Darwin Initiative Main Annual Report

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

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

Submission Deadline: 30th April 2021

Darwin Project Information

Project reference	26-009
Project title	Enhancing wetland resilience for improved biodiversity and livelihoods in Cambodia
Country/ies	Cambodia
Lead organisation	Wildfowl & Wetlands Trust (WWT)
Partner institution(s)	BirdLife International, Cambodia Programme Cambodian Rural Development Team Department of Freshwater Wetland Conservation, Cambodian Ministry of Environment NatureLife Cambodia
Darwin grant value	£320,472
Start/end dates of project	1 April 2019 – 31 March 2022
Reporting period (e.g. Apr 2020 – Mar 2021) and number (e.g. Annual Report 1, 2, 3)	1 April 2020 – 31 March 2021 Annual Report 2
Project Leader name	Tomos Avent
Project website/blog/social media	
Report author(s) and date	Tomos Avent 14th April 2021

1. Project summary

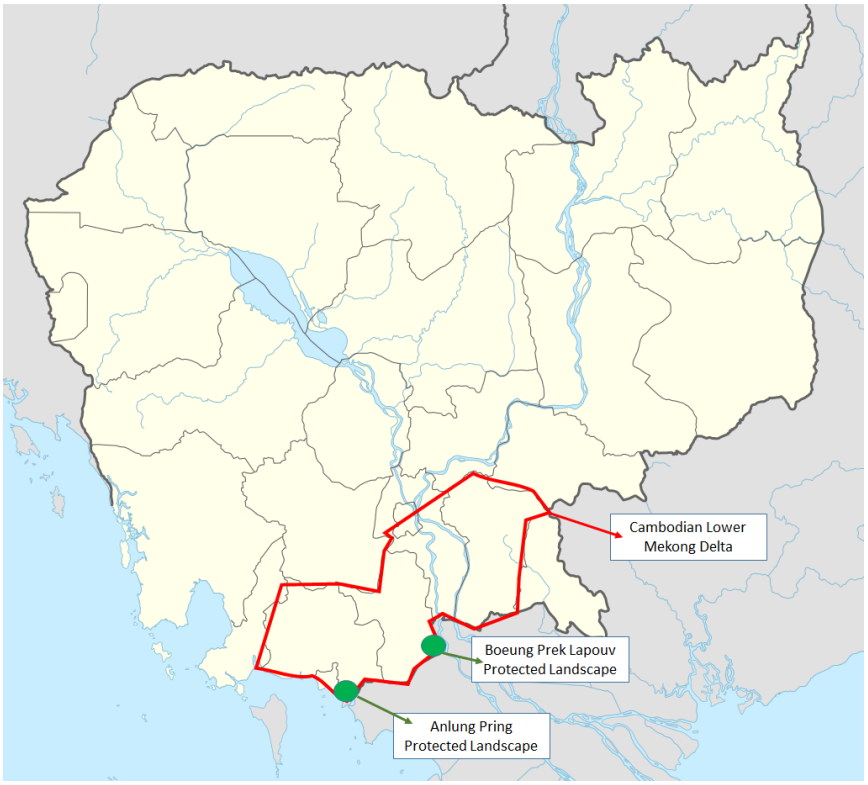
More than 30% of Cambodia is covered by wetlands. The Cambodian Lower Mekong Delta (CLMD) supports the livelihoods of 3 million people and is within a global biodiversity hotspot. Rapid unsustainable development has led to the loss of over 60% of the region's wetlands, causing habitat fragmentation and leaving those most dependent on natural resources, who are also the poorest (1.5M are classified as poor), worse off than ever.

Anlung Pring and Boeung Prek Lapouv Protected Landscapes are two of the last remaining seasonally-inundated grasslands in the CLMD. These Key Biodiversity Areas host numerous globally threatened species, including the Critically Endangered Bengal florican and 70% of the Southeast Asian population of the Vulnerable sarus crane, the tallest flying bird and flagship species of Cambodia's wetlands. They also provide ecosystem services supporting the livelihoods of 6800 people, predominantly based on fishing and rice farming.

Recent changes to Protected Area management systems have temporarily prohibited natural resource management groups from using AP and BPL until new zonation models are agreed. This has weakened patrolling and government legal enforcement, leaving the sites vulnerable to increasing pressures from agricultural conversion and unregulated resource use. Wetland degradation in the Lower Mekong Delta is threatening local livelihoods, health and food security, and having a devastating impact on biodiversity.

This project will conserve two internationally important protected areas in the Cambodian Lower Mekong Delta (CLMD), and enhance their connectivity to a healthier wider wetland landscape. We will promote resilient sustainable livelihoods, restore wildlife habitat and establish multiple-use zoning schemes in the protected areas, safeguarding endangered species and improving livelihood security and wellbeing for 6800 people. We will also enhance understanding of the surrounding seasonally inundated wetland system and promote more effective and harmonised wetland management across the region.

The project is being implemented in the Cambodian Lower Mekong Delta in the south-eastern provinces of Kampot, Takeo, Kandal, Kep, and Prey Veng. The focal conservation action sites are Boeung Prek Lapouv Protected Landscape in Takeo province and Anlung Pring Protected Landscape in Kampot province.



2. Project partnerships

The project partnership is coordinated through a Project Steering Group, with scheduled quarterly meetings. Project partnership staff also meet regularly in Phnom Penh and Anlung Pring to discuss work programmes, and this has been especially important over the last year, where an adaptive approach has been required for delivering this project. All partners have been discussing progress, contributing to the Change Request submitted, and supporting each other, when government covid restrictions change. Our partnership retains a strong relationship with the Department of Freshwater Conservation within the Ministry of Environment, who we have been supporting to push forward the BPL zonation and the designation of Boeung Sne as a Protected Area.

We have grown our relationship with the British Embassy in Phnom Penh. The British Ambassador visited Anlung Pring in Y1 of this project, and within Y2 we have contributed to a series of videos as part of the 6 month countdown to COP26. This will be published on the 18th May and WWT will cross-post (screenshot below).

We were not able to hold our scheduled Liaison Panel meetings for this project in Y2 due to ongoing government restrictions on large gatherings, so we have held smaller meetings with relevant stakeholders to maintain contact, including meetings with local authorities such district governors, commune councils and village chiefs. We also have a project contact number posted at Community Information Points at the sites as part of our Project Grievance Mechanism.

As part of this project, a transboundary working group was set up in Y1 to support the management planning of Anlung Pring. We then originally planned to host a transboundary workshop with these colleagues from other wetland sites in Vietnam, where we also conduct Ramsar Management Effectiveness Tracking Tool workshops at our collective sites, but this has not been possible. We hope this will be possible at some point in Y3.

3. Project progress

3.1 Progress in carrying out project Activities

Output 1: AP, BPL and the wider CLMD wetland landscape are better understood and showcasing best practice local adoption of Ramsar recommendations and tools.

Activities 1.1 - 1.6. Assessment of conservation status of wetlands in the Cambodian Lower Mekong Delta and regional capacity building for the application of associated assessment tools.

Land-use mapping has been completed for CLMD and western sections of the Vietnamese Mekong Delta (VMD) for comparison. Historical analyses was also completed to show land-use change since 1990. Results summarised in Section 3.2.

Travel restrictions prevented any major fieldwork assessments of ecosystem services or biodiversity, without which we will not publish our report. We hope to be able to do this in Y3 of the project. Biodiversity assessment fieldwork should be completed during the peak wet season (around Sept-Nov). We had budgeted to do ecosystem service and biodiversity surveys in tandem, so doing these at different times of the year would not be financially feasibly unless we can secure additional match funding.

R-METT assessment sheets have been translated into Khmer language and shared with the Department of Freshwater Wetland Conservation of the Ministry of Environment for use at other sites. R-METT assessments have been completed at AP and BPL. The assessments for Vietnamese sites have been delayed due to restrictions on transboundary travel. These could be done virtually to provide a standardised assessment of the conservation management on the Lower Mekong Delta (and will be done virtually in Y3 if travel remains restricted), but an important purpose of this work was to create a strong transboundary network and foster wider learning and cooperation across the delta. We feel this is best done in person if possible, so will delay for as long as possible in the hope that travel opens up.

The RAWES author has provided training for NGO staff and representatives from Ministry of Environment on RAWES and wider valuations of ecosystem services. Presentation of R-METT, RAWES and WWT's delta land-use assessments delivered at the Indo-Burma Ramsar Regional Initiative Annual meeting in Feb 2021.

Activities 1.7 - 1.10. Ecohydrological Research at Anlung Pring and Boeung Prek Lapouv

Drone surveys were conducted to map current grassland extent and help inform the research plan for BPL, this was followed up with a rapid *Eleocharis* distribution survey at both sites. A series of research protocols for data collection and management were developed including precipitation, evaporation, groundwater level, and floodwater levels (see Annex 4 for example). Hydrological data facilities and equipment were installed in AP and BPL including two evaporation and precipitation measuring stations, five dipwells at AP and 20 at BPL to measure the groundwater level. Five floodwater gauges were installed in AP and four in BPL to measure the level of water during the wet season. Data has been collected from the sites on a weekly basis. Water quality measuring equipment has been bought in the UK and sent out to Cambodia with a practical training video to help local staff start their research.

Liaison Panel meetings have not been possible during Y2, but we have engaged with the same stakeholders through smaller consultations, workshops and meetings. Restoration zones have been approved by the government on the basis of our research.

Output 2: Protected Area Management Plans informed by a participatory zoning process are developed, endorsed by government, and implemented at AP and BPL, with local communities understanding and adhering to their regulations.

Activities 2.1, 2.4 and 2.5. Zonation of BPL
Activities 2.2 - 2.3. Assessment of Climate Change vulnerability at AP
Activities 2.10 - 2.12 Management planning and international designations at AP and BPL

Zonation at BPL continues to progress steadily and is still scheduled to be completed by the end of this project, but the amount of work to review land-tenure documents and agree final zonation areas was underestimated by local government, and it is still possible that the final zonation will stretch beyond this Darwin project. Covid-19 restrictions on travel and gatherings have also contributed to the delays. The Takeo Provincial Government is working through each village to review land tenure documents and settle any outstanding land tenure claims at the site before the site is formally zoned into Core, Conservation, Community and Sustainable Use zones. Project partners have now contributed as much as we are able and the process is out of our control, although we offer continued support and push to ensure the process is inclusive and participatory. Due to the ongoing delays, WWT decided to push forward with a draft BPL Management Plan, which will be adapted when zonation is finalised. We anticipate that only minor modifications will be required. The cover page and contents of the Management Plan are shown as Annex 5, and the full draft is available if the reviewer wishes to see this. Restoration zones have been approved by the government in advance of the final plan, as they are located away from areas of contentious tenure.

Fieldwork has been completed for the Vulnerability Assessment of Anlung Pring and a write-up is nearly complete. This will inform the AP Management Plan, following the model used at BPL, and is on scheduled for completion by the end of the project.

Although BPL was originally scheduled for EAAFP designation within this project, the government have requested that we use our available budget to focus on the more impactful Ramsar Site designation. The first planning workshops were held for this in 2020, but no progress has been made since travel restrictions were reinstated in early 2021. As BPL is under a much greater threat than AP, we plan to invest our efforts on gaining international designation here if covid restrictions mean that we have to end up prioritising sites.

Activities 2.6 - 2.9. Promoting rules and regulations and monitoring and patrolling at AP and BPL

Ranger and Field Monitoring Team patrolling has been ongoing through this reporting period. Based on the SMART system initiated in Y1, we can see that Rangers at BPL conduct patrols on average 22 days per month, cover more than 55% of reserve territory and a total annual distance of around 5060 Km (Annex 6).

Illegal activities countered during this reporting period include land encroachment, illegal fishing, and bird trapping. Notably result of enforcement including three cases of land encroachment were addressed, preventing the conversion of 9 hectares of land, and involved the confiscation of a tractor, and provincial police warnings were issued to 10 offenders. Six cases of illegal fishing were addressed, resulting in the confiscation of 160 meters of fishing nets, 2 sets of electric fishing gear, 263 illegal fishing poles, and also the release of about 4.5 kg of live fish to its natural habitats. Two cases of bird hunting were cracked down, destroying about 160m of illegal mist net and 60 poles. Two cases of shrub and grassland burning were stopped and sent these cases to court.

At AP, the ranger patrolling team conducted an average of 13 patrols per month (around 1042 km in distance and 460 hours in time), covering more than 85% of protected landscape territory and also extend to buffer area. The most serious challenges facing AP are from neighbouring development, and the Ranger teams were able to stop a road being built adjacent to the site so that an Ecological Impact Assessment could first be undertaken.

To continue to improve monitoring at the sites, the project helped the rangers and monitoring team at BPL to transition onto SMART Mobile (Annex 6), which allows staff/rangers to easily, accurately, and quickly collect and upload data for analysis and action. It is also available with the Khmer language which makes data entry much more simple for local staff. Refresher training was provided on basic use of GPS, smartphone data collection, waypoint and track recording etc. This ensure all staff keep up to date with their skills.

