

CEPF Final Completion and Impact Report

Organization's Legal Name:	Wildlife Conservation Society
Project Title:	Establishing and Piloting a Payment for Ecosystem Services Model in Lao PDR
Grant Number:	65926
Hotspot:	Indo-Burma II
Strategic Direction:	6 Engage key actors in mainstreaming biodiversity, communities and livelihoods into development planning in the priority corridors
Grant Amount:	\$299,908.00
Project Dates:	April 01, 2016 - May 31, 2021
Date of Report:	August 02, 2021

IMPLEMENTATION PARTNERS

The key project partners include a/ National and Sub-National Government, b/ participating local communities and c/ Theun Hinboun Power Company (THPC).

a/ Support, participation and involvement from National, Provincial, and District Government agencies were significant for the implementation of this project. WCS 's direct partners are Provincial and District Authorities (Provincial and District Agriculture and forestry Office and District Deputy Governor) for supporting activities, assigning field officers and relevant decision makers for the main steps of the project such contract signature, validation of management and implementation plans. At national level, the Ministry of Natural Resource and Environment (MONRE) has been giving strong attention to the project given the current regulation on PES under development.

b/ Main partner in the implementation are the local communities including Village Authorities, Village Committee and villagers. They have been leading and managing forest restoration activities, village incentive funds and community mobilization.

c/ THPC's role has evolved over the course of the project. The PES project took place in their catchment and the company was supportive to the project and several technical exchange took place. There was no direct financial contribution to this project however, WCS, THPC, local authorities and communities have cooperated to improve practices of the hydropower sector in forest restoration and collaborative management of the forests.

CONSERVATION IMPACTS

Planned Long-Term Impacts: 3+ years (as stated in the approved proposal)

Impact Description	Impact Summary
3. More effective policy instruments – PES laws and regulations, and regulations relating to hydropower concessions	In Lao PDR, the Government is intending to establish a regulatory framework for the PES and resources management system for the hydropower sector. The main impact to date is the importance given by MONRE deputy Minister to the PES project. The General Director of the Water Resources Department (MONRE) led fieldwork to assess and interview large sample of households in January 2020 in the two project target villages Nacheng and Khamkuna. Given the success and achievements of this PES pilot, it is used as a practical case to support policy development process. Further support and consultation with MONRE are expected to inform policy making process.
4. Greater community engagement for participating villages around the Nam Gnouang South Protection Forest Area and involvement in the protection activities in the broader Protection Forest Area not immediately adjacent to villages	The PES pilot project was implemented in two villages adjacent to the Nam Gnouang South Protection Forest Area (NGS PFA). In order to align with the PES principle of additionally, it was decided to delineate forest protection area outside this NGS PFA where other measures have been implemented. Ownership and engagement of communities in forest protection is noteworthy in this PES forests. Positive impacts on water resources leading to the increase of paddies' area in the participating village is definitely the best guarantee of sustainability as explained by the villagers.
1. The uptake of PES schemes for reforestation activities by hydropower companies in Laos	THPC and the project have collaborated technically with regards to forest restoration activities, conservation and community based resource management. A take-away lesson for hydropower was firstly the irrelevance of forest plantation in the context of rural communities. Community land use lands, regulations and incentives have shown positive results, and Provincial want to use this model as a reference standard to be implemented in other projects. Experience and lessons learnt over the course of the project will be shared among the private sector in Lao PDR and synergies have already been initiated with other WCS projects related to the improvement of mitigation and practices of hydropower sector.
2. Increased understanding and benefit from environmental services for local communities, hydropower companies and the government of Laos	As stated by the Provincial deputy Governor of Bolikhamxay, this model aligns perfectly with GoL policies through the integration of forest protection and rural development. This PES scheme that incentivize improved community management of catchments would be proposed as a cost effective means for meeting environmental obligations for hydropower projects. The success of the project has been partially attributed to the alignment of interests in protecting

Impact Description	Impact Summary
	the forest area by both the communities, as a drinking water and irrigation catchment area, the GoL and the private sector ecological services user, in this case a hydropower company.

