual expenses – full GEF4 Period

	Actual			Budget		Variance		PAD
	Current Quarter	Year to date	Cumulative to date	Current Quarter	Current year	Current Quarter	Current year	Life of Project
Expenditure by project component								
Component 1: Community Engagement Model	1,539	5,945	189,588	2,006	6,019	468	74	168,322
Component 2: Protected Area Administration Model	-	-	5,564	-	-	-	-	5,564
Component 3: Resource Management and Protection Model	1,371	36,323	362,299	12,000	36,000	10,629	(323)	362,658
Component 4: Planning, Research and Development Model	-	3,024	46,151	643	1,930	643	(1,094)	33,619
Component 5: Project Management	7,540	29,207	231,398	12,183	36,550	4,644	7,343	270,837
Management Cost under Part 4 of the Project	472	3,366	37,729	1,212	3,637	740	271	38,000
Total	10,922	77,865	872,729	28,045	84,136	17,124	6,271	879,000

For full details on budget and financial status as at the end of the GEF4 period, please see the final IFR.

ANNEX 2. The revised results framework (RF) under the level-2 restructuring updated through June 30, 2015

Project Development Objective (PDO)		To test, in selected areas of the Nam Et Phou Louey National Protected Area, targeted activities for sustainable natural resource use and protection of selected species threatened by human interaction.								
Outcome Indicators	Unit		Baseline	Annual Target Values				Reporting Frequency	Data Source/ Methodology	Description (indicator definition)
				YR 1	YR 2	YR3	YR4			
Subproject related PDO indicator										
Outcome Indicator 1: Extent of forest cover maintained (annual)	ha	Plan	Total: 311,845 TPZ: 235,296 CUZ: 76,549	N/A	N/A	305,053 TPZ: 234,105CUZ: 70,948	305,053 TPZ: 234,105 CUZ: 70,948	EOP	NPAW study 2013 deforestation rate (2010-2013) for TPZ: 397/ha/yr and for CUZ: 1,867 ha/yr. Includes only MDF & Evergreen Forest, CUZ and TPZ but excludes Thamlam extension.	Indicator describes no increase and possibly a decrease in the deforestation rate.
		Actual/Up-dated Plan		N/A	N/A	305,053 TPZ: 234,105CUZ: 70,948	305,053 TPZ: 234,105CUZ: 70,948			
		Actual		N/A	N/A	Not measured – will be measured in Jan - Feb 2017	Total: 309,136 (met) TPZ 234,579 (met) CUZ 74,539 (met)			

Outcome indicator 2: New critical wildlife species habitat gazetted to NEPL NPA (cumulative)	ha	Plan	0	Extension area identified and regulations drafted	Draft regulations sent to National Assembly for approval	80,000	80,000	Every year	Decree	Forested areas designated as NPA that enhances ecosystem representation and increased wildlife species habitat.
		Actual/Updated Plan		DFRM approved & sent to Minister	Letter by Minister drafted & pending team verification of boundary	80,000	80,000			
		Actual		DFRM approved & sent to Minister	Letter by Minister drafted & pending team verification of boundary	Minister provided approval recommendation to national Assembly	At national assembly awaiting final signoff			
Outcome Indicator 3 <i>Protected area management effectiveness as measured by protected area scorecard (annual)</i>	%	Plan	38	38	40	44	44	Every year	Management Effectiveness Tracking Tool (METT)	WB core indicator and GEF mandatory biodiversity indicator. Due to increase of 2 eco-tourism products & increase of govt staff going from 2 to 7.
		Up-dated Plan		38	40	44	44			
		Actual		38	42	45	45 (met)			
Outcome Indicator 4 <i>Villages with signed Village Natural Resource Agreement compatible with approved mitigation plan for Phathi Road (cumulative)</i>	#	Plan	0	0	0	3	3	Every year	Village agreements (=Conservation agreements). VFI will conduct study on villages with customary rights along Phathi Road to inform PLUPAM process. VFI study completed & being incorporated into migration plan	Village Agreements are developed through PLUPAM process aiming to provide livelihood support and conservation benefits.
		Actual/Updated Plan		0	0	3	3			
		Actual		0	0	To be conducted in Dec 16 – Jan 17	See report – Phathi plans finalized, submitted to DALAM – Phathi Road plan in LENS2 ESMP			
Outcome Indicator 5: Models for sustainable use and protection of natural resources documented and disseminated (cumulative)	#	Plan	0	0	0	4	4	Every year	Project documents and distribution list.	Ecotourism model has been well disseminated in 4 major national/ international