Ranger training was held in July 2020 focusing on wildlife poisoning in collaboration with the Vet project team of the Wildlife Conservation Society. After finishing this training, rangers gained knowledge on wildlife disease spreading, wildlife incidental monitoring and intervention, data collection, sample collection, and safety. On 25 September, we organized the exchange visit of Stung Sen Ramsar site ranger (9 people) to BPL. During this visit, Rangers at BPL were able to share the achievement and challenge, they are facing and also listen to comment from their colleagues at Stung Sen Ramsar site. BPL Rangers also had a chance to input and contribute to addressing the challenges that Stung Sen Ramsar site rangers faced too.

Five signboards were erected to inform local people about the negative impacts of chemical pesticide use on human health, and separate signboards to provide directions to the BPL headquarters and to promote site profile.

Activities 2.13 - 2.14. Environmental education and awareness

Cambodia's World Migratory Bird day event was held at Takeo provincial town, in collaboration with the Ministry of Environment, WWT, NatureLife and BirdLife. BPL is located in Takeo Province, and the Secretary of State of Ministry of Environment oversaw an event participated by 70 people, where two sarus crane statues were erected outside the Provincial Hall. BPL is the only home of sarus crane in Takeo, and statues like this help to build the profile of the site and build pride in the Protected Landscape (see Annex 7).

Large meetings have been prohibited for the majority of Y2, so the project has moved onto a mobile broadcasting system, where a motorbike with a speaker delivers pre-recorded messages on rules, regulations, zonation updates, wetland values, and importance of natural habitats etc. Campaigns were conducted in June and August 2020 in Anlung Pring (Koh Thnoat, Koh Chamkar, and Preah Trohoeng villages). We estimate that around 470 families

would have heard these messages. Similar campaigns were held in BPL (Sangkum Mean Chhey, Dei Leuk, Banteay Sleuk, and Kdol Chhrum villages), targeting around 400 families. We expected that more than 400 families in these four target villages have heard the messages

Awareness continues to be integrated into all project activities, including during agricultural training in Chress village (AP), with more than 60 participants, and during standard village meetings (e.g. training of 16 families at Kok Thnot village on negative impacts of pesticides and advantages of using the agriculture hazardous waste management system that has been set up in their village). Only two village film shows were able to be held in Y2, with total of 60 people attending.

68 project awareness posters have been put up at three schools of BPL, five schools at AP, the headquarters of AP, and the headquarters of BPL.

Schools environmental education programmes have been ongoing throughout Y2. In 2020, the three BPL primary schools (Kdol Chrum, Sangkom Mean Chhey, and Bontey Tley) were able to teach 8 of 10 lessons planned due to schools being closed for certain periods due to Covid lockdowns. In total 288 children (134 girls) joined the 2020 education programme for at grade 4,5, and 6. So far in 2021, a new cohort of 292 children (144 girls) have joined this year's Sarus crane and environmental education programme. By the end of March 2021, teacher at Kdol Chhrum finished 4 of 10 lessons, Sangkom Mean Chhey finished 6 of 10 lessons, and Bontey Tley finished 4 of 10 lessons. Unfortunately, on 20 February 2021 the government decided to close all schools within the country due to rising cases of Covid-19. A new environmental education photo book was produced at the request of the teachers for more interactive material.

Output 3: 1700 local people in AP and BPL are directly profiting from sustainable livelihood ventures that also reduce wetland degradation.

Activities 3.4 - 3.6. Sustainable agriculture scheme around AP

Seven training sessions (two days per course) were held on soil preparation methods and rice seed production to a total of 211 households (including 147 women). There are 17 sessions of the training program including: land preparation phase, plow depth suitable for rice production, how to do the soil hardening layer, labor requirement for land preparation, land preparation benefits, the importance of using the good purebreds rice seed, classification of rice seed, selection of proper field location for rice seed production, soil preparation for sowing, rice seed sowing method, how to do the protected surface, water management, weed control, how to cut the mixed breeding, harvesting, cleaning, drying and storing. Training uses lectures, small group discussions, plenary discussions, brainstorming, direct-indirect question, question and answer event, experience sharing, picture drawing, picture showing, energy game, hot potato game and funny story.

Location of trainings, and results of pre and post questionnaires shown in table below.

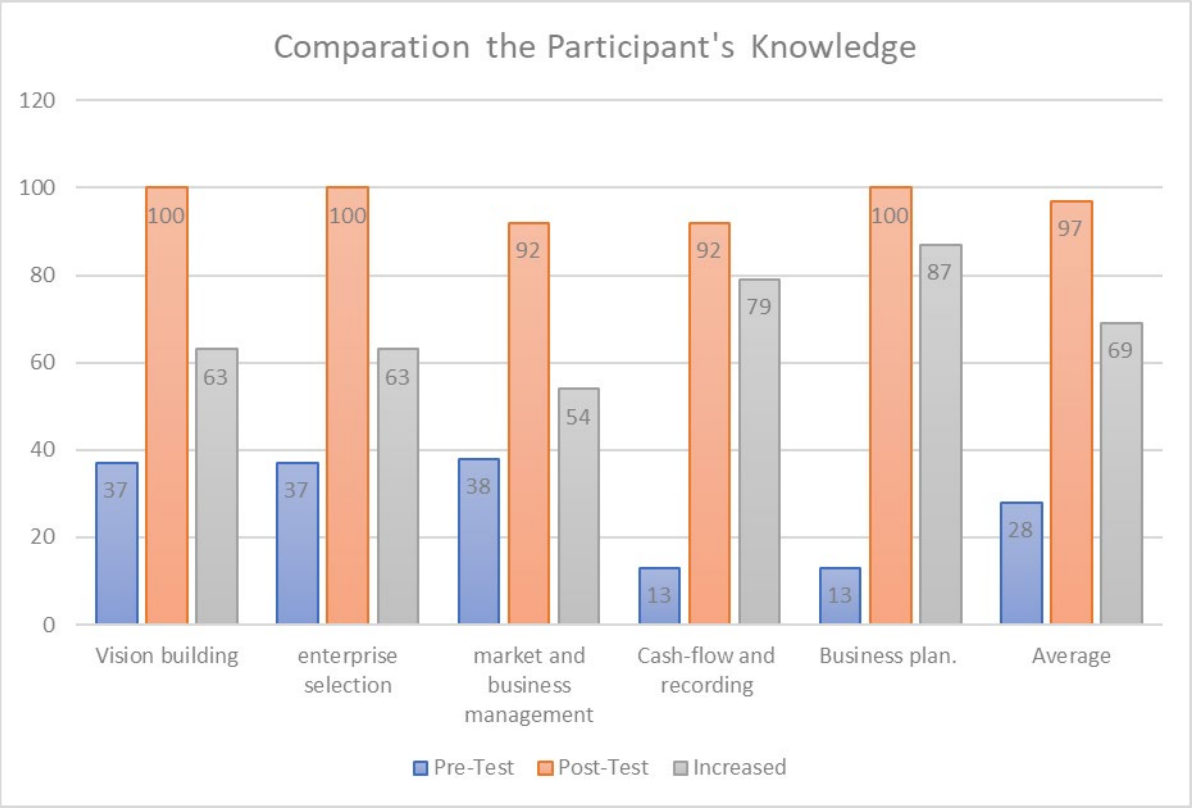
No	Date of Training	Name of Group	Village	Total	Female	Average of Pre-Test	Average of Post-Test	Average of Knowledge Increase
1	24-25 Feb 2021	Aknok Wat Srov Pouch Thmey Reak Chamrern	Chress	28	20	**40%**	**96%**	**56%**
2	26-27 Feb 2021	Aknok Wat Srov Pouch Thmey Phum Yerng	Chress	21	15	**56%**	**100%**	**44%**
3	28 Feb-01 Mar 2021	Kak Sekor Bangkert Srov Thmey	Koh Tnoat	38	25	**52%**	**96%**	**44%**
4	02-03 Mar 2021	Kak Sekor Koh Andet Mean Chey	Koh Tnoat	21	17	**36%**	**88%**	**52%**
5	04-05 Mar 2021	Tropang Por Mean Chey	Koh Chamkar	28	17	**36%**	**92%**	**56%**

6	06-07 Mar 2021	Tuol Por Mean Chey	Koh Chamkar	42	33	**36%**	**96%**	**60%**
7	08-09 Mar 2021	Kak Sekor Anlung Pring	Koh Chamkar	33	20	**56%**	**100%**	**44%**
Total				**211**	**147**	**45%**	**95%**	**51%**

A tool called the Internal Control System (ICS) has been implemented to monitor the rice farm activities of farmers (producer group members) such as size of paddy land, number of livestock, level of use of organic and inorganic fertilizer, herbicide, insecticide and fungicide, crop residue management, rice yield management, and contribution to local wildlife conservation of producer group members. This format requires the project staff and local groups interview, check and observe all stakeholders on the technical implementation of rice production. Originally planned for 200 households of producer group members, 223 households have actually engaged with project, including 144 women.

To build the producer group management committee's capacity on business management, financial management and marketing connection concept, the CRDT project team provided a two days training on basic knowledge of business management, book-keeping and marketing connection concept to producer group management committee, local assessment committee and villages authorities. In total: 24 participants include with 10 women attended the training. Financial record keeping was identified as an area participants needed particular support. During this process participants also considered potential enterprises as supplementary or alternative incomes and developed potential plans to work towards these. Chicken farming was a popular option, so targeted support was given around this. Average knowledge across the 6 core training areas rose from 28% pre-training to 97% post training, see table below.

CRDT conducted follow up and coaching for rice cultivation practices with 211 households. They also provided follow up and coaching for 19 Local Assessment Committees on Data Collection and Data Recording, conducted 7 meetings on farming contract sign ceremony, 7 meetings to establish Local Assessment Committee, conducted post-assessment with 223 households on farm activity applying, and developed the rice market value chain with key private sector.



Twenty four tonnes of Tro-Nong rice seed was distributed to 224 farmer group members, 211 members choosing to use the seed in this first season, the others wishing to review the results of others before making the transition to this new seed, instead only focusing on new farming methods. The new seed was sown over 130.32 ha, but was largely unsuccessful due to the worst drought in the Lower Mekong Delta in decades. This is explained in Section 3.2. This will affect activities in Y3 and a Change Request has been accepted to reflect this.

Activity 3.7. Community fisheries
Activities 3.8 - 3.9. Capacity building of community associations

During the reporting period BirdLife have built six additional waste stored boxes were built around villages (see Annex 7). A Biodiversity monitoring and Waste management Committee was established at AP, itself split into three groups (1. Biodiversity Monitoring Group, 2. Waste Management Group, and 3. Recycling Group). The recycling group have successfully applied for a small grant from the project to set up a recycling business, making crafts from recycled material. Profit from the recycling business will be used to support the waste management system. A motorbike with a cart was bought to support weekly recycled and plastic waste buying. Phone meetings with the principal of six schools, locate around AP, were done to introduce the waste management system and recycling business and request for collaboration. Meeting went smoothly, all agreed to collaborate and six plastic waste stored boxes were built in March 2021 to keep at those schools to encourage kids to keep their plastic wastes. Another box was also built for installing in front of AP headquarter for tourist to keep their plastic waste. The recycling storeroom was built in the land of one member of the recycling group and in March, based on operation protocol, this group launched their business (travelling around three target villages buying recycling and plastic wastes).

Bags from the AP handicraft group set up in Y1 can now be bought locally, and internationally through the WWT Shop (see Annex 8).

Little progress can be made to support the Community Fishery at BPL until the zonation has been completed and the fishery group is granted official rights to operate within the Protected Landscape. Although the previously recognised CFi still informally operate, they must re-register as a Community Protected Area (CPA) group once zonation is complete. WWT have secured an agreement between MoE and Fisheries Administration to recognise CFis and support their transition into CPAs at the appropriate time.

Output 4: The extent and quality of biodiversity habitat and productivity of natural resources are increased at AP and BPL through community-based wetland restoration in core protection and sustainable use zones.

Invasive species control was expanded for *Mimosa pigra, Ipomoea rubens, Eichhornia crassipes* to minimize the negative impact on aquatic habitats, the lake's fishery, and waterbirds especially Sarus crane. For *Mimosa pigra*, nine control plots, covering an area of 40 hectares, and a further 32 hectares of prime crane habitat near to DeiLerk village were cleared and set up for ongoing control and monitoring for three years (map shown in Annex 9). Manual cutting pre and post-flooding were was completed. To monitor the effectiveness of cutting the mature of *Mimosa pigra* while it was controlled by seasonal flood, a total of 35 sampling quadrats with size (1x 1m) were set out in all experimental plots. The field monitoring team recorded the number of stems in the quadrat and assessed the potential re-growing stem after the flood has gone (post-flood). To manage the sampling points, coordinates of quadrats were recorded and signs poles were installed to make sure these points will be found after the flood has gone.

At BPL, *Ipomoea rubens* grows in the inundated forest, and can change the functioning of the system if left unchecked. Flooded forests play a significant role in providing spawning habitat to fish and nesting trees for waterbirds. Manual stem cutting during the hottest month of the year is a local practice that local people apply to remove *Ipomoea rubens* and we have supported this local practice at BPL. To study the effectiveness of cutting, quadrats study with size (1x 1m) was set out in all experimental plots to analyses the mortality rate of the plant. Local

villagers from Deilerk village and Dara Khum village have been employed to clear Ipomoea rubens. In total, 12 people participated over four days to cleared a total area of 110ha of inundated forest. The quadrat survey was applied to measure the effectiveness of the controlling method. Preliminary results described in Section 3.2.

