

Darwin Initiative Main and Post Project Annual Report

To be completed with reference to the “Writing a Darwin Report” guidance: (<http://www.darwininitiative.org.uk/resources-for-projects/reporting-forms>). It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

Submission Deadline: 30th April 2020

Darwin Project Information

Project reference	25-021
Project title	Xebanghieng Communities Fisheries Co-management
Country/ies	Lao PDR
Lead organisation	WWF-Laos
Partner institution(s)	<ul style="list-style-type: none"> Department of Livestock and Fisheries (DLF), Ministry of Agriculture and Forestry Laos; National University of Laos
Darwin grant value	£239,546
Start/end dates of project	1 July 2018 to 30 September 2020
Reporting period (e.g. Apr 2019 – Mar 2020) and number (e.g. Annual Report 1, 2, 3)	1 st April 2019 – 31 st March 2020 Annual report 2
Project Leader name	Francois Guegan
Project website/blog/social media	http://www.wwf.org.la/projects/xebanghieng/
Report author(s) and date	Vanpheng, Sarah George, Declan Butorac, Francois Guegan

1. Project summary

This project aims at improving freshwater biodiversity and promoting sustainable livelihoods that better manage natural resources, leading to reduced poverty in 10 communities living in the Xebanghieng River basin, Savannakhet province, Lao PDR. Key activities include setting up fish conservation zones (FCZs) and fisheries management committees (FMCs), developing women-led alternative livelihoods models and advocating with policy makers to further support the establishment of fisheries co-management structures throughout the country.

Random allocation methodology has been applied to a total sample population of 19 eligible villages resulting in 10 treatment and 9 control villages across three districts. The baseline investigation of the situation in each village will show any heterogeneity within the two groups to begin with. Knowing how the groups differ at the baseline, if at all, will allow for the comparison of mean changes to both groups after implementation to determine the true impact of the project. This setup does not change the benefit to the villages as funding was only ever available for 10 villages and biases or preference was not a part of the allocation decision.

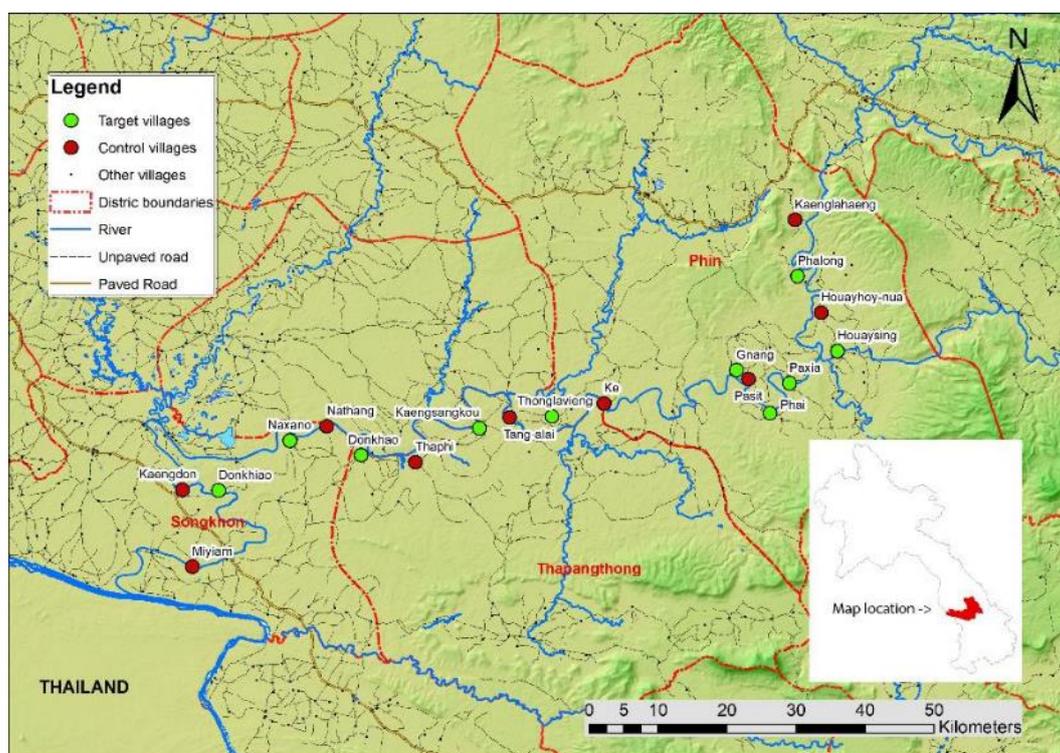
Table 1: FCZ target villages

District	Village
Songkhon	Donkhiao
Songkhon	Naxano
Thapangthong	Don Kao
Thapangthong	Keangsangkou
Phin	Thonglavieng (Thongmixay)
Phin	Gnang
Phin	Phai
Phin	Paxia
Phin	Houaysing (Sing)
Phin	Phalong

Table 2: Control villages

District	Villages
Songkhon	Miyiam
Songkhon	Kaengdon
Songkhon	Narthang
Thapangthong	Thaphi
Phin	Tang-alai
Phin	Ke
Phin	Pasit
Phin	Houyhoy
Phin	Kenglahaeng

Figure a: detailed map of target villages



2. Project partnerships

The **Department of Livestock and Fisheries (DLF)** is our key partner in project implementation and with whom an MoU is signed. This is a Lao Government requirement before activities can be implemented. The DLF is involved in project planning, monitoring and evaluation and decision making. At the implementation level, the project needs to ensure that the plan is in line with those of the Provincial Agriculture and Forestry Office (PAFO) and District Agriculture and Forestry Office (DAFO) and is approved by DLF at the national level.

At the beginning of the project, difficulties arose working with the local government partners such as PAFO and DAFO, due to the fact that they have limited technical staff with the required capacity to contribute to a project of this nature. However, with close cooperation and guidance, we were able to help them to quickly understand the project, their role and areas of responsibility. Staff of DAFO and PAFO participate in every activity of the project. However, it can be challenging, as they are limited in their ability to assign staff to participate in project activities in a timely manner. Additionally, Government staff rotate and training of new project counterparts can be required.

Apart from the aforementioned challenges, we have had a collaborative relationship with DLF that has been fostered through a long partnership between our two organizations.

One of the key partners on this project is the **National University of Laos**. The academic nature of this project has created a space for additional expertise to be brought in from the academy and this has occurred through the National University of Laos and **Monash University in Australia**. By partnering with these institutions we have access to academics with more specific skills than are kept on staff at the WWF. The partnership with the National University of Laos has been formalized through the signing of a Memorandum of Agreement. In addition to support from the staff at the university, we have been able to gain access to a researcher from Australia through the **Australian Volunteers Programme**. This individual is assisting the University and us in developing the research methodology and evaluation materials to complete the outputs laid out in the logical framework for this project.

Additionally, a partnership with the University is beneficial in the political climate in Laos as they are able to visit villages and carry out interviews with less intervention and easier approval than

an organization such as ourselves. This has been of great benefit to us in forging relationships with the relevant Government counterparts involved in this project.

Challenges in a partnership such as this mainly surround administrative requirements. Our financial reporting standards differ in some areas to the University due to the international nature of our funding compared with their being just beholden to Lao requirements. This partnership in terms of appropriating funds to the university for research costs is one of the first we have engaged in in this country so there were teething problems in ensuring they meet our reporting requirements. So far reporting requirements have been met successfully.

3. Project progress

3.1 Progress in carrying out project Activities

Output 1: 10 communities on the Xebanghieng River manage their freshwater resources through effective fisheries co-management structures

1.1 10 fish conservation zones (FCZ) officially announced by District authorities in the Xebanghieng River basin by May 2020 (June 2019 milestone: FCZ process in 10 villages 30% completed on average)

The 10 villages receiving the programme were consulted following the FPIC (Free, Prior and Informed Consent) methodology in May 2019 and all communicated their interest in participating in the project and developing FCZs in their villages¹.

By July 2019, each of these communities defined their own FCZ area², with precise delimitations, taking into account their specific natural and social environment. From January to March 2020, the WWF team and Government partners prepared the official announcement of FCZs and the dissemination of FCZ regulations for the project's 10 target villages. Meanwhile, FMC were set up and regulations were developed (see output 1.2 below).