		Actual/Up-dated Plan		0	0	4	4			conferences and workshops. Monitoring model has been disseminated in 2 international conferences.
		Actual		0	0	0 - Drafts produced – no final docs	4			
Intermediate Outcome indicator										
Component 1: Community Engagement Models										
<i>Sub-component 1.1 Outreach/Social Marketing</i>										
<i>Sub-component 1.2 Participatory Land Use Planning (PLUPAM)</i>										
<i>Sub-component 1.3 Sustainable livelihood aligned to conservation outcomes</i>										
<i>1.3.1. Ecotourism</i>										
<i>1.3.2 Agroforestry and agro-ecology</i>										
<i>1.3.3 NTFP sustainable management and harvest</i>										
<i>Sub-component 1.4. Lessons learned and dissemination</i>										
Intermediate Outcome Indicator 1 <i>Natural Resource Agreements approved and signed by communities and local government agencies (cumulative)</i>	#	Plan	0	0	0	15	15	Every year	Village Agreements (also called “Conservation Agreements”) and maps as result of PLUPAM process.	This indicator is linked to PLUPAM process, which in itself will be a natural resource agreement.
		Actual/Up-dated Plan								
		Actual				37 sub-agreements, 4 PLUPs	12 (partially met)			
Intermediate Outcome Indicator 2 <i>Village ecotourism contracts linked to conservation outcomes signed (cumulative)</i>	#	Plan	0	14	28	35	35	Every year	Contracts (signed by District Administration, all villages, NEPL Manager and Cluster Groups. 28 will be the final total)	
		Actual/Up-dated Plan								
		Actual		14	28	28	28			

Intermediate Outcome Indicator 3 <i>NTFP feasibility studies developed (cumulative)</i>	#	Plan	0	0	1	4	4	Every year	Study reports done for bamboo and coffee – 2 more to be conducted	This to be measured based on final reports and disseminated to district & provincial government
		Actual/Up-dated Plan		0	2	4	4			
		Actual		0	2	2	4			
Intermediate Outcome indicator										
Component 2: Protected Area Administration Model <i>Sub-component 2.1. Three-province-NPA management model</i> <i>Sub-component 2.2. Human resource development</i> <i>Sub-component 2.3. Lessons learned and dissemination</i>										
Intermediate Outcome Indicator 4 <i>Three-province-NPA management model developed (cumulative)</i>	Yes/No	Plan	0	N/A	3 provinces gave instruction to start process.	Three-province organization proposal developed	Three-province organization proposal developed	Every year	Minutes of the meetings. Model document.	Tri-provincial steering committee and section head structure finalized in 2015. Updated structure for LENS2 under review.
		Actual/Up-dated Plan		N/A	3 provinces gave instruction to start process.	Three-province organization proposal developed	Three-province organization proposal developed			
		Actual		N/A	3 provinces gave instruction to start process.	Tri-provincial steering committee and section head mgmt. structure established	Tri-provincial steering committee and section head mgmt. structure established			
	days	Plan	0	94	170	240	240	Every year	Annual report. WCS NEPL	Completed - Non-WCS staff trained exceeded

Intermediate Outcome Indicator 5 Training days delivered to non-WCS staff (cumulative)	Actual/Up-dated Plan		94	209	240	240	maintains training table in Excel by project component	240 (cumulative) in year 3. Conservative estimate at 250 at June 2015.		
	Actual		94	209	250	>250 (met)				
Intermediate Outcome indicator										
Component 3: Resource Mgt. and Protection Model										
Sub-component 3.1. Ranger sub-sector law enforcement										
Sub-component 3.2. Kumban-led natural resource protection										
Sub-component 3.3 Management of externally driven infrastructure including Phathi Road										
Sub-component 3.4. Lessons learned and dissemination										
Intermediate Outcome Indicator 6 Kumban where Community-led Law Enforcement Action Networks (CLEAN) initiated (cumulative)	#	Plan	0	0	Kumban locations finalized and discussions started	3 operational networks	3 operational networks.	Every year	Annual report	Chanthavy contracted for leading this work
		Actual/Up-dated Plan		0	2 Kuban location decided: Phonexay, Hiem	3 operational networks	3 operational networks.			
		Actual		0	2 Kuban location decided: Phonexay, Hiem	Sakok, Nam Poug and Son Khoua engaged regularly, community members of ranger teams	Met - Sakok, Nam Poug and Son Khoua engaged regularly, community members of ranger teams			
Intermediate Outcome Indicator 7 Grid cells patrolled in core zone (cumulative)	Percentage of total number of grid cells patrolled	Plan	1,000 km ² = 32% (2012)	1,100 km ² = 36%	1,200 km ² = 39%	1,400 km ² = 46%	Same as yr 3 - completed	Every year	SMART database reports	Measures total number of grid cells patrolled.
		Actual/Up-dated Plan		1,100 km ² = 36%	1,215 km ² = 39%	1,400 km ² = 46%	Same as yr 3 - completed			