A small trial area of 1,500m2 is being controlled for Eichhornia crassipes (Water hyacinth) in a key fish nursery areas. Here, the plants are taken out from wetland and dried. Part of this water hyacinth was collect for composing making by mixing with cow dung at BPL Headquarters (see Annex 9 for photo). Using water hyacinth to make compose is in the experiment stage. During the first quarter of year 3, we will conclude the result of this experiment, if this compost provides good nutrition, we will come up with a long-term water hyacinth control plan which promotes local communities to collect this invasive species from BPL to make compose for their home gardening.

A nursery was set up in Borei Chhulsar which has produced more than one thousand seedlings. The nursery was originally planned to be linked to a local school, but Covid-linked school closures made this impossible, so we worked with members of the Community Fishery instead, providing training, support and a knowledge exchange learning trip. These CFi members then planted the seedlings at the designated flooded forest area in BPL in line with the Reforestation Protocol developed in Y1 (Annex 10), and are now working with a similar programme near the Tonle Sap to produce greater numbers of seedlings. Survival rates of seedlings has been quite low. Only 400 seedlings are in a healthy condition at present. Poor rains contributed to this, so a more intensive watering scheme has been set up for after the next reforestation planting event.

Eleocharis restoration protocols are now developed and approval granted for a further 25 hectares of restoration, in additional to the 16 hectare area being managed with optimal water levels for natural regeneration. These new 25 hectares will be achieved through a mix of hydrological improvements, include the construction of water retention bunds with spillways, lowering ground levels to intercept groundwater, blocking of redundant channels and other hydrological outputs, and the creation of ephemeral pools. Contracts are in place for this work and it will be underway in early Y3.

3.2 Progress towards project Outputs

Output 1: AP, BPL and the wider CLMD wetland landscape are better understood and showcasing best practice local adoption of Ramsar recommendations and tools.

During Y2 our knowledge has grown on the historical changes to the CLMD and we now have a much clearer understanding of the factors that have contributed to the decline of wetland condition and extent, but also the factors that have allowed relatively better preservation of natural areas in Cambodia compared to those of the Vietnamese Mekong Delta (VMD). Analysis of Landsat 5 images from 1989/90 suggest that in the last 30 years, approximately 1,600 km² of wetland vegetation have been lost from the CLMD. With 858 km² of wetland vegetation remaining in 2020, this equates to a loss of 65% over 30 years. Comparisons with the VMD provide decision-makers in Cambodia with a stark warning of the potential implications of poor landuse management. Despite high levels of wetland loss in the Cambodian section of the delta, the enhanced irrigation that goes with intensive agriculture in the VMD has led to a substantial decline in average flood heights, and this is not yet apparent in the CLMD (see Annex 11).

Agriculture in the CLMD is far less intensive than in the VMD. Single-crop, rain fed rice is the dominant form of agriculture, accounting for 51% of land area. Double cropped rice accounts for just over 10% and there is hardly any triple-cropped rice. This contrasts with the VMD, where triple-cropped rice is dominant, at 50% of land area. 30 years ago, all rice agriculture in both CLMD and VMD was single cropped. We estimate that 10% of the CLMD is covered by natural wetland vegetation, in contrast to just 2% of the VMD. Maps taken from the draft CLMD report are shown as Annex 11.

The R-METT tool has now been translated into Khmer, and training provided to MoE staff on the use of RAWES. Both have been implemented at AP and BPL, but we have not yet been able to implement them at other sites in the CLMD, nor in Vietnam, due to travel restrictions. Fieldwork to collect biodiversity, habitat and water quality data has also been restricted this year. It is difficult to predict restrictions in Y3 of the project, but we have adapted budgets and still believe it is feasible to complete all elements of this work if we can legally and safely do so. Some elements, e.g. R-METT could be done virtually if really needed, but other elements cannot. A presentation on land-use mapping was delivered at the IBBRI Annual meeting in Feb 2021.

Optimal states are now largely agreed by NGO, academic and government stakeholders for both AP and BPL, but there are still a number of knowledge gaps being addressed through the long-term research programmes now in place for the sites (see Section 3.1 and Annex 4 for details and an example).

Output 2: Protected Area Management Plans informed by a participatory zoning process are developed, endorsed by government, and implemented at AP and BPL, with local communities understanding and adhering to their regulations.

The Management Plan for BPL has now been produced (Annex 5), and builds on the Climate Change mitigation plan that followed the Vulnerability Assessment at the site. We are now waiting for final zonation to be agreed before publishing, as minor adjustments will need to be made to account for this. All fieldwork and stakeholder consultations have been completed for the Vulnerability Assessment of Anlung Pring, and the write up is now in the final stages. This will input into a Management Plan for the site before the end of the project.

As described in Section 3.1, the project has been able to adapt and push forward with awareness and education activities through Y2. Events, courses and awareness signs and posters have promoted rules and regulations. At AP the rules have not been changed during the zonation (as reported in Y1, the site was simply assigned as one single zone where the rules were the same as re-zonation – this was purely an administrative process for AP). We haven't recently measured local peoples' understanding to avoid risk of social survey fatigue within the communities, but are confident that understanding, and indeed compliance is very high – patrolling data supports this at AP. At BPL the situation is more complex. Zonation has been drawn out, and the changes are likely to be more substantial. Until zonation is complete, we have to keep our awareness campaigns relatively generic and are not able to erect clear signs and demarcation. The zonation itself has been a very participatory process, so we know the vast majority of local people understand the process and potential consequences. This should lay good foundations for a relatively simple, yet intense campaign at the end of the project once zonation is agreed.

This year, the combined patrolling teams reported six cases of illegal fishing and confiscated 160 meters of fishing nets, 2 sets of electric fishing gear, 263 illegal fishing poles. This shows a decrease from our baseline, and indicates positive progress. The most serious threat however came from land encroachment, which continues to be a major challenge at the site, and has become more so due to the delays to zonation. A number of wealthy people from outside of the community have seen the delay as an opportunity to stake a claim on land, hoping that land ploughed/used before the final zonation sign-off will be written off and permissions granted to continue farming. The government have made it very clear that this will not be the case, and any encroachment into the Protected Area will be prosecuted and not be considered for tenure.

Output 3: 1700 local people in AP and BPL are directly profiting from sustainable livelihood ventures that also reduce wetland degradation.

The rice farming and fisheries components of this output have been affected by challenges in Y2 of the project.

The Agricultural elements of this Darwin project have been significantly impacted by the worst drought in the Lower Mekong Delta in decades, alongside Covid-related travel and activity restrictions in Cambodia.

A fundamental principle of this project was to support local communities to transition away from rice agriculture that relies on high chemical inputs, as this has been shown to have a effect on water quality, and in-turn the ecology of Anlung Pring Protected Landscape.

As stated in our Y1 Annual Report, a 'Rice Market Value Chain and Link to Key Private Sector' was developed in Y1 which suggested that the project focuses effort on the Tro-Nong rice variety, which has high value in accessible local markets, and is close to full Sustainable Rice Platform standards. In Y2 of the project, local farmers voluntarily trialled this variety in a proportion of their land.

The crop is slower growing than traditional varieties, and the severe drought meant that less water was available than would normally be expected. This resulted in water shortages towards the end of the prolonged growing period required for the variety, and led to substantial crop loss. Covid travel restrictions prevented our local partner, CRDT, from being able to offer additional support at this time, like techniques to help irrigate the crops, further exacerbating the problem. Of the 130ha planted, 46.5 hectares (35.70%) failed. Although this rice variety creates a significant reduction in chemical inputs and would be significantly more profitable at local market, understandably, farmers are scarred by their experience, and have requested alternative support.

This was communicated to Darwin via a Change Request that was accepted. The change still aims to reduce chemical inputs (thus improving water quality in Anulng Pring) and increase profitability for farmers, but we believe that the best way to achieve this would be to shift emphasis onto other rice varieties (red jasmine and black/brown sticky rice) and broadening crops by introducing mung beans. Mung beans are not only a cash crop, but as a legume, they also improve the soil quality and can be grown early rainy season, April and harvest in July before planting rice.

The above recommendation comes from consultation with Amru Rice trading company, who have agreed to sign purchasing agreements with farmers on the provision that they meet certain standards. The Amru Rice Company will provide seed and CRDT have the necessary skills to train farmers in these new varieties and ensure standards compliance. The new solution will be more drought resistant and create greater nutritional security for communities. Guaranteed purchase agreements provide greater security for farmers. We continue to work at the scale in the original proposal, with over 200 farmers participating.

The delayed zonation has meant that the Community Fishery groups have not yet been able to formally register as Community Protected Area (CPA) groups. This has meant that business plans based on community-based natural resource management have been impossible. We have provided training to the groups on financial and administrative management, in preparation, and discussed business options, but we must wait for formal government approval before we can take this forward. The project partners have long-term plans for this site, so we will start the related activities as soon as possible, but it is unlikely that the businesses will be mature enough to meet this Darwin Output of covering 100% of their own costs.

Three community business have now been established and are operational. The businesses either collect and/or use waste or naturally harvestable materials to create sellable products, including grass bags, recycled plastic handicrafts. Grass bags are now being marketed locally and internationally, and the business is already profitable. The other two businesses show potential to become fully profitable by the end of the project thanks to project investments.

Output 4: The extent and quality of biodiversity habitat and productivity of natural resources are increased at AP and BPL through community-based wetland restoration in core protection and sustainable use zones.

Research has been completed on ideal *Eleocharis dulcis* growing conditions, and protocols developed for restoration. Approval has been granted for a further 25 hectares of restoration

which is due to start in late May 2021. We hope this will provide indications of regeneration by the end of project. The 16 hectare water management trial referred to in AR1 is ongoing. In total we will have 41 hectares, but have recently submitted a Stage 2 proposal to the Critical Ecosystem Partnership Fund (CEPF) for a major upscaling of Eleocharis restoration in Jan 2022, which will provide match funding to expand regeneration well beyond the targeted 50 hectares in this project. The research conducted in the project and trials supported will form an important research foundation for the proposed CEPF work.

Over 100 inundated forest seedlings were planted over 3 hectares at BPL during Y2, but survival is only at 40% due to challenges presented by the drought. In hindsight, we were overly optimistic that better rains would arrive earlier than they did, and we perhaps should have delayed this planting until Y3 of the project, but we were eager to make progress and the community fishery group had prepared the seedlings ready for planting, so we pushed ahead. We have learnt from this experience and adjusted our protocols, including allocating greater resource to watering newly planted seedlings until flood inundation by annual rains.

The project has conducted clearance work for invasive non-native species over a total area of 182.15 hectares, comprising 72 hectares of *Mimosa pigra* clearance, 110ha of *Ipomoea rubens* clearance and a 0.15 hectare plot for a trial to control *Eichhornia crassipes (water hyacinth).* Monitoring (described in Section 3.1 has shown that 12% of *Ipomoea rubens* cut stems have re-grow, but there was also some recorded growth from seeds and roots. We continue to monitor this and will look to adapt methods in response. After two years of *Mimosa pigra* control, the primary result shows that within the 40 hectares started in Y1, 25%-30% of the stem have now regrown.

The Field Monitoring team recorded 2,186 Asian Openbill nests at BPL, the first time mass nesting has occurred at the site in 15 years. To protect these birds from egg collection, patrols were conducted at random times during the day and at night. Around 3,000 Critically Endangered yellow-breasted bunting were also recorded at the site for the first time in many years. Over 15,000 black-tailed godwits were recorded at AP, a record for the site. These results indicate that the sites remain vitally important for waterbirds in the region.

Relating to Output Indicator 4.4, max recordings of black-headed ibis and oriental darter using the sites are greatly increasing. Forty seven black-headed ibis were recorded in August 2020, and exactly the same number of Oriental darter were recorded in November 2020, equating to increases of 788% and 313% respectively compared to their baselines. Importantly, the oriental darter were recorded feeding at the habitat restoration trial plot, which is an encouraging sign for the project.

3.3 Progress towards the project Outcome

Outcome. AP and BPL provide enhanced, resilient habitat for threatened biodiversity, secure and productive ecosystem services for 6800 people, and are the catalyst for more connected wetland networks in the CLMD.

The BPL zonation process is slow, but progressing, and still on course to be completed by the end of the project, although as previously said, the project partners have now completed our technical contributions to the process and are now mainly lobbying the government for a fair and timely process. Vulnerability Assessments are now largely complete for both sites, with the BPL Management Plan drafted, and the AP Management Plan on schedule. These plans will integrate the resilience measures identified through the VA process.

The importance of BPL and AP in the wider CLMD is now better understood after regional land-use mapping showed the large extent of wetland loss in the delta. Little fieldwork could be completed at other sites in the CLMD, but we were able to push for a key site identified in Y1 of the project to receive formal designation as a Protected Area. On 5 February 2021, government issued a sub-decree designating Toulpontalei – Boeung Snae Multiple Use Area (Boueng Sne) covering 3,557 hectares in Prey Veng Province. This is the first major achievement coming from our CLMD assessment and we will continue to support the government there.

Habitat restoration is underway at BPL, and our project will certainly be working towards increasing the coverage of 'good' quality grassland by the 15% by the end of the project. As the majority of restoration is taking place in Y3, full grassland recovery may only be accurately measured beyond the project period, but we should have a good indication of progress and efficacy, and further restoration is planned in the future building upon this.

