





Darwin Initiative: Final Report

To be completed with reference to the "Writing a Darwin/IWT Report" Information Note: (<u>https://www.darwininitiative.org.uk/resources-for-projects/reporting-forms-change-request-forms-and-terms-and-conditions/</u>).

It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

Darwin Project Information

Project reference	24-003	
Project title	Conservation and poverty alleviation through scalable agro- biodiversity practice in Laos	
Country(ies)	Lao PDR	
Lead organisation	Wildlife Conservation Society (WCS)	
Partner institution(s)	Village Focus International (VFI) Nam Et Phou Louey Management Unit (NEPL MU), Provincial Agriculture and Forestry Office (PAFO)	
Darwin grant value	£ 433,478	
Start/end dates of project	1 April 2017 – 31 March 2021	
Project leader's name	Ben Swanepoel	
Project website/blog/social media	http://www.wcs.org/ https://laos.wcs.org/	
Report author(s) and date	Ben Swanepoel, 29 June 2021	

1 Project Summary

• Project location:

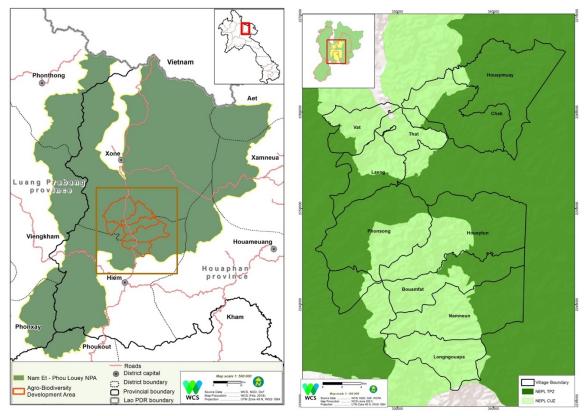


Figure 1:Location of the project area in relation to Lao PDR and the NEPL NP

The project is located within and around the villages associated with NEPL NP which covers three provinces in the Northern uplands region of Lao PDR: Houaphan, Luang Prabang and Xiengkuang Provinces. Activities covered by this grant focused on the 5 villages of the Boumafat cluster in Xone district.

Nam Et Phou Louey (NEPL) is Laos' largest and most biodiverse National Protected Area. It represents the last viable habitat for tigers (*Panthera tigris*) in Indochina and supports populations of at least 17 other species of conservation concern, including the Critically Endangered Northern White-Cheeked Gibbon (*Nomascus leucogenys*), Sundra Pangolin (*Manis javanica*) and Chinese Pangolin (*Manis pentadactyla*). Largely situated in the northeast province of Houaphan, which has the country's highest poverty rate, NEPL NP covers 476,000ha of dry evergreen and deciduous forest, with 172,000ha designated as controlled use for over 30,000 people inhabiting 91 villages.

Households there are cash-poor and fully dependent on NEPL NP's agro-biodiversity resources, such as wild plants and meat, for their subsistence and income. Unfortunately, these local communities lack means for effective stewardship and access to improved production systems that enable sustainable land management, and which would deliver increased economic and environmental benefits. This problem, compounded by weak governance, has resulted in unchecked agricultural encroachment, wildlife hunting, and overexploitation of NEPL NP's resources, leading to increasing deforestation and subsequent destabilization of local livelihoods. Recently escalating free range cattle raising within the NEPL Total Protection Zone (TPZ) contract is further driving deforestation and increasing a wide range of threats within the NP.

As a result, annual forest loss exceeds 1,300ha with significantly larger areas of forestland degradation threatening the integrity of NEPL NP, the security of forest-dependent livelihoods, and reducing the habitat for a range of species. These factors are driving an acceleration of biodiversity loss, with recent WCS-led research finding lower than expected abundance of populations of medium and large-sized ungulate species in NEPL NP, an estimated annual hunting off-take of wild meat equalling the prey-base needed to sustain a tiger population, and tiger abundance significantly lower in areas with greater human presence and disturbance.

2 Project Partnerships

Nam Et Phou Louey Management Unit, (NEPL MU), Provincial Agriculture and Forestry Office (PAFO) of the 3 provinces officially structured under Ministry of Agriculture and Forestry (MAF) constitutes our primary partnership governed through a formal MOU approval process. (See document 01)

The role of MAF and PAFO were to provide the institutional framework for working within the villages and districts of the project as well as the administrative and policy guidance. The NEPL MU are our direct Government of Lao (GoL) counterparts, through which all activities were planned and implemented. NEPL MU provided office space, relevant staffing and all official communication and coordination between district and provincial agencies. They continue to be our primary partners post Darwin project as governed by out next MOU period.

Village Focus International (VFI) were our technical partners in developing the process related to the signing of the Village Conservation Agreements. (CCA) as well as leading the NEPL team in the negotiation and signing of the CCAs in 10 villages. The terms of reference relating to this partnership is formally captured in the TOR of the consultancy contract between WCS and VFI. (See document 02)

In addition, SAFFRON Coffee Company in Luang Prabang became our technical partners and buyers of the coffee produced through this grant in the Boumfat cluster. They provided all coffee seedling stock, technical trainings and technical advice to WCS and the NEPL team during the course of the grant period. SAFFRON Coffee are the buyers of the coffee in the Boumfat cluster and their relationship will continue beyond the scope and time period of this grant. (See document 03)

WCS also successfully applied for and received a small grant as part of our match funding commitment to this grant, under AFD RECOSEL (Reinforcement and Expansion of Coffee Sector in Laos). The grant provided for additional technical support and some match funding towards the construction of a cluster level coffee processing facility which will allow the household coffee growers to increase the value of the coffee through conducting some level of processing within the cluster before selling to SAFFRON, thus earing a higher price for their coffee. (See document 04)

All communities involved in the coffee enterprise project funded through this grant established village coffee groups, and these groups became the key coordination points between the project and village activities. They were responsible for village planning of coffee areas, selection of participants and problem solving. (See folder 01)

Finally, individual households (HH) became the foundation on which the project was built, and their partnerships were secured through Individual HH agreements, signed jointly between husband and wife team members of the households. (See folder 05)

3 Project Achievements

3.1 Outputs

- 1. Model community conservation agreements (CCA) are developed and implemented in forest-dependent communities.
- 1.1 Indicator Minimum of 10 signed CCAs (See folder 02)

Actual – 10 CCAs were negotiated and signed, 1 in each of the 10 Darwin focus villages. One of the villages (Houey Muoy) developed a dispute during the FPIC consultation period based on a previous land use claim with the District of Xone. This dispute goes back a long way and remains ongoing. As a result, the village PLUP was not signed at the district level, and therefore by law, the CCA cannot be signed off at the district level either. We discussed this and negotiated to continue to apply the CCA to this village based on village level approvals only, and continued to support the community through the project activities.

The CCA process which was developed by VFI consisted of the following steps. (See document 05)

- Village socio-economic surveys (See document 07 + 08)
- Confirmation of current PLUPs (See folder 03 for sample PLUP)
- District consultation to develop terms of the CCAs
- Community consultation to develop the terms of the CCAs (See folder 04)
- Internal finalizations of the documentation
- Final village consultation and signing of the CCAs. (See folder 02)

In addition to the 10 Darwin focus villages, WCS supported the NEPL MU in developing and signing an additional 33 CCA agreements within NEPL NP through the same process, resulting in a total of 42 fully signed and active CCA agreements during this project period.

1.2 Indicator – 74,000ha of targeted landscape managed under CCAs

Actual – A total area of 79,591 ha are now under improved management under CCA agreements signed in the 10 villages (1 village PLUP not yet approved – see above) 48,453 ha of this area is contained within the village land area and 31,138 within the Totally Protected Zone (TPZ) on NEPL NP immediately adjacent to the village boundary. (Presentation slide 02)

An additional 253,223 ha are now also managed under CCA agreements through match funding activities bringing the total area managed under CCA agreements in NEPL NP to 301,676 ha.

The process involved the development or revision of PLUPs, the development of community action plans (CAP) and the signing of community conservation agreements as mentioned above.

1.3 Indicator - Forest-dependent communities gain exclusive agro-biodiversity use rights over 7,000 hectares of land

Actual - Through the activities of this grant, 15,609 ha within the CUZ of the 10 villages came under the exclusive rights to be used by communities for a variety of agro-biodiversity activities. (Presentation slide 03) In addition, through match funded activities, an additional estimated 83,500 ha in the 33 match funded villages also came under the same agro biodiversity rights agreements making it a total of 99,172 ha for all 43 villages.

- 2. Forest-dependent communities bordering NEPL have improved livelihoods through sustainable use of non-timber agro-biodiversity resources in managed village forests and diversified agro-biodiversity production systems in agricultural land.
- 2.1 Indicator At least 500 famers trained in collection and processing of agro-biodiversity resources in managed village forests with at least 25% being women.

Actual – Agro biodiversity activities under this grant focused on a core of 107 households with a total population of 764 people within these households. All household farming agreements were signed between the husband and wife of each household bringing the number of direct farmer involvement and support to 107 men and 107 woman = 214 people.

While the majority of the training was delivered to these target households, a full program of additional capacity development activities also took place reaching the broader community with an audience in excess of 500 people.