Planned Short-Term Impacts: 1 to 3 years (as stated in the approved proposal)

Impact Description	Impact Summary
1. More effective reforestation activities and protection leading to increased forest cover in the 54000 ha Nam Gnouang South protection forest	<p>The direct impact is the regeneration of 1870ha of village forest managed by the villages and the improvement of the management of the whole village and forest lands that also covers NGS PFA. The PAFO of Bolikhamxay who manages the NGS PFA in partnership with THPC also collaborate technically with the PES project to improve practices.</p> <p>Forest cover was assessed in the PES forest over the lifespan of the project, even though changes could not be detected by remote sensing, villagers and project team have witness regeneration of the forest and understory. Fallows in the upper catchment were not burnt. At the scale of the NGS PFA, there is no evidence of improvement of the forest cover as it was not directly targeted by the project.</p>
2. Decreased slash and burn practices in the protected area	<p>One of the impact of the project that has to be highlighted is the change of behavior of villagers regarding to slash and burn and forest fire management at the scale of the whole forest and village lands.</p> <p>As stated by villagers, the increase of water availability for paddies has pushed them to improve governance and control of villagers with regards to slash and burn and land management.</p>
3. Improved funding of community activities through the village PES fund for 2 -3 target villages (base funds of 30,000 USD to be distributed over 3 years conditional on effective protection).	<p>After three years of the pilot, the project has transferred over \$50,000 into the communities' Village Incentive Funds (VIF) for forest management activities. Local authorities and WCS support the communities in the organization and selection of community led projects, ensuring that the projects benefit the entire community. To date, the payments have been used to develop and improve village drinking water supply, small irrigation schemes, revolving funds for women groups.</p>
4. Improved community-focused land use management including a clearer understanding of the village land use zones and activities in each of the forest classifications, and clearer ownership of community forest areas and the ability to exclude / manage non-resident activities.	<p>Beyond direct project activities, communities have initiated a better land use management in the entire village lands. This translates into clearer community based regulations and strong enforcement without the support from the project as a consequence of behavioral changes.</p>

Unexpected impacts (positive or negative)?

Even though support, participation and ownership of projects by local communities and authorities are basic implementation principles, in the case of this PES project, these aspects were genuinely strong and remarkable.

From the perspective of the communities, direct payment based on performance have raised strong interest and ownership of natural resource management. Restoration of forests impacted water resources used by the village and led to an increase of paddies' area and finally initiated behavioral change regarding to slash and burn and fire management practices in the village.

From the perspective of the Authorities, the Deputy district Governor, DAFO Director, PAFO Director have all been involved in the implementation and participated to all key steps of the project. They have appreciated the principle of benefit sharing with communities that could facilitate adoption and link conservation of forest to livelihoods development.

Provincial Deputy Governor of Bolikhamxay has highly praised the pilot and stated that this model aligns perfectly with GoL policies and want to use this model to be implemented by other project.

PROJECT RESULTS/DELIVERABLES

Overall results of the project:

In February 2018, Nacheng and Khamkhuna signed to the PES pilot agreeing to protect and restore 1870 ha of forest, in exchange for payments into their village accounts, which can be used for activities selected by the community. The overall goal of the management plan is to facilitate natural regeneration of secondary forests and fallows through the reduction, and where appropriate banning, of some former uses such as logging, livestock raising usually associated with forest fires and swidden agriculture. Endorsement by local authorities is important as this validates the creation of village protection forests which aligns with the country's national strategy to protect watersheds and forest cover. After three years of the pilot, the project has transferred over \$50,000 into the communities' Village Incentive Funds (VIF) for forest management activities. Local authorities and WCS support the communities in the organization and selection of community led projects, ensuring that the projects benefit the entire community. To date, the payments have been used to develop and improve village drinking water supply, small irrigation schemes, revolving funds for women groups. These women's revolving funds have been used to purchase livestock or used to fund handicraft activities.

An evaluation of the pilot took place in 2021, and has shown very positive results. In Nacheng village, the community members spoke of how the implementation of the management plan has benefited their catchment and community. "Generally, we are give more attention to forest fire control, so far fires have stopped in the PES but also in other forest areas of the village, and as a result of the PES, our water resource have increased in the stream and with the increased water supply we have been able to expand areas of irrigated paddies downstream of the PES catchment".

This initiative shows how interests in forest protection can be aligned between the hydropower sector, communities' livelihoods and conservation policies.

The Xaychamphone DAFO Director, Mr Sitthanong, has commended the communities' strong ownership towards the management measures and strongly believes the communities will continue to implement them beyond the project given the positive impacts it has had on their livelihoods. A necessary first step underlying this strong ownership was the PES agreement made and payments to VIF that has significantly facilitated their involvement. Community members have witnessed the improvement of water resources due to the change of practices and behaviors. Mr Sitthanong explained that "The PES is well understood by villagers, the incentives have pushed them to enforce the rules internally,

fires in the area have reduced overall. We are using the PES project as a model for other projects in the province, such as THPC.”

Deputy Governor of the Province has highly praised the pilot and stated that this model aligns perfectly with GoL policies through the integration of forest protection and rural development. As a testament of the pilot’s success, the provincial authorities want to use this model as a gold standard to be implemented in other projects. However, scaling up of such an initiative is an upcoming challenge considering the potential costs and time invested in the pilot. To achieve similar impacts on water resources at a wider scale such as an entire watershed, this will require an adapted structure and investment and associate measurement of impacts induced by forest regeneration.

Results for each deliverable:

Component		Deliverable		
#	Description	#	Description	Results for Deliverable
3.0	Policy Engagement and Preparation for Scaling Up – Key Government departments, the private sector, development agencies and institutions will be engaged to promote use of PES in reforestation and forest protection, especially in catchment and offset areas	3.1	Direct dissemination through workshops. One opening and one closing workshop will be conducted. A workshop report for both project workshops will be provided to CEPF.	The PES project approach and lessons are presented to different workshops. The closing workshop was cancelled but should be organized as soon as the pandemic restrictions allow it.
3.0	Policy Engagement and Preparation for Scaling Up – Key Government departments, the private sector, development agencies and institutions will be engaged to promote use of PES in reforestation and forest protection, especially in catchment and offset areas	3.2	Policy engagement. WCS will engage in regular sector meetings relevant to policy development including the Forestry Sub Sector Working Groups, as well as support other organisations in their efforts. WCS to maintain a PES policy advocacy diary / register.	WCS is well engaged in the process of informing policy development. MONRE has assessed the PES project and lessons are shared in all relevant workshops.
3.0	Policy Engagement and Preparation for Scaling Up – Key Government departments, the private sector, development agencies and institutions will be engaged to	3.3	Final Roadmap Report compiled and provided to CEPF. This document will provide guidance for establishing similar PES schemes, and supply lessons learnt through the piloting	Final roadmap is compiled and will be disseminated in the final workshop as soon as it can be organized.

Component		Deliverable		
#	Description	#	Description	Results for Deliverable
	promote use of PES in reforestation and forest protection, especially in catchment and offset areas		process. This document will be presented at the closing workshop.	
1.0	Design and Planning - to identify best practice methods regarding conservation/PES contracts, which will be outlined in a 'roadmap' document	1.1	The draft 'PES Roadmap' Document that outlines the steps to be taken for implementation is completed	The draft 'PES Roadmap' is completed.
1.0	Design and Planning - to identify best practice methods regarding conservation/PES contracts, which will be outlined in a 'roadmap' document	1.2	Community PES organization established and documented. This community organisation is expected to sit alongside existing relevant community bodies such as the Village Development Fund committee, and the Village Forest Committee.	Village committee was established and endorsed by district authorities. The committee manages the activities, lands and the Village Funds and reports back effectively to the community.
1.0	Design and Planning - to identify best practice methods regarding conservation/PES contracts, which will be outlined in a 'roadmap' document	1.3	A workshop to determine the preliminary payment levels will be conducted and reported to CEPF	A workshop was organized to determine preliminary payments in January 2018.
1.0	Design and Planning - to identify best practice methods regarding	1.4	PES forest zones determined for 2-3 villages for year 1 and documented in the PES	Completed. A contract is renewed every year stating regulations and delineation.

Component		Deliverable		
#	Description	#	Description	Results for Deliverable
	conservation/PES contracts, which will be outlined in a 'roadmap' document		Roadmap document. Detailed maps of these zones will be provided to the Village and the Nam Gnouang South Program and CEPF if required.	Documents were developed and shared with all relevant partners and authorities.
1.0	Design and Planning - to identify best practice methods regarding conservation/PES contracts, which will be outlined in a 'roadmap' document	1.5	Compliance with CEPF Social Safeguard Policies monitored and reported to CEPF.	Completed. Reports provided to CEPF bi-annually.
1.0	Design and Planning - to identify best practice methods regarding conservation/PES contracts, which will be outlined in a 'roadmap' document	1.6	Conflict Resolution and complaint mechanism developed and implemented.	Completed. Contract defined mechanisms. Conflicts have been solved and mediated within the community and with the support of the District authority.
2.0	PES pilot implementation including testing contracting modalities, revenue management schemes, and organization of established community social structures; and	2.1	Restoration and ANR training conducted in the 2 -3 villages. One training per village pre year with a total of 50 villagers participating. Training reports compiled and made available to CEPF.	Activity adjusted. Trainings were not completed however support to implement regulation for the forest restoration was provided.
2.0	PES pilot implementation including testing contracting modalities, revenue management	2.2	Restoration activities conducted in demarcated forest restoration zones. Forest protection in forest	In total, 1870ha are protected since three years.

Component		Deliverable		
#	Description	#	Description	Results for Deliverable
	schemes, and organization of established community social structures; and		protection zones. PES payments made. Protection: Y1 - 200 ha total, Y2 - 600 ha total, Y3 - 1200 ha total. Restoration: Y1 - 40 ha, Y2 - 50 ha, Y3 - 50 ha	
2.0	PES pilot implementation including testing contracting modalities, revenue management schemes, and organization of established community social structures; and	2.3	Monitoring of forest restoration zones conducted prior to the onset of wet season to determine success of the previous year's activities and plan the next year's activities. A yearly monitoring report will be compiled and made available to CEPF	Monitoring of forest cover is completed annually with remote sensing to detect fires and deforestation. Field-compliance monitoring are organized before each installment. An assessment of the vegetation types and forest cover change was done between 2018 and 2020.

Tools, products or methodologies that resulted from the project or contributed to the results:

The methodology developed during this PES pilot is an iterative and very adaptive process. A case study will summarize the steps, conditions, safeguards and lessons learnt, however it is not yet available. The PES project has been presented to several workshops including one organized by MONRE in March 2021 to support PES policies development.

PORTFOLIO INDICATORS

Portfolio Indicator Number	Portfolio Indicator Description	Expected Numerical Contribution	Expected Contribution Description	Actual Numerical Contribution	Actual Contribution Description
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GLOBAL INDICATORS

Protected Areas

Protected areas that have been created and/or expanded as a result of the project. Protected areas may include private or community reserves, municipal or provincial parks, or other designations where biodiversity conservation is an official management goal.

Name of Protected Area	WDPA ID*	Latitude	Longitude	Country	Original Total Size (Hectares)**	New Protected Hectares***	Year of Legal Declaration or Expansion
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*World Database of Protected Areas

**If this is a new protected area, 0 should appear in this column

*** This column excludes the original total size of the protected area.

Key Biodiversity Area Management

Key Biodiversity Areas (KBAs) under improved management—where tangible results have been achieved to support conservation—as a result of the project.

KBA Name	KBA Code	Size of KBA	Number of Hectares with Improved Management
Eastern Bolikhamxay Mountains	LAO8		1,870

Production Landscapes

Production landscapes with strengthened management of biodiversity as a result of the project.

A production landscape is defined as a site outside a protected area where commercial agriculture, forestry or natural product exploitation occurs.

Name of Production Landscape	Latitude	Longitude	Hectares Strengthened	Intervention
Nacheng and Khamkhuna village forests	18.463	104.726	1,870	Payment for ecosystem services, leading to reduced fire and clearance of forest, regeneration of canopy and understory vegetation, and improved provision of water for irrigation and domestic use

Benefits to Individuals

- Structured Training:**

Number of Men Trained	Number of Women Trained	Topics of Training
12	5	-training on accounting and village fund management (4) -training on navigation and patrolling (5) -study tour on PES (GoL officials) (4) -study tour for villager (4)

- Cash Benefits:**

Number of Men – Cash Benefits	Number of Women – Cash Benefits	Description of Benefits
183	183	<p>Village Incentive funds (VIF) Installments Year 1: \$24,603 Installments year 2: \$24,885 Installments year 3: \$16,102</p> <ul style="list-style-type: none"> -compensation for village patrols: (183 households, every household on rotation) -compensation for PES committee members: 14 persons -VIF: irrigation supply 15 Households -VIF: drinking water supply – wells: 42 households -VIF: revolving fund livestock: 40 households -VIF: revolving fund women groups (weaving): 15 women -study tour and supplies for cash crop cultivation: 35 persons

Benefits to Communities

View the characteristics column below with the following corresponding codes:	View the benefits column below with the following corresponding codes:
1- Small Landowners	a. Increased Access to Clean Water
2- Subsistence Economy	b. Increased Food Security
3- Indigenous/ Ethnic Peoples	c. Increased Access to Energy
4- Pastoralists / Nomadic Peoples	d. Increased Access to Public Services
5- Recent Migrants	e. Increased Resilience to Climate Change
6- Urban Communities	f. Improved Land Tenure
7- Other	g. Improved Use of Traditional Knowledge
	h. Improved Decision-Making
	i. Improved Access to Ecosystem Services

Community Name	Community Characteristics							Type of Benefit									Country	Number of Males Benefitting	Number of Females Benefitting	
	1	2	3	4	5	6	7	a	b	c	d	e	f	g	h	i				
Khamkuna and Nacheng villages	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Lao People's Democratic Republic	183	183									

Characteristics of "Other" Communities:

Policies, Laws and Regulations

View the topics column below with the following corresponding codes:			
A- Agriculture	E- Energy	I- Planning/Zoning	M- Tourism
B- Climate	F- Fisheries	J- Pollution	N- Transportation
C- Ecosystem Management	G- Forestry	K- Protected Areas	O- Wildlife Trade
D- Education	H- Mining and Quarrying	L- Species Protection	P- Other

No.	Name of Law	Scope	Topics															
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P

“Other” Topics Addressed by the Policy, Law or Regulation:

No.	Country/ Countries	Date Enacted/ Amended	Expected impact	Action Performed to Achieve the Enactment/ Amendment

Companies Adopting Biodiversity-friendly Practices

A company is defined as a for-profit business entity. A biodiversity-friendly practice is one that conserves or uses natural resources in a sustainable manner.

Name of Company	Description of Biodiversity-Friendly Practice	Country/Countries where Practice was Adopted
Theun Hinboun Power Company	Improved catchment management and compensation practices to conservation	Lao People's Democratic Republic

Networks and Partnerships

Networks/partnerships should have some lasting benefit beyond immediate project implementation. Informal networks/partnerships are acceptable.

Name of Network/Partnership	Year Established	Country/Countries	Established by Project?	Purpose
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Sustainable Financing

Sustainable financing mechanisms generate funding for the long-term (generally five or more years). These include, but are not limited to, conservation trust funds, debt-for-nature swaps, payment for ecosystem services (PES) schemes, and other revenue, fee or tax schemes that generate long-term funding for conservation.

Name of Mechanism	Purpose	Date Established	Description	Country/Countries	Project Intervention	Delivery of Funds?
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Globally Threatened Species

Globally threatened species (CR, EN, VU) on the IUCN Red List of Threatened Species, benefitting from the project.

Genus	Species	Common Name (English)	Status	Intervention	Population Trend at Site
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LESSONS LEARNED

a/ PES scheme has been welcomed by communities, sharing benefits of conservation. Incentivization of communities for the protection of forest seemed to show very positive results compared to pure coercion in the context of Lao PDR. Competing land uses, and impacts on village livelihoods must be the first and most important consideration when planning a PES scheme in village lands. It is often the poorest households in villages that lack access to sufficient lands, and poorly implemented forest protection schemes in village lands that are not already protected as village conservation forest may be driver for further poverty. For this reason the areas chosen for such schemes must be selected after comprehensive village discussions, agreement, and understanding, including understanding the cross section of households and likely future demands on land for a range of uses. The PES scheme implemented in this study has been successful largely because the communities interests in protecting the catchment for it's own water source aligned with the likely downstream water quality requirements of hydropower operations.

b/ PES scheme is in line with GoL policies, was formalized as Village Protection Forest and endorsed by Local Authorities. GoL policies were very supportive to the initiative, because it aligns with both conservation, forest cover objectives and rural development and poverty eradication. Support from local authorities is also a key to success given their influence. Deputy Governor of the Province has highly praised the pilot and stated that this model aligns perfectly with GoL policies through the integration of forest protection and rural development. As a testament of the pilot's success, the provincial authorities want to use this model as a gold standard to be implemented in other projects.

SUSTAINABILITY/REPLICATION

This initiative shows how interests in forest protection can be aligned between the hydropower sector, communities' livelihoods and conservation policies. The Xaychamphone DAFO Director, Mr Sitthanong, has commended the communities' strong ownership towards the management measures and strongly believes the communities will continue to implement them beyond the project given the positive impacts it has had on their livelihoods.

A necessary first step underlying this strong ownership was the PES agreement made and payments to VIF that has significantly facilitated their involvement. Community members have witnessed the improvement of water resources due to the change of practices and behaviors.

Some challenges and questions still need to be addressed.

Scaling up in a whole watershed might raise issues when criteria are not met for some villages. In the case of the PES pilot project, out of 5 villages assessed, only 2 met the criteria. When pressure on land is too high or if costs of opportunity exist, the communities are not likely to agree to protect forest for permanent regeneration.

Selection, consultation, contracting and monitoring processes are time consuming. The project team has invested time to monitor, implement and support the project in two communities. At a wider scale, if implementers have limited time to invest in communities, results and impacts could be unsatisfactory.

Finally, strong scientific evidences should be produced to show that PES scheme can achieve the objectives of improved catchment management and forest protection at a larger scale such as an entire watershed or landscape.

ENVIRONMENTAL AND SOCIAL SAFEGUARDS/STANDARDS

The framework of CEPF social and environmental safeguards has been guiding and integrated several actions for all steps of the project: selection of villages, village consultation, establishment of new regulations on natural resources and forests, design of the community project and implementation and management of the village Incentive Funds (VIF).

Selection of the village forests for the implementation of PES is a corner stone of the social safeguard policy. Protecting some village lands can be irrelevant and counterproductive, because raising pressure over lands can result in negative impacts to livelihoods and limited acceptance and enforcement. At this initial stage, evaluating potential competing uses over forests and costs of opportunity is a relevant angle to evaluate feasibility and ensure rights of local communities.

Community were systematically consulted for the consecutive steps and in particular to define the new management plans and regulations in one hand and the community project and use of VIF funds in the other hands.

ADDITIONAL COMMENTS/RECOMMENDATIONS

In PES forest areas and adjacent Phou Sithone Endangered Species Conservation Area (Bolikhamxay Province), mining exploration has begun within the boundaries of the Phou Sithone ESCA and PES village forests. As of April 2021, 11km of roads have been constructed in these areas inducing clearing of 29ha for sampling and drilling. The company is exploring gold resources in two Districts and started within the PST ESCA. Permission for this operation was granted by the Ministry of Mine and Energy (MEM) at central level. WCS has acknowledged GoL of its concern for predictable future impacts on conservation, past and future investments. At this early stage, WCS is engaged in a process of clarification and information sharing with Provincial Authorities. This creates a major risk of disturbance to the PES forest and might prevent continuation of the payments to the communities. WCS is monitoring closely the situation with community rangers, village authorities, District and Provincial Authorities in order to take appropriate decisions. While the situation is being clarified, payments were reduced according to the area deforested.

ADDITIONAL FUNDING

Total Amount of Additional Funding Actually Secured (USD)	
Breakdown of Additional Funding	

INFORMATION SHARING AND CEPF POLICY

CEPF is committed to transparent operations and to helping civil society groups share experiences, lessons learned and results. For more information about this project, you may contact the organization and/or individual listed below.

Wildlife Conservation Society - Lao PDR