The maximum number of sarus crane recorded at BPL and AP during the National Sarus Crane Census were 56 and 91 birds respectively, down 47% and 12% respectively. We will wait until data is published on the regional population to see if this decline is reflected across the regional population, but early indications suggest that it is, and we are still on track with this indicator, albeit a depressing indication of the status of the overall regional population. We will be able to measure this indicator in the Final Year of the Darwin project as the final year reporting is due in June, which is after that census data will be made available. Strong recordings of other bird species, namely Oriental darter, black-headed ibis, black-tailed godwit, Asian open-bill and yellow-breasted bunting suggest that the sites are well protected and providing good and vital refuge and feeding grounds.

The majority of farmers around AP have received substantial training on methods to reduce chemical fertilizer and pesticide use. CRDT had reported that, in Y2, average levels of use of chemical fertilizer consumption decreased from 214kg to 183kg, herbicides decreased from 1378.46 ml/g to 1024.81 ml/g, insecticide decreased from 944.99 ml/g to 65.47 ml/g and fungicide decreased from 235.64 ml/g to zero ml/g, but as reported in Section 3.2, the drought created a large crop loss, so although progress may be made on this indicator, this progress would only be temporary. With the agreed changes in the agricultural elements of this project, we should still see levels of Ammoniacal Nitrogen (NH4-N) and Biological Oxygen Demand (BOD) reduced, and we are still aiming to achieve the original indicator of a 20% reduction against the 2017 baseline.

An Outcome indicator has now been changed through a Change Request to include a more suitable and measureable indicator of poverty reduction, using the Cambodian Government's ID Poor index (https://www.idpoor.gov.kh) to assess changes through the project.

3.4 Monitoring of assumptions

Assumption 1: Project partners' relationship with the Department of Freshwater Wetland Conservation (DFWC) in the Ministry of Environment (MoE) remains strong.
Comments: Relationship remains strong. WWT recently registered as in iNGO in Cambodia with support of the MoE. MoE have been active in pushing forward zonation of BPL thanks to a Ministerial decree mandating all Provincial Governments to prioritise this task.

Assumption 2: Regional population of cranes does not experience massive fluctuations due to external factors (e.g. weather events) and the increase in proportion of cranes at AP and BPL is not due to the collapse of another individual site.
Comments: Crane numbers continue to be monitored, and continue to decline. A Regional Sarus Crane Action Plan was agreed and published in March 2020 which agrees a process to gain a better understanding of reasons of decline. Monitoring continues and suggests the proportion of the population using AP and BPL remains relatively consistent and populations at other sites are declining at similar rates, most likely the result of challenges at their breeding grounds in northern Cambodia.

Assumption 3: Local farmers and communities will engage with the project
Comments: Local farmers continue to engage and are open to trying new methods, but after the major challenges in Y2 of the project, farmers are understandably cautious to try new crops. However, income is poor with current crops so farmers remain keen to attempt to diversify.

Assumption 4: Local community members engage with the project and support assessments &
Assumption 9: Community belief in the value of the process remains strong.
Comments: Continues to be a valid assumption. The only challenge faced has been due to pressures from external business-people who have sought to create frictions around the

zonation process in attempts to claim more land. Attempted narrative is to promote themselves as creating jobs (which is rarely true) whilst downplaying importance of ecosystem services. This rarely gains traction, but is a threat to continue to monitor and ensure our messaging is in line.

Assumption 5: MoE has sufficient resource and capacity to participate in this work and provide a timely response
Comments: Assumption remains

Assumption 6: Civil society groups in Vietnam engage with the project
Comments: Colleagues are willing and keen to engage if and when the opportunity arises.

Assumption 7: There are no Ministerial level changes to the management of wetland protected areas and we continue to have the support of regional and national government representatives
Comments: There is a new Director of the Department of Wetland Conservation. We have worked with him before and have no reason to believe there will be challenges.

Assumption 8: No major increase in the number of commercial Vietnamese fishing vessels
Comments: None recorded.

Assumption 10: Farmers transitioning to sustainable rice are able to achieve 30% profit increases
Comments: This target has been reduced through a change request (see Output 3)

Assumption 11: The market for Sustainable Rice remains strong
Comments: Farmers have now entered purchasing agreements so this assumption should not generate challenges.

Assumption 12: CFi financial sustainability is achievable within the project period
Comments: As the zonation is not yet completed and the community fisheries still do not have secure access to BPL Protected Landscape, this assumption may not be correct.

Assumption 13: There is an ongoing demand for recyclable materials in the area
Comments: Assumption remains.

Assumption 14: External threats to habitat can be managed and controlled by good transboundary cooperation and effective ranger teams.
Comments: The main external threats remain illegal land encroachment. BPL continues to lose land to this each year, and slow zonation progress, coupled with local corruption, creates a much more challenging environment than we originally anticipated

Assumption 15: INNS removal activities are factored into Management Plans and maintained as part of routine management activities.
Comments: Assumption remains.

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

Impact. A network of wetlands within the Cambodian Lower Mekong Delta (CLMD) is providing connected habitat for biodiversity and resilient ecosystem services for local people.

A major achievement within this project period has been the designation of Boeung Sne as a Protected Area. This increases the number of Protected Areas in the CLDM to three, all of which are involved in this project. The site is home to many waterbird species, including a large colony of Asian openbills (*Anastomus oscitans*), the Endangered greater adjutant (*Leptoptilos dubius)*, and the Vulnerable lesser adjutant (*Leptoptilos javanicus*). This has helped to boost the profile of the CLMD assessment and ongoing conservation efforts in the region. Designated

as a Multiple Use Area, this also creates recognition and protection for the ecosystem services, including water provisioning for agricultural and household use for 14 communes.

Sightings of large numbers of migrating yellow-breasted bunting and record numbers of nesting Asian Openbill and feeding black-tailed godwits were encouraging signs of improving habitat protection and lower disturbance at AP and BPL.

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

SDG 1 (1.4, 1.5). Improving the livelihoods and food security of vulnerable wetland-dependent households by conserving valued ecosystem services (e.g. fish populations, water regulation/soil fertility for rice farming), and building their resilience to climate-related events.

- The AP Vulnerability Assessment has identified the likely responses of important fishery species to the changes predicted to come as a result of climate change and upstream development. The VA also looked at potential livelihood responses and mitigation actions, which will be included in the AP Management Plan.
- The Amru Company has entered into long-term purchase agreements with local community members around AP to support the growing on more drought resilient and environmentally friendly crops.
- Inundated forest restoration will lead to improved fish nursery habitat at BPL.

SDG 2 (2.3, 2.4). Restoring fish stocks through habitat restoration, establishing secure and equitable access to natural resources through zonation, and promoting climate-resilient agricultural technologies.

- Zoning of BPL is ongoing, but the location and extent of core protection habitat is now largely agreed, and restoration areas have been approved by the government.
- Restoration has started in 3 hectares of inundated forest, an important nursery habitat for the fishery at BPL, and invasive *Ipomoea rubens* has been cleared from 110ha of this habitat.

SDG 3 (3.9). Improving water quality through reduced pollution.

- Environmentally friendly rice was trialled at AP, and although yields were low, chemical usage did decrease. The approved alternative approach to AP agriculture for use in Y3 will also use low chemical input approaches. WWT and CRDT are linking up with FFI in Myanmar and the IUCN in Vietnam to explore regional learning, facilitated through the Indo-Burma Ramsar Regional Initiative.

SDG 5 (5.5). Supporting women's full and effective participation in decision-making through community natural resource groups (e.g. community fisheries).

- The AP Vulnerability Assessment will be informing the long-term management of the site. To ensure women were able to fully and freely participate, and to understand the, often different, use of natural resources by women, groups were split by gender and the results assessed separately from the all-male groups.
- WWT have been supporting the Ministry of Environment to ensure that women are provided a platform from which to apply for land tenure, if they have grounds on which to do so, and input into decisions around zonation.

SDG 6 (6.3, 6.6). Reducing pollution through sustainable agriculture and improved waste disposal methods, and promoting recycling through community-based waste recycling schemes. Protecting and restoring water-related ecosystems by reducing anthropogenic threats, enhancing understanding of the optimal ecohydrological conditions to inform management strategies, and strengthening capacity for wetland management.

- Two of the three micro-businesses supported in Y2 are built around the collection and re-use of otherwise discarded materials
- Additional bins have been installed for the disposal of agricultural waste (e.g. pesticide containers).

SDG 13 (13.1). Conserving wetlands, which mitigate flooding, prevent droughts and store carbon, and promoting climate-resilient agricultural technologies.

- The Anlung Pring Vulnerability Assessment has helped to understand potential implications of climate change at the site, and the BPL Management Plan has integrated learning from the BPL VA completed prior to this reporting year.
- Research protocols in place at AP and BPL now collect improved data on ground water, hydrology, precipitation and water quality, allowing more informed long-term decision-making around water security.

In Y2, the project has also made wider contributions to **SDG 15 (15.1, 15.5, 15.8, 15.9)**, through the conservation, restoration and sustainable use of inland freshwater wetland ecosystems (e.g. through habitat restoration work, patrolling etc).

5. Project support to the Conventions, Treaties or Agreements

We continue to liaise closely with the Ramsar National Focal Point, who is the head of the Department of Freshwater Wetland Conservation, and oversees the zonation and permissions for habitat restoration. The Ramsar National CEPA NGO focal point, Bou Vorsak, is directly involved in this project and supports all education and awareness work. We are also working with the Climate Change Policy Officer at the British Embassy in Phnom Penh to promote wetland natural capital and nature-based solutions for climate change mitigation and adaptation, which contributes to the UK government's support of the implementation of the UNFCCC in Cambodia, especially linked to promoting the inclusion of wetlands in Cambodia's Nationally Determined Contributions (NDCs).

Improved knowledge of land-use and habitat distributions in the CLMD help to inform national planning, including the designation of a new Protected Area within the CLMD, contributing to Aichi Target 2. This project continues to contribute to the CBD's Inland Waters Biodiversity thematic programme and Strategic Goals 1 and 2 of the Ramsar Strategic Plan, through 16 ha of current and 25 ha of approved of restoration of eleocharis habitat, 3 hectares of restored inundated forest, and over 180 hectares of INNS clearance. In addition, detailed ecohydrological and biodiversity research and protection of waterbird habitat through patrolling, which is yielding increases in a number of indicator species, also contribute to these areas (see Sections 3.1 and 3.2 for evidence of all).

Continued land encroachment at BPL means that the projects contribution to Aichi Targets is not yet fully realised, but we are hoping the zonation of BPL contributes to resolving this. Agricultural inputs from over 200 farmers have on average decreased, helping to manage excess polluting nutrients (Aichi Target 8).

6. Project support to poverty alleviation

This project works towards direct poverty impacts through increased income for farmer, fisheries and waste management groups, and indirect poverty impacts through the improvement of ecosystem services from more effective protection and habitat restoration, and creating clarity on land tenure for local people. Vulnerability Assessments also help to provide a foundation of information for more secure and resilient livelihoods into the future.

As described in Section 3, support for sustainable rice production did not deliver the livelihood impacts that we had planned for, so the project is adapting our approach towards a model of guaranteed purchase agreements using more drought tolerant crops. Although there is clearly not quantitative progress to report, our learning over the last year from Vulnerability Assessments and a major drought has pushed us to put an even greater emphasis on crop resilience, and we hope that the changes that have been approved by Darwin will allow communities to work towards this.

Handicraft and waste management groups now have a solid platform from which to generate improved incomes. We have not yet been able to fully assess profitability, but the handicraft

bag scheme has generated income so far, and sales through WWT UK shops have been strong. The local market alone generates enough demand to cover core operating costs.

The fisheries business planning is largely on hold until the zonation can provide legal recognition of the group as a CPA. Law enforcement officers and Field Monitoring Teams are gaining direct income from this project, resulting in improved income for 21 local people.

7. Consideration of gender equality issues

Gender indicators are included within a number of project Outputs, and the project is making consistent progress in these areas. Women are actively encouraged to engage with the project, and we use established network around these sites (where project partners have been working for over 10 years) to communicate our activities to different sectors of society in the areas (e.g. through ecotourism and handicraft groups, community meetings, key contacts etc).

Of a total of 211 farmers engaged in the sustainable agriculture project at Anlung Pring, 147 are women. Of the total 458 participants receiving training on improved and more environmentally friendly farming techniques during this project so far, 301 were women. 100% members of the handicraft businesses being set up by NatureLife are women. NatureLife Cambodia work closely with teachers at the local schools to ensure that there are equal opportunities for girls and boys to engage with the Sarus crane and environmental education programme. For example, in 2020 and 2021 so far a total of 580 students have benefited from the programmes, 278 of whom are girls.

Awareness campaigns are targeted at families during celebrations and weekly events (e.g. visits to the temple) to avoid focusing on specific livelihood activities which are often dominated by one or other genders. The majority of people employed through the invasive clearance and habitat restoration programmes have been local women.

During the Vulnerability Assessment fieldwork at Anlung Pring in Y2, WWT's Technical Officer, Ms Srun Bunthary led community participation, and it was important to breakdown results between sexes. For example, when assessing the ten most important resources mentioned by participants from the villages, the results were split for men and women to understand how different group utilise the landscape. To look at how local people currently cope, and how they are likely to cope in the future, to extreme whether events, the WWT team assessed men and women's responses separately. As mentioned in Section 3.1, the AP Vulnerability Assessment has not yet been finalised and published, so two tables from the same process at BPL are shown here as an example.