Intermediate Outcome Indicator 9 <i>Proposal for re-delineation of Nam-Et developed (annual)</i>	Yes/No	Plan	NA	NA	Assess methodology (CDE/TABI or equivalent) to re-delineate Nam Et	Re-delineation report developed and shared with appropriate authorities for review	Re-delineation report developed and shared with appropriate authorities for review	Annually	Correspondence with proposal	Methodology assessed & provided recommendations to TABI & will do so for next NPA Partners meeting. Also related to PULP have facilitated meeting w/ PONRE and DFRM (Bouaphan) on re-delineating core zone boundary for Bouamfaat Cluster village.
		Actual/Up-dated Plan		NA	Methodology assessed	Re-delineation report developed and shared with appropriate authorities for review	Re-delineation report developed and shared with appropriate authorities for review			
		Actual		NA	Methodology assessed	Re-delineation process with DFRM – progress uncertain	Re-delineation process with DFRM – progress uncertain			
Intermediate Outcome indicator										
Component 5: Project Management										
Intermediate Outcome Indicator 10 <i>Financial Management, Procurement and M&E ratings S or above (annual)</i>	#	Plan	NA	0	2	3	3	Annually	IFRs, annual reports and Mission aide-memoire. 1 for FM, 1 for Procurement, 1 for M&E ratings satisfactory or higher.	Measures project management performance.
		Actual/Up-dated Plan		0	0	3	3			
		Actual		0	0	3	3			
Intermediate Outcome Indicator 11 <i>Deliverables proposed in AWPB completed (annual)</i>	%	Plan	NA	69	80	100	100	Annually	IFRs, annual reports and Mission aide-memoire.	Measures implementation performance. This indicator should not be cumulative
		Actual/Up-dated Plan		69	74	100	-			

		Actual		69	74	80	89 (score for extension period)			
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ANNEX 3. Annual Activity Plan – No cost extension period

No	Activity	participants	Indicator	Quarter				Comment	Progress
				3	4	1	2		
C1	Community engagement								
1.1	District regulations – 9 district regulations	WCS, NEPL, Districts	Regulations finalized and signed		X	X			Signed off at provincial Level
1.1	Social Campaigns	WCS, NEPL	Campaigns conducted as planned						Completed – PROCEED coordination, NEPL led outreach, Army outpost outreach.
1.2	PLUP – Phathi. PLUP in Phathi Cluster aligned with the Phathi Road Plan	WCS, NEPL, Districts, PONRE	Phathi Rd Plan finalized and reviewed by advisory committee		X	X	X		Plan reviewed by advisory committee, comments incorporated and included in LENS2 Subproject ESMP.
1.2	PLUP – Bouamfat. Core zone boundary demarcated, report produced. Process for addressing issues commenced	NEPL, WCS, District	Boundary demarcation complete. Report on next steps produced	X	X	X			Boundary demarcation completed – next step is renegotiation with villages under CCA process under LENS2
1.2	Natural resource Agreements	NEPL, WCS, Cluster, Villages	Natural resource agreements completed for 4 villages in Bouamfat cluster	X	X				Completed for 5 villages in Bouamfat. To be upgraded to CCAs under LENS2 program of work.
1.3	Ecotourism	NEPL, WCS, village associations	New products full opening, benefits distributed	X	X	X	X		New products opened, benefits distributed.
1.3	Coffee	NEPL, WCS, Saffron, Bouamfat Cluster	Coffee partnership / support with Saffron coffee continued	X	X	X	X		Coordination continued with planned demonstrations to be established in July 2017 after UXO clearance.

1.3	Other livelihood engagements (NTFPs, Bamboo etc)	NEPL, WCS, others	Options for additional livelihood interventions investigated.	X	X	X	X		2 additional feasibility studies completed – Red mushroom and Cardamom. Darwin grant awarded and work on NTFPs and livelihoods commenced
1.3	Handicraft groups	NEPL, WCS, Villages	Handicraft groups supported	X	X	X	X		Handicraft groups supported and selling through NEPL tourism centre and in ecotourism visitor centres in villages
C2	Protected Area Administration Model								
2.1	Three-province NPA management model and Support to the LENS 2 project design	NEPL, WCS, MONRE, DFRM, PONRE	WCS to provide support to LENS 2 project design as requested	X	X	X	X		Support to both processes ongoing as required
2.2	Human resource development	NEPL, WCS, external providers	Ongoing day to day mentoring and training conducted	X	X	X	X		GEF4 training target achieved and exceeded. This is an ongoing activity supported by GEF4 and cofunding
C3	Resource Management and Protection Model								
3.1	Management of externally-driven infrastructure	WCS, NEPL, PONRE, Districts, Houay Ma Cluster, Xone Cluster	Draft Phathi Road plan finalized and reviewed by advisory group.	X	X				Ongoing engagement with hydropower development on the Nam Nern.
3.2	Ranger patrolling	NEPL, WCS, Districts	Ranger patrolling meets targets: XX grids patrolled, 144 patrols conducted.					Ranger patrols are now strategically deployed. Specific grid cell targets may not apply.	Due to the cessation of funding for the Nam Nern and Phathi Substations by CLiPAD in December 2017, only 120 planned patrols were conducted.