On February 27th, 2020, the WWF, in collaboration with the NGO Japanese Volunteer Cooperation (JVC), the Government, village authorities and community members, officially announced the FCZ of Ban Houaysing village³. This 1st official FCZ is an area of 100 metres wide and 600 metres long in Phin District. Official announcement of FCZs in other villages had to be halted due to the COVID-19 induced nationwide lockdown.

From December 2019 to March 2020, WWF team provided patrolling training⁴ to 8 villagers in each target villages, adding to a total of 80 community members. The training included topics such as respect of human rights, patrolling methods, negotiation techniques, first aid, and "Guard, Protect and Prevent" skills. Some basic equipment was given to the patrolling teams by the project (e.g. torchlights), but most of the equipment was purchased by each village's fund; most importantly, the boats used for patrolling belong to the communities.

1.2 Fisheries management committees (FMC) officially set up, each including women representatives, approved by District authorities and functioning in 10 villages in the Xebanghieng River basin by May 2020 (June 2019 milestone: all FMC members are selected in at least 5 villages)

From June to December 2019, the communities of each target village defined their Fisheries Management committees (FMC)⁵ structures, members, roles and responsibilities and functioning systems. The members of the FMC are:

¹ See photo in Annex 4.I.1.

² See photo in Annex 4.I.2

³ See photo in Annex 4.I.3

⁴ See photo in Annex 4.I.4

⁵ Photos see Annex 4.I.5

- The village chief;
- The Lao Women's Union village Head,
- An elderly village representative;
- The villager in charge of village security;
- The villager in charge of defence;
- The village youth representative;
- A village unit chief;
- and the village justice representative.

Each FMC has at least two female members.

All 10 FMCs developed, completed and made the final revisions of their FCZ regulations and both the FMCs and their FCZ regulations were approved by the local district authorities within the months of January and February 2020.

To determine the impact of this work, as well as the impact of Output 2, WWF Laos, together with Declan Butorac (a statistic expert and the aforementioned Australian Volunteer from the Monash University in Australia) and the National University of Laos, have developed and fielded three academic surveys through 2019 and 2020 in the 19 villages:

- A governance survey of one village leader per village;
- A household-level socio-economic baseline survey of 10 fisherman households per village;
- A biodiversity qualitative survey at household level of 10 fisherman households per village.

These will evaluate the impact of FCZs and produce recommendations by comparing the results of the interviews of the project's 10 target villages and 9 control villages. To ensure the quality of the scientific conclusions of the surveys, WWF Laos has collected additional data for the surveys, which caused some delays in this activity implementation. Moreover, extreme flooding affected Southern Laos in September 2019, completely isolating to project's villages. The staff could only resume field work by October 2019, resulting in further implementation delays.

The biodiversity qualitative survey at household level was developed in 2020 by Declan Butorac for additional tools in the data analysis program to collect information about over a hundred fish species. 10 fishermen household members (the same as in the household survey above) were interviewed in each of the project's 19 villages in March 2020. The purpose of this interview is to survey the fish that should be in the river that fishermen have caught in the last 12 months, each specie had a picture of the fish and the Lao name included to ensure an accurate reference (despite the timing of the survey, it still counts as baseline since the FCZs were not officially announced at the time of surveying).

In addition, the WWF team trained 12 officers of the DAFO and District government partners in using the questionnaires of the 2 following surveys:

- Fish Catch Monitoring (FCM): the fishermen write down a series of notes⁶ every time they have gone fishing during a 2 months period. After analysis of the data during the pre and post project period, conclusion can be drawn as of the changes of the fishes present in the Xebanghieng river in the target area. In August 2019, WWF team and government partners trained 95 fishermen from the 10 target villages and 9 control villages in using the Fish Catch Monitoring (FCM)⁷ forms. Data collection took place from mid-September to mid-October, 2019, every time these 95 fisherman went fishing.

⁶ See form roughly translated in English in Annex 4.II

⁷ See photos in Annex 4.I.8

- Last Sighting Date Interviews: fisherman household members are showed pictures (with Lao names) of 8 endangered and non-endangered fish species⁸ and asked when they have last seen these species. From October to November 2019, WWF team and the government partners surveyed 95 fishermen in the project's 19 villages⁹;

Output 2: Households (and, in particular, women) in fisheries-dependent communities benefit from education in fishing effort and devote additional time to increase revenue and food availability derived from more diversified livelihoods

2.1 10 women-led production groups set up in 10 villages in the Xebanghieng River basin by June 2019

By June 2019, each village set up their Women-led Production Groups (WPG). In July and August, WWF worked with the WPGs in setting up the structure and the role of each team member, provided technical support for group management coaching, objective setting and drafting regulations. In January 2020, the completed and final WPG regulations were approved by the District government for all 10 target villages.

2.2 Livelihood diversification options identified by 10 women-led production groups in 10 villages in the Xebanghieng River basin by August 2019

In August 2019, large group and focus group discussions have been organized to discuss the livelihood diversification options, following the FPIC approach. Livelihood diversification activities have been subsequently identified in the project's 10 target villages, 8 chose goat raising and 2 opted for fabric weaving.

2.3 10 Women-led production groups in 10 villages in the Xebanghieng River producing outputs by March 2020

Goat raising was adopted as a livelihood diversification strategy by 8 of the project's 10 target villagers, 6 in Phine and 2 Taphonthong district, villages close enough to local markets. A total of 80 households (10 per village) were selected on the criteria of being in the most vulnerable of their communities, of demonstrating high motivation to participate and commit to this activity and having enough space to raise goats. Although this activity will be women-led, male family members were included in the process as their participation will be important to ensure sustainability.

Technical training were delivered in December 2019 and January 2020 for these 8 groups. Trainees included women group members, other family members or interested villagers and other families (per example, families who are already raising goats and wanted to participate), totalling 224 villagers¹⁰. The topics included were animal feeding systems, caring and treating goats, and pen building. Part of the building material for the pens (roof sheets and nails) were given to the participants in February and March 2020, with their completion as the *sine qua non* criteria for receiving goat donations. Goat pens were all built by March. WWF and the Provincial Agriculture and Forestry Department in Savannakhet worked hand-in-hand to determine the following goat selection criteria for the project, to ensure that the villagers are given strong and resistant animals to raise:

- The goats should be aged of 6 or more months, at breeding age and strong enough to survive;
- The goats should weigh between 16 and 25 kilograms;
- Species should be local (Lao goat species) to ensure their adaptability to the environment. Lao goats also have a quality meat that has a higher market price;

⁸ See form roughly translated in English and the 8 engendered fish species list in Annex 4.III

⁹ See photos in Annex 4.I.9

¹⁰ See photos in Annex 4.I.6

- Goats should be vaccinated;
- WWF will give deworming medicine for villagers to give to the goats when strong enough not to be affected by the medication.

The second livelihood activity selected by 2 villages is weaving, accounting to 10 households in each of the two villages¹¹. In each village, there are 10 women weaving and a total of 14 group members (10 women weaving plus the groups' leader, accountant, marketer and cashier).

A group of (female) weavers from Lahanam village in Sonekhone district, Savannakhet Province, was selected as trainers thanks to their reputation, experience and their connections to markets. Not only will they train the Women Groups, they will also order specific products regularly. Indeed, as Lahanam weaving products are well-known locally, high demand results in the village not being able to meet the required supply levels, in particular for Lao skirts and other traditional fabrics. This peer-to-peer learning will not only guarantee efficient knowledge transmission but also market access once products are made.

The training will include:

- Quality cotton selection. Cotton can be purchased from the Sonekhone group or at local markets;
- Natural dyeing techniques. Specific plants seeds and seedlings will be provided to the women groups and this type of dye is highly demanded and is sold at the highest prices;
- Sophisticated weaving patterns and traditional designs weaving. Most of the local villagers already know the technique to produce simple fabric but intricate design defines the value of the end product.

WWF Laos will donate necessary material and tools to the group members who completed the training.

COVID-19 response: Both the goat raising and the weaving activities' implementation had to be interrupted due to the Covid-19 outbreak and will resume after the end of Laos' lockdown.

2.4 Time spent by women to diversify both food availability and income increased by 20% in 100 target households in 10 villages in the Xebanghieng River basin by June 2020

To be assessed by September 2020 or later by a separate survey, if the country's lockdown (Covid-19 pandemic) ends and the field activities can resume.