Table 6: *Ten most important resources mentioned by participants from the villages (M=male; F=female)*

Nr.	Rank (M/F)	Item	Use	Local names of main species utilised
1	(1/1)	fish	Selling, making Khmer cheese, eating	*Black fish:* kranh (*Anabas testudineus*), phtorkk (*Channa striata*), kom phleanh (*Trichohodus trichopterus*), konthor (*Trichohodus pectoralis*), andaeng (*Clarias microcephalus*), chhdor (*Channa micropeltes*) *White fish:* linh (*Thynnichthys thynnoides*), chhkork (*Cosmochilus harmandi*), chro keng (*Puntioplites proctozysron*), kes (*Kryptopterus bleekeri*), ta orn (*Ompok eugeneiatus*), kanh chos (*Mystus albolineatus*), kok (*Zenarchopterus dunckeri*)
2	(2/2)	grass	Livestock feed, selling	kromhorm mormis, phleng phlorng, krek, chungkong kriel, derm sor, chanh cherm brovoeuk, sragner
3	(3/3)	Rat	Selling and eating	Rice field rat (*Rattus argentiventer*) (kondor bay and kondor preng)
4	(4/4)	crab	Selling, eating, used for other foods	Krorng (*Somaniathelpusa sexpunctata*), sro gner (*Somaniathelpusa sp.*)
5	(5/8)	water lily	Selling and eating	*Nymphaea nouchali* (brolit bay, brolit krobei)
6	(7/7)	bromat dei	Selling and eating	bromat dei (*Mazus japonicus*)
7	(9/6)	snake	Selling and eating	samlab kangkep (*Xenochrophis piscator*), brolit (*Enhydris enhyris*), chanlmorng (*Enhychis bocouti*)
8	(6/9)	firewood	Selling, fuel	banla youn (*Mimosa pigra*), phnek preap (*Breynia vitis-idaea*), snor (*Sesbania sesban*), anh chanh (*Gmelina asiatica*)
9	(10/5)	frog	Selling and eating	kangkep thom (*Limnonectes kuhlii*), kangkep arch ko (*Fejervarya limnocharis*)
10	(8/10)	eel	Eating and selling	an tong tomda (*Ophichthus rutidoderma*), an tong domnerb (*Monopterus albus*)

Table 10: *Impact of extreme weather events and future coping activities of men and women.*

Events	Impact	Future coping activities (Men)	Future coping activities (Women)
Drought	Rice damage	Canal restoration	Canal restoration; catching rats; move to the city or other country for work
	Disease to human and livestock	Inform relevant institution to help with treatment	Human: go to health centre; living in clean environment, drink/eat healthy water and food; Livestock: traditional medicine for animal; clean their sheds, call vet
	Lack of water	Pump water from canals, ponds, wells, rain water capture	Collect rainwater; pump water from canal to ponds (store); buy water from private vendors; pond restoration
Flood	Rice damage	Crop cultivation before flood season (before July)	Cultivate rice early (from April after Khmer new year); receding rice for all; alternative crops but just around house
	Disease to human and livestock	Listen to media/news	Human: drink boiled water, buy treated water, self-treatment; Livestock: water and wash it; keep animal at hill and in the net at night; selling chickens and ducks
	Lack of food storage	Getting loans, selling property, food preparation	Keep more rice for self-use; use traditional food from fish; raise more livestock; borrow food from others; selling cows
Storm	House damage	Fixing houses, listen to media/news, and methods to prevent damage	Save money to build stronger house; reinforce supports/walls to protect house
	Restricts daily activities	Food reservation	Stay tuned to the information through TV, radio, and stay at home
	Rice damage	Listen to media/news and grow rice by adapting to the season	Do nothing because rice field is very big
Extreme heat	Crop damage	Pump water from wetlands	Construct roof to reduce heat exposure by placing tree leaves/straw; heat tolerant rice
	Disease	Inform relevant institution to help with treatment	Human: try to stay at home rather than expose to sun; healthy food/water; clean the house; Livestock: traditional medicine for animal; clean their sheds, call vet
	Lack of water source	Restore wetlands and canals; pump water from canals, ponds, wells; capture rain water	Collect rainwater; pump water from canal/ wetland to ponds (store); buy water from private vendors; pond restoration
Flash Flood	Rice damage	Listen to media/news	Discharge water from field via small canal; use excavator to protect water entering
	Disease	Go to health centre and take medicine	Human: drink boiled water, buy treated water, self-treatment; Livestock: water and wash it; keep animal at hill and in the mesh net at night; sell chickens and ducks;
	House damage	Fixing	Repair and call for help from Red Cross
Lightning	Human danger	Turn off electronic devices and don't go out when raining	Stay at home; stay tuned to media for information
	Livestock danger	Keep cattle inside when raining	Do nothing since it is kept out side
	Palm tree destruction	Do nothing	Do nothing
Storm surge	Rice damage	Do nothing	Do nothing
	House damage	Fixing and get loan	

8. Monitoring and evaluation

The project partnership continues to use an M&E Plan based on the Darwin template, and in Jan 2021 we reviewed the relationships between our Outputs and Outcomes, and have also had approved logframe changes through a Change Request. There is now an improved livelihood Outcome Indicator that uses a more standardised poverty index adopted throughout the country. As the majority of livelihoods around our sites are highly dependent upon healthy functioning wetland systems, we believe that this indicator will provide a wider view of direct and indirect poverty impacts as a result of this project.

We have adapted our agricultural activities so that we have the greatest possible chance of meeting our indicators. We still believe that Output indicators around increased income and decreased chemical inputs are the most appropriate measures of contribution towards our overarching Project Impact, especially with Outcome indicators assessing water quality and livelihood enhancement.

M&E indicators are assigned to the most appropriate partner, who then reports on progress through Quarterly Project Steering Group Meetings and through their own half year and Annual Reports to WWT.

We believe that all activities remain relevant and achievable, but some are clearly dependent upon whether or not national and international travel will be permitted at the relevant times for fieldwork. This is especially important for wet season fieldwork for our assessment of the CLMD, and transboundary dialogues with Vietnamese colleagues in the Mekong Delta.

Finally, Output Indicator 3.3. will be challenging unless zonation is completed very soon in Y3. Until the CFis are given formal CPA recognition, they will not be able to formally register a business to operate inside the Protected Landscape. Current CFi members have been presented with the Business Plan developed prior to this Darwin Project and understand potential options for income generation to cover likely CPA costs. We will continue to support the groups to transition towards a CPA and are confident that we will be able to support business development with Y3, but the likelihood of generating enough profit to cover all costs within less than a year, seems low.

9. Lessons learnt

This has been a challenging year, with travel restrictions preventing seasonal fieldwork in the wider CLMD during the peak flood season, and the worst drought in the CLMD for decades, affecting the first year implementing a new rice variety, a time when lessons were still being learnt. A key lesson resulting from the latter has been the importance of responding to community needs rather than attempting to push ahead with pre-determined plans. This project has had to be adaptive, and we are grateful for the support from LTS and the Darwin Initiative in supporting our changes. Having guaranteed purchase agreements has helped us to reassure community members around the implications of trailing new more sustainable and potentially profitable agriculture. This creates more certainty, especially important during the current time. We will continue to monitor how this relationship develops, and are likely to take similar approaches in the future if all works well.

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

Actions requested from AR1 were to; 1) provide more detail on mechanisms to ensure gender equality, and 2) to provide more information on the new rice variety which was scheduled to be trialled. The latter is no longer relevant due to our approved change request to alter direction of this element of the project (see Section 3.2) but greater detail of agricultural training and support is provided in Section 3.1.

We have addressed the feedback around gender in Section 7.

11. Other comments on progress not covered elsewhere

Although the weather played a role in generating the drought in the CLMD, there were also major decisions made around dam water storage and releases further up the Mekong River which have had an equal impact. This situation is political and unlikely to change in the near future. We are looking to become stronger advocates for water security in the region and planning to build stronger partnership with other organisations in that field.

12. Sustainability and legacy

This project lays the foundation for improved long-term conservation of the CLMD through developing an enhanced knowledge-base to inform regional decision-making, facilitating agreed resilient management of two key Protected Areas, and initiates livelihood programmes that serve to be sustainable into the future.

Within this project period we have advocated for, informed, and supported the formal designation of Tuolporn Taley Boeung Sne Multiple Use Area, which generates greater protections and security for this important wetland. This is now the third Protected Area in the CLDM, alongside BPL and AP. After the CEO of WWT visited the site in Feb 2020, WWT has committed to continue to work with the Ministry of Environment and an local NGO called ‘WOMEN’ to look at conservation options for the site now that it is protected.

The research conducted during Y1 and Y2 of this project has enabled WWT and Naturelife to submit a proposal to the Critical Ecosystem Partnership Fund for work at AP and BPL. This project is now into the final contracting stages, and will start in Jan 2022, allowing a smooth transition beyond this Darwin Project.

We have adapted our approach to sustainable agriculture and are now aiming for Y3 to be a successful trial year for this activity. We are developing new funding proposals to continue to work alongside CRDT to continue this project over many years to come.

The originally proposed exist strategy for this project still remains largely valid.

13. Darwin identity

The Darwin logo has been included on signage and posters (see Annex 7 for example), documents such as the BPL Management Plan (see Annex 5) and presentations (e.g. to the Indo-Burma Ramsar Regional Initiative - IBBRI). There is an acknowledgement to the Darwin

Initiative on WWT's Cambodia project webpage and in our blogs and Social Media (see Annex 12 for example). Naturelife Cambodia and the Birdlife International Cambodia Programme regularly post on their Facebook Pages and acknowledge the Darwin Initiative on relevant posts in English and Khmer (see Annex 9 for example). As mentioned in Section 2, we are also working closely with the British Embassy in Cambodia to promote Darwin through national platform events.

14. Impact of COVID-19 on project delivery

Navigating the challenges and hurdles presented by Covid-19 restrictions has been difficult for many elements of the project. It has slowed community consultations for the zonation of BPL, and therefore created indirect barriers relating to supporting the CFi towards a financially sustainable business model. Travel restrictions, and a general fear of non-essential gatherings has prevented fieldwork for the biodiversity and ecosystem service assessments of the CLMD. We hope this can be caught up in the final year of the project, but we are concerned that the Y3 budget may not cover these costs if ecosystem service assessments have to be done separately from biodiversity surveys, especially if we have to take additional unexpected safety measures. We are seeking additional funding. Transboundary dialogue workshops and meetings have not been possible, so R-METTs have not yet been completed at the neighbouring Vietnamese sites.

CRDT were not able to offer the level of support to farmers facing drought-related challenges as they would have liked. School closures and restrictions on the size of gatherings have resulted in condensed courses for students, although NatureLife were able to make good progress considering these challenges. Film shows were able to reach fewer audience members, but the project is adapting by promoting awareness messages through other means, mainly broadcasting pre-recorded messages.

15. Safeguarding

Please tick this box if any safeguarding or human rights violations have occurred during this financial year. ☐

WWT has installed a comprehensive safeguarding system at project sites, but no issues have been raised during Y2. Sections of the project Social Safeguarding Framework are show in Annex 13. All partners have agreed and committed to the project Social Safeguarding Framework. WWT has a clear Code of Conduct for all staff.

16. Project expenditure

Table 1: Project expenditure during the reporting period (1 April 2020 – 31 March 2021)

Project spend (indicative) since last annual report	2020/21 Grant (£)	2020/21 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items				
Others				
TOTAL				

Year 1 of this Darwin project was underspent due to activities that could not be completed in the final months of the year due to Covid-19 related travel restrictions. We have caught up some of this work and the related spend, with a Y2 overspend. We note from Section 6.1 'Spend relating to Financial Year' within the Darwin Guidance Document 'Financial Information: Applying for funding and running your project' that funds may be transferred between Financial years in exceptional circumstances, and on the recommendation of LTS are submitting a Change Request alongside this report.

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2020-2021

Project summary	Measurable Indicators	Progress and Achievements April 2020 - March 2021	Actions required/planned for next period
Impact A network of wetlands within the Cambodian Lower Mekong Delta (CLMD) is providing connected habitat for biodiversity and resilient ecosystem services for local people.		On 5 February 2021, government issued a sub-decree designating Toulpontalei – Boeung Snae Multiple Use Area (Boueng Sne) as a Prtoected Area covering 3,557 ha, becoming the third protected wetland in the CLMD. Landuse mapping of the CLMD highlights wetland loss over last 30 years and highlights risk to continuing on a similar trajectory to that of Vietnam. Management plan completed for BPL based on a climate change VA and improved ecohydrological research.	[redacted]
Outcome AP and BPL provide enhanced, resilient habitat for threatened biodiversity, secure and productive ecosystem services for 6800 people, and are the catalyst for more connected wetland networks in the CLMD.	0.1 The proportion of the South-east Asian population of sarus crane (Grus Antigone sharpii) using AP and BPL is 15% higher than 2018 census data by 2022 (Baseline: based on max counts at BPL of 75.3% and at AP of 48.9%).	0.1 Max numbers in Y2 were 56 and 91 birds at BPL and AP respectively, down 47% and 12% respectively. Proportion of regional population not known until population census published, but early indications suggest regional population declining at similar rate.	0.1 Continue to support annual census efforts and review status of regional population. Continue to engage with Sarus Crane Action Plan.
	0.2 Extent of 'good' quality seasonally inundated grassland habitats in AP and BPL increases by at least 15% by 2022 (Baseline to be collected at start of project during phase one of ecohydrological research).	0.2 Restoration underway over 16 hectares and planned and approved for further 25 hectares.	0.2 Restoration of additional 25 hectares in May/June 2021 and employing learning to inform new restoration (funded through CEPF match funding) in early 2022.
	0.3 Levels of Ammoniacal Nitrogen (NH4-N) and Biological Oxygen Demand (BOD) in AP reduced by 20%	0.3 In Y2, average levels of use of chemical fertilizer consumption decreased from 214kg to 183kg,	0.3 Continue to deploy sustainable agriculture programmes at AP with new

	compared to baseline analysis in 2017 by 2022 (Baseline: NH4-N 0.89 mg/l and BOD 6.82 mg/l). 0.4 By 2021, 5100 people have legally secured access to wetland resources managed through plans agreed by multi- Stakeholder Liaison Panels at BPL (Baseline: No zonation scheme granting legal community usage rights and no associated Management Plan in place). 0.5 Percentage of the 1,700 local people around AP classified as 'Poor' in the Cambodian Government's ID Poor index (https://www.idpoor.gov.kh) decreases by 10% by 2022	herbicides decreased from 1378.46 ml/g to 1024.81 ml/g, insecticide decreased from 944.99 ml/g to 65.47 ml/g and fungicide decreased from 235.64 ml/g to zero ml/g. Impact upon water quality to be assessed in Y3. 04. Zonation completed at AP in Y1. Vulnerability Assessment fieldwork completed and inputting into Management Plan. Management Plan completed for BPL, and awaiting final zonation confirmation before publishing. 0.5 Sustainable rice programme has not yielded additional profits, so change of approach formally approved by Darwin. Clearer access rights for local communities now in place.	crops. Monitor water quality at end of project. 0.4 Continue to support and advocate for zonation at BPL. Adapt Management Plan as required and promote through awareness campaigns. 0.5 Support implementation of new crops at AP, ensuring farmers and their families are fully supportive of well-considered long-term plans to diversify.
Output 1. AP, BPL and the wider CLMD wetland landscape are better understood and showcasing best practice local adoption of Ramsar recommendations and tools.	1.1 Optimal ecohydrological states, informed by research findings, agreed by AP and BPL Liaison Panels by Oct 2020 (Baseline: no agreed optimal state and limited understanding of ecohydrological requirements to sustain wetland biodiversity andecosystem services). 1.2. State of CLMD Wetlands Report published by project partners and presented to the MoE by end of Year 2. Priority nodes and corridors around AP and BPL identified and incorporated into district planning by end of Year 3 (Baseline: no landscape-wide research previously conducted). 1.3 All Cambodian wetland Site Managers, National Ramsar Committee and IBRRI members are aware of R-METT, RAWES and	1.1 Protocols developed for the research recommended by the expert working group at AP and research now ongoing for nine months. Expert working group not possible at BPL due to travel restrictions, so smaller internal working group set up to inform recently finalised BPL Management Plan. Protocols developed for the identified research gaps and research now ongoing. 1.2 Land-use mapping completed for CLMD and western sections of the Vietnamese Mekong Delta for comparison. Due to travel restrictions, detailed biodiversity and ecosystem service assessments only possible at AP and BPL where we already have staff on the ground, so much of the fieldwork delayed for Y3 of project. 1.3 R-METT translated into Khmer language, and training delivered for civil society groups and representatives from Ministry of Environment on RAWES.	

	SWOS approaches by end of Year 2 and R-METT has been completed at four Protected Areas in Lower Mekong Delta by end of Year 3 (Baseline: capacity/knowledge baseline to be collected in Y1).	Presentation of land-use work delivered at the IBBRI meeting and further. R-METT completed for APA and BPL, but no further fieldwork was possible.	
Activity 1.1 Use Satellite-based Wetland Observation Service (SWOS) to generate information on current condition, landscape connectivity and historical trends in wetland systems.		Completed (see Section 3)	
Activity 1.2 Conduct fieldwork to complete Rapid Assessment of Wetland Ecosystem Services (RAWES) throughout the landscape.		RAWES assessment completed for Boeung Prek Lapouv. Other biodiversity and ecosystem assessments were not possible due to Covid restrictions during the survey season. Bassac Marshes was added to the list of RAWES due to its importance as an Important Bird Area.	All RAWES assessments and biodiversity surveys to be completed during peak wet season (Sept – Nov) if restrictions are lifted. Remote RAWES assessments are being designed if necessary, but these would not be ideal.
Activity 1.3 Hold multi-stakeholder R-METT assessment workshops at protected wetland sites at AP and BPL (Cambodia) and Tram Chim National Park and Phu My (Vietnam).		R-METTs completed for the Cambodian sites and translated into Khmer Language for wider usage. Non-essential travel is not permitted between Cambodia and Vietnam this year, so multi-stakeholder workshops in Vietnam are not currently possible.	Vietnamese assessment can be completed as soon as permitted. Limited value in asking our partners to complete the assessment themselves, as this is mainly a transboundary knowledge exchange activity, but could be done remotely if needed.
Activity 1.4 Produce State of CLMD Wetlands report and present at workshop with MoE.		Remote sensing analysis of CLMD completed and report produced. Introductory sections all completed (see Section 3.2), but much of the planned fieldwork, such as habitat quality assessments and biodiversity surveys, could not be carried out due to Covid-19 restricting travel within Cambodia (see Activity 1.2).	Complete fieldwork and finalise write-up and MoE workshop by end of project.
Activity 1.5 Deliver training courses on catchment assessment to Ramsar Site Managers and National Ramsar Committee members to reinforce Ramsar tools and promote landscape level planning.		WWT contracted the RAWES author, Rob McInnes, to provide RAWES training to MoE staff.	Develop training material in consultation with MoE, and deliver at a workshop during publication of CLMD report (most likely now in Feb/March

		2022). Scheduled course with University College London (UCL) postponed, and may now be cancelled due to UCL staff no longer having funding to support this activity once their project expired.
Activity 1.6 Present wetland landscape assessment approach and local use of Ramsar tools at a side-event at IBRRI Annual Meeting in 2021.	Presented the use of RAWES and R-METT at the IBBRI annual meeting in February 2021.	Linked to Activity 1.5 wider landscape assessment training also to be given at IBBRI meeting in 2022.
Activity 1.7 Establish Optimal Ecohydrological State Expert Working Group for AP and BPL and agree research methodology.	Completed. AP group established in Y1, and used to also advise BPL in Y2 when it became clear that international travel would not be permitted due to Covid-19 restrictions. WWT established an internal research taskforce, consisting of its UK-based and Cambodian researchers to lead on the scientific work in BPL.	
Activity 1.8 Implement applied research programme at AP/BPL, including surface water flow models, ecological assessments of key habitats and water quality analyses.	In progress All research protocols in place (e.g. Annex 4) and data collection well underway.	Completed water quality assessment in AP and BPL. Continue collecting hydrological data.
Activity 1.9 Hold Liaison Panel meetings at AP and BPL to agree the sites' optimal ecohydrological states required to sustain benefits for people and biodiversity.	Completed at AP. In progress at BPL, where WWT's recommendation have been included in the zonation process and new Site Management Plan, but the incomplete zonation process is preventing final sign-off of the plan (see Activity 2.10). WWT has secured the support of MoE on conducting restoration and rehabilitation activities at both sites.	Get approval for BPL Management Plan (Activity 2.10) which includes Optimal ecohydrological states.
Activity 1.10 Present research findings at District meetings in both Takeo and Kampot Provinces and work with government to influence district plans. Present research findings at District meetings in both Takeo and Kampot Provinces and work with government to influence district plans.	Results of research activities have been presented to the provincial authorities and committees on an occasional basis, and have led to the	Due to the Covid-19, restrictions, it is unlikely that we will be able to present our work at district meetings whilst they grapple with their Covid-19 response

		necessary permissions for ecological restoration. We have also been informed of several developments potentially affecting the ecological integrity of AP, and have successfully lobbied for EIAs to be conducted before work goes ahead.	plans. We will continue to work closely with the Department of Environments at both sites to influence wherever possible.
Output 2. Protected Area Management Plans informed by a participatory zoning process are developed, endorsed by government, and implemented at AP and BPL, with local communities	2.1 Protected Landscape Management Plans, informed by ecological research and multiple land-use zonation plans and Vulnerability Assessments, are finalised and being implemented at AP and BPL by end of Year 3 (Baseline: outdated and no-longer relevant Management Plans based on previous management system from Ministry of Agriculture Forestry and Fisheries). 2.2 At least 80% of local people (disaggregated by sex) have an understanding of the newly adopted rules and regulations, and reasons for them, by end of Year 3 (Baseline: n/a – regulations not yet in place). 2.3 Number of recorded incidents of illegal fishing within BPL decreases by 20% from baseline by end of Year 3 (Baseline being collected currently and available prior to start of project). 2.4 No hectares of land are encroached within BPL in final year of project.	2.1 BPL's Management Plan is finalised and awaiting final approval once zonation is completed. AP's Vulnerability Assessment is finalised and forming basis of Management Plan. Zonation was completed for AP in Y1. 2.2 Communities at AP and BPL have been heavily engaged with projects through activities such as zonation, vulnerability assessments, RAWES and R-METT, awareness campaigns, and additional support provided by a Darwin Covid-19 emergency grant. Awareness of rules appears to be high, but final assessment only due in Y3. 2.3 Combined patrolling teams reported six cases of illegal fishing and confiscated 160 meters of fishing nets, 2 sets of electric fishing gear, 263 illegal fishing poles, a decrease from our baseline. 2.4. Zonation of BPL is scheduled to be completed in 2021. Once completed, those with valid land-claims will be given formal title deeds and these lands will not be included within the conservation or core areas within the Protected Area – they will most likely be part of the buffer zone. Technically, all previously encroached land without land-rights should be returned to the government and any further farming prohibited. However, some people (largely non-local) have seen this year as their last opportunity to physically claim their land, and we have seen a number of major encroachment attempts, hoping to convince the government that any land already being used should not be considered for conservation. The perpetrators are known and most arrested, but it remains to be seen whether or not they are prosecuted (see Section 3.2).	

Activity 2.1 Hold workshops for Land Tenure Review Committee to agree final decisions for all claims to land within BPL Protected Landscape.	Ongoing	Continue supporting MoE to finalize the decision on the land claims and to reach to an agreement with the provincial authorities and local community. Develop and publish the final map of BPL.
Activity 2.2 Conduct Vulnerability Assessment (aligned to methods agreed by the IBRRI) at AP, including workshops in all local villages.	Completed	
Activity 2.3 District and provincial government and Working Group approve the final draft of AP Vulnerability Assessment.	Finishing final write-up and awaiting opportunity to present the VA once travel is reinstated. A report overview is being translated into Khmer.	Presentation to working government.
Activity 2.4 Complete final zonation mapping of BPL, review with local communities and gain approval of village chiefs.	Draft map completed. Tenure consultations ongoing.	
Activity 2.5 Government endorses BPL zonation scheme.	Ongoing. The proposed zoning map was reviewed in the meetings between the provincial authorities and MoE. It is used as a basis for land tenure negotiations with the community.	Provide technical support to MoE to produce required maps. Encourage provincial authorities to speed up the process of zoning.
Activity 2.6 Install signs and markers clearly stating the rules and regulations within each zone.	Total of 5 signs erected across both sites on PA importance, rules and regulations. Awaiting for the completion of zoning before zonation maps put up.	Mapping and zone regulations to be promoted once zonation has been completed.
Activity 2.7 Hold awareness raising events at AP and BPL for communities on rules and regulations.	Regular mobile broadcasting at three villages in AP and four villages in BPL reaching approximately 850 people.	Continued mobile broadcasting
Activity 2.8 Train BPL and AP rangers on Spatial Monitoring and Reporting Tool (SMART) and develop anti-corruption policy.	The rangers in AP and BPL received on-site re-cap training to improve the application of SMART, and SMART mobile app now in place. AP's newly established Community Protected Area Committee was formed, and the members were elected. Meetings were organized with the committee to develop a work plan and a training programme for the CPA.	Continue supporting the local law enforcement teams and building their capacities. Support AP's CPA to start activities on the ground and join the MoE rangers.

Activity 2.9 Ranger & Field Monitoring Team patrolling at AP and BPL.	Ongoing Illegal activities were confiscated, especially 4 cases of land encroachment in BPL and construction of a road on AP. Monthly patrolling and SMART reports produced	Continue regular patrolling activities.
Activity 2.10 Project Steering Group drafts Management Plans for AP and BPL, informed by applied research and participatory zoning process.	In Progress The management plan for BPL is completed. The management plan for AP is partially drafted, however due to the Covid-19 travel restrictions, the completion will be postponed to Y3.	Send BPL Management Plan to the provincial authorities for approval. Finalize AP's Management Plan taking into account the Covid-19 considerations
Activity 2.11 Present Management Plans to AP and BPL Liaison Panels to secure approval.	Scheduled for Y3	Translate the management plans in Khmer. Submit the MPs to the panels for approval. Disseminate the MPs among stakeholders.
Activity 2.12 Provide data and supporting information for designation of AP as a Ramsar Site and BPL as an East-Asian Australasian Flyways Partnership Site.	Ongoing MoE have requested that we focus efforts on designating BPL as a Ramsar Site. WWT is working with MoE to collect required data. AP has already secured EAAFP status.	Continue working with MoE to collect required data for BPL and communicate it with the Ramsar Convention's secretariat.
Activity 2.13 Upgrade WWT environmental education programme materials, train NatureLife staff and deliver the course alongside local teachers in the CLMD.	Ongoing A full training course on wetland CEPA (Communication, Education, Participation and Awareness) was given by WWT HQ to NatureLife's staff. NatureLife have developed photo books to aid with identification and engagement on request of teachers.	Continue course delivery

		School course have progressed well despite school closures, although not all lessons could be fully delivered in Y2	
Activity 2.14 Hold multi-media awareness events including presentations, films and competitions in communities around AP and BPL.		Ongoing 68 posters installed at three schools of BPL, five schools at AP, and Ranger Stations of AP and BPL. Approx 870 people received environmental messaging through mobile broadcasting systems.	
Output 3. 1700 local people in AP and BPL are directly profiting from sustainable livelihood ventures that also reduce wetland degradation.	3.1 '200 farmers (at least 50% women) in AP are averaging an increased profit of 15% after transitioning to other forms of sustainable agriculture by end of Year 3 (Baseline: 24.25 USD profit per hectare)'. 3.2 Average quantities of pesticide and fertilizer decrease by 40% amongst the 200 farmers in the sustainable rice scheme by end of Year 3 3.3. 100% of community fishery groups (CFis) at both sites, benefiting 1500 people, are covering their core operation costs through sustainable financing mechanisms by end of Year 3 (Baseline: CFIs established and implementing business plans where financially possible but no sustainable financing mechanisms in place and all costs supported by external partners). 3.4 Three commercially viable community recycling businesses are operating independently and generating sustainable income to cover all operational costs by end of Year 3	3.1. Poor yields from Y2 have resulted in a new approach to this project. This is explained in Section 3.2 of the report. New approved approach still aspires to achieve this Indicator. 3.2 In Y2, average levels of use of chemical fertilizer consumption decreased from 214kg to 183kg, herbicides decreased from 1378.46 ml/g to 1024.81 ml/g, insecticide decreased from 944.99 ml/g to 65.47 ml/g and fungicide decreased from 235.64 ml/g to zero ml/g. Impact upon water quality to be assessed in Y3. 3.3. Work has been delayed due to delays in zoning (see Section 3.2). Although business support will be provided in Y3 as soon as we are able and zonation has been confirmed, Output Indicator is unlikely to be met in such a short timeframe unless costs are low and a very easy win (e.g. using interest through a Trust Fund Investment, but this wouldn't be a business per se, and would require investment from another project) 3.4 Three businesses now running, using locally harvested grass for handicrafts, collecting recyclable products for sale, and creating handicrafts and ecobricks using recycled material. All projects have low operating costs after upfront investment provided by the project, and are on course to become commercially viable by end of project.	

	(Baseline: no recycling businesses in place).		
Activity 3.1 Conduct catchment analysis of pollution inflows around AP to identify priority target sites for sustainable rice farming.		Completed in Y1	
Activity 3.2 Deliver advocacy campaign for farmers to voluntarily join the sustainable rice farming scheme.		Completed in Y1	
Activity 3.3 Hold pollution awareness workshops and an exchange visit for new farmers to meet and learn from existing BPL pilot farmers.		Completed in Y1	
Activity 3.4 Train selected farmers on sustainable farming methods, compost fertiliser making, land preparation, seed sowing and transplanting, Integrated Pest Management, harvesting and post-harvest management.		Completed. 7 trainings (two days per course) on soil preparation method, rice seed production technique, rice Integrated Pest Management, and proper use of chemical fertilizer and pesticide to producer group members. In total 211 households include 147 women attended the training.	New additional training required for Mung Beans and new rice varieties.
Activity 3.5 Support monitoring to confirm compliance with Sustainable Rice Platform standards.		Ongoing. Monitoring in place, but will need to be updated for new rice varieties when planting commences.	Updated monitoring to be implemented alongside new rice varieties. Implement new Darwin-approved agriculture programme
Activity 3.6 Develop and implement cooperative equipment scheme for farmers based on Value Chain Analysis, including rice drying ovens, de-huskers and storage areas.		Ongoing. Business planning done alongside the Amru Rice Company, who are now providing seeds and equipment as part of a long-term purchase agreement with the local farmers. No additional equipment will now be provided.	Continue to work with Amru to make sure communities meet their targets and conditions of the purchase agreement.
Activity 3.7 Consultancy to review and provide recommendations for current fishery waterway restoration and rental scheme based on existing CFi Business Plan. Provide ongoing technical support.		Ongoing WWT facilitated a negotiations between the Ministry of Environment and the Fisheries Administration (in which CFis	Implement favoured elements of BP as soon as zonation is complete.

		operate under their authority), which resulted in an agreement of both Ministries on supporting the function of CFis in BPL (as MOE's land) through registration as a CPA group. CFis have been consuled on the Business Plan developed in advance of this Darwin Project. Favoured options identified.	
Activity 3.8 Launch call for applications on micro-grants for local community members for recycling scheme start-up and initial operating costs.		Completed in Y2, with grants supporting motorbike a trailer for waste collection, and training for handicrafts	
Activity 3.9 Train community fisheries, farming groups and waste management businesses on financial management and administration.		Ongoing. Agreements with ThinkPlastic initiative to support communities in establishing waste management businesses. Agreements are made with a local NGO (specialised in the re-use of plastic) to provide a full training course to the communities to convert plastic rubbish and bottles into bricks (Eco-bricks). Awaiting for the improvements in situation of Covid-19 to conduct the training course. First batch of handicrafts from AP are being sold in the UK and locally	- Provide training courses to the communities on creating and building with Eco-bricks.
Output 4 The extent and quality of biodiversity habitat and productivity of natural resources are increased at AP and BPL through community-based wetland restoration in core protection and sustainable use zones.	4.1. Indications of Eleocharis regeneration (measured by increase in density, or presence of new, shoots) are recorded in at least 50 hectares of protected wetland at AP and BPL. 4.2 Less than 15% of the 180 hectares of wetland cleared of invasive non-native plant species (including Mimosa pigra and Eichhornia crassipes, Ipomoea rubens, Nelumbo nucifera) are showing signs of INNS regrowth	4.1. 16 hectares of restoration at a dedicated water management plot ongoing and permissions granted for further 25 hectares to be restored in May/June 2021. New CEPF proposal supporting upscaling of eleocharis grassland restoration in early 2022. 4.2. 72 ha Mimosa pigra with reported 25%-30% of the stem re-growth. 110ha of Ipomoea rubens clearance with <22% regrowth.	

	by end of Year 3 (Baseline: n/a). 4.3 Five hectares of inundated forest restored at BPL by end of Year 2, through community-based restoration and protection programme, and ecoschool nursery showing at least 75% tree survival at end of Year 3 (Baseline: n/a). 4.4 Recordings of black headed ibis and oriental darter using BPL and AP increase by 100% from baselines of six and 15 respectively by end of Year 3.	4.3 Three hectares planted by community groups in Y2 but survival rate at 40%. Timing to be altered in Y3 to avoid potential drought-related challenges for newly planted saplings. 4.4 Forty seven black-headed ibis were recorded in August 2020, and exactly the same number of Oriental darter were recorded in November 2020, equating to increases of 788% and 313% respectively compared to their baselines.	
Activity 4.1 Optimal Ecohydrological State Expert Working Group identifies habitat restoration areas.		All areas identified and agreed by government.	
Activity 4.2 Design and implement community-based invasive non-native species (INNS) scheme, with focus on Mimosa pigra and Eichhornia crassipes, Ipomoea rubens and Nelumbo nucifera.		INNS scheme agreed and underway (see Output 3.1 and Annex 9 for map).	Continued INNS programme and monitoring.
Activity 4.3 Develop and implement community-based and ecoschool inundated forest restoration programme.		Ongoing. 3 hectares planted in Y3	Continue monitoring. Plant new saplings across existing 3 ha and a further new 2 ha.
Activity 4.4 Create and monitor experimental eleocharis regeneration plots over 50 hectares including re-planting areas, fire management plots and water retention features.		16 hectare plot established in Y1 and continues to be monitored. Restoration protocol developed for new 25 ha *Eleocharis* regeneration plot and approved by Ministry of Environment. Additional regeneration lots planned for early 2022.	Continue monitoring Restore 25 ha in early Y2 Develop plan to upscale for early 2022 and restore according to plan.
Activity 4.5 Develop proposal for large-scale hydrological management features to create long-term water security around BPL, based on results of water management trials.		To be completed in Y3	Work with national and regional entities (including MoE, Ministry of Water Resources and Meteorology, IUCN, World Bank, and Asian Development Bank) regarding their national and regional irrigation and water conservation projects and establish an information-sharing platform. Develop a proposal.

Activity 4.6 Share proposal with DFWC for escalation to the MoE.	To be completed in Y3	

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

Approved changes highlighted in yellow

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Impact: A network of wetlands within the Cambodian Lower Mekong Delta (CLMD) is providing connected habitat for biodiversity and resilient ecosystem services for local people.			
Outcome: AP and BPL provide enhanced, resilient habitat for threatened biodiversity, secure and productive ecosystem services for 6800 people, and are the catalyst for more connected wetland networks in the CLMD.	0.1 The proportion of the South-east Asian population of sarus crane (Grus Antigone sharpii) using AP and BPL is 15% higher than 2018 census data by 2022 (Baseline: based on max counts at BPL of 75.3% and at AP of 48.9%). 0.2 Extent of 'good' quality seasonally inundated grassland habitats in AP and BPL increases by at least 15% by 2022 (Baseline to be collected at start of project during phase one of ecohydrological research). 0.3 Levels of Ammoniacal Nitrogen (NH4-N) and Biological Oxygen Demand (BOD) in AP reduced by 20% compared to baseline analysis in 2017 by 2022 (Baseline: NH4-N 0.89 mg/l and BOD 6.82 mg/l). 0.4 By 2021, 5100 people have legally secured access to wetland resources managed through plans agreed by multi- Stakeholder Liaison Panels at BPL (Baseline: No zonation scheme granting legal community usage rights and no associated Management Plan in place). 0.5 Percentage of the 1,700 local people around AP classified as 'Poor' in the Cambodian Government's ID Poor	0.1 Annual sarus crane Census reports. 0.2 Vegetation surveys conducted at start and end of project. 'Good' quality defined by independent specialists at Institute for Environment and Natural Resources (IER), Vietnam National University using similar approach to UK Common Standards Monitoring. 0.3 Annual independent analysis by Kampot Provincial Department of Water Resources and Meteorology. 0.4 Zonation map endorsed by government, BPL Protected Landscape Management Plan, Liaison Panel meeting minutes. 0.5 Analysis of responses to start and end of project social surveys.	Project partners' relationship with the Department of Freshwater Wetlands Conservation (DFWC) in the Ministry of Environment (MoE) remains strong (WWT and BirdLife have been working closely with the DFWC for over ten years. The DFWC are partners in this project and have enclosed an endorsement letter). The regional population of cranes does not experience massive fluctuations due to external factors (e.g. weather events) and the increase in proportion of cranes at AP and BPL is not due to the collapse of another individual site (Annual data from a population-wide census will be used, and will help to identify anomaly years, as well as helping to determine if the population at another single feeding site has collapsed). NB: population numbers are not used for this project as declines in this migratory species are known to be partially affected by threats to breeding sites outside of the project geographical scope. Local farmers and communities will engage with the project (The project partnership have built strong relationships with the local community, and are known to be the main driver for community involvement in an otherwise

	index (https://www.idpoor.gov.kh) decreases by 10% by 2022		government zonation process. The project has strong evidence from a previous pilot sustainable farming project that demonstrates significant increases in profitability. Farmers from this pilot scheme will visit new farmers to relay benefits).
Output 1 AP, BPL and the wider CLMD wetland landscape are better understood and showcasing best practice local adoption of Ramsar recommendations and tools.	1.1 Optimal ecohydrological states, informed by research findings, agreed by AP and BPL Liaison Panels by Oct 2020 (Baseline: no agreed optimal state and limited understanding of ecohydrological requirements to sustain wetland biodiversity and ecosystem services). 1.2. State of CLMD Wetlands Report published by project partners and presented to the MoE by end of Year 2. Priority nodes and corridors around AP and BPL identified and incorporated into district planning by end of Year 3 (Baseline: no landscape-wide research previously conducted). 1.3 All Cambodian wetland Site Managers, National Ramsar Committee and IBRRI members are aware of R-METT, RAWES and SWOS approaches by end of Year 2 and R-METT has been completed at four Protected Areas in Lower Mekong Delta by end of Year 3 (Baseline: capacity/knowledge baseline to be collected in Y1).	1.1. Working Group minutes, research proposals, research reports and Liaison Panel meeting presentations and minutes. 1.2 State of CLMD Wetlands Report, Provincial government meeting minutes (Takeo Province and Kampot Province), review of District Plans. 1.3 Capacity assessment surveys of Site Managers and committee members at the start and end of project. R-METT information sheets. Cambodian and Vietnamese reports to Ramsar CoP 14.	Local community members engage with the project and support assessments. MoE has sufficient resource and capacity to participate in this work and provide a timely response (The level of support required will not grow from previous years and the project can be run relatively autonomously assuming the MoE still has the resources to approve the work on paper). Civil society groups in Vietnam engage with the project (WWF and ICF, the main stakeholders involved in management of Phu My and Tram Chim, have already accepted our approach and are members of the IBRRI, the strategy of which promotes this transboundary exchange).
Output 2 Protected Area Management Plans informed by a participatory zoning process are developed, endorsed by government, and implemented at AP and BPL, with local communities	2.1 Protected Landscape Management Plans, informed by ecological research and multiple land-use zonation plans and Vulnerability Assessments, are	2.1 Final Management Plans, minutes of Liaison Panel meetings, photographs and field reports.	There are no Ministerial level changes to the management of wetland protected areas and we continue to have the support of regional and national government representatives (As the recent transfer of management

understanding and adhering to their regulations.	finalised and being implemented at AP and BPL by end of Year 3 (Baseline: outdated and no-longer relevant Management Plans based on previous management system from Ministry of Agriculture Forestry and Fisheries). 2.2 At least 80% of local people (disaggregated by sex) have an understanding of the newly adopted rules and regulations, and reasons for them, by end of Year 3 (Baseline: n/a – regulations not yet in place). 2.3 Number of recorded incidents of illegal fishing within BPL decreases by 20% from baseline by end of Year 3 (Baseline being collected currently and available prior to start of project). 2.4 No hectares of land are encroached within BPL in final year of project.	2.2 Attitudes and awareness survey at end of Year 3. 2.3 Monthly ranger patrolling reports. 2.4 Satellite imagery and ranger reports.	from Ministry of Agriculture, Forestry and Fisheries was only in 2016, it is unlikely that the government, which has recently been re-elected, will wish to make further changes. The project has strong support from MAFF and MoE, as well as an excellent relationships with the DFWC. District government is represented on the Project Liaison Panel and has had input into this project's design). No major increase in the number of commercial Vietnamese fishing vessels (WWT hosts a transboundary illegal fishing committee with representatives from governments on either side of the border. This has been effective in curbing illegal itinerant fishing and will continue throughout this project). Community belief in the value of the process remains strong.
Output 3 1700 local people in AP and BPL are directly profiting from sustainable livelihood ventures that also reduce wetland degradation.	3.1 '200 farmers (at least 50% women) in AP are averaging an increased profit of 15% after transitioning to other forms of sustainable agriculture by end of Year 3 (Baseline: 24.25 USD profit per hectare)'. 3.2 Average quantities of pesticide and fertilizer decrease by 40% amongst the 200 farmers in the sustainable rice scheme by end of Year 3 3.3. 100% of community fishery groups (CFis) at both sites, benefiting 1500 people, are covering their core operation costs through sustainable financing mechanisms by end of Year 3 (Baseline: CFIs established and	3.1 Independent consultancy report, rice farming group records, community-based monitoring programme (results collated at annual harvest festival), case studies. 3.2 Farmer diaries, project monitoring scheme report. 3.3 CFi operating and financial records, USAID capacity assessments.	Farmers transitioning to sustainable rice are able to achieve 30% profit increases (The project has proven that this is achievable in this region. A pilot of 60 farmers has been consistently reporting this increase over the last three years, a combination of lower input costs, higher yields and higher value seed. CRDT have also achieved similar profit increases at other sites throughout Cambodia). The market for Sustainable Rice remains strong (Discussions with Sansom Mlup Prey – the national leaders in this field – suggest the market is showing year on year increases in demand).

	implementing business plans where financially possible but no sustainable financing mechanisms in place and all costs supported by external partners). 3.4 Three commercially viable community recycling businesses are operating independently and generating sustainable income to cover all operational costs by end of Year 3 (Baseline: no recycling businesses in place).	3.4 Group operating and financial records, USAID capacity assessments.	CFi financial sustainability is achievable within the project period (The CFi Business Plan was originally proposed over a three year period. Several alternative mechanisms were proposed for this, and if we feel that our primary/preferred option is not reaching expectations then we will manage the project adaptively and explore a combination of options, keeping Darwin informed at all times). There is an ongoing demand for recyclable materials in the area (The concept of reduce, reuse, recycle is growing in popularity in Cambodia. The emergence of a new recycling facility in Kampot province is evidence of this growth and the business opportunity it creates. An ecotourism programme in AP has expressed a need for increased recycling capacity).
Output 4. The extent and quality of biodiversity habitat and productivity of natural resources are increased at AP and BPL through community-based wetland restoration in core protection and sustainable use zones.	4.1. Indications of Eleocharis regeneration (measured by increase in density, or presence of new, shoots) are recorded in at least 50 hectares of protected wetland at AP and BPL. 4.2 Less than 15% of the 180 hectares of wetland cleared of invasive non-native plant species (including Mimosa pigra and Eichhornia crassipes, Ipomoea rubens, Nelumbo nucifera) are showing signs of INNS regrowth by end of Year 3 (Baseline: n/a). 4.3 Five hectares of inundated forest restored at BPL by end of Year 2, through community-based restoration and protection programme, and ecoschool nursery showing at least 75% tree survival at end of	4.1. Vegetation Assessments at start and end of project in target regeneration areas. 4.2 Annual Invasive Non-Native Species monitoring reports of BPL. 4.3 End of project habitat survey, eco-school nursery records.	External threats to habitat (e.g. fire and Transboundary incursions to collect firewood) can be managed and controlled by good transboundary cooperation and effective ranger teams. INNS removal activities are factored into Management Plans and maintained as part of routine management activities (It is acknowledged that INNS removal is a component of ongoing management. Eradication from seasonally flooded sites is unrealistic for a project of this scale, but control is an essential part of restoring fisheries and creating an environment for other native species to outcompete invasives. To this end, INNS clearance will be combined with eleocharis regeneration plots wherever

	Year 3 (Baseline: n/a). 4.4 Recordings of black headed ibis and oriental darter using BPL and AP increase by 100% from baselines of six and 15 respectively by end of Year 3.	 4.4 Community field monitoring reports.	possible).

Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)

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Activity 1.1 Use Satellite-based Wetland Observation Service (SWOS) to generate information on current condition, landscape connectivity and historical trends in wetland systems.
Activity 1.2 Conduct fieldwork to complete Rapid Assessment of Wetland Ecosystem Services (RAWES) throughout the landscape.
Activity 1.3 Hold multi-stakeholder R-METT assessment workshops at protected wetland sites at AP and BPL (Cambodia) and Tram Chim National Park and Phu My (Vietnam).
Activity 1.4 Produce State of CLMD Wetlands report and present at workshop with MoE. Produce State of CLMD Wetlands report and present at workshop with MoE.
Activity 1.5 Deliver training courses on catchment assessment to Ramsar Site Managers and National Ramsar Committee members to reinforce Ramsar tools and promote landscape level planning.
Activity 1.6 Present wetland landscape assessment approach and local use of Ramsar tools at a side-event at IBRRI Annual Meeting in 2021.
Activity 1.7 Establish Optimal Ecohydrological State Expert Working Group for AP and BPL and agree research methodology.
Activity 1.8 Implement applied research programme at AP/BPL, including surface water flow models, ecological assessments of key habitats and water quality analyses.
Activity 1.9 Hold Liaison Panel meetings at AP and BPL to agree the sites' optimal ecohydrological states required to sustain benefits for people and biodiversity.
Activity 1.10 Present research findings at District meetings in both Takeo and Kampot Provinces and work with government to influence district plans. Present research findings at District meetings in both Takeo and Kampot Provinces and work with government to influence district plans.

Activity 2.1 Hold workshops for Land Tenure Review Committee to agree final decisions for all claims to land within BPL Protected Landscape.
Activity 2.2 Conduct Vulnerability Assessment (aligned to methods agreed by the IBRRI) at AP, including workshops in all local villages.
Activity 2.3 District and provincial government and Working Group approve the final draft of AP Vulnerability Assessment.
Activity 2.4 Complete final zonation mapping of BPL, review with local communities and gain approval of village chiefs.
Activity 2.5 Government endorses BPL zonation scheme.
Activity 2.6 Install signs and markers clearly stating the rules and regulations within each zone.
Activity 2.7 Hold awareness raising events at AP and BPL for communities on rules and regulations.
Activity 2.8 Train BPL and AP rangers on Spatial Monitoring and Reporting Tool (SMART) and develop anti-corruption policy.
Activity 2.9 Ranger & Field Monitoring Team patrolling at AP and BPL.
Activity 2.10 Project Steering Group drafts Management Plans for AP and BPL, informed by applied research and participatory zoning process.
Activity 2.11 Present Management Plans to AP and BPL Liaison Panels to secure approval.
Activity 2.12 Provide data and supporting information for designation of AP as a Ramsar Site and BPL as an East-Asian Australasian Flyways Partnership Site.
Activity 2.13 Upgrade WWT environmental education programme materials, train NatureLife staff and deliver the course alongside local teachers in the CLMD.
Activity 2.14 Hold multi-media awareness events including presentations, films and competitions in communities around AP and BPL.

Activity 3.1 Conduct catchment analysis of pollution inflows around AP to identify priority target sites for sustainable rice farming.
Activity 3.2 Deliver advocacy campaign for farmers to voluntarily join the sustainable rice farming scheme.
Activity 3.3 Hold pollution awareness workshops and an exchange visit for new farmers to meet and learn from existing BPL pilot farmers.
Activity 3.4 Train selected farmers on sustainable farming methods, compost fertiliser making, land preparation, seed sowing and transplanting, Integrated Pest Management, harvesting and post-harvest management.
Activity 3.5 Support monitoring to confirm compliance with Sustainable Rice Platform standards.

Activity 3.6 Develop and implement cooperative equipment scheme for farmers based on Value Chain Analysis, including rice drying ovens, de-huskers and storage areas. Activity 3.7 Consultancy to review and provide recommendations for current fishery waterway restoration and rental scheme based on existing CFi Business Plan. Provide ongoing technical support. Activity 3.8 Launch call for applications on micro-grants for local community members for recycling scheme start-up and initial operating costs. Activity 3.9 Train community fisheries, farming groups and waste management businesses on financial management and administration.
Activity 4.1 Optimal Ecohydrological State Expert Working Group identifies habitat restoration areas. Activity 4.2 Design and implement community-based invasive non-native species (INNS) scheme, with focus on Mimosa pigra and Eichhornia crassipes, Ipomoea rubens and Nelumbo nucifera. Activity 4.3 Develop and implement community-based and ecoschool inundated forest restoration programme. Activity 4.4 Create and monitor experimental eleocharis regeneration plots over 50 hectares including re-planting areas, fire management plots and water retention features. Activity 4.5 Develop proposal for large-scale hydrological management features to create long-term water security around BPL, based on results of water management trials. Activity 4.6 Share proposal with DFWC for escalation to the MoE.

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
4A	Number of school children covered by the environmental education programme	Male and female	Cambodian	370	582		952	300
4B	Number of weeks for environmental education to the school children	N/A	N/A	4	14		18	30
5	Number of Anlung Pring farmers trained on Sustainable Rice Farming methods	Male and female	Cambodian	224	223 (same farmers)		224	200
6A	Training on SMART tool and use of GPS to the rangers and Field Monitoring teams	Male	Cambodian	15	15 (same people)		15	15
	Number of teachers received Training of Trainers for environmental education	Male and Female	Cambodian	18	18 (same teachers)		18	18
	Number of Anlung Pring farmers participated in a 3-day visit to BPL	Male and female	Cambodian	25	0		25	25
	Number of CFis members in BPL participated in the training courses	Male and female	Cambodian	40	40		80	100
6B	Number of weeks for the training on SMART tool and use of GPS to the rangers and Field Monitoring teams	Male	Cambodian	4	4		8	12

	Number of teachers received Training of Trainers for environmental education	Male and female	Cambodian	2	2		4	6
7	Environmental educational books for schoolchildren Educational curriculum for children Environmental awareness signboards	N/A	N/A	2 1 5	1 0 5		14	8
9	Rapid Assessment for Wetland Ecosystem Services Site Management Plans	N/A	N/A	1 0	1 1		2 1	6 2
14A	Film displays Awareness raising events Educational field visits	N/A	N/A	3 4 1	2 3 0		13	20
14B	Indo-Burma Ramsar Regional Initiative	N/A	Cambodian, Thai, Vietnamese, Laotian, Chinese, Burmese	1	1		2	3
14B	Liaison Panel Meetings	N/A	Cambodian	0	0		0	4
17	Members of the Optimal Ecohydrological State Expert Working	Male and female	Cambodian, British, Vietnamese, Canadian, Iranian, French	9	0		9	N/A
	Members of the BPL zoning committee	Male and female	Cambodian	20	20 (same members)		20	20
22	Number of water level measurement networks	N/A	N/A	2	2		2	2
23	Co-financing	N/A	N/A					

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)
Boeung Prek Lapouv Protected Landscape Management Plan 2021-2025	Management Plan	Wildfowl & Wetlands Trust, 2021	Male	UK	WWT	Not yet published 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.	
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.	X
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.	N/A
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.	