	Final METT scoring process completed	NEPL, WCS	METT scores assessed and reported			X			Scoring conducted in January 2017 - Target of 45 met in the final year of GEF4
C4	Planning, Research, and Development Model								
4.1	Wildlife monitoring	NEPL, WCS, CLiPAD, Oxford	Wildlife monitoring in Nam Nern sector conducted		X				Not achieved –CLiPAD project did not procure required camera traps and only provided partial funding for sampling so this did not go ahead. Monitoring was conducted in the other three sectors in this period instead (Phou Phasipou, Phou Nyeid and Navene).
4.2	PA re-delineation	NEPL, WCS, DFRM	WCS to support DFRM re-delineation as requested. Extension report produced and provided to Government	X	X	X			Extension pending – with National Assembly
4.3	Research and development (R&D)	WCS, NEPL	4PA model documents produced and disseminated	X	X	X			Models disseminated as discussed in report. Model briefs drafted and disseminated partially during the no cost period.
C5	Project Management								
	Yearly report 2015 – 2016	WCS, NEPL	Submission of report	X					Submitted
	Final Report	WCS, NEPL	Final report submitted			X			This document – submitted
	IFRs	WCS	IFRs submitted on time	X	X	X			Submitted

ANNEX 4 Procurement (no change from Year 3)

1. Project information:

- Country/Borrower: Lao PDR
- Project Implementing Agency: Wildlife Conservation Society (WCS)

2. Bank's approval Date of the procurement Plan

- Original Plan: February 28, 2013
- Revision: September 30, 2014

3. Date of General Procurement Notice:

- No Update

4. Period covered by this procurement plan:

- The project period.

II. Goods and Works and non-consulting services.

1. Prior Review Threshold: Procurement Decisions subject to Prior Review by the Bank as stated in Appendix 1 to the Guidelines for Procurement:

	Procurement Method	Contract Value Threshold (\$'000)	Prior Review Threshold (\$'000)	Comments
1.	ICB (Works)	>=2,000	All ICB contracts	
2.	NCB (Works)	200 – <2,000	The first NCB contract	
3.	Shopping (Works)	<200	The first shopping contract	
4.	ICB (Goods)	>=600	All ICB contracts	
5.	NCB (Goods)	100 – <600	The first NCB contract	
6.	Shopping (Goods)	<100	The first shopping contract	
7.	Direct Contracting for Goods	-	All contracts	-
8.	Community Force Account	<10	-	

2. Prequalification. Not expected for the works/goods packages.

3. Reference to (if any) Project Operational Manual:

4. **Any Other Special Procurement Arrangements:** Goods and works for supporting the ecotourism-based livelihoods will be carried out through Community Participation in Procurement method such as Community Force Account in accordance with paragraph 3.17 of the World Bank's Procurement Guidelines.
5. Procurement Packages for Works & Goods (prior & post reviews) with Methods and Time Schedule

Detailed Procurement Plan

Procurement Packages for Works & Goods (prior & post reviews) with Methods and Time Schedule

1	2	3	4	6	7	8	9
Ref. No.	Contract (Description)	Estimated cost (US\$)	Proc. Method	Domestic Preference (yes/no)	Review by World Bank (Prior / Post)	Expected Bid/ Quotation Opening Date	Comments
Component # 1							
C1.G01	Pick up truck, 4X4 crew cab	29,000	Shopping	No	Prior	September 2013	First shopping of goods. Purchased
C1.G02	Social Marketing Campaign Materials (poster, billboard, story book, costume, pledge for conservation, t-shirt, bag, jacket, note book, sticker, awning, puppet, puppet stage, print vinyl, CD) for 3 years.	35,000	Shopping	No	Post	January 2014 January 2015	No further purchases to be made
C1.G03	PC Laptop 1 units, with specified software; Printer A4 1 units	1,000	Shopping	No	Post	January 2014	Purchased
C1.G04	Electric Portable Generators, 1 units (Sakari Unit with Honda GX160 motor) 1500-1800w	750	Shopping	No	Post	January 2014	Purchased
C1.G05	Motorcycles 3 units, urban 100cc	4,500	Shopping	No	Post	October 2013 December 2014	2 Purchased Other funds used for maintenance of WB-funded vehicles