Output 3: Successes and constraints of fisheries co-management structures in the Middle Mekong are assessed and inform Lao fisheries policy makers

3.1 Rapid evaluation report of 42 fisheries co-management structures in Savannakhet Province, completed by June 2019

The same researchers as in Output 1 developed a qualitative survey with input from all stakeholders in this project to determine the current situation and experiential impact of previously implemented fisheries co-management structures in Savannakhet province. In addition to this survey was a biodiversity survey that had similarly been used in the 19 Xebanghieng river villages to determine species richness in the area surrounding a village.

This work was delayed during the floods and through the subsequent recovery period, as well as the drought that has followed. We prioritised the 19 Xebanghieng River villages to ensure that all data was collected prior to implementation of the FCZs and FMCs being completed. As a result members of the NUoL research team were in the field with the surveys in late February and early March 2020 but were forced to return to Vientiane prior to completing the survey in

¹¹ See photos in Annex 4.I.7

every village when the Lao government announced domestic travel restrictions due to the Covid-19 pandemic outbreak. At present 19 of 42 villages have been visited.

COVID response: The revised date for completion is August 2020 pending Covid-19 restrictions to domestic travel.

3.2 Evaluation report of at least 8 fisheries co-management structures in which change can be attributed to previous WWF/DLF interventions, including recommendations, completed by August 2019.

This report will flow from Output 3.1 by observing the best performing villages from the 42 village rapid evaluation report. Unfortunately, for the reasons given in 3.2 this work is further delayed.

COVID response: The revised date of completion is September 2020 pending Covid-19 restriction to domestic travel.

3.3 Publication of results and recommendations through local media (local newspapers), written material (policy brief), and social media (articles, movie, clips), by March 2020 (milestones: first news items published before March 2019; short movie completed by December 2019)

The publication of the results is postponed due to the delay in data collection (late MoU, September flooding, subsequent drought) and the subsequent deferred data entry in the program for analysis, as well as the return home of Declan Butorac due to Australian Volunteers International's response to COVID-19 pandemic in repatriating all volunteers globally.

The short movie shooting was prioritized when field became accessible for WWF staff again after the flooding. It has since then been challenging to find a quality studio in Savannakhet but we have now identified a suitable supplier to start this activity as soon as the Covid-19 lockdown ends.

3.4 Commitment made by Fisheries authorities to promote fisheries co-management nationwide and the project's research recommendations during multi-stakeholder advocacy workshop presenting the results of both surveys and previous research, conducted before March 2020.

This activity will take place when the scientific results of the project will be completed.

3.2 Progress towards project Outputs

Output 1: 10 communities on the Xebanghieng River manage their freshwater resources through effective fisheries co-management structures

Three major external and unpredicted events delayed project implementation: the heavy flooding of September 2019, the subsequent drought and Covid-19 pandemic from March onwards. As a result, only one FCZ has been officially announced at the time of reporting. Nonetheless, all target villages have their actual FCZ functioning, with regulations, patrolling teams and active management committee. The official announcement will resume at the end of the Covid-19 pandemic lockdown in Laos.

Output 2: Households (and, in particular, women) in fisheries-dependent communities benefit from reduction in fishing effort and devote additional time to increase revenue and food availability derived from more diversified livelihoods

The women-led livelihood diversification groups have been set up in all target villages (members, roles, regulations and activity) on time. Both groups were ready to produce outputs by March

2020 (the goat raising groups were ready to receive their goats as all the members are trained and goat pens are build and experienced women villager trainers were ready to train the weaving groups) but field activities had to be interrupted because of the Covid-19 outbreak. Activities will resume directly at the end of the lockdown.

Output 3: Successes and constraints of fisheries co-management structures in the Middle Mekong are assessed and inform Lao fisheries policy makers

All surveys, to ensure a solid scientific evaluation of the project's impacts, have been developed. Nevertheless, data collection has been slowed down by the September 2019 flooding in Southern Laos and data analysis is slower than expected. WWF Laos hired an intern to help the team enter the data in the computer for analysis. As she was working alone, this took her longer than expected and only 2 villages were completed for FCM and 8 villages were completed for the Last sighting interview by the end of her contract in February 2020. Data is currently still being entered in the program to be analysed.

3.3 Progress towards the project Outcome

*0.1 By June 2020, an average of 10% decrease in fishing effort for the same yield (catch per unit effort) is observed by all fishing households in 10 villages (**baseline** to be determined during pre-project surveys)*

*0.2 Time freed from fishing is reallocated to other livelihood options in at least 50% of fishing households in 10 villages (**baseline** to be determined during pre-project surveys)*

*0.3 By June 2020, mean last capture dates for 2 selected endangered endemic species show a decrease from project start in 10 villages (**baseline** to be determined during pre-project surveys)*

*0.4 By June 2020, the knowledge, attitude and practice (enforcement) of the Fisheries Law in 10 villages has increased by at least 50% (**baseline** to be determined during pre-project surveys)*

The above set of measurement of the project outcome assumed timely project implementation and end-of-project surveys being conducted in June 2020. At the time of writing, we are confident all baselines, with data collected throughout 2019, can be established and presented in summary and detailed formats by the end of June 2020. However, it will not be possible to conduct meaningful (i.e. that would demonstrate project impact) end-of-project surveys within the lifetime of this grant.

As mentioned in various iterations above, this is due to delayed activity implementation coming from late MoU approval (see change request dated 26 September 2018), intense floods in all target and control villages in September 2019 (see email sent on 18 September 2019 in annex 05, and half year report), the subsequent drought in the province and now the COVID-19 outbreak.

Accordingly, a change request will be submitted shortly after submission of this report.

3.4 Monitoring of assumptions

Assumption 1: No new major infrastructure developments (e.g. dam) will begin within the project lifetime in lowland areas

Comments: There are currently no dams and no construction of any dams or other major infrastructure projects on the Xe Banghieng River. If something does occur the presence of the control group will still show us what would have happened in the absence of the project. We may lose the before and after comparison but the counterfactual test remains, showing what happens with and without the project.

Assumption 2: Fish populations can increase despite existing pressures by infrastructure construction at the Mekong Basin level.

Comments: As above for assumption 1. The presence of the control group will limit the impact of such changes on the study.

Assumption 3: No major socially disruptive event (e.g. drought, abnormal and/or non-seasonal flood, social unrest) prevents independent impartial monitoring

Comments: Abnormal flood occurred during the whole month of September 2019 (see annex 05 for more details). However, our control group and the balance of the treatment and control groups on geographic, biodiversity and socio-economic indicators mean we can still test the counterfactual and determine the impact of the project.

Assumption 4: People in control villages are willing to participate in survey effort

Comments: All interviews in controlled villages were completed and villagers participated in the survey effort.

Output 1: 10 communities on the Xebanghien River manage their freshwater resources through effective fisheries co-management structures

Assumption 1: FCZ locations allow efficient monitoring and law enforcement by communities

Comments: FCZ areas were determined by communities to allow efficient monitoring and law enforcement.

Assumption 2: Village leadership is stable and pushes for regulations to be enforced

Comments: We currently work with each village leadership and FMC to ensure the project continues through leadership changes.

Output 2: Households (and, in particular, women) in fisheries-dependent communities benefit from reduction in fishing effort and devote additional time to increase revenue and food availability derived from more diversified livelihoods

Assumption 1: Raw materials can be obtained locally and/or purchase is affordable

Comments: WWF Laos team worked with the production groups to use local and affordable materials. Women weaving groups will receive natural dyes seeds and seedlings to ensure constant availability and will have the opportunity to purchase cotton from the trainers or at the local market. The goats of the animal-raising groups will be strictly selected to ensure their good health and adaptability to the local conditions. The pens are built with cheap and easily available material and food can be produced locally.

Assumption 2: Access to markets is affordable

Comments: Access to market can be difficult in these remote areas. Assistance will be given to overcome any obstacles in accessing markets in a manner that makes the taking of goods to them cost effective. The goat raising groups have an easy access to local markets to sell their goats or goat meat, and the women weaving groups will have regular orders from the training group to sell their production, and also have the opportunity to sell to the local markets or within their villages.