A total of 3,717 training days were delivered to farmers and villagers during the life of the grant (2,068 to men / 1,649 to women) covering aspects such as improved NTFP management, honey production, intensification of cattle management, all aspects of coffee production and safety when working within areas still containing UXO. (See document 06)

In addition to village farmers a number of NEPL NP staff and related district agency officials also involved with implementation received the same training. A total of 314 training days (254 days to men and 60 to woman) were provided to these people during the project time period.

	NEPL and District officals		Village fa	rmers	Male	Female	Total
	Male	Female	Male	Female	2	8	
CCA training	143	49	282	279	425	328	753
Coffee production	51	-	733	481	784	481	1,265
Honey production	57	11	40	40	97	51	148
NTFP Management	2	-	125	125	127	125	252
UXO safety for farmers	1	-	634	664	635	664	1,299
	254	60	1814	1589	2,068	1,649	3,717

 Table 1:Summary of training days delivered during the project period (See document 06)

2.2 Indicator – 15 demonstration agro-biodiversity production systems established in village agricultural land.

Actual – The project focused on developing a coffee enterprise and so demonstration coffee plots were established in all 5 villages of the Boumfat village cluster. Initially, 25 demonstration plots were established, 5 in each village, and these were expanded based on the interest and motivation of the farmers involved. 25 honey demonstration were established in 5 villages (5 in each village) and 3 demonstration plots in 1 village relating to village cattle intensification. (See presentation slide 04)

2.3 Indicator – At least 4 women's associations focussed on collection and processing of products established.

Actual – 2 Woman's associations were formed in 2 of the target villages.

Through the FPIC process it was established that there was little support for woman's groups as many of the woman in the Darwin villages were already part of buyers weaving group and they were not willing to create any additional grouping. It was thus decided to focus on the following community groups established through the project activities:

• 5 Village coffee grower groups 43 Woman representing 11% (See folder 01)

• 10 village CCA committees – 107 Woman representing 31% (See folder 02 and 07) In all instances WCS and the NEPL team encouraged the representation on woman in these groups and committees.

WCS and NEPL staff jointly developed a draft concept for establishing a village coffee growers' group. The groups primary roles and responsibility are to:

- Protect the village coffee enterprise from external threats (unauthorised coffee seedlings with the risk of contamination),
- To select new coffee growers into the enterprise,
- Co-ordinate capacity building activities
- Participate in conflict resolution.

Once the TORs were approved by the district officials, meetings were held in each of the 5 villages to explain the concept of the village coffee group, to discuss the TOR and to gain approval through consultation at the village level. Village authorities voted in the members of the group and signed the TOR.

3. Local income-generating activities that are climate smart and innovative, including environment-friendly sustainable agriculture through the Conservation Enterprise Development Program (CEDP) are set up and expanded in the forest-dependent communities bordering NEPL.

3.1 Indicator - At least 1 Agro-biodiversity / conservation enterprise established

Actual – (See presentation slides 05/06) An organic climate smart, shade grown wildlife friendly coffee enterprise was established in 5 of the 10 villages targeted through this grant. As a result, 80 households participated during the project period in the capacity development, production, processing and harvesting of coffee. By the end of this grant, 80 households had signed coffee grower and conservation agreements and had planted out a total of 129,634 coffee seedlings in 53.35 ha of village forestry land. (See document 09)

Due to the timeframe of the project, harvesting will only come into strength in the years still to come, but by 2020, 1,928 kg of cherries had been harvested, processed, and sold through this project. (See document 09)

- 4. Species and forest habitat protection is significantly increased in the total protection and controlled use forests of NEPL adjacent to target communities.
- 4.1 Indicator Illegal extraction of timber and NTFPs within the project area in the NEPL TPZ reduced by 50%

Actual – Moved from an increase in both illegal logging and NTFP extractions during the first period, to a decrease by the end of the project period of the following values (Y4 compared to Y3)

Illegal logging – decrease of 67% Illegal NTFP extraction – decrease of 27%

(See presentation slides 07/08)

Ranger patrol efforts increased by more than 200% during the life of this grant due to the implementation of a large World Bank funded project during 2019 – 2020. As a result of these increased efforts, the number of illegal logging and NTFP extractions encountered and neutralised by ranger teams increased significantly during Y2 and Y3, after which all threats in the Darwin project area started to decrease.

Using fire data as an indicator of deforestation, show a similar trend over time, although within the Darwin area only, fire has decreased substantially during the project period. (Presentation slides 12/13)

Achieving a negative trend in any of the key threats are exceptionally rare and takes enormous integrated efforts of enforcement, outreach and community engagement activities. (See document 10)

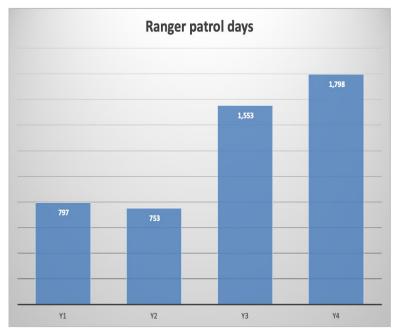


Figure 2: Increase in ranger patrol efforts during this project period Darwin Final Report Template 2021 6

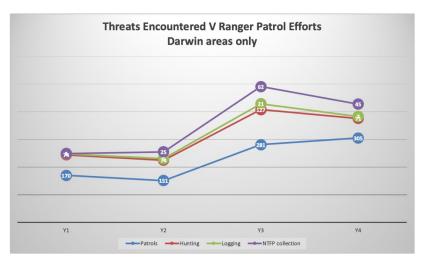


Figure 3: Key threat trends all showing a reduction by the end of the project period

4.2 Indicator – At least 90% of community members in the target villages aware of hunting laws and the impacts of illegal hunting

Actual – Based on the results of the pre and post outreach campaign survey questionnaire there was an average increase of 29% (61% - 90%) in knowledge subjects related to wildlife regulations within NEPL NP. (See presentation slide 09)

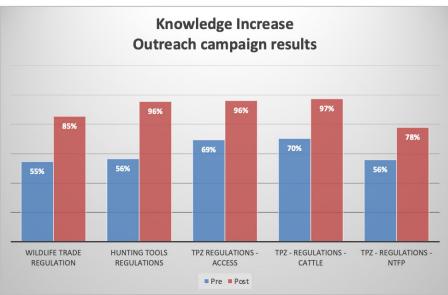


Figure 4: Outreach and awareness change results

The outreach campaign activities were developed after conducting a consultation process in key districts using the conceptual modeling tool, to identify the key messages to be delivered. The program was developed to include a wide variety of media, including games, dramas, song and posters so as to reach a broad village audience and to promote high levels of participation.

Key activities of each campaign included the following:

- 1. Pre campaign knowledge survey
- 2. Opening songs and conservation messaging spots
- 3. Play video documentary.
- 4. Conservation messaging games
 - a. Natural resource use game
 - b. Hunting regulation game

- 5. Hunting drama.
- 6. Question and answer games with gifts and rewards.
- 7. Poster discussions Benefits of a well-managed sustainable use village forest area.
- 8. Provide posters and outreach materials to village households.
- 9. Closing and post survey.

(See document 11)

By the end of this report period village campaigns were conducted with a total of 374 villagers (180 woman) attending. During these campaigns, 225 pre- and post-knowledge surveys were conducted. 50 T shirts, 60 bags, 130 conservation message booklets and 400 posters were distributed. In addition, 5,820 people (2,877 woman) were reached through a village radio outreach campaign during which relevant conservation messages were broadcast over village radio / speaker systems on a weekly basis for a period of 1 year.

4.3 Indicator – A 50% reduction in hunting and poaching in the NEPL total protection zone adjacent to target villages

Actual – Moved from an increase in all hunting related indicators during the first period, to a decrease by the end of the project period of the following values (Y4 compared to Y3)

Hunting threats – reduction of 44% Hunting snares – reduction of 32% Hunting camps – reduction 40% Gun confiscations – increase of 16%

Please refer to indicator 4.1 for a full explanation of these results. (See document 10) (See Presentation slides 7/8)

5. A scalable model of sustainable, climate-smart agro-biodiversity is established and available for replication in forest resource use practices by forest-dependent communities in other protected areas in Laos.

5.1 By the end of the project, an evaluation of impacts and lessons learned guidelines from this project is published and disseminated to all stakeholders including local government agencies, CSOs, development and technical partners.

Based on the need to understand both the social impact and conservation benefits of the project activities, WCS commissioned a study to determine these lessons. The study "Profiling of the impacts of CCAs and livelihood development activities such as coffee on village decision making within Boumfat village cluster. (See document 15)

SAFFRON also provided a brief assessment of the SAFFRON / WCS partnership and lessons learned. (See document 16) Detailed technical guidelines were develop for:

Organic internal auditing SAFFRON (See document 17) and WCS provided inputs into the CPF community conservation agreements framework and manual. (See document 13) Full evaluation of Boumfat project by SAFFRON (See document 30)

5.2 By the end of the project, at least 4 exchanges are held with other forest-dependent communities bordering NEPL to expose them to sustainable agro-biodiversity concepts and practices in a participatory fashion promote wider adoption.

December 2018 – Study tour to SAFFRON plantations and village processing facility. (See document 18)

February 2020 – Study tour to coffee processing facility in Houaphan district.

August 2020 – Study tour to Xiengkuang province to learn from local village honey producers. (See document 29)

February 2021 – Study tour to SAFFRON plantations and village processing facility for new coffee HHs.

February 2021 – Final coffee HH exchange visit to all 5 coffee villages to share experiences and learn from each other.

5.3 - By the end of the project, at least 2 working papers outlining the effectiveness of sustainable climate-smart agro-biodiversity are produced and shared at national, regional or international events.

WCS - Profiling of livelihood decision making – Boumfat village cluster, Houaphan province. – 2020 (See document 15)

SAFFRON Coffee – Internal Auditing system (IAS) for organic coffee production – Operating Manual (updated 2020) (See document 17)

SAFFRON – Understanding of mutual benefits concerning partnership between WCS and Saffron Coffee. – 2021 (See document 16)

WCS – Mission report Conservation enterprise – 2018 (See document 19)

WCS – Cattle Value Chain and Financing Analysis in NEPL NP (main focus on Darwin village areas). 2020 (See document 20)

WCS are currently developing an operational handbook on developing a conservation enterprise in the context of the coffee enterprise model applied in Boumfat cluster.

3.2 Outcome

Reduced deforestation and improved conservation practice through implementation of scalable agro-biodiversity practice in village forestland and agricultural land that protects biodiversity while improving incomes and welfare for forest-dependent populations.

The project did achieve the majority of its outputs in terms of the number of households benefiting from improved livelihoods activities (107) and improved management of village agro biodiversity area (10 CCAs signed), increased capacity due to the provision of training (3,403 training days to village farmers) the addition of a new enterprise (Coffee) and the support of additional enterprise (Honey production) and support for improvements to current livestock. Practices (3 cattle intensification demonstration plots) (See reports under section - output 1.1;1.2;1.3;2.1;2.2;2.33.1)

Due to the long-term nature of developing, from the beginning, a coffee industry, it is not possible to show a 15% increase in household income, even only among the participating households. All activities have gone into the development of the industry resulting in over 53 ha of shade grown coffee plantation that will only come into any significant level of production within the following 2 - 5 years.

As a result, it is not possible to show any significant increase at this point, in household income. While current annual average income per household is **Sec.** (data from the village survey) it is expected that at full production, households will receive an additional **Sec.** per ha for coffee production. In terms of current planted coffee reaching maturity, the average HH income will increase to **Sec.** This will be a **Sec.** increase in coffee producer's household income. (See document 12) (See presentation slide 10)

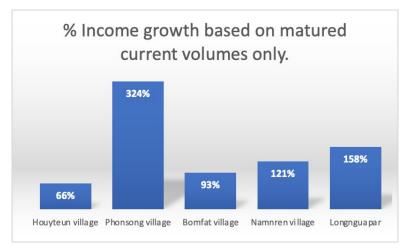


Figure 5: Projected income per HH based on matured current volumes of coffee.

All ranger patrol data indicates an initial increase of threats within the Darwin village areas due to a significant increase in the volume of patrol activities, followed by a 67% decrease in deforestation activities and a 44% decrease in hunting related threats during the final year of the project. It should be stated that these results are more likely attributed to the increase in patrol efforts than community compliance, although a combination of the 2 factors is probably also at play. (See report sections – Outputs 4.1 - 4.3)

The organic shade grown, wildlife friendly coffee enterprise has been established as a scalable model within the Northern Uplands are of Laos, and has attracted attention from major GoL agencies, NGOs and Embassies in Lao including the UK, EU and French ambassadors. Local communities, GoL agencies and private enterprise benefited from extensive information sharing and knowledge exchange visits. (See reporting under section – Outputs 5.1-5.3)

3.3 Monitoring of assumptions

The project document did not address the threat of Unexploded Ordinance (UXO) within the project areas. This aspect only became apparent during the discussions and consultations with district and village authorities during implementation. As a result, considerable effort and cost went into ensuring the safety of communities during livelihood activates such as clearing coffee plots. Two separate UXO clearance activities took place as well as one general safety training to all villages during the life of the project. (See document 24 and 25)

Government commitment – Government of Laos (GoL) provided excellent co-ordination and support for project development activities such as PLUP, development of CCAs and development of the coffee and other livelihood activities.

(See presentation slide 11)

In terms of the prosecution of cases brought to the district courts for encroachment, illegal hunting and logging activities, action was slow. 70% of all cases reported during this report period remain pending at the district courts. To mitigate this risk, WCS employed an enforcement data analyst to work with the NEPL MU to monitor, support and improve case tracking. Based on WCS analysis and inputs, the entire issue of week prosecution has now been taken up at the national level, and is currently receiving high level attention.

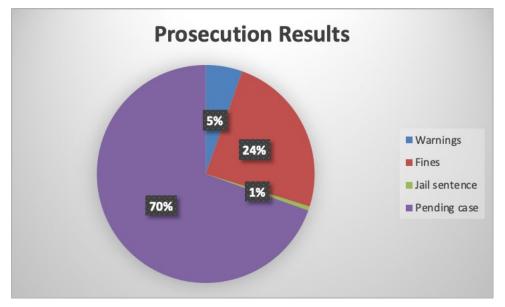


Figure 6: Prosecution results

A number of long-term land issues in villages around the Phati road area created issues for the PLUP and CCA process and contributed to a slow or non-compliance to illegal agricultural activities conducted inside the TPZ. With the support of WCS, the issues were raised at the highest level, resulting in a Ministerial fact-finding mission to the project areas. As a result, the issues are now being addressed at the provincial and district levels but are still currently ongoing and awaiting final resolution. (See document 14)

The remainder of the risks were related to weather events which did not have a negative impact during the project period, and market related aspects.

The impact of COVID 19 is being felt by our technical partner, SAFFRON Coffee, who rely on sales to a significant extent on the international tourism trade into Laos which has been seriously impacted by the country's international boarder closure since March 2020. This will impact on future expansion plans, although the overall demand for coffee in the region remains high.

3.4 Impact: achievement of positive impact on biodiversity and poverty alleviation

The development of a procedure for the negotiation of CCAs with local communities on PAs within Lao PDR was developed. Through WCS inputs, many of these procedures have been integrated into the GoL community engagement guidelines developed by DoF and the community engagement strategy. The procedures are also captured under the CEF – CCA implementation manual developed by EPF for the World Bank funded project that was implemented on NEPL NP through WCS technical support. (See document 13)

Coffee production in the North of Lao is in an early stage of development and this project introduced this enterprise into an area that previously did not contain coffee production. The element of coffee production linked to biodiversity improvement is also unique to this project. The project caught the attention of the Ministry of Agriculture, and as a result, WCS was offered match funding through the AFD RECOSEL (Reinforcement and Expansion of Coffee Sector in Laos) as part of the GoL initiative to promote village coffee production in the North of Laos. (See document 04)

Linking the development of a coffee industry to the improved protection of a National Park through the CCA agreements is innovative in terms of its practical approach and the linking together of communities, NP management authorities and business enterprise (SAFFRON) As a result of the strong commitment of the NEPL NP team (NEPL MU and WCS) staff to engage with communities, not only through the coffee enterprise, but also through eco-tourism and a more integrated approach to PA management, NEPL was one of only two PA's in Laos to receive National Park status early in 2019. (See document 21)

Potential average increase of 114% in HH income of coffee producers is likely to act as an incentive to the broader community in terms of moving towards more intensive and less impactful livelihood activities. (See document 12)

Improved management of village agro biodiversity areas in 10 villages through improved PLUPs and CCAs provided rights use security of 15,609 ha of land for 5.820 people in 10 villages.

Reduction of threats in 79,000 ha of key biodiversity areas within NEPL NP, with a 67% reduction in illegal logging threats and 44% reduction in hunting related threats is having a positive impact on biodiversity protection within the NP. (See document 10)

4 Contribution to Darwin Initiative Programme Objectives

4.1 Contribution to Global Goals for Sustainable Development (SDGs)

This project directly addressed three of the five strategies identified in Laos' National Biodiversity and Action Plan (NBSAP) 2016–2025 to meet the requirements of the CBD. The key objectives to support the goal, which are also aligned to the global goals for biodiversity, are:

1. Institutionalize innovative multi stakeholder efforts to arrest the degradation and enhance conservation of ecosystems and biodiversity resources therein.

Through the establishment of a clear model for the establishment of CCAs, the project demonstrated that improved village land management (consultative PLUP) could result in a reduction in forest degradation (reduction in hunting and illegal logging) and improved habitat recovery. By introducing a climate-smart organic coffee enterprise through multi stakeholders including government agencies, local communities and private enterprise, a greater diversity of institutions could be involved in biodiversity resource protection and improvement. (see reports under – Outputs 1;2;3;4)

2. Provide clear and enforceable guidance for the sustainable use of biodiversity resources to support poverty alleviation and sustainable economic growth.

Through the PLUP and CCA agreements and subsequent outreach and awareness campaigns implemented during this project, communities within the NEPL NP clearly understand and accept the nature and type of agricultural activities to be conducted within the different zones of the village area and the NEPL NP areas of zonation. These processes identified additional areas in each village to be used by villages for more intensive and sustainable economic activities while still being climate smart and land area friendly. As a result of these activities, biodiversity in and around these 10 villages came under improved management and protection, and more than 100 households were given the opportunity to participate in a long-term economic activity that will ultimately contribute to improved income generation and reduction in poverty within these communities.

3. Establish practical mechanisms for ensuring fair and equitable sharing of benefits from the use of biodiversity resources.

Through improved mapping and management of village agricultural areas through the PLUP and CCA process, 5820 people in 10 villages received increased security over use rights of more than 15,000 ha of village agro-biodiversity area. This will result in ensuring more equitable

benefit sharing of these resources and more sustainable use due to the introduction of the climate smart coffee enterprise and honey production.

The activities related to this project thus supported actions identified in Laos' National Agrobiodiversity Program 2015-2025, which underpins approaches to meeting the SDGs related to sustainable livelihoods, improved food security, and habitat protection (SDG targets 2.3, 2.4, 8.3, 15.5).

4.2 Project support to the Conventions or Treaties (e.g. CBD, Nagoya Protocol, ITPGRFA, CITES, Ramsar, CMS, UNFCCC)

By reducing hunting and wildlife trade threats within the NEPL NP the project contributed to the aims and objectives of the CITES convention. There are currently 37 critical species (IUCN VU, EN, CR) known to have occurred in NEPL NP, 23 of which are confirmed. Of particular significance is, *Nomascus leucogenys*, (Northern White Cheeked Crested Gibbon) which is well known to exist within the TPZ surrounding the key Darwin village areas. Other species known to occur in these areas are Dhole (EN), Asian black bear and Sun bear (VU) and Clouded Leopard (VU)

Through introducing the climate smart approach to organic coffee grown in the project areas, this project contributed and provided support for the NBSAP strategy 1 'Protect the country's diverse and economically important ecosystems' targets 1.1.1 (Aichi Target 5) and 1.1.3 (Aichi Target 11), targets 1.3.1 (Aichi Target 13) and 1.3.2 (Aichi Target 8);

This project contributed both practically, though the establishment of the enterprise in Boumfat village cluster, and also nationally by developing a model of conservation linked enterprise that benefits both communities and the biodiversity conservation objectives of a National Park.

At the village and village cluster levels, the community engagement and FPIC consultative process resulted in the signing of CCAs, and the securing of ago-biodiversity rights use for communities. This significantly enhanced community decision making in terms of the sustainable management of their own agro-biodiversity areas while maintaining the biodiversity values of these areas. This contributed to *NBSAP strategy 2 'Integrate the Value of Biodiversity to Socio-Economic Decision Making To Ensure Sustainable Use and Funding' target 2.1.1 (Aichi Target 2)*

Project activities such as the conservation awareness outreach campaign, the village radio outreach campaigns, the development of skills and capacity through trainings, workshops and study tours, the project contributed to *NBSAP strategy 4' Inspire and Enable actions through better Communication, Education and Public awareness' target 4.1.2 (Aichi Target 1)*

4.3 Project support to poverty alleviation

The project contributed both directly and indirectly to poverty alleviation in the following ways.

Direct capacity and skills development of 214 farmers in coffee and honey production and cattle intensification management. In addition, 1,200 people received broader training and capacity development regarding NTFP management and safety when working with UXOs.

An additional 15,000 ha of agro-biodiversity area secured for village use rights in 10 villages.

The development of a climate smart coffee industry within a village cluster.

214 direct beneficiaries through participation in the coffee, honey, and cattle intensification activities.

Planting out of 53ha of coffee plantation with a potential income value of **Sector** per year. Darwin Final Report Template 2021 13 Development of 25 honey production demonstration plots in 5 villages.

4.4 Gender equality

Rural communities and village authorities are still conservative with regards to gender equality, and while our teams always encouraged and activity promoted gender equality, results were not always as strong as we would have liked. We were however still able to produce some positive progress through the following actions.

During all the community engagement activities (PLUP, CCA, livelihood development) women were specifically engaged to provide their inputs and unique perspective. This often resulting in a separate woman's discussion group, but inputs from all groups were consolidated, and any voting was conducted fairly with all individuals (male or female) votes counted equally.

All coffee grower household agreements were signed by both parties (usually husband and wife) of each household.

All public meeting and trainings were open to all genders resulting in the following breakdown of training days - A total of 3,717 training days were delivered during the life of the project, 2.068 to men and 1,649 to women (44% woman)

The outreach campaign directly reached 374 people of which 180 (48%) were woman.

As discussed previously, only 2 women's agriculture groups were established, but the implementation team ensured that woman members were included on each of the 5 Village coffee grower groups. 43 Women are representatives on the PLUP committees and 107 women represented on the CCA committees.

4.5 Programme indicators

• Did the project lead to greater representation of local poor people in management structures of biodiversity?

This is true at the village and the village cluster level, through participation in the CCA and PLUP committee, and the village coffee growers' group.

• Were any management plans for biodiversity developed and were these formally accepted?

The NEPL NP 10-year strategy plan and the NEPL NP 5-year management / action plan was developed and approved during the report period. These plans contain biodiversity and community engagement sections and followed a full consultation and negotiation process. (See document 22 / 23)

At the village level, the PLUP and CCA agreements together form village forest management plans and include regulations regarding biodiversity areas. (Signed in 10 villages)

• Were they participatory in nature or were they 'top-down'? How well represented are the local poor including women, in any proposed management structures?

WCS and NEPL MU followed a rigorous Free Prior Informed Consent (FPIC) consultative process to safeguard the rights of communities, resulting in a high degree of consultation where all decisions taken were based on consensus. Meeting and consultations were open to all villagers and where possible, meetings were held to take into account the availability of all genders. Minutes of meetings were taken, and decisions were recorded. All public meetings and representation corresponded reasonably well to village gender percentages.

• How did the project positively influence household (HH) income and how many HHs saw an increase?

During 2020, 9 households produced a total of 391kg of coffee parchment at a total value of (average of second each) (See document 12)

Due to the long-term nature of developing a new coffee industry, significant direct benefit will only be realised 2-4 years from now. A total of 107 households are currently participating in the project.

• How much did their HH income increase (e.g. x% above baseline, x% above national average)? How was this measured?

(See section above)

4.6 Transfer of knowledge

N/A

4.7 Capacity building (Project staff)

The WCS assistant project manager was promoted to project manager during this report period. He is a Lao National.

The WCS project manager was accepted to study towards his master's degree in community development and is currently on study leave in Thailand. He is a Lao National.

In addition to village farmers a number of NEPL NP staff and related district agency officials also involved with implementation received the same training. A total of 314 training days (254 days to men and 60 to woman) were provided to these people during the project time period. (See section 2.1)

5 Sustainability and Legacy

Because WCS is engaged in a program of work on NEPL NP, and not on a project basis, our investment is long term, and we remain committed to the Darwin activities already implemented. WCS will sign a new 5-year MOU with MAF at the end of August securing our technical support for the next 5 year period. As a result, all current staff attached to the Darwin project activities, are integrated into the broader program of support WCS provide on-site and will thus remain in service.

Based on the NEPL NP management plan, and the new National Decree on Protected Areas management, community engagement activities through; PLUP, CCAs and the development of livelihood activities has been institutionalised through the Guardian Village (GV) model which contains many of the same elements of the Darwin approach used during the project. (See document 23 page 19)

Already, through match funding during this report period, WCS supported the NEPL MU to secure funding for an additional 33 villages in terms of the Darwin model (PLUP, CCA and livelihood development).

The coffee enterprise has taken hold within the community, and each year more community members are keen to participate. SAFFRON are now fully committed to the business side of the enterprise as they have also invested their own time and money in the enterprise. This will ensure that the enterprise continues to grow after the Darwin project has closed.

WCS have secured additional funds over the next 5-year period to provide a basic level of support for these activities, although additional funding will be needed if we want to achieve our activity expansion goals.

6 Lessons learned

As a conservation agency, WCS would prefer to see a stronger separation of the agro production side of the activities by our staff and the community and planning support aspects. WCS staff should focuss on the village consultation and coordination processes, the PLUP and CCA development process, and ensuring that the conservation aspects are receiving due consideration through monitoring, outreach and education. The larger proportion of agro production technical support and quality monitoring should be the responsibility of the buyer / business partner.

Indicators related to species population trends are almost impossible to measure without major financial inputs into biodiversity monitoring protocols. In large forest complexes with very low species densities, such those found within an area such as NEPL NP, population densities simply cannot be accurately measured.

Less is more. Had we the opportunity to re-do the project, I would recommend working with fewer villages as the inputs required and the amount of consultation that is needed required a greater amount of time than initially thought.

6.1 Monitoring and evaluation

The only major change to the project design was in the 10 villages we chose to work with. Initially we had selected villages from three separate clusters, one cluster of which was disconnected by a full day transport from the other 2 village clusters. After consultations during the initial project planning, we consolidated the target villages to 2 village clusters (The Boumfat and Xone Neua Thai cluster). The 2 clusters were adjacent to each other while maintaining the original number of 10 villages as per the proposal.

I found the feedback from annual reports useful and for the most part productive, although I would have liked to have built up a relationship of some consistency with a single evaluator over the life of the project. I believe (IMHO) that this would have resulted in a more consistent critique and more focused direction and support.

We were honoured to receive a delegation from the UK Embassy who visited the site and showed great interest in the coffee enterprise and the challenges and opportunities facing our team and the communities around the project areas.

6.2 Actions taken in response to annual report reviews

All comments from previous reports have been addressed.

7 Darwin identity

In order to identify Darwin within the project area, a number of active steps were taken:

Signage:

Large village project sign boards were erected in each of the coffee villages. (See presentation slide 14)

Each of the 80 coffee producers received a Darwin branded sign board to erect at their coffee plot once they had signed their coffee conservation agreements. (See presentation slide 15)

Events:

A number of events were attended during the course of the report period where the Darwin project and activities were presented, either through display or presentation or both. Some of the key events are summarised below:

- July 2018 2nd Biodiversity Conference in Laos (See document 27)
- May 2018 Visit Laos Tourism year expo Sam Neua poster and booth displays
- Spetember 2018 Sustainable tourism expo Lauang Prabang poster and booth display
- October 2018 UK festival in Vientiane Presented poster and presentation. (See document 28)
- February 2019 Promotional video created for AFD on NEPL tourism and livelihhods including coffee project.
- May 2019 NEPL NP Decree Ceremony , Hiem Poster and display.
- May 2019 AFD RECoSEL coffee event held in LPB
- September 2019 Sustainable ecotoutism solutions expo in Vientiane Coffee poster display (see document 26)
- October 2019 International coffee day in Luang Prapang Poster display booth and presentation.
- December 2019 Visit to coffee project by WCS international director responsible for conservation enteprise.
- February 2020 EU/ NEPL promotional video ecotourism and coffee project.
- October 2020 International coffee day in Luang Prapang Poster display booth and presentation.
- November 2020 ASEAN sustainable tourism solutions EXPO in Vientiane Coffee project display incoporated.
- January 2021 Lao media group visited NEPL NP eco-tourism and coffee project to learn more asbout these inititives. Based on this visit they puplished a number of media items in the national lao news outlets and social media.
- February 2021 UK Embassy visit to the NEPL NP and coffee villages. (See presentation slide 16)
- February 2021 Lets travel expo Vientiane Poster display booth and presentation as part of the eco-tourism and livelihoods development program.
- March 2021 EU ambasadors visit to NEPL and the coffee project (See presentation slide 18)
- March 2021 French ambassador visit to NEPL and coffee project. (See presentation slide 17)

Social media mentions of the Darwin project mainly through the current coffee enterprise include:

- NEPL Facebook: https://web.facebook.com/NamNernNightSafariLaos/
- Saffron Facebook: https://web.facebook.com/SaffronCoffee/
- NEPL Instagram: https://www.instagram.com/p/Bqbm_fqn1jx/
- Saffron Instagram: https://www.instagram.com/p/BkP-vDQjBjV/
- UK Facebook page: https://www.facebook.com/380231802077768/posts/2441700275930900/?d=n

8 Impact of COVID-19 on project delivery

Due to the extremely low level of COVID 19 cases reported in Lao during the project time period, impacts were isolated to logistical restrictions during a period of around 3 months from March to June of 2020.

Darwin Final Report Template 2021

During this time the GoL underwent a strict lock down phase as a precautionary measure. WCS conformed to the measures and guidelines as introduced by GoL and the WHO involving preventative measures, and these were strictly applied during the lock down and subsequent transitional periods.

In terms of project operations:

- Our team was unable to provide infield logistical support for a 3-month period, although they continued to work from home and support the farmers through cell phone communications.
- The building of a processing plant was delayed by 3 months due to travel restrictions. WCS applied for a carry-over of funds from Y3 to Y4 due to these restrictions, which was granted by Darwin.

In terms of broader international issues.

- Our technical partner and buyer SAFFRON Coffee are significantly impacted by COVID 19 as their primary market is international tourists visiting Lao. As a result, they will be limiting their expansion plans in our areas. We have already had talks with SLOW coffee about possible future investments and these negotiations are ongoing.
- We intended to hold a series of field visits with our regional conservation enterprise consultant from Cambodia to investigate additional livelihood options and to discuss with our technical partner the long-term development of coffee. This was not possible due to COVID19 international travel restrictions which have been in force since March 2020. A number of zoom calls were made, and discussion held.

Ensuring the safety of our beneficiaries:

- During this report period, no staff of WCS, NEPL NP or villagers (that we are aware of) contracted COVID19.
- WCS ensured that both in the office and during village meetings, safety equipment such as masks, alcohol-based hand gel and temperature measuring devices were available at all times.

Positive lessons learned for post COVID.

- Improved general hygiene practices such as hand washing, wearing face marks in highly concentrated public places or when people have a cold or flu symptoms.
- More reliance on remote (skype, zoom) meetings save money and reduce carbon emissions.

9 Finance and administration

9.1 **Project expenditure**

Current Year's Costs	2020/21 Grant (£)	2020/21 Total actual Darwin Costs (£)	Variance %	Comments (please explain any variance)
Staff costs (from Section 5)				
Consultancy Costs				

Overhead Costs			
Travel and subsistence			
Operating Costs			
Capital items (from Section 6)			
Others (from Section 7)			
Audit costs	1	1	

Staff employed (Provide name and position)	Date work commenced and finished in 2020/21	Proportion of this time spent on this work	Cost to IWT/Darwin (£)		
Ronald Swanepoel - Project		25%			
Leader	April 1 2020-March 31 2021				
Jay White – Project Site Technical Assistant	April 1 2020-March 31 2021	17%			
Santi – National Project support	April 1 2020-March 31 2021	13%			
Sivilay - Project Site Coordinator	April 1 2020-March 31 2021	6%			
Maihiem – Monitoring officer	April 1 2020-March 31 2021	1%			
Maiphaeng - Project Site Finance Manager	April 1 2020-March 31 2021	3%			
Ninthita – Project Site Office Assistant	April 1 2020-March 31 2021	1%			
Khampui - Project Site GIS and Data Management support	April 1 2020-March 31 2021	2%			
Aphone - National GIS and Data Management support	April 1 2020-March 31 2021	6%			
Somephet – Project Site Driver	April 1 2020-March 31 2021	1%			
Muas - Project Site Community Engagement support	April 1 2020-March 31 2021	18%			
Khampavath – Outreach support	April 1 2020-March 31 2021	2%			
Thippaphone – National Finance Officer support	April 1 2020-March 31 2021	5%			
TOTAL (must match Staff Costs total in Section 8)					

Capital items – description	Capital items – cost (£)
Motorcycle	
Agricultural supplies and equipment	
Construction materials – Coffee processing facility	
Agricultural zone signage	
TOTAL	

Other items – description	Other items – cost (£)
Postage & Courier Services	
Office Supplies	
Improved planting material - demonstration plots	
TOTAL (Must match Others total in Section 8)	

9.2 Additional funds or in-kind contributions secured

Source of funding for project lifetime	Total (£)
AFD Regional	
USFWS	
AFD RECoSEL	
LENS 2	
KFW	
TOTAL	

Source of funding for additional work after project lifetime	Total (£)
LLL (WB)	
AFD ECILL	
SOS (IUCN)	
TOTAL	

9.3 Value for Money

I feel that there was excellent value for the money as most of the funding went into activities that will pay dividends in the future. The two main activity streams were:

• Setting up a village level foundation for further development (PLUP, CCA agreements, village level committee's etc.) Future donors and activities will use this village

institutional framework as a basis for community consultation and further livelihood development or improvement.

• Developing an ago-biodiversity enterprise. Benefits from this enterprise have still to be realised by the community. As most of the establishment work has already been conducted, there are now only minor investments needed (mostly by the buyer) to realise the benefits to the community. Potential donors wanting to expand the enterprise already have a solid foundation to work from.

10 OPTIONAL: Outstanding achievements of your project during the (300-400 words maximum). This section may be used for publicity purposes

I agree for the Darwin Secretariat to publish the content of this section (please leave this line in to indicate your agreement to use any material you provide here)

Added a few good images to the project folder. (See promotional Images)

Annex 1 Project's original (or most recently approved) logframe, including indicators, means of verification and assumptions.

Note: Insert your full logframe. If your logframe was changed since your Stage 2 application and was approved by a Change Request the newest approved version should be inserted here, otherwise insert the Stage 2 logframe.

Project summary	Measurable Indicators	Means of verification	Important Assumptions		
Impact: Sustainable, climate-smart forest resource use practices are successfully adopted by local communities bordering NEPL and modelled for PAs across Laos, leading to biodiversity protection and improved welfare of vulnerable communities. (Max 30 words)					
Outcome: Reduced deforestation and improved conservation practice through implementation of scalable agro-biodiversity practice in village forestland and agricultural land that protects biodiversity while improving incomes and welfare for forest- dependent populations.	 0.1 Local Livelihoods: By the end of the project, at least 100 households in 10 forest-dependent communities bordering NEPL will benefit from an increase in household revenue (> 15% compared to 2017 baseline) as a result of improved forest resource stewardship. 0.2 Biodiversity: Populations of target species: northern white-cheeked gibbon, large predators (Asian golden cats, clouded leopards, dholes) and large and medium sized ungulate prey species (sambar deer, muntjac, serow, gaur and wild pigs) will be stable or increasing compared to a 2015 baseline. 0.3 Forest Cover: By the end of the project, rate of deforestation in the NEPL total protection zone adjacent to target communities is reduced by 60% from 2016 baseline. 0.4 Policy: By the end of the project, a scalable model of sustainable, climate-smart agro- biodiversity is established and available for replication in forest resource use practices by forest- 	 0.1 Local Livelihoods: Number of Community Conservation Agreements finalized and endorsed by government; number of conservation enterprises established, and linked to national / regional markets; results of participatory rural appraisals 0.2 Biodiversity: Quantitative data from camera trap arrays and gibbon surveys in forests near target communities. 0.3 Forest Cover: Results of satellite imagery analysis; Forest cover monitoring reports. 0.4 Policy: Guidelines produced and disseminated; number national, regional and international conference attendance. 	Rates of habitat and species loss will respond to changes in local land use practices. Local communities continue to be willing to participate in innovative activities. Local authorities continue to be supportive and engaged. Other policy initiatives will prioritize local innovative models of benefit- sharing that empower local forest- dependent communities. Climatic events and/or disease do not impact wildlife populations in such a way that may reduce our ability to reach wildlife targets.		

	dependent communities in other protected areas in Laos.		
Outputs: 1. Model community conservation agreements (CCA) are developed and implemented in forest- dependent communities.	 1.1 At least 10 villages have village forests under community conservation agreements (CCAs) signed off by the District Governor and neighboring villages by the 3rd year of the project (baseline = 0 in 2016); 1.2 By year 4 of the project, 74,000 Hectares of targeted landscapes are managed under CCAs (baseline = 0 hectares in 2016); 1.3 Forest-dependent communities gain exclusive agro-biodiversity use rights over 7,000 hectares of land during the course of the project (baseline = 0 hectares managed exclusively for agro-biodiversity forest 2015). 	 1.1 Signed CCAs; 1.2 Maps of areas covered by approved CCAs; 1.3 Maps of demarcated agrobiodiversity forest areas covered by approved CCAs. 	Appropriate forest and land governance policies, which recognize the community- empowered resource use rights are in place or in review; Political climate and decentralization process continues to support community-focussed land use planning and improved stewardship.
2. Forest-dependent communities bordering NEPL have improved livelihoods through sustainable use of non-timber agro-biodiversity resources in managed village forests and diversified agro- biodiversity production systems in agricultural land.	 2.1 By year 4 of the project, at least 500 famers trained in collection and processing of agro-biodiversity resources in managed village forests (i.e. coffee, red mushrooms, bamboo shoots, honey and bees wax,) with at least 25% being women (baseline = 0 farmers training in 2016); 2.2 By quarter 2 of year 3 of the project, at least 15 demonstration agro-biodiversity production systems established in village agricultural land (baseline = 0 demonstration systems in 2016); 2.3 By year 3 of the project, at least 4 women's associations focussed 	 2.1 Attendance and summary reports from village-level trainings; 2.2 Demonstration systems established and mapped; 2.3 Records of women's associations established; 	Pilot studies and feasibility assessments carried out indicate that sufficient benefits and feasible enterprise opportunities exist to provide additional income to villages; Local communities continue to be willing to participate in innovative activities; Local authorities continue to be supportive and engaged;

3. Local income-generating activities that are climate smart and innovative, including environment- friendly sustainable agriculture through the Conservation Enterprise Development Program (CEDP) are set up and expanded in the forest- dependent communities bordering NEPL.	on collection and processing of products established (baseline = 0 NTFP associations in 2016); 3.1 By the end of the project, at least 1 Agro-biodiversity / conservation enterprise is established, and linked to national / regional markets (baseline = 0 conservation enterprise in 2016);	3.1 Formalized pilot village-based enterprise agreements; Activity and sale reports from the model enterprise(s).	Pilot studies and feasibility assessments carried out indicate that sufficient benefits and feasible enterprise opportunities exist to provide additional income to villages; Local communities continue to be willing to participate in innovative activities; Local authorities continue to be supportive and engaged;
4. Species and forest habitat protection is significantly increased in the total protection and controlled use forests of NEPL adjacent to target communities.	 4.1 Illegal extraction of timber and non-timber natural resources in NEPL total protection zone adjacent to at least 10 village areas is reduced by 50% against a 2017 baseline (to be established); 4.2 At least 90% of community members in the target villages are aware of hunting laws and the impacts of illegal hunting by 2019 against a 2014 baseline = 30%; 4.3 By the end of project there will be a 50% reduction in hunting and poaching in the NEPL total protection zone adjacent to target villages (compared to a 2017 baseline to be established). 	 4.1 Household surveys and community monitoring reports; results from ranger-based monitoring tool SMART (Spatial Monitoring and Reporting Tool); 4.2 Community outreach campaign reports and household surveys; 4.3 SMART reports quantifying prevalence of biodiversity threat as measured by threat encounter per kilometre walked inside the NEPL total protection zone. 	Over a decade of direct implementation support to management of NEPL supports that there will be adequate and available relevant imagery and practical feasibility of field-based monitoring programs at the site level; Link between rates of habitat and species loss and encroachment; Local authorities are supportive and engaged; Climatic events and/or disease do not impact wildlife populations in a way that will prohibit us from successfully reaching wildlife targets.
5. A scalable model of sustainable, climate-smart agro-biodiversity is established and available for replication in forest resource use practices by forest-dependent communities in other protected areas in Laos.	5.1 By the end of the project, an evaluation of impacts and lessons learned guidelines from this project is published and disseminated to all stakeholders including local government agencies, CSOs, development and technical partners;	 5.1 Guidelines produced and disseminated; 5.2 Reports of exchanges held between local communities; 5.3 Working papers produced; attendance and presentations of 	Results from this project will be applicable and scalable to other similar contexts in Laos; Local authorities are supportive and engaged;

 5.2 By the end of the project, at least 4 exchanges are held with other forest-dependent communities bordering NEPL to expose them to sustainable agro-biodiversity concepts and practices in a participatory fashion promote wider adoption; 5.3 By the end of the project, at least 2 working papers outlining the effectiveness of sustainable climate-smart agro-biodiversity are produced and shared at national, regional or international events. 	project results at national, regional and international events attended.	Local communities outside of our project focal area are willing to participate in innovative activities; Other policy initiatives are in place to support and empower improved resource stewardship by local forest-dependent communities.
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Annex 2 Report of progress and achievements against final project logframe for the life of the project

** All verification references to the progress and achievements stated in the logframe below are listed under the relevant sections in the narrative report.

Project summary	Measurable Indicators	Progress and Achievements		
Impact: Sustainable, climate-smart forest resource use practices are successfully adopted by local communities bordering NEPL and modelled for PAs across Laos, leading to biodiversity protection and improved welfare of vulnerable communities.		One new climate smart shade grown coffee enterprise was successfully adopted by 80 households in 5 villages inside NEPL NP, contributing to a 67% of reduction in illegal logging threats and a 44% reduction in hunting threats as identified by rangers patrolling within the coffee areas adjacent to NEPL NP. Honey production was introduced in 5 villages and adopted by 25 households in 5 villages within NEPL NP.		
Outcome: Reduced deforestation and improved conservation practice through implementation of scalable agro-biodiversity practice in village forestland and agricultural land that protects biodiversity while improving incomes and welfare for forest- dependent populations.	 0.1 Local Livelihoods: By the end of the project, at least 100 households in 10 forest-dependent communities bordering NEPL will benefit from an increase in household revenue (> 15% compared to 2017 baseline) as a result of improved forest resource stewardship. 0.2 Biodiversity: Populations of target species: northern white-cheeked gibbon, large predators (Asian golden cats, clouded leopards, dholes) and large and medium sized ungulate prey species (sambar deer, muntjac, serow, gaur and wild pigs) will be stable or increasing compared to a 2015 baseline. 0.3 Forest Cover: By the end of the project, rate of deforestation in the NEPL total protection zone adjacent to target communities is reduced by 60% from 2016 baseline. 	 0.1 – 107 households from 10 villages located within NEPL NP will benefit from having received support for the development of an organic climate smart coffee industry (80),honey production (25) and cattle intensification (3). Coffee production is due to come into harvest by 2022 onwards. It is expected to deliver (at current volume per household) a 114% increase in income per household based on average current income levels. 48,453 ha of village land has come under improved management through the PLUP and CCA process in 10 villages. 15,609 ha of land has come under exclusive rights use to villages for agro – biodiversity activities due to the PLUP and CCA process. 0.2 – There was an increase in the number of threats to key biodiversity species detected by ranger teams during Y2 and Y3 due to a doubling of enforcement efforts during this period. Thereafter, all threat encounters were reduced (Illegal logging -67%, illegal NTFP extraction – 27% illegal hunting – 44%). Communities within the project villages improved their knowledge of NEPL NP regulations and laws from a baseline of 30% in 2014 to 90% in 2020 after the outreach and awareness campaigns. Population trends of key species are not currently directly measurable due to the low density found throughout the area. A gibbon survey and a camera 		

Project summary	Measurable Indicators	Progress and Achievements
	0.4 Policy: By the end of the project, a scalable model of sustainable, climate-smart agrobiodiversity is established and available for replication in forest resource use practices by forest-dependent communities in other protected areas in Laos.	 trap survey (match funded) have been completed and results are currently under analysis. 0.3 – Rates of deforestation continued to rise during this report period due to a number of factors not directly influenced by the project activities. We did see an overall 23% reduction in fire incidents related to land clearing in Y4 of the project. Incidents of illegal logging decreased during Y4 by 67% which is a positive turn around. 0.4 – The organic, shade grown, climate smart, wildlife friendly coffee industry was established as a model and has receive attention from National and Provincial government agencies, and well as within International Embassies and other PAs in Laos.
Output 1. Model community conservation agreements (CCA) are developed and implemented in forest-dependent communities.	 1.1 At least 10 villages have village forests under community conservation agreements (CCAs) signed off by the District Governor and neighboring villages by the 3rd year of the project (baseline = 0 in 2016); 1.2 By year 4 of the project, 74,000 Hectares of targeted landscapes are managed under CCAs (baseline = 0 hectares in 2016); 1.3 Forest-dependent communities gain exclusive agro-biodiversity use rights over 7,000 hectares of land during the course of the project (baseline = 0 hectares managed exclusively for agro-biodiversity forest 2015). 	 1.1 – 9 Villages have signed CCAs by the District Governor. 1 Village has a signed the CCA only by the village authorities due to a long-term land dispute by this village and the district authorities. However addional WCS and NEPL MU actions mitigate this shortfall, asl WCS supported NEPL NP through donor funding to sign an additional 33 CCA agreements in key villages around NEPL NP during this report period. 1.2 – A total area of 48,453 ha are managed under CCAs as well as an additional 253,223 ha (in an additional 33 villages) managed under CCAs through match funding activities. 1.3 – 15,609 ha within the target villages are managed exclusively for agrobiodiversity forest. An additional estimated (awaiting final PLUP data) 83,500 ha within the 33 additional match funded activities also now under the same agro-biodiversity security.
Activity 1.1 Conduct CCA developme	nt process	The CCA development process was detailed under the VFI partnership outputs and was used throughout the CCA activity for 10 villages.

Project summary	Measurable Indicators	Progress and Achievements			
Activity 1.2. Carry out participatory ma and establish management regulation boundaries.		PLUPs have been completed for all 10 targeted villages. 1 of the 10 villagers have failed to have their PLUP signed by the district authorities due to a dispute. This is in line with the spirit of the FPIC consultation process.			
Activity 1.3. Provide direct support an biodiversity village forest lands.	d management for priority agro-	Support provided to 5 villages for shade grown coffee enterprise and 5 villages for honey production and 1 village for cattle intensification projects.			
Output 2. Forest-dependent communities bordering NEPL have improved livelihoods through sustainable use of non-timber agro- biodiversity resources in managed village forests and diversified agro- biodiversity production systems in agricultural land.	 2.1 By year 4 of the project, at least 500 famers trained in collection and processing of agro-biodiversity resources in managed village forests (i.e. coffee, red mushrooms, bamboo shoots, honey and bees wax,) with at least 25% being women (baseline = 0 farmers training in 2016); 2.2 By quarter 2 of year 3 of the project, at least 15 demonstration agro-biodiversity production systems established in village agricultural land (baseline = 0 demonstration systems in 2016); 2.3 By year 3 of the project, at least 4 women's associations focussed on collection and processing of products established (baseline = 0 NTFP associations in 2016); 	 2.1 - Coffee production training in all aspects of the coffee production = 214 farmers (49% woman) In addition:250 people (50% women) received training in NTFP management. 1,298 people (51% women) received training in working safely in potential UXO presence farmlands. A total of 3,717 (44% women) training days delivered through the project activities. 2.2 - Shade grown coffee - 25 demonstration plots (5 X 5 villages) established. Honey production - 25 (5 X 5 villages) established. Cattle intensification - 3 plots in 1 X village. 2.3 - 2 Women's associations established - (Communities expressed that they would prefer to use existing women's groups. The team then focused their efforts on ensuring strong women representation on village project committees. Results were: 107 Woman serving on 10 X CCA committees (31%) 43 Woman serving on 10 X PLUP committees (11%) 			
Activity 2.1. Conduct training in sustainable NTFP collection and processing		214 farmers (49% woman) received focused ongoing training and study tours regarding all aspects of coffee and honey production. In addition, 250 people (50% woman) received training in NTFP management.			
		A total of 1,298 people (51% woman) received training in working safely in potential UXO presence farmlands.			

Project summary	Measurable Indicators	Progress and Achievements
		A total of 3,404 (47%) training days were delivered to farmers and the NEPL NP livelihood team during the life of the project. Of the total amount of training days,314 days (19% Women) were delivered to WCS and NEPL NP staff.
Activity 2.2. Establish demonstration	on plots	 Shade grown coffee – 25 demonstration plots (5 X 5 villages) established. Honey production – 25 (5 X 5 villages) established. Cattle intensification – 3 plots in 1 X village.
Activity 2.2. Establish women's ass	ociations	 2 Women's associations were formed but did not flourish due to unwillingness by local communities. 5 CCA committees were established in place of the woman association with 107 women serving in the 10 villages. In the PLUP committees, 43 women are serving in 10 villages. Coffee production and conservation contracts are signed by the husband and wife of each household.
Output 3. Local income-generating activities that are climate smart and innovative, including environment- friendly sustainable agriculture through the Conservation Enterpris Development Program (CEDP) are set up and expanded in the forest- dependent communities bordering NEPL.	 least 1 Agro-biodiversity / conservation enterprise is established, and linked to national / regional markets (baseline = 0 	 1 X Organic, climate smart coffee enterprise established and linked through an industry partner, SAFFRON Coffee directly to the National and international markets. 1 X Honey production enterprise developed with links, through Xieng Khuang Province agriculture department to local and national markets.
	NTFP and agro-biodiversity products oment	 Feasibility studies conducted on key potential agro-biodiversity products, Coffee, red mushroom, cardamom, honey. Community consultations identified coffee, honey, bamboo, and livestock as the main needs / desires of the communities. (See folder 06) Agreement with NEPL PA to focus on the coffee enterprise as the primary ago-biodiversity activity, with a smaller focus on honey.

Project summary	Measurable Indicators	Progress and Achievements
	•	 Demonstration plots for intensification of cattle farming were established towards the end of the project period as a demonstration based on a dramatic increase in illegal cattle raising within the NEPL NP TPZ.
Activity 1.2. Conduct conservation enterprise development process		 Full coffee production development process including: Identification of growing areas. Capacity development Study tours UXO clearance of new land areas Seedling production Planting and care Organic methodologies Harvesting Processing Honey production – full development process up to harvesting phase Investigation and evaluation Study tour Capacity development Construction and start up Care and maintenance Training and equipment for harvesting.
Output 4. Species and forest habitat protection is significantly increased in the total protection and controlled use forests of NEPL adjacent to target communities.	 4.1 Illegal extraction of timber and non-timber natural resources in NEPL total protection zone adjacent to at least 10 village areas is reduced by 50% against a 2017 baseline (to be established); 4.2 At least 90% of community members in the target villages are aware of hunting laws and the impacts of illegal hunting by 2019 against a 2014 baseline = 30%; 	 4.1 – Increase of illegal logging and NTFP extraction during Y2-Y3 due to a doubling of enforcement operational efforts. As a result, Y4 showed a 67% decrease in illegal logging and a 27% decrease in illegal NTFP extraction in comparison to Y3. 4.2 – Knowledge of hunting regulations increased from the 2104 baseline of 30% to the pre-outreach campaign survey of 61% and ultimately to 90% as measured after the outreach campaign in 2020. 4.3 – All hunting related threats increased during Y2 – Y3 of the project due to a doubling of enforcement operations during this period. From Y3 to Y4, due to these efforts Hunting threats decreased by 44%

Project summary	Measurable Indicators	Progress and Achievements
	4.3 By the end of project there will be a 50% reduction in hunting and poaching in the NEPL total protection zone adjacent to target villages (compared to a 2017 baseline to be established).	
Activity 2.1. Conduct land-use		 Monthly deforestation mapping conducted when clear satellite imagery was available. Fire mapping was obtained and analysed for a period of 4 years. Illegal activities relating to logging and land clearing was monitored monthly through ranger patrols.
Activity 2.2. Conduct communi	ty monitoring related to CCA	Terms of the CCA agreements were monitored through the same methods used above. In some cases, individual village agreements around cattle management were signed, and these were monitored separately.
Activity 2.3. Conduct outreach	campaigns	 Update NEPL NP regulations – all 9 district regulations were negotiated and consolidated. Outreach campaign was conducted including the following: Conduct conceptual modelling exercise in relevant districts to identify key messaging. Develop the campaign activities Procurement of all equipment and media Conduct pre- survey to identify current levels of understanding -225 persons surveyed Conduct village outreach campaigns in 5 project villages. Delivered to 374 villagers (48% woman) Conduct post – survey to establish knowledge changes. (29% positive change) Develop a village radio campaign with conservation messaging Radio campaign ran for 12 months in all 10 project villages. Reaching 5,820 people (49.4% woman)
Activity 2.4. Conduct law enfor monitoring	cement monitoring including community-led	 Ranger teams conducted 4,901 patrol days during 907 patrols covering a distance of 46,968 km's within and around NEPL NP. Within the area of Darwin village influence (79.591 ha), a total of 673 threats were uncovered by the rangers of which 52% related to hunting threats and 32% related to habitat. In addition, 827 wire

Project summary	Measurable Indicators	Progress and Achievements			
		hunting snares were removed, 183 hunting camps destroyed, and 91 firearms confiscated. 248 people were caught conducting illegal activities, and 117 (47%) received sanction. 131 (53%) cases are pending an outcome			
Activity 2.5. Conduct biodiversity monitoring		 Camera trap surveys – 3 sample plots (160 cameras per plot) conducted within NEPL NP (Results pending). (See presentation slides 20 / 21) Northern White Cheeked Crested Gibbon auditory survey conduct at 80 sample plots distributed throughout NEPL NP. (Results pending) (See presentation slide 20) SMART biodiversity data collected by rangers (See presentation slide 19) 246 Opportunistic biodiversity observations made by ranger tean during patrol activities. 			
Output 5. A scalable model of sustainable, climate-smart agro- biodiversity is established and available for replication in forest resource use practices by forest- dependent communities in other protected areas in Laos.	 5.1 By the end of the project, an evaluation of impacts and lessons learned guidelines from this project is published and disseminated to all stakeholders including local government agencies, CSOs, development and technical partners. 5.2 By the end of the project, at least 4 exchanges are held with other forest-dependent communities bordering NEPL to expose them to sustainable agro-biodiversity concepts and practices in a participatory fashion promote wider adoption. 5.3 By the end of the project, at least 2 working papers outlining the effectiveness of sustainable climate- 	 5.1 - Detailed guidelines developed for: CCA and CAP engagements. Organic auditing for coffee production. Process of developing a conservation Coffee enterprise (currently in Draft.) 5.2 - Exchanges held" 4 X study tours conducted to local coffee producing villages, processing plants honey processing villages. 1X Exchange visit within the NEPL Coffee production villages. 5.3 - Working papers WCS Profiling of the impacts of CCAs and livelihood development activities such as coffee on decision making within Boumfat village cluster. SAFFRON – Understanding of mutual benefits concerning partnership between WCS and Saffron Coffee – 2021. 			

produced ar	biodiversity are nd shared at national, nternational events.	 WCS – Cattle Value Chain and Financing Analysis in NEPL NP (main focus on Darwin village areas) 2020.
Activity 1.1 Develop guidelines		 Inputs into community engagement guidelines for DoF. Developed model of CCA development. SAFFRON developed series of instructional videos and posters on coffee production. Developed a flow chart laying out the new model of Guardian village engagement.
Activity 1.2. Conduct cross-village exchange and de	emonstration visits	 2018 - Exchange visit to coffee villages and coffee processing in Luang Prabang Province. 2020 - Local coffee processing plant demonstration visit 2020 - Exchange visit and study tour to Luang Prabang Province for new coffee producers 2021 - Study tour to Xiengkuang honey production villages 2021 - Full project exchange visit to coffee villages within project area.
Activity 1.3. Produce working papers		 WCS - Profiling of livelihood decision making – Boumfat village cluster, Houaphan province 2020 SAFFRON Coffee – Internal Auditing system (IAS) for organic coffee production – Operating Manual (updated 2020) SAFFRON – Understanding of mutual benefits concerning partnership between WCS and Saffron Coffee. – 2021 WCS – Mission report Conservation enterprise – 2018 WCS – Cattle Value Chain and Financing Analysis in NEPL NP (main focus on Darwin village areas). 2020

Annex 3 Standard Measures

We use these figures as part of our evaluation of the wider impact of the Darwin Initiative programme. Projects are not evaluated according to quantity. That is – projects that report few standard measures are not seen as being of poorer quality than those projects which can report against multiple standard measures.

Please quantify and briefly describe all project standard measures using the coding and format of the Darwin Initiative Standard Measures. Download the updated list explaining standard measures from <u>http://darwin.defra.gov.uk/resources/reporting/</u>. If any sections are not relevant, please leave blank.

Code	Description	Total	Nationality	Gender	Title or Focus	Language	Comments
Training Measures		TOLAI	Nationality	Gender	The of Tocus	Language	
1a	Number of people to submit PhD thesis						
1b	Number of PhD qualifications obtained						
2	Number of Masters qualifications obtained						
3	Number of other qualifications obtained						
4a	Number of undergraduate students receiving training						
4b	Number of training weeks provided to undergraduate students						
4c	Number of postgraduate students receiving training (not 1-3 above)						
4d	Number of training weeks for postgraduate students						
5	Number of people receiving other forms of long-term (>1yr) training not leading to formal qualification (e.g., not categories 1-4 above)						
6a	Number of people receiving other forms of short-term education/training (e.g., not categories 1-5 above)						
6b	Number of training weeks not leading to formal qualification						
7	Number of types of training materials produced for use by host country(s) (describe training materials)						
Resea	rch Measures	Total	Nationality	Gender	Title	Language	Comments/ Weblink if available

9	Number of species/habitat management plans (or action plans) produced for Governments, public authorities or other implementing agencies in the host country (ies)						Participatory process?
10	Number of formal documents produced to assist work related to species identification, classification and recording.						
11a	Number of papers published or accepted for publication in peer reviewed journals						
11b	Number of papers published or accepted for publication elsewhere						Location?
12a	Number of computer-based databases established (containing species/generic information) and handed over to host country						
12b	Number of computer-based databases enhanced (containing species/genetic information) and handed over to host country	1	Laos	NA	SMART ranger patrol database	English	NEPL NP Headquarters and WCS National office.
13a	Number of species reference collections established and handed over to host country(s)						
13b	Number of species reference collections enhanced and handed over to host country(s)						

Disse	mination Measures	Total	Nationality	Gender	Theme	Language	Comments
14a	Number of conferences/seminars/workshops organised to present/disseminate findings from Darwin project work	2	Laos	NA	Lao media engagement / NEPL NP open day	Lao / English	
14b	Number of conferences/seminars/ workshops attended at which findings from Darwin project work will be presented/ disseminated.	9	Laos	NA	Sustainable livelihood activities	Lao / English	

Physical Measures		Total	Comments
20	Estimated value (£s) of physical assets handed over to host country(s)		
21	Number of permanent educational, training, research facilities or organisation established		
22	Number of permanent field plots established	107	80 Coffee production plots, 25 honey production sites and 3 Cattle intensification plots established

Financial Measures		Total (£)	Nationality	Gender	Theme	Language	Comments
23	Value of additional resources raised from other sources (e.g., in addition to Darwin funding) for project work (please note that the figure provided here should align with financial information provided in section 9.2)						

Annex 4 Aichi Targets

	Aichi Target	Tick if applicable to your project
1	People are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.	Yes
2	Biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.	Yes
3	Incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions.	
4	Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.	
5	The rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.	Yes
6	All fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.	
7	Areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.	
8	Pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.	Yes
9	Invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.	
10	The multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.	
11	At least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.	Yes
12	The extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.	Yes
13	The genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.	
14	Ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.	Yes
15	Ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.	Yes

16 17	The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation. Each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.	Yes
18	The traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.	Yes
19	Knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.	Yes
20	The mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization should increase substantially from the current levels. This target will be subject to changes contingent to resource needs assessments to be developed and reported by Parties.	Yes

Annex 5 Publications

Provide full details of all publications and material that can be publicly accessed, e.g. title, name of publisher, contact details. Mark (*) all publications and other material that you have included with this report

Type * (e.g. journals, manual, CDs)	Detail (title, author, year)	Nationality of lead author	Nationality of institution of lead author	Gender of lead author	Publishers (name, city)	Available from (e.g. web link, contact address etc)

Annex 6 Darwin Contacts

https://www.gov.uk/government/groups/the-darwin-initiative#privacy-notice.

Ref No	24-003
Project Title	Conservation and poverty alleviation through scalable agro- biodiversity practice in Laos
Project Leader Details	
Name	Ben Swanepoel
Role within Darwin Project	WCS Technical director for NEPL NP, and Darwin Project lead.
Address	
Phone	
Fax/Skype	
Email	
Partner 1	
Name	Mr Bounpheng Phoomsavath
Organisation	Nam Et-Phou Louey Management Unit, DOF, MAF
Role within Darwin Project	Director of NEPL NP and primary GoL Counterpart WCS regarding all project activities including all actions related to this Darwin grant.
Address	
Fax/Skype	
Email	
Partner 2	
Name	Rick Reece
Organisation	Village Focus International (VFI)
Role within Darwin Project	CCA development process and 10 village CCA agreements signed.
Address	
Fax/Skype	
Email	
Partner 3	
Name	Todd Moore
Organisation	SAFFRON Coffee
Role within Darwin Project	Business partner - Coffee enterprise technical support and buyer
Address	

Fax/Skype	
Email	

Annex 7 Supplementary material (optional but encouraged as evidence of project achievement)

The following supplementary material is provided:



Checklist for submission

	Check
Is the report less than 10MB? If so, please email to <u>Darwin-Projects@ltsi.co.uk</u> putting the project number in the Subject line.	No
Is your report more than 10MB? If so, please discuss with <u>Darwin-</u> <u>Projects@ltsi.co.uk</u> about the best way to deliver the report, putting the project number in the Subject line.	YES
If you are submitting photos for publicity purposes, do these meet the outlined requirements (see section 10)?	YES
Have you included means of verification? You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	YES
Do you have hard copies of material you need to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number. However, we would expect that most material will now be electronic.	NO
Have you involved your partners in preparation of the report and named the main contributors	YES
Have you completed the Project Expenditure table fully?	YES
Do not include claim forms or other communications with this report.	1