C1.G06	Digital camera, 5 units	2,500	Shopping	No	Post	November 2013	Ordered, not ordered, purchased GPS units w/ camera instead
C1.G07	GPS – Handheld Global Position System, 5 units	1,500	Shopping	No	Post	December 2013	Bought, 8 units w/ camera. Total costs didn't exceed camera + GPS
C1.G08	Gate with a lock and large sign at substation	4,000	Shopping	No	Post		Postponed until more community & govt. consultation takes place re: Phathi Road mitigation plan. CliPAD to construct new checkpoint on Houay Ma end of Phathi Road.
C1.G09	Extension built on to one ranger station	2,000	Shopping	No	Post	February 2015	Postponed until more community & govt. consultation takes place re: Phathi Road mitigation plan. CliPAD to fund new checkpoint on Phathi Road
Component # 2: PA Financing Ecotourism							
C2.W010	Campsite Construction, viewing platforms, trail building and signs for Ecotourism Trek	20,000	Community force	No	Post	May 2014 May 2015	Complete
C2.G011	Ecotourism equipment (Sleeping bags & tents and other sleeping and cooking equipment for all sites)	1,000	Shopping	No	Post	May 2014 May 2015	Purchased

III. Selection of Consultants

1. **Prior Review Threshold:** Selection decisions subject to Prior Review by Bank as stated in Appendix 1 to the Guidelines Selection and Employment of Consultants:

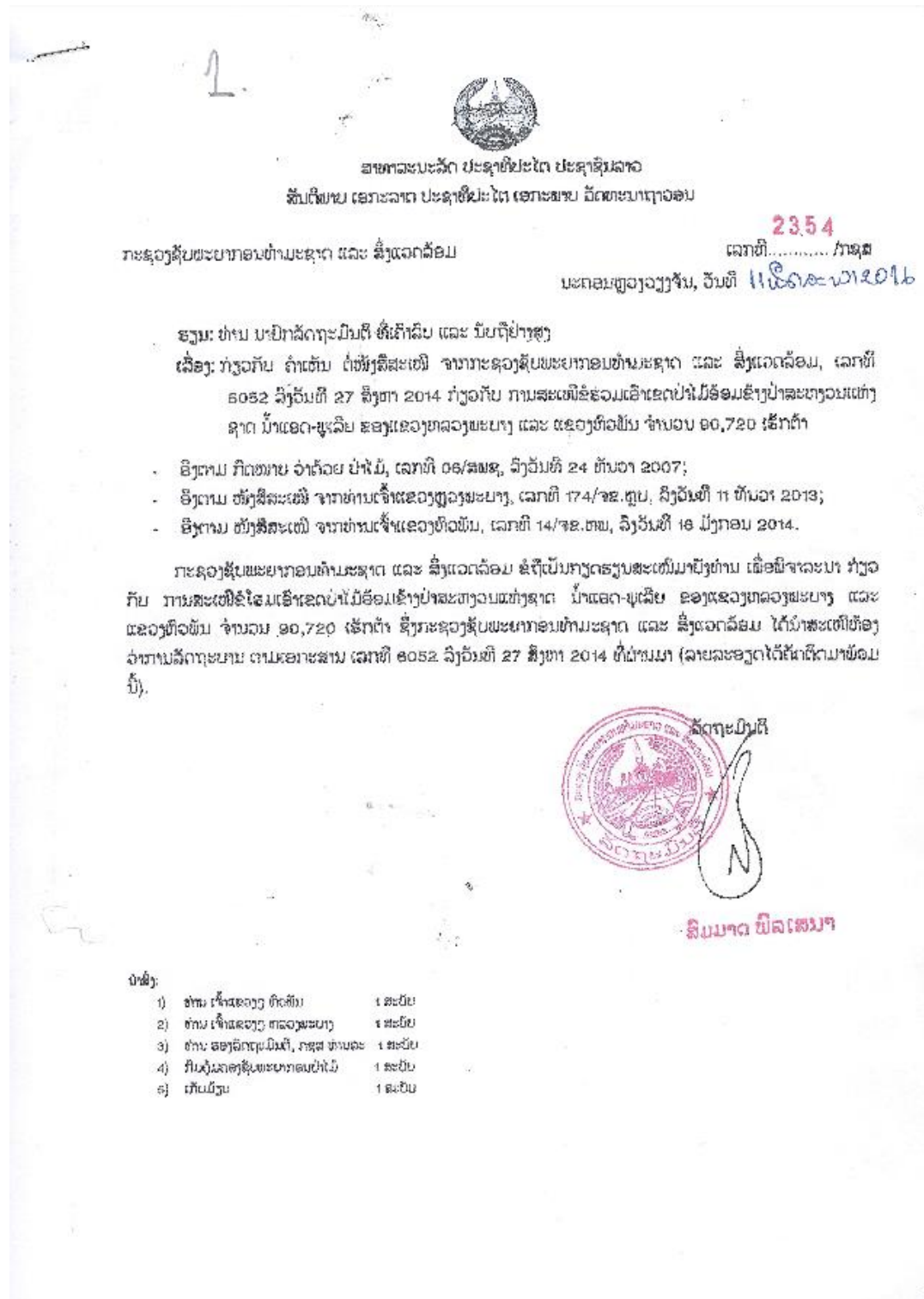
	Selection Method	Contract Value Threshold (\$'000)	Prior Review Threshold (\$'000)	Comments
1.	Competitive Methods (Firms) – Quality & Cost Based Selection (QCBS),	>300	All contracts	
2.	Competitive Methods (Firms) – Least-Cost Selection (LCS) and Selection Based on Consultant Qualifications (CQS)	<=300	>= 100 and the first contract for hiring consulting firm for each selection method regardless of value	-
3.	Single Source (Firms)	-	All contracts	-
4.	Individual Consultants	-	all sole-source selection >=10,000 fiduciary and legal staff	-