Output 3: Successes and constraints of fisheries co-management structures in the Middle Mekong are assessed and inform Lao fisheries policy makers

Assumption 1 Access is physically possible to all 42 villages

Comments: All villages can be accessed but the issues posed by poor roads was problematic during the rainy season, and villages were not accessible at all during the September 2019 floods. As assumed, this did cause delays in project implementation.

Assumption 2: Villagers in communities where fisheries law enforcement has been weak are willing to participate in surveys

Comments: The University team are experienced at working with communities for data gathering and as a part of the Lao government they were able to visit areas and collaborate with the Provincial and District governments more freely than the WWF. However, their field work was highly delayed and WWF struggled to obtain detailed field work reports.

Assumption 3: Subject gathers enough attention for press releases to be published in local media

Comments: this holds true. This will be done by adaptation on media tools.

Assumption 4: No major disruption (either internal or external) prevents the completion of all surveys and data can be processed on time

Comments: All surveys have been completed but with delays and data entry and processing has also taken longer than expected. This is partly due to the major disruption of the 2019 floods.

Assumption 5: Policy makers are willing to participate in dissemination meetings and take on the recommendations for follow up actions

Comments: At present our collaboration with DLF and PAFO and DAFO is strong. Our impact evaluation lead presented the methodology at the University to representatives from DLF and the Dean of the Faculty of Agriculture and it was well received. As DLF, PAFO, DAFO and the National University of Laos are closely involved in this project through its various phases it is likely that they will be receptive to a workshop and receiving the results and recommendations of the project.

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

The justification for this work is based on a wide literature of qualitative analysis of fisheries co-management and a smaller amount of literature on quantitative analysis of similar projects. Members of the team working on this project from the WWF, National University of Laos and Monash University conducted a previous study that is pending publication that showed a tangible increase in number of fish species caught in the past 12 months in villages with the WWF Comfish III project versus those who did not receive the project. That work is pending publication and up for review at the time of writing (expected publication by June 2020).

The research component of this project expands on that work by following a treatment and control group from the beginning as opposed to using matching techniques as was done previously with established FCZs and FMCs. This project will give a similar biodiversity output of number of species caught in the past 12 months but will further enrich this data by comparing species richness with catch per unit effort and fish catch monitoring data. Broadening our selection of biodiversity and ecosystem health data sets will provide a more complete picture on the effectiveness of projects of this type on improving biodiversity and contributing to poverty alleviation. If successful, this will provide an evidentiary foundation for further implementation of this project in other villages.

Alongside the testing of biodiversity, we are testing for livelihood outcomes and nutrition information. The aforementioned previous study determined an increase in nutritional outcomes for girls but not for boys. As part of the rapid evaluation of the 42 villages we hope to determine why this was the case. We should also be able to show that this project is not only good for the environment but also acts to alleviate poverty and malnutrition in the villages that receive it.

The fact that end-of-project surveys will not be conducted during the lifetime of this grant does not imply that the project will not achieve positive impact on biodiversity and poverty alleviation. While it does hinder our capacity to measure impact within the timeframe that was originally planned, it does not prevent WWF from measuring this impact at a later stage, following a period of time that will be long enough to demonstrate the long term impact of the project. A change request will be prepared to elaborate on this proposition.

4. Contribution to the Global Goals for Sustainable Development (SDGs)

The project proposal documents lists alignment with the following SDGs:

- SDG15 (Life on Land) by conserving fish biodiversity (indicators 15.1, and 15.5);
- SDG1 (No Poverty) by offering livelihoods diversification options, the project will support livelihoods improvement, with positive impact especially in terms of food security, nutrition and overall health (indicator 1.4);
- SDG2 (Zero Hunger) in particular indicators 2.1 and 2.2, as fish are a key source of protein for local communities in the target area, as well as indicator 2.4 with reference to “sustainable food production systems [...] that increase productivity and production, and that help maintain ecosystems”;
- SDG5 (Gender Equality), in particular indicators 5.5 and 5.A, as women are included and their voices promoted in the fisheries management committees;
- SDG16 (Peaceful and Inclusive Societies for Sustainable Development) by promoting the implementation of the Fisheries Law, the project will contribute to indicator 16.3, which encourages the rule of law.

As mentioned elsewhere in this report, since there were significant delays in getting the project started in the field, contribution of the project towards these SDGs in the 2019-20 Financial Year cannot yet be substantiated.

5. Project support to the Conventions, Treaties or Agreements

The project proposal refers to the CBD's Aichi target as follows:

Target 1: Awareness-raising and active participation of communities are an essential component of each step in the setting up of the fisheries committees and conservation zones. As a result of the project, community members will be more aware of the values of biodiversity and how to conserve and use it sustainably.

Target 2: WWF Laos helped develop the 2009 Fisheries Law that allowed for community fisheries to exist in Laos. An important aspect of this law is to have communities at the centre of conservation. As a result, the biodiversity value of freshwater resources have been integrated into the national development and poverty reduction strategies. This project aims to continue this effort by supporting 10 communities while reflecting on the long term impact and sustainability of the model to inform development and poverty reduction strategies.

Target 6: By supporting 10 communities to better managed fish stocks and harvest them sustainably, overfishing will be avoided so that the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.

Target 11: The importance of freshwater protected areas is often hidden by forest protected areas and marine parks and have in the past received little attention by conservationists. However, they play a vital role in supporting river biodiversity, especially since there are no other way to conserve wild fish in a tropical river system such as the Mekong, and because they are areas of unmatched importance for biodiversity and ecosystem services to the local communities.

Target 12: This project focuses on contributing to the achievement of this Target through improving the conservation status of threatened Mekong Megafauna. These species are chronically threatened largely through unsustainable fishing practices resulting in over-fishing. Through using science to identify conservation zones and employing a method successfully implemented for fish recovery in numerous sites, the project will contribute to improving conservation status, and thus reduced extinction risk, for endangered species that benefit from lowland seasonal flooding in Mekong tributaries such as the critically endangered Mekong giant catfish, and lesser known threatened species such as the Wallago attu or Bagarius yarrelli, both of them near-threatened and with population rapidly decreasing.

Target 14: In the villages of the project areas, fisheries are an essential part of livelihoods. Other livelihood options come in addition to fisheries, including paddy rice, and vegetable cultivation, etc. but fisheries are central. Hence by improving fisheries management, and eventually increasing fish stocks, the project will be restoring and safeguarding ecosystems services that sustaining the health, livelihoods and well-being of communities.

Target 19: The comprehensive M&E framework that this project will follow is not only focused on project delivery within the imparted timeframe, but also on previous community fisheries accomplishments, to assess their long term impact on biodiversity. By means of thorough scientific examination, the impact of existing fisheries co-management structures will be assessed and the results will be shared and transferred, with a view to improve, if necessary, the regulatory frameworks.

However, the delays mentioned earlier in this report have delayed implementation of activities in target communities, hence none of the above can yet be substantiated with evidence in this reporting period.

6. Project support to poverty alleviation

According to the Lao Agricultural Census Office (2012), in 2010-11, 71% of all farming families in Laos practiced capture fisheries. In short, wild fish biodiversity and abundance provides a poverty safety net for those who rely on fish protein for subsistence.

However, infrastructure development and illegal practices have affected the capacity of the Mekong river system to produce fish. These changes affect mostly rural people dependent on fish for their subsistence and puts them at risk of falling into (further) poverty. The poorest people are being hardest hit because fishing is their only source of protein. As a result, communities resort to overexploitation; fish stocks continue to decline and villagers spend more time fishing for smaller catches, sometimes leading to conflicts between communities.

The project, by setting up community management structures that increase fish stocks, and by offering livelihoods diversification options, supports livelihoods improvement, with positive impact especially in terms of food security, nutrition and overall health. This contributes to reducing poverty.

However, as stated above, reaching these objectives cannot yet be substantiated with evidence in this reporting period.

7. Consideration of gender equality issues

Through the project's outcome 1, women are represented in the fisheries committees (at least 2 per committee), and hence benefit from increased voice in the fisheries decision making processes.

