

Environmental and Social Management Plan

1. Introduction

1.1 Project Development Objective and Components

The Protected Area and Wildlife (PAW) Project seeks to help strengthen selected environmental protection management systems, specifically for protected areas conservation, enforcement of wildlife laws, and environmental assessment management. It will be implemented in three main components:

- Component 1: Training of FEBM lecturers
- Component 2: Engaging FEBM academics and students into research activities
- Component 3: Training of GoL officials
- Component 4: Operationalization of two pilot CEF schemes
- Component 5: Sub-project management

1.2 Rational of subproject within overall Project

Institutional context

The main role of the FEBM is to teach tertiary students, train GoL officials, conduct research and provide advice to policy makers. The FEBM is a leading research and education institution in Laos. It produces qualified graduates who can contribute to economic and business development in Laos. The FEBM has collaborated with various research institutes and universities at the regional and international levels as well as with multilateral and bilateral organizations such as United Nations Development Program, the World Bank, Asian Development Bank, JICA, Mekong River Commission, IUCN. FEBM researchers provide advice to various government agencies including the Ministry of Finance, the Ministry of Industry and Commerce, the Ministry of Natural Resources and Environment, the Ministry of Education, the Ministry of Agriculture and Forestry, and the Bank of Lao PDR. In 2013-2014, the FEBM had about 90 staff members (most of whom hold an MA/MS and six hold PhD degrees) reflecting a growing demand for tertiary education related to economics and management within the country. Currently, the FEBM has 8,152 students (of which about 60% are enrolled in regular and 40% in special courses). The Bachelor program in Economics and Business Management offers the following six courses:

- Economics of Money and Public Finance
- Economics of Development and Planning
- Applied Economics
- Commerce
- General Business Management
- Accounting

Main challenges faced by the FEBM

- Limited teaching capacity in environmental and resource economics.
- Lack of capacity to provide advice to GoL officials.
- Lack of capacity to provide training opportunities for GoL officials.

- Limited capacity of staff and students to conduct research in environmental and resource economics (e.g., limited experience in presenting at conferences; publishing papers).
- Lack of research opportunities for students and staff in environmental and resource economics (challenges in securing research grants, participation in international conferences).

Priority needs of the FEBM

- Accelerated and enhanced development of tertiary students' skills in natural resources and environmental economics to take up positions as managers and policy makers.
- Increased capacity of GoL staff to better manage protected areas and implement environmental and social policy, through knowledge of natural resources and environmental economics.
- Improved capacity of FEBM academics to provide relevant and timely advice to GoL officials in matters relating to natural resource and environmental economics.
- Improved familiarity with the concepts and applications of environmental and natural resource economics amongst senior government officials to enhance policy making.

Broader challenges

The protected areas of Lao PDR face ongoing degradation processes from illegal activities including wildlife poaching, logging and clearing for agriculture. There is an urgent need for the development of policies designed to protect these forest resources while improving the livelihoods of the people living in and around the protected areas.

Approach of sub-project

The sub-project will:

1. Improve the capacity of FEBM academics to teach, research and provide policy advice to the GoL in the fields of natural resource and environmental economics.
2. Increase the capacity of GoL officials to manage protected areas using economic principles.
3. Grow the skill base of graduates of FEBM in natural resource and environmental economics.
4. Reduce the degradation of the natural resources in two case study protected areas.
5. Improve the livelihoods of the communities involved.

These goals will be achieved through:

1. Training programmes, facilities and research opportunities for FEBM academics and students
2. Training programmes for GoL officials.
3. The introduction of two pilot schemes that will support the implementation of the GoL's Community Engagement Framework (CEF).

The pilot CEF schemes will:

1. Pay local people to patrol the case study protected areas to reduce wildlife poaching and forest resource damaging actions.

2. Provide community development grants to villages supporting the patrol teams.
3. Be a ‘class room’ for the study of environmental and natural resource economics.
4. Generate data allowing research work of international standing to be conducted by FEBM academics.
5. Form the ‘proving ground’ for the development of advice to the GoL on policies relating to Payment for Environmental Services (PES) schemes, including a Prime Ministerial decree.

CEF scheme design

A key element of the approach taken by the sub-project is the implementation of these two pilot CEF schemes. These two schemes will act as “classrooms” in which FEBM academics, students and GoL officials will learn the application of environmental and natural resource economics in real-world contexts. It will also be through these schemes that the forest resources will be protected and the livelihoods of local people will be enhanced. The pilot CEF schemes will seek to establish and sustain a financial link between those with a demand for environmental services and those within the local communities who are potential ES suppliers. This link is established through one or multiple agents interceding between prospective ES buyers and ES suppliers to facilitate an exchange. Suppliers are those within the local communities who have control over the production of ES (e.g., villagers engaging in anti-poaching patrolling), whereas buyers are those who pay for their provision. Buyers may include developers (e.g., hydroelectricity companies) who are obligated by their concession agreements to contribute to environmental protection efforts, domestic and international tourists as well as international agencies representing broader world-wide community concern for environmental assets such as endangered species. CEF schemes designed in this way have the potential to achieve environmental outcomes and improve the livelihoods of those who supply ES.

The two pilot CEF schemes will enable a cost-effective and efficient distribution of funds that are earmarked for environmental protection efforts. Information on:

- the cause-effect relationship between supply actions and the production of ES (through bio-physical models);
- marginal benefits of consumption (through market and non-market valuation methods); and,
- marginal costs of supply (through conservation tenders)

is required to implement the schemes.

This information on benefits and costs will enable the estimation of a ‘market’ price paid per unit of ES that will ensure that both buyers and suppliers are made better off. This is important in the context of the Lao PDR where the ES suppliers are expected to be mainly poor rural communities. As well as securing livelihood improvements, forest resource protection goals will be achieved.

The implementation of the two pilot CEF schemes will provide the information necessary to refine the CEF for application in other locations. A rigorously defined conceptual framework for the implementation of the two pilot CEF schemes is detailed in: Scheufele, G, Bennett, J, Kragt, M & Renton, R (2014), Development of a

'virtual' PES scheme for the Nam Ngum River Basin, Research Report 3, Effective Implementation of Payments for Environmental Services in Lao PDR, ANU, Canberra (see Attachment 1).

Goals of the pilot CEF schemes

- Protection of wildlife and forest resources in the selected protected areas.
- Improving the livelihoods of households located near or within the selected protected areas by paying them to protect wildlife and forest resources.

The concept of the pilot CEF schemes

- ES are things that people enjoy from the environment. For example, the diversity of wildlife and forest resources in the Annamite Ranges.
- The pilot CEF schemes aim to provide the environmental service 'wildlife and forest resource protection'.
- People who want and are willing to pay for 'wildlife and forest resource protection' are ES buyers.
- Local communities have the local knowledge to become effective guardians of 'wildlife and forest resource protection' through performing wildlife protection actions.
- Local communities and their members who engage in wildlife and forest resource protection actions are ES suppliers.
- Suppliers of ES get paid for performing wildlife and forest resource protection actions.
- The CEF schemes link those people who are willing to pay for 'wildlife and forest resource protection' with those who are willing to perform wildlife and forest resource protection actions.

Opportunities for participation

- Community engagement (villagers refrain from performing wildlife damaging actions specified in Community Action Plans and in Conservation Agreements).
- Individual engagement (villagers form patrol teams and engage in anti-poaching patrols performing wildlife and forestry resource protection actions as well as in monitoring activities as specified in Patrol Contracts).

The wildlife conservation actions will be linked to an adaptive bio-physical model. Baseline studies will be performed to enrich the available data that will populate the model. As the pilot CEF schemes progress, more data will be collected through the management actions and incorporated into the models.

Payments to communities (into village development funds) as set out in the Conservation Agreements

- Payments to villages will be comprised of a base payment (calculated on a household basis) and additional incentives that will be linked to the effort of the patrol teams.

Payments to patrol teams as set out in the Patrol Contracts

- The price per unit of patrol effort is determined by taking into account how much it costs each team to perform a patrol and how much the buyers are willing to pay for it.
- The costs to each patrol teams are worked out through conservation tenders: patrol teams are asked to submit a sealed bid that states the number of units of

patrol effort they are each willing to complete over a range of given prices per unit of patrol effort.

- This reveals information about the patrolling costs of each patrol team.
- The costs of patrolling are expected to vary across patrol teams.
- Since the cost of patrolling might vary across patrol teams, some teams might be willing to do more patrolling than others for the same price per patrol.
- Each patrol team is offered to perform the number of units of patrol effort they are willing to provide at the price that is agreed to by both buyer and suppliers. Hence, it is a self-selecting process: patrol teams decide how many units of patrol effort they want to perform for the determined price per unit of patrol effort.
- Patrol teams get paid an amount equal to the number of units of patrol effort they each perform multiplied by the price per unit of patrol effort.
- The agreement between each patrol team and the buyer would be legally binding through a service contract (in writing). This reduces the risk to villagers of being paid less than the amount agreed.

Additional incentives will be linked into the scheme to encourage good performance.

Payment schedule to patrol teams

- A lump sum payment (as a 50% advance on the first regular payment) will be made immediately after signing Patrol Contracts (patrol teams) and Conservation Agreements (communities), respectively.
- Subsequent payments will be made on a quarterly basis conditional on the compliance with the Patrol Contracts and the Conservation Agreements, respectively.