2. **Short list comprising entirely of national consultants:** No short lists of consultants for services are expected to comprise entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines. However, if a need arises during the project implementation and if it is warranted, short lists of consultants for services estimated to cost less than \$200,000 equivalent per contract may be composed entirely of national consultants.
3. **Any Other Special Selection Arrangements:** None

4. Consultancy Assignments with Selection Methods (prior & post reviews) and Time Schedule

1	2	3	4	5	6	7
Ref. No.	Description of Assignment	Estimated cost (US\$)	Selection Method	Review by World Bank (Prior/ Post)	Expected Proposals Submission Date	Comments
C.01	Outreach Project Manager for four year contract	20,345	IC: comparing at least three candidates	Post	November 2013	Recruited; (Dtae) – Dtae resigned and position not filled
C.02	Site Coordinator for 4 years assignment	132,500	IC: comparing at least three candidates	Post	November 2013	Recruited; (Mark Hawkes); Jay White took on technical advisor position in Jan 2016
C.03	Natural Resource Use Assistant	9,699	IC: comparing at least three candidates	Post	March 2014 November 2015	Recruited: (Khanthong)
C.04	NEPL Accountant	20,320	IC: comparing at least three candidates	Prior	July 2013	Recruited: (Maipheng)
C.05	Annual financial audit	17,000	CQS	Prior	Dec 2014	Completed

ANNEX 5 – Government Correspondence regarding the North West Extension.



2



ສະພາແຫ່ງຊາດ	
ເລກທີ	06/ສພຊ
ລົງວັນທີ	21.6.16
ນາຍົກລັດຖະມົນຕີ	

ສາທາລະນະລັດ ປະຊາທິປະໄຕ ປະຊາຊົນລາວ
 ສັນຕິພາບ ເອກະລາດ ປະຊາທິປະໄຕ ເອກະພາບ ວັດທະນະຖາວອນ

ເລກທີ 06 ສພ
 ນະຄອນຫຼວງວຽງຈັນ, ວັນທີ 20.06.2016.

ບົດລາຍງານ

ຮຽນ : ທ່ານ ປະທານສະພາແຫ່ງຊາດ ທີ່ເຄົາລົບ.
 ເລື່ອງ: ການສະເໜີຂໍເອົາເຂດປ່າໄມ້ອ້ອມຂ້າງປ່າສະຫງວນແຫ່ງຊາດ ນ້ຳແອດ-ພູເລີຍ ຂອງແຂວງ
 ຫຼວງພະບາງ ແລະ ແຂວງ ຫົວພັນ ຈຳນວນ 90.720 ຮຕ ເພີ່ມເຂົ້າເປັນປ່າສະຫງວນແຫ່ງ
 ຊາດ ນ້ຳແອດ-ພູເລີຍ.

- ອີງຕາມ ເອກະສານລາຍງານຂອງກະຊວງ ຊັບພະຍາກອນທຳມະຊາດ ແລະ ສິ່ງແວດລ້ອມ ເລກທີ
 6052/ກຊຊ, ລົງວັນທີ 27 ສິງຫາ 2014 ແລະ ເລກທີ 2354/ກຊຊ, ລົງວັນທີ 11 ພຶດສະພາ 2016.

ຂ້າພະເຈົ້າ ນາຍົກລັດຖະມົນຕີ ແຫ່ງ ສປປ ລາວ ຂໍຖືເປັນກຽດສະເໜີມາຍັງທ່ານ ຊາບວ່າ: ຕໍ່ມາ
 ກະຊວງ ຊັບພະຍາກອນທຳມະຊາດ ແລະ ສິ່ງແວດລ້ອມ ໄດ້ສືບທັບຮັບແຂວງ ເພື່ອຄົ້ນຄວ້າ ແລະ ລາຍງານ
 ລັດຖະບານ ກ່ຽວກັບການສະເໜີຂໍເອົາເຂດປ່າໄມ້ອ້ອມຂ້າງປ່າສະຫງວນແຫ່ງຊາດ ນ້ຳແອດ-ພູເລີຍ ຂອງ
 ແຂວງ ຫຼວງພະບາງ ແລະ ແຂວງ ຫົວພັນ ຈຳນວນ 90.720 ຮຕ ເພີ່ມເຂົ້າເປັນປ່າສະຫງວນແຫ່ງຊາດ ນ້ຳ
 ແອດ-ພູເລີຍ, ເນື່ອງຈາກເຂດດັ່ງກ່າວຍັງມີຄວາມອຸດົມສົມບູນທາງດ້ານຊັບພະຍາກອນປ່າໄມ້ ແລະ ຊີວະ
 ນາໆ ທີ່ມີຄຸນຄ່າສູງ, ພ້ອມທັງເປັນເຂດບອດນ້ຳທີ່ສຳຄັນຂອງບັນດາເມືອງໃນ 2 ແຂວງ.