Through outcome 1, it is also expected that all households' members will benefit from reduction in fishing effort. As fishing, which is mostly done by men, becomes more regulated and harvest more predictable, women are able to plan and develop small businesses in fish transformation (e.g. fermented or dry fish), or agriculture extension, and increase their income. Eventually, thanks to reduced fishing time, families – both men and women – have the possibility to diversify their income. This allows them to cope better with economic stress.

In order to support this, the project is raising the awareness of target communities with regards to gender equality in natural resources management, using material used in other projects that have demonstrated a positive impact on women's participation in the villages' natural resources management processes.

Through the project's outcome 2, women benefit from increased income from livelihood diversification. This will in turn increase their voice in household decision making so that they have a stronger voice, among others, in natural resources management.

This project is disaggregating data by gender in all three outputs starting with baseline, and in all follow-up surveys. This allows us to monitor women's participation, representation, and how women benefit from the project (see also project standard output measures in annex 3).

8. Monitoring and evaluation

Output 3 on its own is almost entirely dedicated to M&E. Outputs 1 and 2 also have a strong M&E component, key not only to ensure effective management of the project but also in producing the data necessary to publish the peer-review papers that will originate from the project.

The M&E framework has not changed since the start of the project – apart from adding another 3 months to the project as no-cost extension and slight changes in milestones to reflect the delays in getting the project started (all this has been approved by DEFRA).

The cumulative effect of the challenges met by the project since the start means that we will not be able to conduct the full set of end-of-project surveys by September 2020. This will have implications with regards to our capacity to substantiate our impact assumptions. This will be the subject of a change request shortly after this report is submitted.

Importantly, a coordination meeting – which serves the purpose of monitoring and evaluation under the MoU between WWF and the DLF – was organized in Savannakhet, including representatives from DAFO (of each district), PAFO, DLF, Ministry of Agriculture, Ministry of Foreign Affairs, NUoL and the Ministry of Natural Resources, totalling 60 participants including 10 women.

During this meeting, the project team summarized the achievements of the project. The main recommendations for the Government were as follow:

- The PAFO recommended to select Lao goat species, who are the most adapted to the local environment. Other NGOs have implemented similar projects with non-native goats species, who ended up being sick quickly because they were not fit for the local context. We followed this recommendation for the goat selection;
- The Districts requested an extension of the project to ensure its sustainability and to be able to measure accurately the impacts and effects of the activities before the Project end.

At the end of the meeting, the participants visited a previous WWF Laos target village (Houadam in Xayphoutong District, Savannakhet Province) from the Comfish II Project and its successful FCZ that opened in 2015 and is still functioning now. The participants discussed with the village leadership and members of the livelihood groups. In this village, 10 Households received 17 goats in 2015. From 2015 to January 2020, the total number of goats that were raised and sold in the village is 235. The group extended to 20 households and the income from this activity helped villagers in having funds to send their children to school, pay for medical bills and purchase food, besides other small expenses. The major issue these villagers are facing is weak goats that are getting sick easily, due to the fact that they are a non-Lao species.

9. Lessons learnt

As for the previous reporting period, communities have shown high interest in working with us, ensuring the sustainability of this project on the long term. Local wisdom, knowledge and skills¹² were taken into account at all steps of the project's implementation.

The collaboration with the National University of Laos (NUoL) has been very challenging for our team as they faced major delays in field activities implementation and didn't communicate this to our team. Their reports were poor and also delayed. However, the local government (especially the PAFO and DAFO) have proved to be strong partners, and active in field work preparation and implementation.

In a project with this number of partners, effective coordination is key. The time needed for coordination and allowing partners to manage their own schedules was underestimated at the time of project design. The latter left very little room for manoeuvre in case of seriously disruptive events, which, as they happened, had severe impact on project implementation.

10. Actions taken in response to previous reviews (if applicable)

No.	Comment	Discuss with Darwin	Next half year report	Next Annual Report	No response needed
1	Please be aware that the rearrangement of the activity dates will put additional pressure on the team members. This needs careful management.				x
2	Please make sure that Darwin Initiative will be suitably recognised in all materials produced in the coming project years as appropriate.			x	
3	In light of the delay it may be worth revising some of the Output Indicators. For example Output Indicator 2.4 may be difficult to measure in such a short time span.			x	

Review point 2: Darwin is identified suitably on the WWF Laos website, on our Facebook page and in our meetings with partners (see annex 4.I.12).

Review point 3: yes, indicators will be reviewed and a new proposition will be made in a change request shortly after submission of this report. Overall, the point of the short time span is very well taken. The project was indeed planned ambitiously and the suite of disruptive events that have happened during the lifetime of this grant have jeopardized our capacity to deliver as initially planned, especially in terms of impact measurement. As mentioned in 3.5, WWF will seek to monitor project impact at a later stage, after enough time has passed to demonstrate the project impact and sustainability. This is currently being designed by WWF Laos together with Monash University and the National University of Laos and will take the form of a project follow-up phase concept note.

11. Other comments on progress not covered elsewhere

N/A

¹² Photos of fishing tools created by local fisherman see Annex 4.I.11

12. Sustainability and legacy

Due to delays in project implementation, the project has had limited opportunities to consider its legacy, apart from the natural questions that come with delays in project implementation, i.e. how to ensure that the project reaches the objectives set in the exit strategy. The latter is based on the idea that the project will reach a stable and sustainable end point in the 10 target communities through the creation of 10 co-management structures that will continue to manage fisheries after project end as well as diversified livelihoods that will benefit women and men in target communities in the long term.

Aside direct biodiversity sustainability, our exit strategy consists of enhancing the capacity of villagers and setting up structures enabling communities to manage their commons. This approach aims at building the systems and knowledge base required for longevity of behaviour changes. This is reinforced through demonstrating the value of FCZs through awareness-raising efforts (sessions supported by information, education and information (IEC) material, consensus building, group discussions, etc.). Eventually, adult villagers will fish more responsibly and take an active part in fisheries co-management (e.g. be part of the management committee), making this project sustainable.

Since we were able to sign our MoU only in March 2019, project implementation was first delayed by 6 months. A request for a 3-month project extension (to September 2020) was approved in May 2019.

As mentioned earlier in this report, while our capacity to evaluate project impact will be affected by the delays in activity implementation, we foresee that the sustainability and legacy of the project will not be severely affected. Regardless, WWF will seek to continue to support target villages after the completion of this grant, to ensure the communities are accompanied with adequate support in the first years of managing fisheries co-management structures.

13. Darwin identity

The project has a dedicated page on WWF Laos' website (<http://www.wwf.org.la/projects/xebanghieng/>) where the Darwin Initiative funding is fully recognised as a distinct project. The Darwin Initiative logo was also displayed during the yearly coordination meeting held in Savannakhet in January 2020 (see annex 4.12), during which the WWF Laos Conservation Director explained to the audience basic information about the Initiative. A Facebook post was published after the meeting: <https://www.facebook.com/wwflaosoffice/posts/2134646079971756>

14. Safeguarding

WWF Laos is a Country Office of WWF International. The latter has developed over the last year a comprehensive Environmental and Social Safeguard Framework (ESSF). The ESSF provides an institutional mechanism to manage the environmental and social risks of WWF's work, helps deliver better conservation outcomes, and enhances the social well-being of local communities in the places where WWF operates. The safeguards framework is designed to address a broad range of environmental and social risks, mindful of the different challenges and needs in different parts of the world. It systematizes good governance practices to achieve human rights, transparency, non-discrimination, public participation, and accountability, among other goals.

While this project was designed before the ESSF, it has safeguarding of local communities at the heart of its implementation strategy. Activities were designed using FPIC – Free, Prior and Informed Consent – of local communities. The project is being implemented according to WWF's Social Principles, which are detailed in WWF's various social policies, namely:

- Conservation and Human Rights Framework (2010);
- Guidelines on the Prevention of Restriction of Rights and Involuntary Relocation and Resettlement of Indigenous Peoples and Local Communities – RRR (2016);
- Guidance Document on WWF Engagement with Civil Society Organizations – CSOs (2015);

- Gender policy (2011);
- Child Safeguarding and Protection of Rights (2018)
- Indigenous Peoples and Conservation: WWF Statement of Principles (2008);
- Policy on Poverty and Conservation (2009).