Payment transfer mechanisms

- The patrol manager calculates payments to the patrol teams and the village development funds based on performance and issues a recommendation to PONRE to approve the transfer of funds from the EPF.
- The EPF will transfer payments directly into accounts held at a district bank (patrol team accounts; village development fund accounts).
- Patrol teams will withdraw money from the team bank account through checks (all team members will have to sign to withdraw money). The payments will be distributed proportionally to each team member's effort.
- Community payments will be used in accordance to a village action plan specified by the village development funds.

Environmental monitoring system

- Patrol teams will get paid only if they perform the wildlife and forest resource protection actions they signed up for.
- Performance will be judged on specified evidence provided by each patrol team (in-built monitoring system).
- Evidence may include:
 - Recorded GPS 'waypoints' and track logs; photographs of the patrol team (with date, time and location stamps) at the start, midday and end of each patrol day to prove that the whole patrol team has visited the assigned grid cells in the specified pattern;
 - Photographs of illegal poaching camps (with location, date and time) before and after their destruction;

- Photographs of snare lines (with location, date and time stamps) before and after destruction and collected snares wires;
- Records listing poaching incidents and describing crime scene management; statements and warning forms signed by poachers; recordings of conversations with caught poachers;
- Photographs of confiscated poaching gear (with location, date and time stamps); confiscated poaching gear; confiscation forms with signatures of patrol teams and poachers;
- Photographs of confiscated dead animals or animal parts (with location, date and time stamps); confiscated dead animals and animal parts; and
- Records of any direct sightings or encountered signs of key wildlife species into data form.
- Bio-physical models will be populated by data collected during patrolling to estimate the effectiveness of the scheme to protect wildlife.

Penalty system

- Payments will be reduced or withheld if wildlife and forest resource actions are not performed as agreed on.

Conservation Agreements

Conservation Agreements may include the following components:

- Recognition of the boundaries of the selected protected areas;
- Recognition of the legislation on biodiversity protection within the selected protected areas;
- Specification of conservation commitments;
- Specification of benefits provided to communities;
- Specification of the monitoring system used to verify compliance and the penalties to be applied if conservation actions are not executed.

Patrol Contracts

- Each patrol team will sign a legally binding contract with the GoL. Interested participants will be briefed and consulted on the patrolling contract as well as the performance and payment conditions before signing (villagers can withdraw from engagement prior to signing if they don't want to be involved).
- The Patrol Contracts may include the following components:
 - Definition of the wildlife and forest resource protection actions to be undertaken by each patrol team (quantity, quality, timing).
 - Payment amounts, payment type and payment schedule.
 - Provision for money withdrawal for team payment.
 - Statement that the negotiated payments are conditional on completing the contracted wildlife and forest resource protection actions as defined in the Patrol Contracts;
 - Statement that the conditionality of the payments will be assured through a monitoring system, a penalty system and enforcement mechanisms in case of non-compliance;
 - Description of the monitoring and penalty system; and
 - Statement that assigns the right to patrol teams to consult and file a complaint, and describing the appropriate process to manage grievance, conflict resolution and redress.

CEF scheme locations

The two pilot CEF schemes will be trialed in the Bolikhamxay Province and the Vientiane Capital Province. In each scheme, villagers (the ES suppliers) will be paid for restoring and protecting environmental conditions. The scheme in the Bolikhamxay Province will focus on the protection of a variety of endangered species, including the Saola, within the Nam Chat/Nam Pan PPA, the Phou Chomvoy PPA, and the Nam Chouan PPA located at the border to Vietnam. These PPAs are of high biodiversity importance and have been suggested to be considered first if a decision is to be made to add areas to the NPA system. The CEF scheme in the Bolikhamxay Province will be trialed within the Phou Chomvoy PPA and then extended to the other PPAs mentioned above. The CEF scheme in the Vientiane Capital Province will focus on the protection of the endangered Green Peafowl within the Green Peafowl Conservation Zone of the Phou Khao Khouay NPA.

Institutional arrangements

The pilot CEF schemes will be implemented through the close involvement of the central, provincial and district levels of the GoL as well as village authorities of the target communities.

Department of Forest Resources Management (DFRM), Ministry of Natural Resources and Environment (MONRE) will

- supervise and guide the implementation of the two CEF schemes;
- coordinate the Departments of Natural Resources and Environment (PONREs) of Bolikhamxay Province and Vientiane Capital Province to ensure smooth implementation; and
- monitor and assess the implementation of the two pilot CEF schemes.

The Environmental Protection Fund (EPF) will

- sign the Village Conservation Agreements and Patrol Contracts;
- hold the funds earmarked for payments to the target communities and patrol teams;
- make payments to the target communities and patrol teams on the basis of approval by the PONREs; and
- liaise with MONRE in the monitoring and assessment of the two pilot CEF schemes.

The PONREs will

- provide the necessary information and data for the project formulation and planning;
- support the pilot CEF scheme implementation process;
- sign the Village Conservation Agreements and Patrol Contracts;
- coordinate with concerned districts;
- maintain communications on technical issues with the NUoL; and
- approve payments to be made to the communities and patrol teams based on the recommendations of the patrol managers.

The DONREs will

- liaise with the villages targeted within the two pilot CEF schemes; and
- support implementation process of the pilot CEF schemes.

District Governor's Offices will

- support the implementation process of the pilot CEF schemes;
- approve the Terms of References of the patrol teams; and
- sign the Village Conservation Agreements and Patrol Contracts.

The Faculty of Economics and Business Management within the NUoL will

- deliver the sub-project;
- assist with and advise MONRE and the EPF in the monitoring and assessment of the two pilot CEF schemes; and
- coordinate all agencies involved in the delivery of the sub-project.

The Wildlife Conservation Association (WCA) will appoint and supervise two Patrol Team Managers who will

- be responsible for the day to day operations of the patrol effort;
- collate information from patrol teams regarding the status of wildlife and forest resources;
- make recommendations to the PONREs regarding payments to patrol teams; and
- report on a six-monthly basis to MONRE and the EPF on the performance of the two pilot CEF schemes.

The Australian National University will

- provide technical support and research guidance; and
- support the capacity building process of the Faculty of Economics and Business Management within the NUoL.

It will be ensured that relevant government authorities at all levels as well as the Lao Front for National Construction, the Lao Women's Union and other formal organizations and representatives at the village level will be involved in the planning activities.

CEF schemes as active 'classrooms'

FEBM staff will be engaged in the development of a tendering process as a means of selecting those wildlife and forest resource protection actions that offer the greatest net social benefit. FEBM students will undertake field work in which villagers will competitively tender to provide ES through wildlife and forest protection actions in return for a payment. Those villagers who choose to participate in the pilot CEF schemes will then be paid (over time) to carry out the wildlife and forest resource protection actions (such as anti-poaching patrolling and collection of snares) they proposed in their tenders. This will ensure the provision of the required ES and establish a new source of income for the villagers. A percentage of the revenue generated through wildlife and forest resource protection actions will be allocated to the communities into village development funds. This in turn will be made available for investments and initiatives to the advantage of villagers, including those who may have previously benefited from poaching.

In both pilot CEF schemes, FEBM staff and students will be involved in developing bio-physical models of the 'cause-effect' relationship between proposed environmental protection actions (such as anti-poaching patrols) and the resultant condition of the environment (as measured by attributes such as species diversity or density). The biophysical models will be used by students to predict the environmental changes caused by the management actions for which payments are made. The models will allow students to gain an understanding of what environmental services will be produced as a result of the environmental protection actions performed by the villagers participating in the pilot CEF schemes. A special feature of the bio-physical models will be their capacity to cope with 'data poor' contexts. The time frame of the project will only permit a limited collection of primary biophysical data to develop models prior to the commencement of the patrol scheme. Hence, conceptual models, existing data from Lao PDR and observations from other related

sites in the Mekong region will be used additionally to inform the models. These models will be probabilistic because of the uncertainties involved and have an in-built mechanism to be improved in their predictive capacity by feeding in more data once it will become available (e.g., collected through monitoring activities under the pilot CEF schemes).

Staff and students will be trained in economic valuation techniques that will be used to estimate the environmental values of the impacts that the bio-physical models predict will arise from the proposed environmental protection actions. Put simply, these techniques will allow an understanding of how much society values the ES that will be produced. Surveying ES buyers inherent to the application of these techniques will be conducted by staff and students under supervision of the ACIAR project staff.

Staff and students will be engaged in combining the predictions gained from the bio-physical models and the information on economic benefits and costs to develop CEF schemes which are grounded in sound ecology and are aimed at maximizing the well-being of the Lao PDR society. Staff and students will learn to design CEF schemes that are voluntary, socially inclusive and transparent. The pilot CEF schemes will be designed on the basis of payments being made only for ES that are 'additional' to those provided under a 'business-as-usual' scenario. Another design feature will be 'conditionality': Payments will only be made if proposed environmental protection actions are taken and ES provided. Staff and students, under the supervision of the ACIAR project, will build monitoring systems as integral parts of the pilot CEF scheme designs.

By being involved in designing and implementing the two pilot CEF schemes, staff and students will learn, that these schemes ensure that those who have the capacity to impact on the environment are rewarded for improvements they generate. They will gain an understanding that many ES are public goods, which in normal market settings generate little if any financial return to those who provide them, the incentive is usually for competing extractive goods (such as agricultural produce and timber) to be supplied instead. By engaging in the design and implementation of the two pilot CEF schemes, staff and students will learn that these schemes redress this imbalance of incentive provision by channeling of funds from those who have a demand for ES to those who are able to provide a supply. They will develop an understanding that participation in these schemes provides an additional, sustainable source of income to people whose alternative is often only to sell the extractive products of the environment (such as hunted wildlife). They will learn that it is crucial for the success of such schemes that those people affected by the schemes through, for example, stricter wildlife law enforcement, will benefit from payments for ES.