ອີງຕາມກົດໝາຍ ວ່າດ້ວຍປ່າໄມ້ ສະບັບເລກທີ 06/ສພຊ, ລົງວັນທີ 24 ທັນວາ 2007 ມາດຕາ 78
 ລະບຸວ່າ: ປ່າປ້ອງກັນ, ປ່າສະຫງວນແຫ່ງຊາດ ແລະ ປ່າຕະເລີດ ທີ່ມີຄວາມເຂດເມື່ອທີ່ເກີນກວ່າຫ້າສິບພັນເຮັກ
 ຕາ ຊຶ່ງຍາດກວມເອົາຫຼາຍແຂວງ, ນະຄອນຫຼວງ ແມ່ນສະພາແຫ່ງຊາດ ເປັນຜູ້ຕົກລົງຮັບຮອງຕາມການສະ
 ເໜີຂອງລັດຖະບານ.

ດັ່ງນັ້ນ, ຈຶ່ງຂໍຮຽນລາຍງານມາຍັງເພື່ອຊາບ ແລະ ພິຈາລະນາ ຕາມເຫັນສົມຄວນດ້ວຍ (ໄດ້ມີເອກະ
 ສານທີ່ກ່ຽວຂ້ອງລັດຕິດມາພ້ອມນີ້).

ນາຍົກລັດຖະມົນຕີ

 ທອງລຸນ ສີສຸລິດ

ສິ່ງແວດລ້ອມ ເສັ້ນທາງ	
ເລກ	13/2016
ວັນທີ	13/12/2016
ສິ່ງເບິ່ງ	

ສາທາລະນະລາຍ
ສັນຕິພາບ ເອກະລາດ

ສະເໜີ ສະເໜີ ສະເໜີ
ສະເໜີ ສະເໜີ ສະເໜີ

13/12/2016

ບົວໂພນ ພິມພາະວິງ

ນະຄອນຫຼວງວຽງຈັນ, ມິນທີ 15-1-2017

ຫ້ອງວ່າການສຳນັກງານນາຍົກລັດຖະມົນຕີ

ກຊສ	
ເລກ	13/2016
ວັນທີ	13/12/2016
ສິ່ງເບິ່ງ	

ຫ້ອງສືບທອນລັດຖະການ

ຮຽນ: - ຫ້າມ ລັດຖະມົນຕີກະຊວງ ຊັບພະຍາກອນທຳມະຊາດ ແລະ ສິ່ງແວດລ້ອມ.

- ຫ້າມ ລັດຖະມົນຕີກະຊວງ ກະສິກຳ ແລະ ປ່າໄມ້.

ເລື່ອງ: ການຜະໜອງຂໍ້ມູນກ່ຽວກັບເຂດປ່າໄມ້ອ້ອມຂ້າງນ້ຳສະຫງວນແຫ່ງຊາດນ້ຳແອດ-ບູເລີຍ ຂອງແຂວງ ຫຼວງພະບາງ ແລະ ແຂວງ ຫົວພັນ ຈຳນວນ 90.720 ຜຕ ເພີ່ມເຂົ້າເປັນປະສະຫງວນແຫ່ງຊາດ ນ້ຳແອດ ບູເລີຍ.

- ອີງຕາມ ຫ້າງສືບທອນຂໍ້ຂອງຄະນະກຳມາທິການແອດບູເລີຍ, ເວັກໂນໂລຊີ ແລະ ສິ່ງແວດລ້ອມ ລະດັບແລກທີ 35/ກຂຕສ, ລົງວັນທີ 28 ມິຖຸນາ 2016.