All WWF Laos staff have been trained in the above policies at least once in the last 12 months, including all project staffs in this project. All WWF Laos staff have also been trained and signed a commitment to respect and follow our Code of Conduct. All staff have to sign again every year and the Office provides at least one refresher training per year to all staff. The latter is a comprehensive document – a summary of which is attached in annex 06. All project partners have been made aware of this code of conduct.

All projects and WWF activities now go through an ESSF screening before implementation. We have also committed to screening existing initiatives. The screening for the landscape in which this project is implemented is currently being finalized.

As part of our compliance with the ESSF, a complaint mechanism is being set up, within which posters will be displayed in key village areas (e.g. village office, information board, school, dispensary, meeting hall, etc.), explaining the project in details and also providing telephone numbers for reporting complaints. At the moment, village leaders have the contact details of the WWF project team and know they can call anytime to report any situation.

15. Project expenditure

Table 1: Project expenditure during the reporting period (1 April 2019 – 31 March 2020)

Project spend (indicative) since last annual report	2019/20 Grant (£)	2019/20 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items (see below)				
Monitoring & Evaluation (M&E)				
Others (see below)				
TOTAL				

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2019-2020

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
<p>Impact</p> <p>Improved freshwater biodiversity and sustainable livelihoods that better manage natural resources lead to reduced poverty in the Middle Mekong</p>		<p>Due to delays in implementation, this is not yet applicable.</p>	
<p>Outcome</p> <p>Fish stocks and fish biodiversity have improved and poverty reduced in ten villages in the Xebanghieng River basin through effective community-based conservation of freshwater resources and alternative livelihood models</p>	<p>0.1 → By June 2020, an average of 10% decrease in fishing effort for the same yield (catch per unit effort) is observed by all fishing households in 10 villages (baseline to be determined during pre-project surveys)</p> <p>0.2 Time freed from fishing is reallocated to other livelihood options in at least 50% of fishing households in 10 villages (baseline to be determined during pre-project surveys)</p> <p>0.3 → By June 2020, mean last capture dates for 2 selected endangered endemic species show a decrease from project start in 10 villages (baseline to be determined during pre-project surveys)</p> <p>0.4 → By June 2020, the knowledge, attitude and practice (enforcement) of the Fisheries Law in 10 villages has increased by at least 50% (baseline to</p>	<p>0.1 Baseline data gathered</p> <p>0.2 Same as above.</p> <p>0.3 Same as above.</p> <p>0.4 Same as above.</p>	<ol style="list-style-type: none"> 1. Carry on to process of officially announcing FCZs in 9 target villages. 2. Complete livelihood diversification training and hand over agriculture inputs, raw materials and tools in 10 target villages. 3. Conduct fish catch monitoring in 10 target villages and 9 control village (post). 4. Conduct Last sighting date interviews in 10 target and 9 control villages (Post). 5. Conduct awareness raising in 10 target villages, providing knowledge of fish endangered species, illegal fishing gears by Lao Fisheries Law and knowledge of sustainable fishing methods and fish spawning season.

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
	be determined during pre-project surveys)		
Output 1. 10 communities on the Xebanghieng River manage their freshwater resources through effective fisheries co-management structures	<p>1.1 → 10 fish conservation zones (FCZ) officially announced by District authorities in the Xebanghieng River basin by May 2020 (June 2019 milestone: FCZ process in 10 villages 30% complete on average)</p> <p>1.2 → 10 fisheries management committees (FMC) officially set up, each including women representatives, approved by District authorities and functioning in 10 villages in the Xebanghieng River basin by May 2020 (June 2019 milestone: all FMC members are selected in at least 5 villages)</p>	<p>1.1 01 FCZ officially announced by District Governor in the Xebanghieng river basin in February 2020. The process is 95% complete in the remaining 9 villages.</p> <p>1.2 There are 10 FMC officially set up, each including women representatives and functioning in 10 villages in the Xebanghieng River basin in June-August 2019 and approved by District Governor in January 2020.</p>	
Activity 1.1 Desk review and GIS mapping of potential new target villages on the Xebanghieng river and its tributaries, included 10 target villages and 10 control villages		Completed. However, only 9 control villages have been selected. NUoL and Monash University assure that it does not pose a problem in terms of statistical analysis.	
Activity 1.2 Selection of 10 target villages and 10 control villages and seek FPIC (Free Prior and Informed Consent)		Completed. 10 target villages and 9 control villages. FPIC was sought through consultations with local authorities and villagers.	
Activity 1.3 Survey 10 target villages and 10 control villages pre-project (surveys including: law enforcement KAP, time use module, food consumption and anthropometric measurements from local health centres) with village authorities and randomly selected household representatives		Completed. 10 target villages and 9 control villages. The activity was led by NUoL.	
Activity 1.4 Conduct last sighting date interviews in 10 target villages and 10 control villages pre-project		Completed last sighting date interviews in 10 target villages and 9 control villages pre-project in July 2019.	

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
Activity 1.5 Start process of setting up Fish Conservation Zones (FCZs) and Fisheries Management Committees (FMC) in 10 target villages: Consensus Building, with awareness raising sessions on the benefits of FCZs, prohibited fish species, Fisheries Law and gender equality		Completed set up 10 fisheries management committees (FMC), each including women representatives and functioning in 10 villages in the Xebanghieng River basin in June-August 2019 and approved by District Governor in January 2020.	
Activity 1.6 Continue process: Draft Regulations, including demarcation of FCZ and creation of FMC		Completed draft regulations, including demarcation of FCZ in May-June 2019.	
Activity 1.7 Continue process: Revisions and Update of Regulations of village fisheries		Completed revisions and update of Regulations of village fisheries in June 2019.	
Activity 1.8 Continue process: Village Approval of regulations		Completed Village Approval of regulations in November 2019.	
Activity 1.9 Continue process: District Approval (decree) of regulations		Completed District Approval (decree) of regulations in January 2020.	
Activity 1.10 Finalize process: Announcement and Dissemination of regulations		Completed 01 official FCZ announcement (100m x 600m) at Ban Houaysing village, Phin district in February 2020	Organize official announcement in 9 target villages after field work can resume following COVID-19 induced lockdown.
Activity 1.11 Survey 10 target villages and 10 control villages post-project (surveys including: law enforcement KAP, time use module, food consumption and anthropometric measurements from local health centres) with village authorities and randomly selected household representatives		Not yet started	Prepare post-project survey schedule, expected to be conducted after the completion of this grant to allow enough time between official announcement of FCZ and their evaluation. Details to be provided in a change request.
Activity 1.12 Conduct final last sighting date interviews in 10 target villages and 10 control villages post-project		Not yet started	Prepare post-project survey schedule, expected to be conducted after the completion of this grant to allow enough time between official announcement of FCZ and their evaluation. Details to be provided in a change request.

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
<p>Output 2. Households (and, in particular, women) in fisheries-dependent communities benefit from reduction in fishing effort and devote additional time to increase revenue and food availability derived from more diversified livelihoods</p>	<p>2.1 → 10 women-led production groups set up in 10 villages in the Xebanghieng River basin by June 2019</p> <p>2.2 → Livelihood diversification options identified by 10 women-led production groups in 10 villages in the Xebanghieng River basin by August 2019</p> <p>2.3 → 10 women-led production groups in 10 villages in the Xebanghieng River producing outputs by March 2020</p> <p>2.4 → Time spent by women to diversify both food availability and income increased by 20% in 100 target households in 10 villages in the Xebanghieng River basin by June 2020</p>	<p>2.1 One women-led production group was set up in each of the 10 target villages in June 2019 (total = 10 groups)</p> <p>2.2 There are livelihood diversification options identified for 10 women-led production groups in August 2019</p> <p>2.3 No progress yet.</p> <p>2.4 Survey design to establish baseline and post project situation completed.</p>	
<p>Activity 2.1. Survey 10 target villages and select pilot households to develop women-led production groups; seek FPIC</p>		<p>Completed in May 2019.</p>	
<p>Activity 2.2. Form 10 women production groups (one in each village)</p>		<p>Completed in June 2019.</p>	
<p>Activity 2.3. Survey group members pre-project (combine with activity 1.3)</p>		<p>Cancelled – a qualitative survey based on perceptions will be run instead at the end of the project to determine changes in time use</p>	<p>Design qualitative survey</p>
<p>Activity 2.4. Select livelihoods diversification activities to be supported and funded through the project</p>		<p>Completed in August 2019.</p>	
<p>Activity 2.5. Disburse funds to production group</p>		<p>Fund disbursement process prepared.</p>	<p>Disburse after field work resumes following COVID-19 induced lockdown.</p>
<p>Activity 2.6. Organize vocational trainings based on the needs identified by the members of the production groups</p>		<p>No progress due to COVID-19 induced lockdown.</p>	<p>Same as above.</p>

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
Activity 2.7. Provide equipment to support the starting of community enterprises (handicraft agriculture tourism enhancement, marketing and sales, etc.)		Inputs such as raw materials and tools distributed to 8 villages for goat raising.	Resume as soon as lockdown is lifted.
Activity 2.8. Organize marketing trainings based on the vocational skills acquired		Trainers identified.	Same as above.
Activity 2.9. Survey group members post-project (combine with activity 1.11)		Not yet started.	Expected to start within 2 month before the project ending 2020
Output 3.3. Successes and constraints of fisheries co-management structures in the Middle Mekong are assessed and inform Lao fisheries policy makers	<p>3.1 → Rapid evaluation report of 42 fisheries co-management structures in Savannakhet Province, completed by June 2019</p> <p>3.2 → Evaluation report of at least 8 fisheries co-management structures in which change can be attributed to previous WWF/DLF interventions, including recommendations, completed by August 2019.</p> <p>3.3 → Publication of results and recommendations through local media (local newspapers), written material (policy brief), and social media (articles, movie, clips), by March 2020 (milestones: first news items published before March 2019; short movie completed by December 2019)</p> <p>3.4 → Commitment made by Fisheries authorities to promote fisheries co-management nationwide and the project's research recommendations during multi-stakeholder advocacy workshop presenting the results of both surveys and previous research, conducted before March 2020.</p>	<p>3.1 Originally delayed to November 2019 due to priority being given to new villages baseline data. However, the evaluation of 42 villages could only begin in late February but was halted due to Covid-19 domestic travel restrictions.</p> <p>3.2 Will be done after the above is completed</p> <p>3.5 Newspaper articles in English and Lao covering MoU signing ceremony have been published in the Vientiane Times (see previous half year report). A Facebook post was published after the January coordination meeting: https://www.facebook.com/wwflaosoffice/posts/2134646079971756</p> <p>3.4 No progress yet.</p>	

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
Activity 3.1 Desk review of 42 fisheries management structures set up in Savannakhet province (mapping, current infrastructure development confirmation of village location and metadata, etc.)		Mapping done. Surveys prepared.	
Activity 3.2 Field visit of all 42 villages and survey of their fisheries management structures and biodiversity (surveys of 1/ village authorities eliciting which rules are in place and perceptions of how they are implemented (law enforcement) and 2/ local ecological knowledge on river biodiversity)		The Survey began in late February but was halted due to Covid-19 domestic travel restrictions.	Expected to continue once travel restrictions are lifted
Activity 3.3 Data treatment: create homogeneous groups in terms of linking structure (i.e. law enforcement) and performance (i.e. biodiversity), using a cluster analysis of classification trees		Not yet started.	Resume as soon as lockdown is lifted.
Activity 3.4 Publish preliminary report and disseminate of lessons learnt through press releases policy brief and online content		Not yet started.	Start process once the above is completed.
Activity 3.5 Conduct a qualitative survey of at least 8 villages (final number to be determined during activity 3.3) to understand why some rules were changed or not (focus group discussions) and how did they change lives (most significant change methodology)		Not yet started.	Same as above.
Activity 3.6 Writing of evaluation report		Not yet started.	
Activity 3.7 Production of a short movie presenting the concept of fisheries co-management and its benefits for conservation and local people's livelihoods		Producer identified.	Either continue and procure short films or cancel activity to save on costs and ensure essential deliverables are produced.
Activity 3.8 Organize a multi-stakeholder advocacy workshop presenting the results of both surveys and previous research		Not yet started.	Either continue or cancel activity to save on costs and ensure essential deliverables are produced.

Annex 2: Project's full current logframe as presented in the application form (unless changes have been agreed)

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Impact: (Max 30 words) Improved freshwater biodiversity and sustainable livelihoods that better manage natural resources lead to reduced poverty in the Middle Mekong.			
Outcome: (Max 30 words) Fish stocks and fish biodiversity have improved and poverty reduced in ten villages in the Xebanghien River basin through effective community-based conservation of freshwater resources and alternative livelihood models	0.1 → By June 2020, an average of 10% decrease in fishing effort for the same yield (catch per unit effort) is observed by all fishing households in 10 villages (baseline to be determined during pre-project surveys) 0.2 Time freed from fishing is reallocated to other livelihood options in at least 50% of fishing households in 10 villages (baseline to be determined during pre-project surveys) 0.3 → By June 2020, mean last capture dates for 2 selected endangered endemic species show a decrease from project start in 10 villages (baseline to be determined during pre-project surveys) 0.4 → By June 2020, the knowledge, attitude and practice (enforcement) of the Fisheries Law in 10 villages has increased by at least 50% (baseline to be determined during pre-project surveys)	0.1 → Time use module surveys pre and post-project with selected households 0.2 → Time use module surveys pre and post-project with selected households 0.3 → Local ecological knowledge surveys (last sighting date interviews) pre and post project with selected households 0.4 → Knowledge, attitude and practice surveys pre and post-project with selected households	<ul style="list-style-type: none"> - No new major infrastructure developments (e.g. dam) will begin within the project lifetime in lowland areas - Fish populations can increase despite existing pressures by infrastructure construction at the Mekong Basin level - No major socially disruptive event (e.g. drought, abnormal and/or non-seasonal flood, social unrest) prevents independent impartial monitoring - People in control villages are willing to participate in survey effort
Outputs: 1. 10 communities on the Xebanghien River manage their freshwater	1.1 → 10 fish conservation zones (FCZ) officially announced by District authorities in the Xebanghien River	1.1.1 → Publication of FCZ District decrees	<ul style="list-style-type: none"> - FCZ locations allow efficient monitoring and law enforcement by communities

<p>resources through effective fisheries co-management structures</p>	<p>basin by May 2020 (June 2019 milestone: FCZ process in 10 villages 30% complete on average)</p> <p>1.2 → 10 fisheries management committees (FMC) officially set up, each including women representatives, approved by District authorities and functioning in 10 villages in the Xebanghien River basin by May 2020 (June 2019 milestone: all FMC members are selected in at least 5 villages)</p>	<p>1.1.1 → Project monitoring records</p> <p>1.2.1 → FMC official members lists</p> <p>1.2.2 → Project monitoring records</p>	<ul style="list-style-type: none"> - Village leadership is stable and pushes for regulations to be enforced - No new major infrastructure developments (e.g. dam) will begin within the project lifetime in target villages or directly upstream
<p>2. Households (and, in particular, women) in fisheries-dependent communities benefit from reduction in fishing effort and devote additional time to increase revenue and food availability derived from more diversified livelihoods</p>	<p>2.1 → 10 women-led production groups set up in 10 villages in the Xebanghien River basin by June 2019</p> <p>2.2 → Livelihood diversification options identified by 10 women-led production groups in 10 villages in the Xebanghien River basin by August 2019</p> <p>2.3 → 10 women-led production groups in 10 villages in the Xebanghien River producing outputs by March 2020</p> <p>2.4 → Time spent by women to diversify both food availability and income increased by 20% in 100 target households in 10 villages in the Xebanghien River basin by June 2020</p>	<p>2.1 → Production groups registration</p> <p>2.2 → Groups meeting minutes</p> <p>2.3 → Products for sale or consumption</p> <p>2.4 → Time use surveys pre and post-project</p>	<ul style="list-style-type: none"> - Raw materials can be obtained locally and/or purchase is affordable - Access to markets is affordable - No major socially disruptive event (e.g. drought, abnormal and/or non-seasonal flood, social unrest) prevents people from investing in new livelihoods activities
<p>3. Successes and constraints of fisheries co-management structures in the Middle Mekong are assessed and inform Lao fisheries policy makers</p>	<p>3.1 → Rapid evaluation report of 42 fisheries co-management structures in Savannakhet Province, completed by June 2019</p>	<p>3.1.1 → Law enforcement practice and perception surveys</p> <p>3.1.2 → Rapid biodiversity surveys using local ecological knowledge</p>	<ul style="list-style-type: none"> - Access is physically possible to all 42 villages - Villagers in communities where fisheries law enforcement has been

	<p>3.2 → Evaluation report of at least 8 fisheries co-management structures in which change can be attributed to previous WWF/DLF interventions, including recommendations, completed by August 2019.</p> <p>3.3 → Publication of results and recommendations through local media (local newspapers), written material (policy brief), and social media (articles, movie, clips), by March 2020 (milestones: first news items published before March 2019; short movie completed by December 2019)</p> <p>3.4 → Commitment made by Fisheries authorities to promote fisheries co-management nationwide and the project's research recommendations during multi-stakeholder advocacy workshop presenting the results of both surveys and previous research, conducted before March 2020.</p>	<p>3.2 → Evaluation report and recommendations</p> <p>3.3.1 → At least 2 press releases and newspaper articles, one policy brief and at least 10 social media content</p> <p>3.3.2 → One short movie and 2 short clips promoting fisheries co-management</p> <p>3.4 → Participants list and minutes of meeting, recommendations, public statement by fisheries authorities</p>	<p>weak are willing to participate in surveys</p> <ul style="list-style-type: none"> - Subject gathers enough attention for press releases to be published in local media - No major disruption (either internal or external) prevents the completion of all surveys and data can be processed on time - Policy makers are willing to participate in dissemination meetings and take on the recommendations for follow up actions
<p>1.1 → Desk review and GIS mapping of potential new target villages on the Xebanghien river and its tributaries, included 10 target villages and 10 control villages</p> <p>1.2 → Selection of 10 target villages and 10 control villages and seek FPIC (Free Prior and Informed Consent)</p> <p>1.3 → Survey 10 target villages and 10 control villages pre-project (surveys including: law enforcement KAP, time use module, food consumption and anthropometric measurements from local health centres) with village authorities and randomly selected household representatives</p> <p>1.4 → Conduct last sighting date interviews in 10 target villages and 10 control villages pre-project</p> <p>1.5 → Start process of setting up Fish Conservation Zones (FCZs) and Fisheries Management Committees (FMC) in 10 target villages: Consensus Building, with awareness raising sessions on the benefits of FCZs, prohibited fish species, Fisheries Law and gender equality</p> <p>1.6 → Continue process: Draft Regulations, including demarcation of FCZ and creation of FMC</p>			

- 1.7 → Continue process: Revisions and Update of Regulations of village fisheries
- 1.8 → Continue process: Village Approval of regulations
- 1.9 → Continue process: District Approval (decree) of regulations
- 1.10 → Finalize process: Announcement and Dissemination of regulations
- 1.11 → Survey 10 target villages and 10 control villages post-project (surveys including: law enforcement KAP, time use module, food consumption and anthropometric measurements from local health centres) with village authorities and randomly selected household representatives
- 1.12 → Conduct final last sighting date interviews in 10 target villages and 10 control villages post-project

- 2.1 → Survey 10 target villages and select pilot households to develop women-led production groups; seek FPIC
- 2.2 → Form 10 women production groups (one in each village)
- 2.3 → Survey group members pre-project (combine with activity 1.3)
- 2.4 → Select livelihoods diversification activities to be supported and funded through the project
- 2.5 → Disburse funds to production groups
- 2.6 → Organize vocational trainings based on the needs identified by the members of the production groups
- 2.7 → Provide equipment to support the starting of community enterprises (handicraft, agriculture, tourism enhancement, marketing and sales, etc.)
- 2.8 → Organize marketing trainings based on the vocational skills acquired
- 2.9 → Survey group members post-project (combine with activity 1.11)

- 3.1 → Desk review of 42 fisheries management structures set up in Savannakhet province (mapping, current infrastructure development, confirmation of village location and metadata, etc.)
- 3.2 → Field visit of all 42 villages and survey of their fisheries management structures and biodiversity (surveys of 1/ village authorities eliciting which rules are in place and perceptions of how they are implemented (law enforcement) and 2/ local ecological knowledge on river biodiversity)
- 3.3 → Data treatment: create homogeneous groups in terms of linking structure (i.e. law enforcement) and performance (i.e. biodiversity), using a cluster analysis of classification trees
- 3.4 → Publish preliminary report and disseminate of lessons learnt through press releases, policy brief and online content
- 3.5 → Conduct a qualitative survey of at least 8 villages (final number to be determined during activity 3.3) to understand why some rules were changed or not (focus group discussions) and how did they change lives (most significant change methodology)
- 3.6 → Writing of evaluation report
- 3.7 → Production of a short movie presenting the concept of fisheries co-management and its benefits for conservation and local people's livelihoods
- 3.8 → Organize a multi-stakeholder advocacy workshop presenting the results of both surveys and previous research

Annex 3: Standard Measures

Table 1 Project Standard Output Measures

Code No.	Description	Gender of people (if relevant)	Nationality of people (if relevant)	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
6A	Number of people to receive other forms of education/training (which does not fall into categories 1-5 above) *		Lao	0	906	TBC	0	TBC
	Consensus building and awareness raising during FCZ set up process (villagers)	M = 302 F = 70	Lao		372			372
	River patrolling training (respect of human rights, patrolling methods, negotiation techniques, first aid , and “Guard, Protect and Prevent” skills) (villagers)	M= 80	Lao		80			TBC
	Fisheries Committee management (villagers)	M = 60 F = 20	Lao		80			TBC
	Fish catch monitoring (fishermen)	M = 95	Lao		95			
	Conducting of field survey (Government staff)	M= 6 F= 6	Lao		12			TBC
	Governance survey (NUoL staff)	M = 5 F = 1	Lao		6			TBC
	Household survey (NUoL staff)	M= 5 F = 5	Lao		10			TBC
	Qualitative survey in 42 villages (NUoL staff)	M = 5 F = 2	Lao		7			TBC
	Goat rearing (villagers)	M= 144	Lao		224			TBC

		F= 80						
6B	Number of training weeks to be provided		Lao	0	9	TBC	0	TBC
	Consensus building and awareness raising during FCZ set up process		Lao		1			1
	River patrolling training (respect of human rights, patrolling methods, negotiation techniques, first aid , and “Guard, Protect and Prevent” skills) (villagers)		Lao		1			TBC
	Fisheries Committee management (villagers)		Lao		1			TBC
	Fish catch monitoring (fishermen)		Lao		1			
	Conducting of field survey (Government staff)		Lao		1			TBC
	Governance survey (NUoL staff)		Lao		1			TBC
	Household survey (NUoL staff)		Lao		1			TBC
	Qualitative survey in 42 villages (NUoL staff)		Lao		1			TBC
	Goat rearing (villagers)		Lao		1			TBC
9	Number of species/habitat management plans (or action plans) to be produced for Governments, public authorities, or other implementing agencies in the host country	10		0	10	0	0	10
11A	Number of papers to be published in peer reviewed journals	1	Lao/French/Australian	0	0	1	0	1
11B	Number of papers to be submitted to peer reviewed journals	>1	Lao/French/Australian	0	0	>1	0	>1
14A	Number of conferences/seminars/ workshops to be organised to present/disseminate findings	1	Lao/French/Australian	0	0	1	0	1

14B	Number of conferences/seminars/ workshops attended at which findings from Darwin project work will be presented/ disseminated.	2	Lao/French/Australian	0	0	1	0	1
20								

In Table 2, provide full details of all publications and material produced over the last year that can be publicly accessed, e.g. title, name of publisher, contact details, cost. Mark (*) all publications and other material that you have included with this report.

Table 2 Publications

Title	Type (e.g. journals, manual, CDs)	Detail (authors, year)	Gender of Lead Author	Nationality of Lead Author	Publishers (name, city)	Available from (e.g. weblink or publisher if not available online)

Annex 4 Onwards – supplementary material (optional but encouraged as evidence of project achievement)

Checklist for submission

	Check
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	x
Is your report more than 10MB? If so, please discuss with Darwin-Projects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line.	x
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	x
Do you have hard copies of material you want 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.	x
Have you involved your partners in preparation of the report and named the main contributors	x
Have you completed the Project Expenditure table fully?	x
Do not include claim forms or other communications with this report.	