Staff and students will be engaged in assessing the social impacts of the pilot CEF schemes on participating communities. The importance of long term agreements to see that the provision of environmental services is on-going and the alternative livelihoods are sustainable will be emphasized. It will be stressed that, because payments under the envisaged pilot CEF schemes involve payments being made to villagers in return for the provision of ES through environmental protection actions, they do not encourage 'dependency' on the part of recipients. Staff and students, under the supervision of the ACIAR project, will monitor the effectiveness and efficiency of the distribution of funds to local communities and individual households.

1.3 Subproject objective and outcome indicators

- To improve the capacity of FEBM academics, students, and GoL officials to apply natural resource and environmental economics through application in two Community Engagement Framework pilot schemes that will improve forest resource conditions and local people's livelihoods. Percentage increase in the score functional capacity of FEBM.
- Teaching effectiveness of FEBM lecturers as determined by a third-party analysis.
- Number of direct project beneficiaries (of which at least 30% are women) as measured by additional staff of public institutions having completed basic adaptive training in environmental and natural resource economics.
- Area brought under enhanced biodiversity protection measured by score of management effectiveness.
- Number of villages supported by the project that meet the terms of a Conservation Agreement.

1.4 Summary of subproject implementation arrangements

The subproject will be implemented by the Faculty of Economics and Business Management, National University of Laos. The subproject focal point and Project Director will be Dr Phouphet Kyophilavong. The main subproject implementation team includes Mr Saysamone Poyduangsy and A/Prof Sengchanh Chanthasene. The subproject has the full support of FEBM Dean Somchith Souksavath.

General support

Support for the sub-project will be provided by Dr Jeff Bennett, Australian leader of the ACIAR funded project and professor of environmental and resource economics at the Australian National university. Other Australian academics working on the ACIAR project will also provide monitoring support and will assist in facilitating the involvement of NUoL staff and students in research work.

Support for Component 4

Two patrol managers will be contracted through WCA (Wildlife Conservation Association) for the duration of the Patrol Contracts. Their responsibilities include the management and monitoring of the patrol schemes as well as technical assistance to two CEF scheme liaison officers located within PONRE (one for the scheme in Bolikhamxay and one for the scheme in Vientiane Capital Province).

2. Summary of applicable policy and legal framework

2.1 National Policy, Decrees, and Guidelines

Ministerial Instruction on the Process of Initial Environmental Examination of Investment Project and Activities No. 8029/MONRE (17 December 2013). This instruction mandates an Initial Environmental Examination for all investment projects and activities that cause or are likely to cause environmental and social impacts and aims to ensure consistency in its application. Guidelines for Public Involvement in

SIA's were approved in February 2013. A Guideline for Ethic Group Consultations was developed in 2013 (not yet approved).

Environmental Protection Law (18 December 2012). This law specifies necessary principles, regulations and measures for managing, monitoring, restoring and protecting the environment to protect human health, including the protection of eight natural resources and the richness of nature, and to ensure the sustainable socio-economic development of the nation.

Prime Minister's Decree No. 146 on Environment Protection Fund (6 June 2005). This decree established the EPF, sets its mandate, objective, governance, windows through which it can implement subprojects and sources of financing.

Regulation No. 0360 on Management of National Protected Areas, Aquatic Animals and Wildlife (Ministry of Agriculture and Forestry, 2003). This regulation describes the zoning of national protected areas into core, managed, and corridor zones and specifies activities in these areas, prohibits hunting of all wildlife and aquatic animals in the core zone, prohibits trade in wildlife, and specifies that guns must be registered with special licenses.

Wildlife Law (24 December 2007). This law determines principles, regulations and measures on wildlife and aquatic life in nature to promote the sustainable regeneration and utilization of wildlife and aquatic life, without any harmful impact on natural resources or habitats and to restrict anthropogenic pressure on decreasing species and the extinction of wildlife and aquatic life. The law outlines guidelines for managing, monitoring, conserving, protecting, developing and utilizing wildlife and aquatic life in a sustainable manner; to guarantee richness of ecological natural equilibrium systems, and to contribute to upgrading livelihoods for multi-ethnic people, which has the potential to develop and realize national social-economic goals.

Decree on Associations (9 April 2009). This Decree sets the rules and regulations governing the establishment, operation and management of associations registered as legal entities in Lao PDR for the purposes of promoting the Lao people's right of freedom, creativity and ownership in the organization of associations aiming at national protection and development; providing guidelines to individuals or organizations intending to set up associations; and providing guidelines to government organizations in managing, facilitating and encouraging lawful activities by associations, promoting associations' contributions towards socio-economic development and poverty eradication, as well as countering and restricting activities affecting national stability, social order and individual rights of freedom.

Decree on Compensation and Resettlement of people affected by Development Projects (7 July 2005). This decree defines principles, rules, and measures to mitigate adverse social impacts and to compensate damages that result from involuntary acquisition or repossession of land and fixed or movable assets, including changes in land use, restriction of access to community or natural resources affecting community livelihood and income sources. This decree aims to ensure that project affected people are compensated and assisted to improve or maintain their pre-project incomes and living standards, and are not worse off than they would have been without the project. Regulations and Technical Guidelines for this Decree were both approved in 2010.

Politburo Resolution on Formulation of Provinces as Strategic Units, Districts as Comprehensively Strong Units, and Villages as Development Units (15 February 2012). This resolution provides general guidelines for decentralization in the country.

Province, district and village level governments are requested to explore new roles and responsibilities for enhanced integrated leadership to improve ownership and accountability.

Forestry Law (24 December 2007, under revision). This law determines basic principles, regulations and measures on sustainable management, preservation, development, utilization and inspection of forest resources and forestland; promotion of regeneration and tree planting; and increase of forest resources in the country. The principles of the law aim to maintain balance of nature, making forest and forestland a stable source of resources, ensuring sustainable preservation of water sources, prevention of soil erosion and maintenance of soil quality, conserving plant and tree species, and wildlife for the purpose of environmental conservation and contribution to national socio-economic development.

Land Law (21 November 2003). The objectives of the Land Law are to determine the management, protection and use of land to ensure efficiency and conformity with land-use objectives and with laws and regulations, and to contribute to national socio-economic development and the protection of the environment.

Legislations on land and forestry are currently under revision in Lao PDR. The National Assembly has oversight over a process that will lead to a land policy followed by a land use master plan, and a revised land law. The current draft of the land policy provides recognition to customary land management rights, collective management and community management rights. The design of PAW is based on the existing land and forestry laws but the project will update the design and implementation plan if required, depending on the opportunities presented by the revised laws on land and forestry.

Prime Minister's Decree No 111/PM determines location of geographical landscapes to ensure that the strategic areas of national defence and security are managed in accordance with the national defence strategic plan. The Decree identifies geographic areas by district and province for the Strategic Back up Zone and the Military Zone; and, delineates a 15 km borderline zone from the international border including inside national protected areas.

2.2 International and regional agreements and conventions

ASEAN Agreement on the Conservation of Nature and Natural Resources (1985). Lao PDR as Party to this agreement has agreed on development planning, the sustainable use of species, conservation of genetic diversity, endangered species, forest resources, soil, water, air and address environmental degradation and pollution.

United Nations Convention on Biodiversity (CBD 1996). Under this convention, Lao PDR has agreed to conduct an Environmental Assessment of proposed development projects to minimize harmful effects.

Convention on International Trade in the Endangered Species of Fauna and Flora (CITES 2004). Provides an international umbrella for management and control of trade in endangered fauna and flora. Tiger is listed as CITES Appendix 1 species for which all international trade is prohibited.

3. Environmental safeguards triggered by subproject

The subproject may cause localised minor scale negative impact that may trigger the following safeguard policies (Table 1).

Table 1: Safeguard policies

Safeguard policies	Triggered	Explanation
Environmental Assessment OP/BP 4.01	Yes	The subproject will not involve any major civil works (e.g., category A type) and/or generate any adverse impacts on the local environment and people. The subproject includes the following two types of general interventions: (i) support in improving the research and teaching capacities of FEMB academics enhancing the education of students enrolled in courses in environmental and resource economics relevant to managing wildlife and protected areas; training GoL officials increasing their capacity in developing and implementing policies, regulations, decrees and laws on protected area conservation and wildlife protection at regional, national, and local level. (ii) strengthening the forest and wildlife conservation practices in protected areas by providing funding for payments to villagers, making two pilot CEF schemes operational that will be developed and implemented under the project 'Effective Implementation of PES in Lao PDR'. Potential negative project impacts are expected to be minor, known and readily mitigated through implementation of mitigation measures (Environmental Code of Practise and Physical Cultural Resources Chance Find Procedures) and suitable monitoring activities.
Natural Habitats OP/BP 4.04	Yes	The subproject activities will not create significant degradation of natural habitats but will provide positive benefits (biodiversity conservation). However, minor disturbance and site specific impact may occur during conservation activities such as anti-poaching patrolling and the collection of snares proposed for financing under the project. However, the impact is expected to be minor and site specific and it can be mitigated through measures incorporated in the Environmental Code of Practise.
Forests OP/BP 4.36	Yes	This policy is triggered as the proposed activities involve the strengthening of law enforcement in protected areas (such as financing anti-poaching patrols), which affects the income sources of villagers. Poaching is done by both Lao people (local villagers and villagers from other provinces) and foreigners. Wealthier people from towns are more involved in wildlife trade, whereas local villagers engaged in poaching are generally poor. Harvesting wildlife is carried out by rural communities for both household subsistence to supplement their food requirements and for sale to generate cash income. Generally, wildlife is harvested throughout the year, but tends to

		<p>increase when the main sources of income/livelihood (rice, domestic animals, and farm crops) are in short supply.</p> <p>Villagers currently dependent on poaching as an income source will have access to alternative sources of income via the pilot CEF schemes. They will benefit from payments for wildlife protection actions, which seek to enhance their livelihoods sustainably.</p> <p>The subproject is expected to have beneficial impacts and improve wildlife protection. None of the subproject interventions are on the Negative List.</p>
Pest Management OP/BP 4.09	No	The subproject will not finance the procurement of pesticides or agricultural activities that might increase the use of pesticides or involve pest management practises.
Indigenous People OP/BP 4.10	Yes	Some subproject beneficiaries are expected to be ethnic minorities such as Hmong, Khmu and Toum, who are known in Lao PDR as Ethnic Groups and meet eligibility criteria under OP 4.10. These are considered to be vulnerable ethnic groups in Lao PDR as their livelihood is heavily based on subsistence agriculture and forest. The presence and involvement of these ethnic groups triggers this safeguard policy. The impact of the project on these communities will be positive, however, any negative impacts that may occur are addressed under the Community Engagement Framework that includes Indigenous Peoples Planning Framework.
Physical Cultural Resources OP/BP 4.11	Yes	The subproject will not affect any known PCRs (e.g., historical, cultural, and/or archaeological, paleontological, religious, or unique natural values of national and/or regional cultural importance). However, the project area covers ethnic minority groups such as Hmong, Khmu and Toum; there could be a limited number of graves, village cemeteries, and/or communal properties in spiritual forests in the subproject sites that may be affected by project activities. The subproject will follow the Chance Find Procedures to mitigate potential negative impacts.
Involuntary Resettlement OP/BP 4.12	No	<p>The project will not involve physical relocation or any land acquisition. The project will support a stricter enforcement of protected areas management, which restricts the current access of local people to natural resources inside protected areas.</p> <p>Poaching is done by both Lao people (local villagers and villagers from other provinces) and foreigners. Wealthier people from towns are more involved in wildlife trade, whereas local villagers engaged in poaching are generally poor. Harvesting wildlife is carried out by rural communities for both household subsistence to</p>

		<p>supplement their food requirements and for sale to generate cash income. Generally, wildlife is harvested throughout the year, but tends to increase when the main sources of income/livelihood (rice, domestic animals, and farm crops) are in short supply.</p> <p>Villagers currently dependent on poaching as an income source will have access to alternative sources of income via the CEF schemes. They will benefit from payments for wildlife and forest resource protection actions, which seek to enhance their livelihoods sustainably.</p> <p>In line with OP 4.12, The Community Engagement Framework will be used to allow meaningful participation of affected people.</p>
Safety of Dams OP/BP 4.37	No	The subproject is not located in the area of a dam or hydropower station.
International Waterways OP/BP 7.50	No	The subproject interventions will not affect the quality or quantity of any international waterways.
Disputed Areas OP/BP 7.60	No	The subproject is not located in disputed areas.

4. Biodiversity of subproject sites

4.1 Pilot CEF scheme in the Bolikhamxay Province

The scheme in the Bolikhamxay Province will focus on the protection of a variety of endangered wildlife species, including the Saola, within the Nam Mouane-Nam Gnouang (NMNG) catchment in the Bolikhamxay Province. The NMNG catchment extends over an area of about 524,406 hectares and encompasses the districts Khamkeut, Xaychamphone and Viengthong (Provincial Department of Natural Resources and Environment of Bolikhamxay 2014). The NMNG is rich in natural resources providing a variety of environmental services such as supply of biodiversity, provision of recreational and tourist opportunities, flood protection and soil erosion control. These environmental services contribute to the socio-economic development of the Bolikhamxay Province and the Lao PDR as a whole.

Topographically the area is predominately mountainous interspersed with karst landscapes. The elevation ranges from about 140 meters on the Mekong flood plain up to 2,300 meters along the Annamite Mountain Range bordering on Vietnam (Norplan A.S. 2008). Especially the upper catchment is characterized by a lack of flat land traditionally used for rice paddy cultivation. The NMNG catchment consists of two major river systems - the Nam Mouane and Nam Gnouang- and numerous streams. The Nam Mouane originates in the highlands of the northern region of Viengthong District with a catchment area of 236,868 hectares. The Nam Gnouang originates in the Annamite mountain range with a catchment area of about 287,538 hectares (Provincial Department of Natural Resources and Environment of Bolikhamxay 2014). Both rivers drain into the Nam Kading, which eventually confluent with the Mekong River.

The Bolikhamxay Province contains two NPAs. The NamKading NPA with an area of 169,000 hectares (Southammakoth, ST 1999) is located to the southwest of the NMNG catchment. To the southeast of the NMNG catchment, the Nakai-Nam Theun NPA stretches across the Bolikhamxay and Khammouane Provinces. The upper NMNG catchment contains the Pha Kouan Chan Provincial PPA, the Nam Chat/Nam Pan PPA, the Nam Chouan PPA, and the Phou Chomvoy PPA. These PPAs are predominately mountainous forests interspersed with karst landscapes.

The CEF scheme in the Bolikhamxay Province will be trialed within the Phou Chomvoy PPA and then extended to the Nam Chat/Nam PPA and the Nam Chouan PPA. The targeted PPAs are biodiversity hotspots containing a range of endangered species such as Crested Argus (*Rheinartia ocellata*), Yellow-vented Pigeon (*Treron seimundii*), Gray Laughingthrush (*Garrulax maesi*), Short-tailed Scimitar Babbler (*Jabouillei adanjoui*), the Malayan Night-Heron (*Gorsachius melanolophus*) the Blyth's Kingfisher (*Alcedo hercules*), the Saola (*Pseudoryx nghetinhensis*), the Rhesus Macaque (*Macaca mulatta*), Stump-tailed Macaque (*Macaca arctoides*), Douc Langur (*Pygathrix nemaeus*), Gibbon species, Black Giant Squirrel (*Ratufa bicolor*), Muntjac sp., and the Southern Serow (*Naemorhedus sumatraensis*).

Discovered in 1992, the Saola is classified as Critically Endangered on the IUCN Red List. It is a flagship species occurring only in Lao PDR and Vietnam along this section of the Annamite Mountain Range, which is considered its main habitat (Tizard, R 1996). Given its undetermined small population and limited habitat range in the area as well as threats it faces makes the Saola is a key species for protection in the Bolikhamxay Province (Integrated Ecosystem and Wildlife Management Project 2006). Other key wildlife species include the Large-antlered Muntjac (*Muntiacus vuquangensis*) and White-cheeked Gibbon (*Hylobates leucogenys*) (Vongkhamheng, C 2014), listed by the IUCN Red List as Endangered and Critically Endangered, respectively. Both animals, whose status is Potentially at Risk in Lao PDR, are listed as Lao PDR Category I Protected Species.

4.2 Pilot PES scheme in the Vientiane Capital Province

The PKK NPA, declared by the Prime Minister's decree No. 164/PM (1993), is situated about 45 km to the northeast of Vientiane Capital city (DFRC *et al.*, 2010). It is the NPA that is closest to the nation's capital. Administratively, the NPA is included in four provinces: Vientiane Capital, Vientiane, Bolikhamxay, and the recently established Xaysomboon Province, with a total surface area of 2,000 km².

The NPA contains three major river systems (Nam Yong, Nam Leuk and Nam Mang) and numerous streams which drain in the north-south and easterly directions from the NPA. The Nam Yong, a tributary of the Nam Leuk, drains from the western part of the NPA. The Nam Leuk flows from the center of the NPA to the southeast, where it joins the Nam Mang, which eventually flows into the Mekong River. The Nam Thouay, delineates the NPA's eastern boundary, and flows directly into the Mekong.

PKK NPA is rich in natural resources and landscape values that provide a variety of environmental services such as wildlife habitat, recreational opportunities and landscape beauty. PKK NPA harbours many species of mammals, bird, reptiles and amphibians. A total of 153 bird species have been recorded, including the Green Peafowl (*Pavo muticus*), which is considered close to extinction in Laos. The bird is classified as Globally Threatened-Vulnerable and At Risk in Lao PDR (Duckworth,

JW et al 1999). It is listed as a Category I protected species of the Lao PDR (Resolution No. 81/PM, 2008). Apart from the PKK, the bird occurs only in four other NPAs (Duckworth, JW et al 1999) in Lao PDR. Its protection is of national significance given the status.

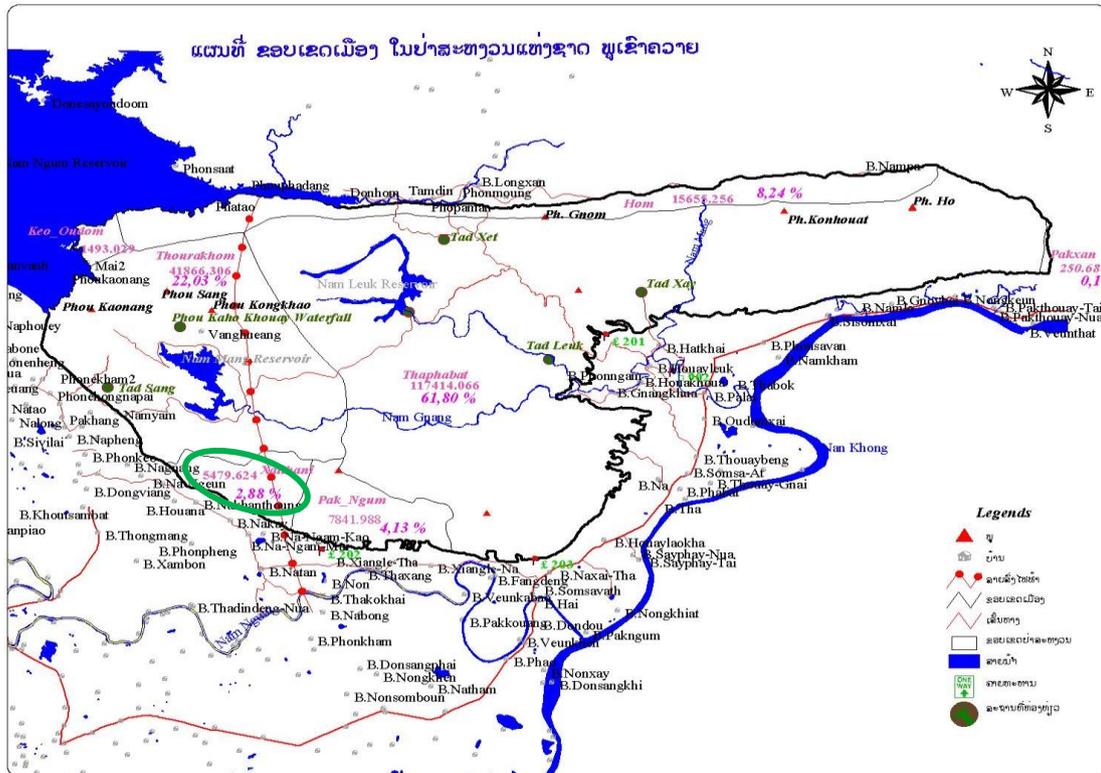


Figure 1: Map showing the Green Peafowl Species Conservation Zone (encircled in green) within the Phou Khao Khouay NPA

Source: Division of Forest Resource Conservation, Department of Forestry (English legend and location of Green Peafowl habitat added). Embedded location map of Laos - Lao National Tourism Administration.

Note: The provincial and district boundaries encompassing the NPA are outdated and are not necessarily accurate.

The main habitat of the Green Peafowl within the PKK lies within the Xaythany District, Vientiane Capital Province. The habitat, approximately 8,000 ha (Provincial Office of Natural Resources and Environment et al 2014)¹, is located along the NPA’s south-western boundaries. It consists of open forest with scattered tree stands of rocky savannah type, bamboo and shrubs interspersed with open rock shelves. Past surveys have estimated the population size of the Green Peafowl at around 20-30 individuals (Division of Forest Resource Conservation et al 2010). However, the actual number today remains unknown/highly uncertain². For the PKK NPA in particular, the

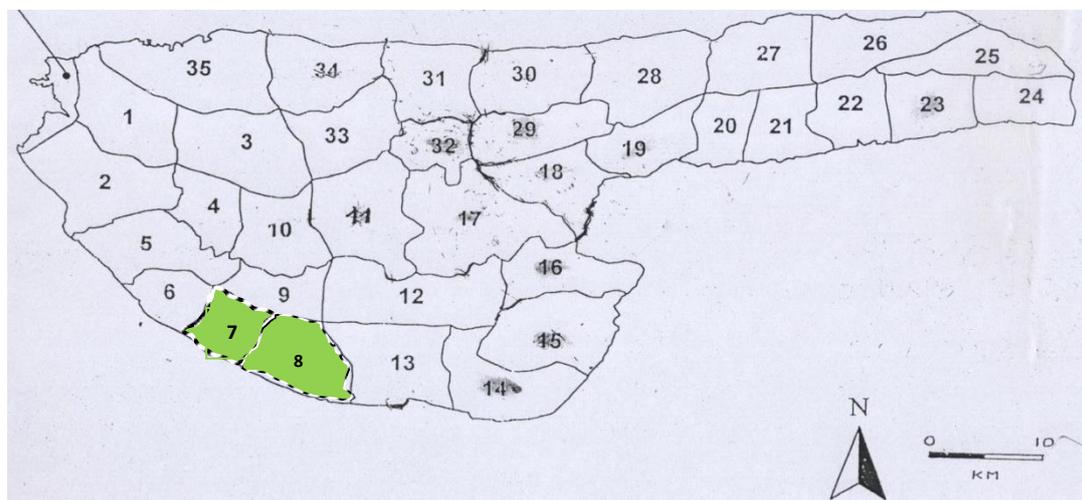
¹ Consistency of the actual Green Peafowl habitat is open to confirmation. Based on a report of the PKK NPA Management, dated August 1998, about 7 sq. km (700 ha) have been marked as Green Peafowl habitat, whereas a recent PKK NPA survey (2013) has estimated the habitat area at about 25, which seems to be a rather low estimate.

² A survey in 2013 by PKK NPA Management reported only 2-3 individuals were encountered although information from local interviews preceding the field survey suggested 4-5 birds, chicks and an adult female bird.

estimate of the population size is highly speculative, given the lack of a thorough recent assessment.

For management purposes, the PKK NPA is divided into 35 sub-zones. Green Peafowl habitat is found in zones 7 and 8, as shown in Figure 2.

Figure 2: PKK NPA Management Zones



Map source: Adapted from PKK NPA Management, Green Peafowl habitat in zones 7 and 8.

Main threats to the Green Peafowl in PKK are habitat destruction through uncontrolled annual forest fires³, followed by human disturbance from adjacent villages (Keo-Athone 2014) and hunting (Phou Khao Khouay National Protected Area Forestry Technical Division 2013). Formerly, egg collection by the locals for home hatching for commercial purpose was reported. However, the practice has ceased, due partly to awareness raising efforts conducted by the PKK NPA Management, and partly to a fine of LAK 300,000 per egg imposed on such a violation (Phou Khao Khouay National Protected Area Management Office 2014).

The zone of the Green Peafowl is used for nature tourism and as a picnic destination given its landscape beauty. A small-scale tourism operation organizes trips for weekenders or people visiting the site on festival holidays such the Lao New Year. According to the PKK NPA management officials, the site has a great potential to attract tourist to watch the Green Peafowl. However, while the scale of the current tourism use is unknown, it is important to ensure that it will not destroy the very resources and natural attractions upon which it is based, including habitat degradation.

5. Socio-economic status of subproject sites

5.1 Pilot PES scheme in the Bolikhamxay Province

³ According to the PKK NPA Management officials, forest fires occur out of careless people who enter and make fire in the forest as well as from discarded cigarette stubs.

The pilot CEF scheme will involve about 8 villages (in Khamkeut, Viengthong and Xaychamphone) whose inhabitants are potential suppliers of environmental services. The socio-economic characteristics of a selection of representative villages are presented in Table 2.

Some villages rely on agriculture, mainly rice cultivation and livestock (mainly cattle and buffaloes). Some villages also grow vegetables, taro, sweet potato, cucumber and cabbage. The produce is mainly for self-consumption. Only small quantities are sold into the market.

The economic, social and environmental conditions of the areas in which they are located vary across the three districts. For example, the villages in the Khamkeut District are better connected to infrastructure and have higher education levels than the villages in the Xaychamphone and Viengthong Districts.

The overall literacy rate of Bolikhamxay Province was 77% in 2005 (86% among men and 68% among women). The literacy level varies across genders and ethnic groups (including Lao, Phouthai, Thai Daeng, Hmong, Laotheung (Khmu) and Toum). Generally the male literacy rate is higher. For example, in the Khamkeut District the literacy rate among the 15 year and above age group was 78.3% for men and 51.6% for women, compared with 73.8% and 47.6 % in Viengthong District⁴, respectively. However, the rate of the population who have completed lower secondary school was below 10% for both Viengthong and Khamkeut Districts in 2005 (National Statistical Centre 2007).

About 5% of Khamkeut District's working population was engaged in non-agricultural work compared with about 20% of the Viengthong District working population (Ibid.). The average annual income per person varies across the three districts: US\$376, US\$684 and US\$237, respectively (Provincial Department of Natural Resources and Environment of Bolikhamxay 2014).

Table 2: Socio-economic characteristics* of villages in the project area

Village	Ethnic composition	Major occupation	Literacy level	Road Access	Access to electricity
Hang Na	Phou Thai	Rice farming (>95%)	100%	Difficult in the wet season	100%
Na Heuang	Hmong, Lao, Khmu, Phou Thai	Rice farming	100%		100%
Pha Bo	Hmong, Lao	Rice farming (by slash and burn), livestock raising	Majority illiterate	100%, landslide risk	under development

Source:(Pangxang, Y et al 2014). (*) Accuracy of the primary figures in the table on literacy rate may be questionable, however these could be true for the current situation compared to, e.g., survey figures almost a decade ago.

5.4 Pilot CEF scheme in the Vientiane Capital Province

⁴Xaychamphone District did not exist at the time of the 2005 Census.

There are more than 50,000 people living in 72 villages⁵ in and around the PKK NPA. The ethnicities include: Lao, Khmu of the Mon-Khmer ethno-linguistic family; Hmong and Iu Mien of the Hmong-Mien ethno-linguistic family.

The habitat for Green Peafowl is located administratively in Xaythany District of the Vientiane Capital Province. Eight villages, organized in the Ban Xang village cluster, are adjacent to the habitat (Chitthaphone, V 2014). The office of the village cluster is located in Nakhay Village.

Discussions with stakeholder revealed that the six villages adjacent to the habitat, especially Nakhay Village and three others make direct use of the resources, inclusive of collection of bamboo shoot, edible leave and traditional medicinal plants inside the NPA including sites within the Green Peafowl habitat. The population in the villages adjacent to the zone of Green Peafowl has been stated by the heads of the eight villages at 8,211 inhabitants (see Table 3).

Table 3: Basic data of the villages close to the Green Peafowl zone

Village	Population	Literacy rate	Main occupations
Nakhay*	2,579	90%	Paddy rice cultivation
Na Ngom Kao	1,248	100%	Paddy rice cultivation
Na Ngom Mai	573	c. 90%	Paddy rice cultivation
Na Khanthung	1,284	100%	Paddy rice cultivation
Na Tanh	1,016	90-95%	Paddy rice cultivation
Hua Khua	340	>80%	Paddy rice cultivation
Phonh Pheng	315	99%	Paddy rice cultivation
Hua Na	856	100%	Paddy rice cultivation
Total population	8,211		

Source: Village heads interviews (2014); *PKK NPA Management survey's figure.

6. Environmental impacts due to the subproject

6.1 Increased patrolling activities

A key component of the subproject is improving law enforcement especially against wildlife trade through the two pilot CEF schemes. Amongst other activities, enhanced forest patrolling will be used in Protected Areas that are targeted by wildlife traders and poachers.

The Decree No 111/PM determines location of geographical landscapes to ensure that the strategic areas of national defence and security are managed in accordance with the national defence strategic plan including a 15 km borderline zone from the

⁵ A discrepancy occurs in the actual number of villages where the numbers reported vary between 72, 75 and 78 villages; also the overall population data seem outdated as they are based on the 2007 data.

international border where patrols must be carried out in the presence of military officers. The Decree No 111/PM, especially those clauses that refer to the project districts that are listed in the Decree, are well understood. Representative of the Ministry of Defence will be invited to participate in the provincial and district institutional arrangements; constructive communication with local military authorities will be established by sharing project goals and objectives with them and eliciting their cooperation.

Increased patrolling may trigger the following World Bank safeguards:

- Forest OP/BP 4.36
- Natural Habitat OP/BP 4.04

The following mitigation protocols will be embedded into the subproject to ensure that enhanced patrolling in Protected Areas does not have an unintended negative impact on fragile habitat and species:

- Hunting wildlife for food will be prohibited during patrolling.
- Wildlife disturbance will be minimised.
- The establishment of new tracks and access will be based on adequate evidence and after considering alternative options
- The location of camps will take into account fragile areas and habitats, including minimizing the cutting of vegetation and site clearing.
- The number of rangers in patrol and size of camps will be limited to ensure very large camps are not required.
- Camps of anti-poaching patrols will be dismantled completely.
- Garbage will be carried out and not discarded within the PPA.

Patrol team members will be trained to follow these mitigation protocols. Penalties for breaching the mitigation protocols will apply. Patrol team members will receive training in garbage management and disposal, and fire risk mitigation.

6.2 Physical Cultural Recourses

The subproject may trigger the World Bank safeguard on Physical Cultural Resources OP/BP 4.11. The subproject activities in the Protected Areas cover diverse ethnicities, cultures, and spiritual practices that may have the potential to impact on Physical Cultural Resources (PCR). For example, a patrol may stumble over an old stupa walk over of graves, village cemeteries, and/or communal properties in spiritual forests. PCR are defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Chance Find Procedures' have been developed to mitigate against damage or loss to PCRs.

The general approach regarding PCRs is to develop management and mitigation measures to assist in their preservation, and to avoid their elimination. In some cases this may require that project features or activities are redesigned in order that sites, objects and structures can be preserved, studied, and restored intact in situ. In other cases, structures may need to be relocated, preserved, studied, and restored on alternate sites. In other cases, scientific study, selective salvage, and museum preservation before destruction may be necessary in the detection, reporting of, and

the prevention of disturbance and damage to objects and sites of physical and cultural significance.

To minimize impacts to PCRs, Chance Find Procedures have been developed. The objectives of the Chance Find procedures are:

- Minimize impacts to resources from all project related activities
- Ensure that PCRs discovered by project activities are appropriately recorded, documented and reported to appropriate agencies.

To identify and manage any chance finds and comply with the relevant regulations, the following actions will be employed by the subproject:

The DoNRE and the Village Chief will immediately mark the location of the PCR and, with assistance of the patrol manager, will take necessary precautions to protect the site from further disturbance, including limiting access to the site.

Should the chance find be an object, the DoNRE and the Village Chief, with assistance from the SDA, will mobilize a consultant specialist in artefact to remove the PCR to a secure location. If the artefact is large and cannot be easily removed, or is one of a number of objects, then the Ministry of Information, Culture and Tourism must be informed as soon as possible to allow them to investigate the find in situ.

Should a chance find or investigation interfere with forestry operations or livelihood enhancement activities, or affect the planned location of facilities etc, then the DoNRE and Village Chief will need to liaise with the Ministry of Information, Culture and Tourism to determine the best course of action.

The DoNRE and the Village Chief should advise any contractors of any changes to PCR procedures or forestry operations as a result of the chance find. For disputed PCR artefacts, the Ministry of Information, Culture and Tourism of Lao PDR will determine ownership.

The Project Screening Process and the Chance Find Procedures will assist local project implementers to determine if the PCR will be affected and the action required for conservation.

Box 1: Chance Find Procedures

A suspected PCR find should not be moved or interfered with.

A suspected PCR find should be reported immediately to the Village Chief and DoNRE representative.

All work potentially impacting on the find should be suspended whilst these parties assess the find.

The DoNRE and Village Chief will immediately mark the location of the PCR and, with assistance of the patrol manager, take necessary precautions to protect the site from further disturbance, including limiting access to the site.

If the find contains suspected human remains the DoNRE and Village Chief will be required to notify the relevant District Administration immediately and take instructions from the District Administration.

The DoNRE and Village Chief will need to record the depth of the artefact and document and photograph the artefact in situ.

The DoNRE rep and Village Chief will need to prepare a Chance Find Report

The Chance Find Report must be submitted to the Provincial Ministry of Information and Culture, and PoNRE within 48 hours.

6.3 Guidelines, policy and human resource development

The subproject will build the GoL agencies capacity to address better the management of biodiversity in Protected Areas and prevent wildlife trafficking. To avoid that training curricula and policy development deliver knowledge and practices that lead to actions on the ground that may not be compatible with the Bank's safeguards, the subproject will implement the following mitigation measures:

- The subproject will document that policy, knowledge, guidelines and practices developed with subproject funds is fully aligned with the Laos PDR environment laws.
- The subproject will enable external consultation (transparency) on all instruments and curriculum developed with subproject funds so the PAW project partners can exercise due diligence on this standards.

7. External threats to the Protected Areas and mitigation

The ESMF identifies external threats, which the PAW project aims to address. However, the subproject aims to implement a PES pilot focusing on law enforcement through anti-poaching patrols. Consequently, only the threat associated with illegal wildlife harvesting and trade will be directly addressed by the subproject as outlined in Section 3.

8. Safeguard implementation and monitoring

8.1 Community consultations

The sub-project supports, through component 4, the implementation of the CEF. The lessons learned from developing and implementing the two pilot CEF schemes will provide the GoL with the information necessary to refine the CEF for application in other locations.

The implementation of Component 4 will implement the stages of the community engagement process as outlined in the CEF.

Stage 1: Selection of participating villages

The villages have been selected based on the following criteria:

- Nomination by the GoL;
- Proximity to the NPA (Green Peafowl Conservation Zone)/ PPAs;
- Potential to become guardians of wildlife and forest resource within the NPA (Green Peafowl Conservation Zone)/ PPAs;
- Some village use of wildlife and forest resources within the NPA (Green Peafowl Conservation Zone)/ PPAs; and

- General willingness to participate in the pilot CEF schemes (assessed through initial village information and consultation sessions).

The selected villages have been consolidated (no further consolidation is anticipated) and the Participatory Land Use Planning (PLUP) has been completed. A document will be submitted to the Bank that validates the PLUP and the boundaries of the NPA (Green Peafowl Conservation Zone)/ PPAs, ensuring that no village land located within the NPA (Green Peafowl Conservation Zone)/ PPAs will be affected restrictions on the use of wildlife resources supported by the pilot CEF schemes.

Orientation workshops were held at the provincial and district levels with relevant GoL authorities in attendance. These workshops served to orient and inform staff from relevant GoL authorities with the CEF scheme objectives and the implementation process. MoUs (financial, technical and logistical cooperation) were signed between PONRE Bolikhamxay/ Vientiane Capital Province and the ACIAR funded project.

Relevant demographic, socioeconomic and cultural data of participating villages were collected and assessed to form part of the baseline data for the CEF scheme design and the preparation of the Community Action Plans and the Conservation Agreements.

Stage 2: Community awareness and resource diagnostics

In a first step, the team of the ACIAR funded project met with community leaders of target villages informing them about the pilot CEF scheme and its purpose as a first step in establishing broad community support (November 2014 – May 2015). During these initial meetings, the ACIAR project team has started to collect further socio-economic data through interviews with villagers.

In a second step, the ACIAR project team has conducted a community survey through household interviews regarding current demographics, social, and economic factors related to economic survival, living standards, and wildlife resources use within the protected areas in all target villages surrounding the Phou Chomvoy PPA (June 2015). A similar community survey is planned to be conducted in all target villages surrounding the Green Peafowl Conservation Zone (Phou Khao Khouay NPA) in November 2015.

The data collected through these surveys will complement the data collected under Stage 1. They will be used to identify vulnerable households, assist the communities to develop their respective Community Resource Profile with respect to the use of natural resources within the NPA (Green Peafowl Conservation Zone)/ PPAs.

In a third step, the target communities will be (1) informed in more detail about the goals and concept of the pilot CEF scheme and opportunities and benefits of participation; and (2) consulted about the elements of the CEF scheme design and the proposed process of implementation. These community consultations are scheduled for September 2015 (for the target villages surrounding the Phou Chomvoy PPA) and for November 2015 (for the target villages surrounding the Green Peafowl Conservation Zone). The communities will be approached in the spirit of honest and constructive collaboration. They will be engaged in an inclusive and culturally relevant manner on the basis of a free, prior and informed consent aimed at establishing broad-based and sustainable community support for the project. Villagers will be approached regardless of their ethnic group or social status, and will have the opportunity to participate in and benefit from the subproject as well as to take on the

responsibility to adhere to sustainable protected area management. At the end of the consultations villages/ villagers are invited to submit an expression of interest to engage in the CEF scheme. Expressions of interest will be accepted up to two weeks after completion of the consultations to allow communities to discuss internally.

Stage 3: Participatory planning: consultations and agreements

The PLUP has been completed for all target villages (see Stage 1). Nevertheless, a participatory process will be used to develop Community Action Plans. The Community Action Plans should demonstrate broad community support and the endorsement of locally recognized leaders, ethnic group elders and vulnerable people including women and ethnic groups in mixed villages established based on free, prior and informed consent. As such, the Community Action Plans serves as the Plan of Action as required under OP/BP 4.12 with regard to restriction of access, and the Ethnic Group Plan required under OP/BP 4.10 where ethnic groups are affected by the project. The involved communities are envisioned to become agents rather than victims of wildlife and forest resource conservation. The CEF schemes aim to instill in villagers a sense of pride in and co-ownership of the NPA (Green Peafowl Conservation Zone)/ PPAs along with a real understanding of and support for wildlife and forest resource conservation.

Community Action Plans may include the following:

- Documentation of current sources of income generated through wildlife resource use within the NPA (Green Peafowl Conservation Zone)/ PPAs;
- Recognition of the boundaries of the NPA (Green Peafowl Conservation Zone)/ PPAs;
- Recognition of the legislation on biodiversity protection within the NPA (Green Peafowl Conservation Zone)/ PPAs;
- Conservation commitments (support of anti-poaching patrol schemes engaging villagers within the NPA (Green Peafowl Conservation Zone)/ PPAs; list of wildlife damaging actions villages agree to refrain from within the NPA (Green Peafowl Conservation Zone)/ PPAs);
- Estimation of the extent of potential livelihood losses that may result from the CEF schemes;
- Specification of alternative income streams and their potential to sustainably enhance or at least restore income (such as payments for anti-poaching patrolling and community grants to improve the livelihoods of villages that agree to conservation commitments and might be affected by CEF scheme supported restrictions on the use of wildlife resources).
- Implementation arrangement and schedule;
- Grievance mechanism; and
- Arrangements for participatory monitoring and evaluation.

The sub-project aims to submit the CAPs for the target villages surrounding the Phou Chomvoy PPA and the Green Peafowl Conservation Zone (Phou Khao Khouay NPA) for WB approval in May 2016, respectively.

Based on their respective Community Action Plans, the communities will be assisted in formulating Conservation Agreements. Conservation Agreements have to comply with the respective Protected Area Management Plan. They may include the following components:

- Recognition of the boundaries of the NPA (Green Peafowl Conservation Zone)/ PPAs;
- Recognition of the legislation on biodiversity protection within the NPA (Green Peafowl Conservation Zone)/ PPAs;
- Specification of conservation commitments;
- Benefits provided to communities; and
- Monitoring system used to verify compliance and the penalties to be applied if conservation actions are not executed.

Villagers who will engage additionally in anti-poaching patrolling will have to sign a Patrol Contract that specifies relevant entitlements, rights and responsibilities.

Stage 4: Implementation of CAP

The implementation of the Community Action Plans will be supported with financial and technical assistance only after signing of the Conservation Agreements. Community grants will be managed through the village development fund structures that have been established by the livelihood and governance project supported by Luxembourg Agency for Development Cooperation (LuxDev). Villages that have not been part of that project will be assisted in establishing similar village development fund structures. LuxDev has offered to assist the sub-project in this effort. According to the provisions of the village development funds, money will be made available for investments and initiatives to the advantage of villagers. The sub-project will encourage that funds are made available for special assistance to sub-communities and people whose livelihoods might be negatively affected through the pilot CEF schemes. The sub-project will additionally apply the PAW ‘negative checklist’ that specifies livelihood activities that will be non-eligible for funding through the village development funds.

All involved communities will be informed throughout the project implementation using appropriate means of information, education and communication. Communication will respond to issues of language and ethnicity, literacy/illiteracy, gender, and social vulnerability using appropriate information, education, and communication materials.

The development and implementation of the two pilot CEF schemes will follow the principles of the CEF to comply with the GoL commitment to gender mainstreaming. The sub-project will give sufficient attention to encourage women to play an active role in the consultation process. During implementation, women will be: (a) part of the student group from FEBM who will use the pilot CEF schemes as a 'hands-on' learning experience; (b) consulted and their concerns addressed; (c) consulted and trained to be able to participate in the CEF schemes¹ (d) given the opportunity to participate in community group meetings, discussions, planning and implementation as well as in the CEF schemes as a member of a supplier team; and (e) represented equally in the Grievance and Redress Committees (GRCs). Additionally, many of the coordinators and facilitators at the provincial, district and village level will be females. The village level Lao Women’s Union will be involved in all information, consultation, and training sessions to ensure the inclusion of women in all participatory and consultation processes.

8.2 Safeguard integration

Through the CEF, the SDA will assure that environmental safeguards are integrated in the participatory planning processes in target villages such as consultations, community focus groups, and household data acquisition. An outcome of the consultation process will be a community Action Plan and a Conservation Agreement for each village. The community through an agreement with the implementing agency will endorse Community Action Plans.

8.3 Safeguard management and monitoring

The objective of safeguards management and monitoring is to ensure that environmental safeguard policies and frameworks are implemented effectively and that the ESMF and CEF process is carried out as per guidelines and appropriate capacity building of communities and government agencies is undertaken. The supervision of the safeguards will be undertaken by the Monitoring and Evaluation Officer of the EPF in collaboration with a Monitoring and Evaluation Officer appointed within the SDA.

Village self-monitoring. Village Development Committees (VDC) will take the lead and carry out a participatory monitoring of the PES scheme performance and its impacts. This will be achieved through quarterly community meetings during which villagers will have the opportunity to discuss concerns, suggestions for improvements, and any negative impact that has occurred and remains to be resolved. Representatives of the Village Mediation Units (VMUs) will participate to discuss outstanding grievances or issues that have been raised. The VDC representatives will pay particular attention to ensure that vulnerable people and minority ethnic groups will have the opportunity to participate and voice their opinions and concerns during the village level meetings.

Participatory Monitoring and Evaluation. The subproject will carry out an annual meeting at the district level where village representatives, including both a representative of VDC and another villager nominated by villagers, will present their perspectives and opinions collected through the village self-monitoring process. If the VDC representative is a male, then the second village representative should be a female, or the vice versa. At the meeting, village representatives will be encouraged to share their perspectives on project performance, suggestions for improvement, outstanding grievances, and other relevant issues. Measures to improve project performance and resolve outstanding grievances will be also discussed and agreed on. Minutes will be taken and kept in the project file, and progress on agreed actions will be discussed in the meeting to be held in the following year.

Subproject monitoring. Implementation will be regularly supervised and monitored by the SDA. The SDA will prepare a quarterly progress report and describe their observations in project performance including on issues related to safeguards, which will be kept in the project file for possible review by the World Bank. The EPF will supervise and monitor the process at least one time per year and include the results in the Project annual reports to be furnished to the World Bank. In consultation with local government and project beneficiaries, the SDA will establish other practical monitoring indicators in line with the project objectives. Indicators will cover the following aspects of the PES scheme:

- Budget and time frame of implementation
- Delivery of project activities (project inputs)

- Project achievements (project outputs and outcome)
- Consultation, Grievance and Special Issues
- Monitoring of benefits from project activities.

8.4 Budget for safeguard management and monitoring

The budget for safeguard management and monitoring is shown below. However, due to budget constraints and limitation of budget project, the safeguard management and monitoring will be covered by EPF. However, this issues will be discussed details with EPF and WB.

Description	FY 16	FY 17	FY 18	FY 19	Estimated cost (\$)	Baseline contribution (\$)	PAWP Financing (\$)
Implenmentation of ESMP ¹	5,000	5,000	5,000	5,000	20,000	12,000	8,000
Support of community engagement process ¹	9,000	9,000	9,000	9,000	36,000	18,000	18,000
Safeguard management and monitoring ¹	6,000	6,000	6,000	6,000	24,000	10,000	14,000
Total	20,000	20,000	20,000	20,000	80,000	40,000	40,000

¹Baseline contribution (in-kind) through funds provided by NUoL
However, due to budget constraints

8.5 Management of data collection during the subproject implementation

Baseline data has been collected to build the bio-physical models, design the tender process and define the environmental services that the subproject aims to produce. The bundle of management actions that will be eligible under the CEF schemes will include protection activities (e.g., anti-poaching patrols, snare collection) and monitoring activities (e.g., recording poaching incidents and monitoring wildlife) that will enrich the data collection process. That is, the CEF schemes will be designed as an iterative process that allows model improvements once more information is available. Conservation data will be managed using the software program SMART. Surveys to monitor and assess social impacts of the CEF schemes will be undertaken by the SDA and EPF as required.

8.6 Incident reporting

Environmental incidents will be reported as soon as practicable to the designated person, and the village grievance committee. An environmental incident is defined as any incident that impacts on, or may potentially impact on the environment or community, or any activity result in regulatory non-compliance or breach of safeguard guidelines, GoL policies, standards or commitments. All incidents are to be reported, regardless of their perceived or actual seriousness.

8.7 Communication of EMP; consultation and disclosure process

This draft EMP will be communicated to relevant stakeholders and affected communities through a consultation and disclosure process. The consultation process has been initiated and will be completed once the SDA has received a conditional approval for this subproject to be implemented.

8.8 Grievance redress mechanism

Grievances may result from project activities. They will be resolved following a grievance mechanism that is based on the following key principles:

1. Rights and interests of project participants are protected;
2. Concerns of project participants arising from the project implementation process are adequately addressed and in a prompt and timely manner;
3. Entitlements for project participants are provided on time and in accordance with the above stated Government and World Bank safeguard policies;
4. Project participants are aware of their rights to and realize access to grievance procedures free of charge;
5. The grievance mechanism will be in line with existing policies, strategies, and regulations on grievances as defined by GOL, which require project owners/proponents to set up grievance mechanisms starting from the village level, and also follow recent legislation under Decision No. 08/MOJ, dated 22 February 2005 that seeks to strengthen conflict resolution at the grassroots level, by establishing Village Mediation Units (VMU); and
6. The grievance mechanism will be institutionalized in each village by a selected group of people, involving Ethnic Groups, women, and representatives of other vulnerable groups in the village.

Village Mediation Unit (VMU) assists the village administration authority to enhance knowledge of and compliance with State laws in the village. It acts as the disseminator of laws and regulations in the village, encouraging people of all ethnic groups within the community, to respect and comply with laws and regulations. It closely coordinates with the judicial and other bodies involved (GRID, 2005: 25).

The GRM under the project builds on and seeks to strengthen existing government systems (such as VMUs) but primarily include measures to ensure concerns and grievances of project beneficiaries and affected people will be adequately addressed. The GRM consists of four steps.

Step 1. Village level

The first step in case of a grievance is to report to the VMU, a village level institution that involves traditional and spiritual leaders and has a proven track record for resolving minor conflicts at the village level. The VMU will be in charge of documenting the grievance by using the form provided and signed/fingerprinted by

the grievant for processing. The VMU will keep the Village Grievance Logbook. The Technical team will strengthen the capacity of VMUs especially on gender equity and their knowledge of the project including on safeguard requirements.

The VMU will be required to provide immediate confirmation of receiving a complaint and should complete an investigation within 14 days of receipt. Then, within 5 days after receipt of the grievance, the VMU should meet the Complainant to discuss (mediate) the grievance and will advise the complainant of the outcome. If the grievance is either a valid PAW Project grievance that requires investigation and action/compensation or if the Complainant is not satisfied with the response, the issue is transferred within one month to the next level, led by the District Grievance Steering Committee, for further action.

Step 2. District level

Grievances that cannot be resolved at the village level will be brought to the District Steering Committee (DSC) that will have 30 days after the receipt to review all available information from the investigation by VDCs and Technical team, and analyze / investigate each case. Within 30 days, the DSC invites the Complainant to discuss the grievance and the Grievant is informed of the outcome of the investigation and the decision.

If the Complainant is satisfied with the outcome, the issue is closed, and will provide a signature as acknowledgement of the decision. If the Complainant is not satisfied with the outcome, the Complainant may submit an appeal to the DSC if there is additional relevant information for reconsideration.

Within 14 days, the DSC will collect facts and reinvestigate, and will invite the Complainant to discuss the appeal. The Complainant will then be informed of the outcome of the investigation and the decisions made. If the Complainant is still dissatisfied with the outcome, he/she can then submit his/her complaint to the Provincial Steering Committee. The DSC will also be in charge of compiling all grievances into a District Grievance logbook.

Step 3. Provincial level

In case of strong or unresolved grievances these will be referred to the Provincial Steering Committee (PSC) that will be chaired by the Vice Governor of the province. Members of this committee will include the District Governors of participating districts, division heads of participating line agencies, and representatives of LWU and LNFC. The Provincial National Assembly should also be involved in acknowledging the grievance and advocating for suitable resolution.

The PSC will collect facts and reinvestigate, and will invite the Complainant to discuss the outcome of the investigation and the decisions made. If the Complainant is still dissatisfied with the outcome, he/she can then submit his/her complaint to the

National Steering Committee. The PSC will also be in charge of compiling all grievances into a Provincial Grievance logbook.

Step 4. Central level

Grievances that cannot be solved at the provincial level will be sent to the National Project Steering Committee (NPSC) chaired by the Vice Minister of MONRE at the central level and members will include DG/DDG level representatives of participating agencies in various ministries (MAF, MONRE, WMPA, MPI, LFNC, etc.), as well as national leaders of mass organizations like LWU and LNFC. The World Bank Task Team may participate as an observer. Complainants are also allowed to report their grievances directly to the NPSC or National Assembly. All staff involved in project implementation, in particular SDAs and Technical Teams, will provide any necessary assistance so villagers feel free to report grievances. Outstanding grievances that remain to be closed, if any, will be monitored through participatory M&E, technical audit and other monitoring and evaluation mechanisms of the project.

In parallel to the project grievance mechanism, the project participating/ affected people are able to raise concerns through the participatory M&E process and seek for resolutions at the district level meeting where consultants hired directly by the project will also participate. They will also be encouraged to report any outstanding grievances to annual technical audit team which includes expertise in social issues. Also, importantly, complainants are allowed to report their grievances directly to the NPSC or National Assembly.

8.9 Audit and review

All subprojects will undergo regular internal audit by the safeguard TA that will assess:

- Appropriateness of the CEF, ESMF (and EMPs) to the current resource management practices and conditions;
- Awareness of PoNRE, DoNRE and villagers of the CEF, ESMF and EMPs and all associated plans and safeguard procedures;
- Village grievance committee records as they relate to environmental safeguards issues and compliance;
- Performance of managers, contractors and PoNRE/DoNRE staff in implementing and maintaining the CEF, ESMF and EMP; and
- Availability of adequate resources and expertise for implementation of the CEF, ESMF and EMPs.

The findings of audit reports and recommendations will be presented to the EPF and to SDAs in the Annual Report. Corrective actions will be incorporated into the ESMF and CEF as required.

8.10 Budget for environmental management and monitoring

The subproject has an in-built environmental monitoring system (see 1.2/ PES scheme design). Additionally, the subproject budget allocates funds to employ two Patrol Managers. Environmental management and monitoring related to wildlife law enforcement supported by the subproject will be part of the Terms of References of the Patrol Managers.

REFERENCES

- Chitthaphone, V (2014) Personal Communication
Division of Forest Resource Conservation, Phou Khao Khouay-Phou Phanang
National Protected Areas Management (Military Division 941) and IUCN
Laos (2010) Phou Khao Khouay National Protected Area Management Plan,
Vientiane
- Duckworth, JW, Salter, RE and Khounbolin, K (1999) Wildlife in Lao Pdr: 1999
Status Report. Vientiane: IUCN-The World Conservation Union/ Wildlife
Conservation Society/Centre for Protected Areas and Watershed Management.
Integrated Ecosystem and Wildlife Management Project (2006) Significant Wildlife
and Wildlife Habitats of the Bolikhamxay Province., Bolikhamxay Provincial
Agriculture and Forestry Office and Wildlife Conservation Society, Vientiane
- Keo-Athone (2014) Personal Communication
- National Statistical Centre (2007) Population and Residence Census 2005:
Bolikhamxay Province. Committee for Planning and Investment. Vientiane.
- Norplan A.S. (2008) Section II: Environmental Management and Monitoring Plan
- Pangxang, Y, Phoyduangsy, S and Tsechalicha, X (2014) Personal Communication
- Phou Khao Khouay National Protected Area Forestry Technical Division (2013)
Report on a Survey of Green Peafowl in Phou Khao Khouay Npa (in Lao),
Vientiane
- Phou Khao Khouay National Protected Area Management Office (2014) Personal
Communication
- Provincial Department of Natural Resources and Environment of Bolikhamxay (2014)
Information Provided to the Project 'Effective Implementation of PES in Lao
Pdr' (Unpublished).
- Provincial Office of Natural Resources and Environment and Phou Khao Khouay
National Protected Area Management Office (2014) Personal Communication
- Southammakoth, ST (1999) The Protected Area System in Lao Pdr: Country Status
Report - 1999. Southeast Asia Regional Forum of the World Commission on
Protected Areas in Pakse, Lao PDR. In Galt, A., Sigaty, T. and Vinton, M.
(Eds.). Vol.2 - Papers Presented. IUCN Lao PDR, Vientiane. pp. 45-54
- Tizard, R (1996) A Preliminary Wildlife and Habitat Survey Of the Proposed Northern
Extension to the Nakai-Nam Theun National Biodiversity Conservation Area
and the Adjacent Nam Gnouang Area, Bolikhamsai Province, Lao Pdr.
Wildlife Conservation Society. Vientiane
- Vongkhamheng, C (2014) Personal Communication