ຫ້ອງວ່າການສຳນັກງານນາຍົກລັດຖະມົນຕີ ລິຖິເປັນກຸດສະເໜີມາຍັງຫ້າມ ເພື່ອໃຫ້ກະຊວງຊັບພະຍາກອນທຳມະຊາດ ແລະ ສິ່ງແວດລ້ອມ ສົມທົບກັບກະຊວງ ກະສິກຳ ແລະ ປ່າໄມ້, ແຂວງ ຫຼວງພະບາງ ແລະ ແຂວງ ຫົວພັນ ກະກຽມຂໍ້ມູນສະຽດກ່ຽວກັບເຂດທີ່ປະສະຫງວນແຫ່ງຊາດນ້ຳແອດ-ບູເລີຍ, ຂໍ້ມູນໃນຂອບເຂດປ່າໄມ້ອ້ອມຂ້າງນ້ຳສະຫງວນດັ່ງກ່າວໄດ້ກວມຈັກກ້າມ, ມີປະຊາຊົນເຜົ່າໄຕ ແລະ ຂໍ້ມູນຕື່ມກ່ຽວກັບຂອງ ເພື່ອສິ່ງເບິ່ງຄະນະແຫ່ງຊາດ ເປັນຂໍ້ມູນໃນການຄົ້ນຄວ້າ, ປະກອບຄວາມເຫັນ ແລະ ທີ່ຈາລະນາ (ລາຍລະອຽດມີເອກະສານຄັດຕິດມາເພີ່ມນີ້)

ດັ່ງນັ້ນ, ຈຶ່ງສະເໜີກຳນົດ ເພື່ອຊາບ ແລະ ດຳເນີນການຕາມທາງຄວນຕົວຍັງ

ລັດຖະມົນຕີ,
ຫ້ອງສືບທອນລັດຖະການນາຍົກລັດຖະມົນຕີ



ເພັດ ພິມພິພັກ

- ເອກະຜົນ:
- ສະເໜີ ສະເໜີ
- ສະເໜີ ສະເໜີ
- ສະເໜີ ສະເໜີ
- ສະເໜີ ສະເໜີ

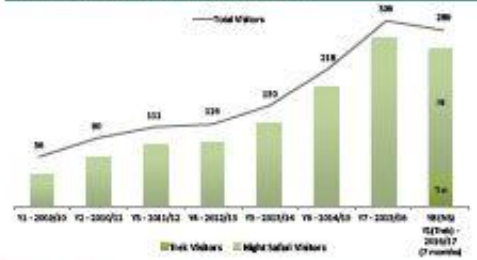
ສຳນັກງານນາຍົກລັດຖະມົນຕີ ຫ້ອງສືບທອນລັດຖະການ ຫ້ອງວ່າການສຳນັກງານນາຍົກລັດຖະມົນຕີ ຫ້ອງວ່າການສຳນັກງານນາຍົກລັດຖະມົນຕີ

ANNEX 6 – Nam Nern Night Safari Marketing Statistics up to March 2017

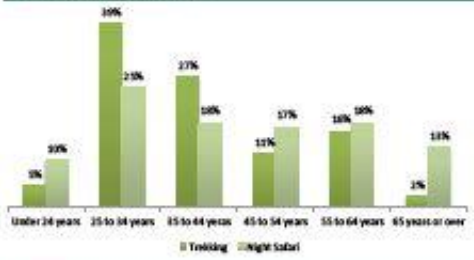
Nam Et -Phou Louey NPA Ecotourism Statistics 2009 - 2017



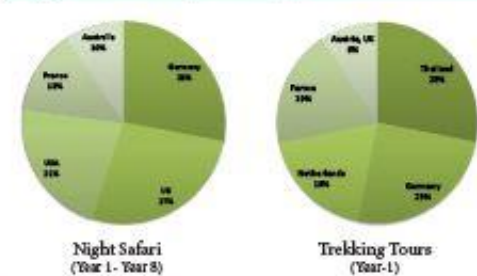
Number of Visitors, Per year



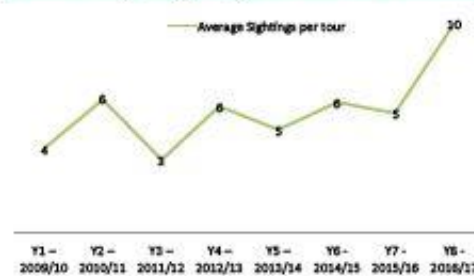
Visitor Age Group



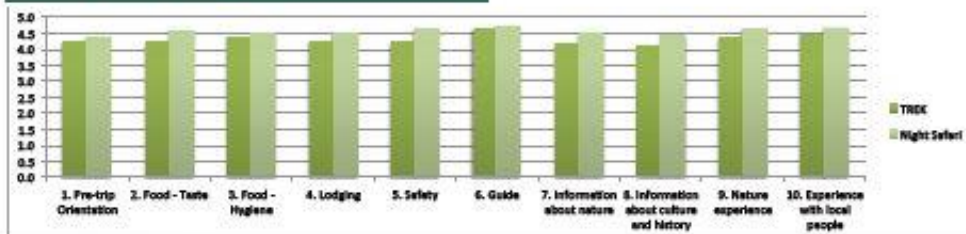
Top 5 Markets by Country



Wildlife Sightings Night Safari 2009- 2017



Visitor Satisfaction



Social Media Status



Supported By:

