

Darwin Initiative Main and Post Project Annual Report

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

Submission Deadline: 30th April 2020

Darwin Project Information

Project reference	26-009
Project title	Enhancing wetland resilience for improved biodiversity and livelihoods in Cambodia
Country/ies	Cambodia/Vietnam
Lead organisation	Wildfowl & Wetlands Trust (WWT)
Partner institution(s)	BirdLife International, Cambodia Programme (BirdLife) Department of Freshwater Wetland Conservation (DFWC) NatureLife Cambodia (NLC) Cambodian Rural Development Team (CRDT)
Darwin grant value	320,472.00
Start/end dates of project	1 st Apr 2019 – 31 st Mar 2022
Reporting period (e.g. Apr 2019 – Mar 2020) and number (e.g. Annual Report 1, 2, 3)	Apr 2019-Mar 2020 AR1
Project Leader name	Tomos Avent
Project website/blog/social media	https://www.wwt.org.uk/our-work/projects/cambodia/
Report author(s) and date	Tomos Avent and Saber Masoomi, 30 th April 2020

1. Project summary

More than 30% of Cambodia is covered by wetlands. The Cambodian Lower Mekong Delta (CLMDC) 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.

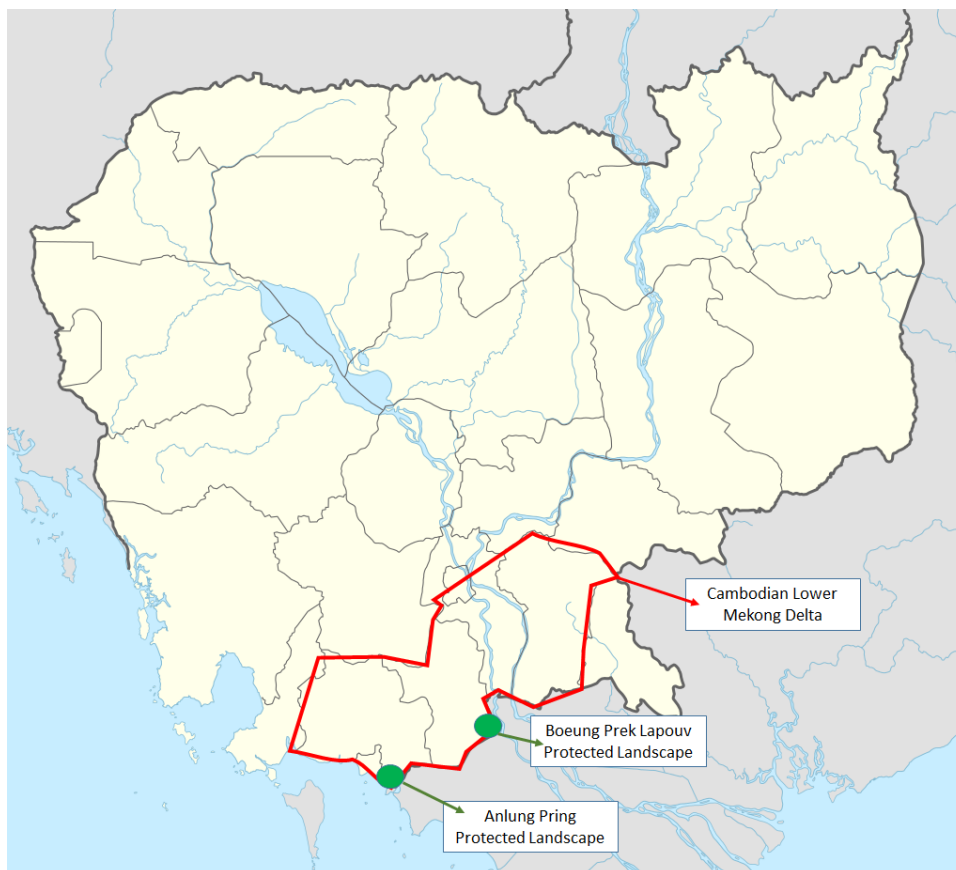
Anlung Pring and Boeung Prek Lapouv Protected Landscapes are two of the last remaining seasonally-inundated grasslands in the CLMD. These Key Biodiversity Areas host numerous globally threatened species, including the Critically Endangered Bengal Florican and 70% of the Southeast Asian population of 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

Prior to the start of this project, WWT, NatureLife and Birdlife Cambodia came together to form the Cambodian Lower Mekong Delta Partnership, with a focus on identifying and conserving key wetlands for biodiversity and livelihoods within the geographical scope of this project. There is a long established relationship between these three organisations, with all three working together at Anlung Pring and Boeung Prek Lapouv. CRDT joined this Darwin project to provide specialist sustainable agriculture expertise. CRDT have added useful insight to the project, and since they have been to the field and engaged fully with the project, have also suggested a few changes, which will be addressed through a Change Request submitted shortly after this Annual Report.

Project partners have established quarterly Project Steering Groups (PSG) which report progress from the previous quarter and share plans for the coming months. Four such meetings have taken place in Year 1. All the partners have fully participated in meetings (Annex 4.1). The PSG meetings are also an opportunity to update other partners work to secure further match funding for the project, and to plan pending applications. If specific issues need to be discussed

between PSG meetings, or in greater detail than the PSG meetings allow, partners liaise directly. Field staff join each other's activities wherever possible and communicate as one project, rather than as individual partners.

As these project partnerships develop, plans are growing for further collaborations and support functions. Examples being WWT inviting CRDT to assess previous sustainable agriculture projects at Boeung Prek Lapouv and support further expansion, and WWT UK staff supporting Naturelife develop broader methods to provide curriculum-based learning.

To implement the research component of the project, WWT established a specialist partnership with the University College London, the Centre of Ecology and Hydrology (UK), the Institute of Technology of Cambodia, WWF Vietnam, and International Union for Conservation of Nature (IUCN) office for Asia-Pacific. This partnership acts as the "Ecohydrology Expert Working Group" of the project and the members have been exchanging ideas on the appropriate methods of data collection and analysis in AP and BPL (Annex 4.2).

Lessons learnt:

- It is important to reduce the operational costs of the project by sharing the non-monetary resources between the partners.
- Establishing an information sharing platform (Google Drive) helped the project partners to access to the files (e.g. media) shared by the other partners easily (Annex 4.3).
- Communicating with the British Embassy in Cambodia and inviting them to visit the project site gave us a great visibility and helped the project beneficiaries to better understand the importance of this project.

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.

A land classification map was created for the CLMD and used to identify potentially in-tact wetlands which were deemed likely to have a potential biodiversity and ecosystem service value, based on attributes such as connectivity, habitat extent and condition, and community proximity. In consultation with the Department of Freshwater Wetland Conservation (DFWC) of the Ministry of Environment (MoE), twelve sites were identified and visited by a team comprising staff from WWT and the DFWC (Annex 4.4). During these field visits, interviews were conducted with local community groups and wetland users, along with assessments of water quality and avifaunal diversity. From this initial rapid assessment four sites were identified for Rapid Assessments of Wetland Ecosystem Services (RAWES) and further biodiversity assessment. Those sites are; Boeung Sne, Takeo wetland, Tonle Bati, and Angkol wetland. Bird populations at Boeung Sne were particularly impressive to the DFWC representative and the site has been immediately added to the candidate list for future Protected Area designation. This element of the Darwin project was brought forward due to the availability of government staff.

The RAWES tool will also be used at BPL in Y2 of the project, and was trialled and completed an AP in Y1 (Annex 4.5).

R-METT Assessments and regional capacity building are planned for Years 2 and 3 of the project.

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

An expert working group was convened at Anlung Pring in June 2019, comprising project partners, specialists from University College London (UCL), the Centre of Ecology and

Hydrology (UK), the Institute of Technology of Cambodia (ITC), WWF Vietnam, WWT (UK office), and two independent consultants (Annex 4.2). The group reviewed existing data and research methods, and provided recommendations over a three day workshop. The recommendations were integrated into a research prioritisation plan for the site (Annex 4.6) which is now being implemented. Recommendations included groundwater measurements using dip-wells, more detailed hydro-meteorological monitoring, more regular water quality sampling which also should include groundwater samples, and regular monitoring of vegetation community responses to changing conditions. A herpetological and fish assessment was conducted at AP to develop a more comprehensive species list for the site. Field monitoring teams collect monthly data on the number and habitat usage of birds at AP and BPL.

An expert working group workshop at BPL was scheduled for March 2020, but had to be postponed due to Covid-19 related travel restrictions. This will be conducted as soon as feasible. The BPL workshop should have been held earlier in Y1, but was pushed back to prioritise the CLMD assessment work which itself was brought forward due to availability of the relevant government staff.

Covid-19 related travel restrictions have made annual Liaison Panel meetings for AP and BPL impossible.

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

Progress on zonation is slow but steady. A meeting in August with the participation of the Ministry of Environment's (MoE's) General Department of Administration for Nature Conservation and Protection (GDANCP), head and staff of DFWC, the Provincial Deputy Governor in charge of natural resources management, the District Governor of Koh Andet, and some provincial authorities, re-initiated the zoning process and agreed timelines for completion. WWT has completed and submitted comprehensive mapping of the site, highlighting key biodiversity use areas, natural habitat, ecosystem services and previous illegal encroachment into natural habitat (see Annex 4.7 for example). The provincial governor's office is officially leading this process and in Nov 2019 proposed a core conservation zone of 2,000ha (Annex 4.8). Work to collect land titles from those with claims to land tenure within the Protected Landscape is ongoing, but is slow due to land titles often being taken as loan guarantees by microfinance institutions. The work is on schedule but there are ongoing concerns that government processes may delay final zonation endorsement.

Activities 2.2 - 2.3. Assessment of Climate Change vulnerability at AP

Introductory sections have been completed, with updated climate projections for the site laying the foundations for the assessment. Three tools are used for this assessment; a village tool assessing community uses of the site and previous responses to extreme weather events, and habitat and species tools, to assess the potential impact on locally predicted changes to climate on key livelihood and biodiversity habitats and species. The habitats and species have been selected for the site (habitats: seasonally inundated grassland, open water with aquatic plants, *Melaleuca* scrub. Species: sarus crane, spotted greenshank, black-tailed godwit, *Eleocharis dulcis* and *Melaleuca spp*) and desk-based assessments are ongoing. A facilitator group has been established and trained for the Village Tool, but the scheduled fieldwork in Feb 2020 was abandoned due to Covid-19 restrictions.

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

In July 2019, NLC conducted an awareness raising event in BPL on biodiversity values of the wetland, and the legal status of BPL. In the workshop, the Deputy Governor of Takeo province hosted about 300 participants including provincial government authorities, army members, students, and commune authorities (Annex 4.9). A series of environmental film display events were organized in two target villages of BPL for 76 participants in September 2019 to improve

the awareness of communities about the values of wetlands, and to introduce them to the concept of “wise use of wetlands” (Annex 4.10).

A government road building scheme threatened to encroach upon the boundary of AP in January 2020. A series of meetings were held with the provincial and local authorities to discuss the legal aspects of the Protected Area law and the responsibility of local authorities towards it. We also met the neighbouring landowner to seek possible solutions. These follow-ups resulted in a revision in the initial plan and no land was taken from the wetland for road construction. The landowner donated a part of his land for the road construction to avoid the destruction of the wetland (Annex 4.11).

Fifteen rangers and members of Field Monitoring Teams (FMTs) in AP and BPL received training from the Manager of Protected Wetlands on the use of SMART handheld data collection systems (Annex 4.12). The Terms of Reference for AP and BPL environmental rangers and FMTs were reviewed to offer new contracts (Annex 4.13). Anti-corruption guidelines were updated from a 2017 Site Management Protocol to update processes for staff and to correspond to the current law enforcement requirements (Annex 4.14).

Patrolling missions were conducted regularly. Data is collected electronically during all patrols, and monthly patrolling reports including SMART maps were produced (Annex 4.15). The BPL Ranger team have been involved in crackdowns, arrests, and confiscation of illegal equipment. On average the BPL rangers conducted 16.87 days or patrolling in a month and covered more than 50% of the area, while the AP rangers conducted 12.75 days or patrolling per month covering 65% of the protected landscape. The FMT in BPL conducted a minimum of 12 days of fieldwork and the AP team conducted a minimum of 8 days of fieldwork. Rangers and FMTs receive ongoing support to improve patrolling and data management systems at the sites.

Activities 2.10 - 2.12 Management planning and international designations at AP and BPL

Plans and timelines for this work have been shared with the DFWC. Majority of these activities scheduled for Y2.

Activities 2.13 - 2.14. Environmental education and awareness

Two educational books (“learning about Sarus Crane”, and “How to protect our environment”) which were developed in 2015, were updated (Annex 4.16). An environmental education curriculum was developed to establish a student environmental scout group (Friends of Anlung Pring). The curriculum will be translated to Khmer to initiate the group (Annex 4.17).

A rapid feasibility assessment was conducted in the primary schools of the BPL area to select the target schools. As a result, three primary schools were selected. The agreements of the district and provincial Education Authorities to conduct the environmental education programme were obtained.

Teachers from six schools (18 classes in total) in AP and BPL received training on the environmental education programme (Annex 4.18) and the environmental education programme was taught to over 370 schoolchildren in AP and BPL in Y1 (Annex 4.19).

A training needs assessment for the NLC team was conducted in Feb 2020 and WWT’s specialist education team in the UK is planning to provide NLC a series of training courses on planning, implementing and evaluating awareness raising activities in Y2.

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

Activities 3.1 - 3.6. Sustainable agriculture scheme around AP

Water inflow models were generated for the site (Annex 4.20) and shared with CRDT for cross-referencing with the locations of local farms to identify priority farmers for the sustainable agriculture scheme. CRDT then conducted a rapid ground-truthing assessment to identify the target communities. Seven farmer groups comprising 224 farmers (142 women and 82 men) were formed in 3 villages around AP (Annex 4.21). For each group, a management committee was selected by the members, and the rules and responsibilities were identified (Annex 4.22).

A series of pilot educational events were delivered to 60 of these rice farmers at AP to raise their awareness about the impact of using chemical pesticides (Annex 4.23). A three-day study tour was organized for 25 representatives of the farmer groups to visit pilot farms in BPL in December 2019. During the visit the farmers learned about new techniques of rice production, maintaining a good income by reducing the application of chemical fertilizers and insecticides, seeding before seed sowing, and appropriately using the rice seeds (Annex 4.24).

A training needs assessment was conducted among the seven farmer groups. Accordingly, five technical training manuals on the production of compost fertilizers, soil nutrient management, soil preparation, direct seed sowing/transplanting methods, and applying appropriate chemical fertilizers and pesticide were produced (Annex 4.25). Seven training courses (two days per training) on SRP farming techniques, production of compost fertilizers, and soil nutrition management were delivered to the farmer groups. In total 210 members attended the training events (Annex 4.26). One topic (general business management, and market connection concept) which were originally planned for Q4-Y1 will be moved to Y2 due to the outbreak of the Coronavirus. Pre and post evaluations were conducted to assess the knowledge increase of the participants. It shows an average of 53% increase in the knowledge of the participants (37% pre-training to 90% post-training) (Annex 4.27).

An Internal Control System (ICS) was established to assess if the farmers' practices on rice growing techniques comply with the project goals to reduce negative impacts on AP habitat and biodiversity. ICS is a tool to monitor parameters such as the size of the paddy lands, the number of livestock, the amount of organic and chemical fertilizers, herbicide, insecticide and fungicide used, the crop yield and residue management. A rapid assessment was conducted to identify the best strategy to implement the project based on the problems and root causes. The assessment used field observation and community consultation to collect data.

A Rice Market Value Chain and Link to Key Private Sector was developed in September 2019. A series of consultations were conducted with the rice processors (mills) and buyers (Annex 4.28) to understand the feasibility of marketing SRP varieties. According to the market agents, it will be difficult to establish a new market for SRP (IR-504 variety) around Anlung Pring. The only market for SRP rice will be in Phnom Penh, and it would not be economically viable to transport the rice there. Therefore they recommended for the project to work with the Tro-Nong rice variety, which is close to SRP standards and has an existing market. Transitioning to Tro-Nong rice will not require additional equipment, but will require a greater quantity of start-up seed, and therefore a change request will be submitted shortly after this report to move budget from capital equipment to allow the project to purchase the necessary seeds for the farmer groups. Our baseline study shows that Vietnamese are the major buyers of rice in the area because AP is located adjacent to the border. The buyers prefer raw freshly harvested rice over dry rice. This is a guarantee measure for the buyers to ensure that the purchased yield will be dried in accordance with the preference of the Vietnam market. Although the dried rice has a higher price which might justify the introduction of drying equipment, it will reduce market accessibility of the product (and will add extra labour costs), the farmers prefer to follow preferences of the Vietnamese buyers.

Further implications of this are discussed in Section 3.2 (Output 3 - below), but we will be requesting to change the 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" to "Establish a local assessment committee, build their capacity, and develop rice market chain linkage". We are aware that a Change Request will be required before this is approved and apologise for the delay in sending this request.

Activity 3.7. Community fisheries

Community fisheries (CFis) were established within BPL under previous management systems, and the rights of CFI members have been uncertain since the site was transferred to the management of the Ministry of Environment in 2016. This is being addressed through the new zonation plan for the site (see Output Indicator 2.1), with CFI members inputting to that process. A series of training and idea-sharing events were conducted in three communities in BPL for 40 members of the CFis to remind existing members, and introduce new members, to the structure, functions and legislation of CFis, and to explain the zonation process. Participants also received information on how the CFI systems would be integrated into the Community Protected Area (CPA) regulatory system, which would offer greater security. The majority of participants were comfortable with explanations and were charged with disseminating this information more widely (Annex 4.29).

Activities 3.8 - 3.9. Capacity building of community associations

Handicraft groups making bags and mats from Lepironia and Hyacinth at AP were connected with the WWT Trading team in the UK, and a scheme is now in place to sell these handicrafts at WWT's wetland centre gift shops in the UK. There have been delays to this scheme due to the Coronavirus outbreak, but it will be relaunched as soon as feasible in Y2. If the scheme is deemed popular, the project will support the expansion of the handicraft production group to work on the design and quality of the products (Annex 4.30). Kampot Art Gallery will conduct a training course in the AP community on converting plastic waste into artwork and jewellery. The training to be conducted after the removal of the Coronavirus ban (Annex 4.31) and is hoped to result in a micro-business lined to the above.

It has been difficult to generate local interest in other recycling micro-businesses due to the lack of commercial recycling facilities. Seven waste bins to temporarily store the agricultural hazardous waste were installed in AP (Annex 4.32) and a series of advocacy and training events were conducted to encourage the farmers to dispose of their hazardous waste in these facilities (Annex 4.33). An agreement between Naturelife and the Kampong Trach district government was made to allow us to construct a storage place the hazardous waste in the district landfill (Annex 4.34) but the project cannot identify a commercially feasible initiative in this regard.

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.

Habitat restoration areas have been identified for AP via the expert working group workshop at the site in 2019. The BPL expert working group workshop is delayed to Y2 due to travel restrictions, but habitat restoration underway in a pre-existing 16ha water management plot at BPL, with experimental water level manipulation investigating ecological responses of *Eleocharis dulcis*. The remaining 34ha of grassland habitat restoration will start in Y2.

Three Invasive Species (*Monochoria hastata*, *Mimosa pigra*, and *Impomea rubens*) have been identified in Biodiversity Use and Habitat Map of BPL, with priority clearance areas agreed (Annexes 4.35 and 4.36), and a protocol for controlling *Mimosa pigra* in BPL has been developed by BirdLife (Annex 4.37). Other protocols and removal plans are in development. In total, the removal of *Mimosa pigra* and *Impomea rubens* was conducted across 100 hectares of affected habitat in BPL. Pre-flood invasive species removal activities were conducted in June and July 2019. A post-flood removal activity was conducted in the same area in January 2020. Both activities involved 26 participants from the local community (Annex 4.38).

Tree inventories were completed in March 2020 to identify key species for nurseries for the inundated forest restoration programme. A monitoring system has also been developed to assess the mortality rate of three common native species, as locals have advised some trees are experiencing high mortality and recommended understanding the causes of this before selecting obvious common species. A map of big tree communities was developed (Annex

4.39) and a map of the inundated forest of BPL was developed (see Annex 4.7). A restoration protocol is in development and the project will set up community-based nurseries for long-term projects and plant saplings for short-term ambitions within Y2.

An early collaboration is being developed with IUCN's Asia-Pacific Office to identify connectivity between the Cambodian and Vietnamese Lower Mekong Delta wetlands (BPL and Tram Chim) and to develop a proposal on regional collaboration for water and habitat management. A field assessment was conducted in August 2019 (Annex 4.40)

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.

Assessments of the wider CLMD were brought forward to benefit from the availability of a key DFWC staff member who was very familiar with the region but was leaving to start a PhD and would not be available later in this project. Therefore this element of the project is ahead of schedule and the publication of the State of Cambodian Lower Mekong Delta Wetlands will be ahead of schedule within Y2. The spatial analysis of the region has been completed and priority sites identified and ground-truthed (see Section 3.1). The selected sites have the support of the DFWC, who joined the fieldwork, and one site, Boeung Sne, has been placed on the candidate list for Protected Area status.

The RAWES tool has been trialled at AP (see Section 3.1) alongside staff from the Department of Freshwater Wetland Conservation of the Cambodian Ministry of Environment, and the Indo-Burma Ramsar Regional Initiative Secretariat, and the Cambodian DFWC have approved plans for training workshops on the tools that will be used throughout the next stage of the CLMD assessment work. Training is scheduled at the Institute of Technology of Cambodia in collaboration with University College London for satellite-based hydrological assessments.

As a consequence of prioritising CLMD assessment work, and then later Covid-19 related travel restrictions, the project is behind schedule in determining the optimal ecohydrological states of AP and BPL, which was scheduled to be completed by Oct 2020. It is more likely that this will now be completed by the end of March 2021.

The expert working group created by this project held an initial workshop in June 2020, which led to the production of a research plan for the site which is now being implemented (see Section 3.1). Although this element of our work at AP may be completed on schedule, we have not yet managed to hold a workshop for BPL, which is a larger and more complex site. Remote virtual workshops are being explored and may help to start developing the plan, but they are not going to generate the same level of output as workshops held on site. Fieldwork is slowly starting again within Cambodia at the date of writing this report and we are hopeful that a full research programme will recommence shortly so that the optimal ecohydrological states, informed by research findings, are agreed by AP and BPL Liaison Panels by March 2021. We do however acknowledge that hosting an international expert working group may not be possible for BPL for the foreseeable future. As the delay would affect the quality of other components of the project, including the BPL Management Plan and habitat restoration, we may have to opt for a smaller local expert working group for this activity.

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.

AP has now been designated a zoned Community Protected Area (Annex 4.41), and project partners are working with the livelihood department of the Ministry of Environment to agree sustainable use of the site. This is a simple zonation model with the whole Protected Area designated as one zone, allowing sustainable community use of natural resources. The site is small, and therefore all parties agreed that this model was suitable. BPL has not yet achieved a final endorsed zonation scheme, although timelines have been agreed, and supporting biodiversity and ecosystem service data has been submitted (see Section 3.1), and the final land tenure review process is underway. This will be a more complex model for a larger site which is subject to multiple threats and includes agricultural areas. As such, BPL will be split into a core protection zone, sustainable natural resource use zones (Community Protected Areas – CPAs) and so-called ‘Community Zones’ which allow activities such as sustainable agriculture. Site information for both sites is being compiled, vulnerability assessments and mitigation plans for BPL are completed and AP underway, and Management Planning process has begun. This work remains on schedule within this project.

Local communities have been heavily involved in the zonation processes and project partners have been active in education and awareness (see Section 3.1). Rangers have fully adopted SMART monitoring at both sites (see Section 3.1) and are recording community use and illegal activities, having generated baselines on illegal fishing at the start of the project.

The 20% decrease in illegal fishing incidents at BPL will be largely the result of; new regulations being agreed, the project coordinating effective patrolling, and capacity support for the current community fishery groups to manage their fishery association. The main threat to this Output Indicator being achieved would be a delay to zonation, which would prevent CFIs from fully managing their fishery. Delays to zonation would also affect our ability to control encroachment in the Protected Area, so zonation is the highest priority area for us at the time of writing this report.

This Output is on schedule, but highly dependent upon efficient government processes, which have recently been delayed due to restrictions on government staff travel due to the Covid-19 outbreak.

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

Farming associations, comprising 224 members (142 of whom are women), have been set up in priority areas that have been determined to have the highest potential polluting impact through water inflow modelling. These areas are Kosh Chamka village, Chres village and Kosh Tnoat village. Farmers have received targeted training and representative members of these associations have visited similar sustainable farming projects at BPL.

Baseline profits generated from 94 households, determined to be the optimum sample size to be representative of 1641 households in 3 villages using the Yamane (1967) formula. There are two rice crops in the AP area each year; early duration maturity rice, and medium/long duration maturity rice. To generate temporal profit baselines, the two crops were assessed separately. Farmers received a net profit of 37874 Riel (USD) for early duration maturity rice per hectare per lifecycle when using the direct seed sowing method. Medium/long duration maturity rice is much more profitable, generating Riel (USD) per hectare per rice lifecycle using direct seed sowing methods. This decreases to Riel (USD) when using the transplanting method.

For early duration maturity rice, an average of 295 kg of chemical fertilizer per hectare per rice life cycle is used. For each method, rice growing is a three-step process. It was also noted that correct application of this fertilizer was a major issue, with only 49% of farmers applying fertilizer correctly in step one of the process, 29% in the second step, and 80% in the final step. For medium/long duration maturity rice, average fertilizer inputs were 231 kg for direct seed sowing method and 223 kg for transplanting method. For this medium/long duration maturity rice, only 23% of farmers applied the chemicals correctly in step one, and 61% in the final step. On average 652g and 1754 ml of disease and insecticide was applied per hectare per rice life

cycle for early duration maturity rice; and 321g and 970ml for medium/long duration maturity rice.

As described in Section 3.1, a rice market analysis has suggested using the Tro-Nong rice variety, which is close to SRP standards, rather than the traditional SRP rice (IR-504 variety) due to easy access to an established market for the former. This rice seed can decrease chemical fertilizer usage by 30%, and additional efficiencies will be met through correct application at the various stages. The project is on track to decrease the use of insecticide and fungicide by 100%.

Community fishery training has been delivered to existing groups, and members have also been engaged in the zonation process so that they understand the implications of operating as a Community Protected Area group and can influence decisions around the zonation process. Most work relating to fisheries occurs in Y2 and Y3.

One community business is being set up at this stage of the project, supporting local handicraft producers the generating sustainable income through the sale of products to WWT Centres in the UK (see Section 3,1). Although this is not a recycling business, it is one that is set up to help clear invasive plants from the surrounding area as the bags are made from the invasive water hyacinth, so community groups are profiting from habitat improvement projects. A second community business is being explored through a recycled plastic handicraft scheme sponsored by a local arts centre. Further details will be reported in the next Annual Report. As stated in Section 3.1, it has been difficult to generate local interest in other recycling micro-businesses due to the lack of commercial recycling facilities. One opportunity may come from managing waste generated from agricultural inputs, but this is in the early stage of development.

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.

One hundred hectares of the planned 180ha of invasive non-native species clearance has been completed. A monitoring protocol has been developed for the main species cleared in this area to assess the success of the intervention (see Annex 4.37). Mapping has prioritised key clearance areas for the remaining 80 hectares for this element of the project (see Section 3.1). It is too early to assess the efficacy of our intervention,

Eleocharis habitat restoration areas have been selected by the expert working group at AP (see Section 3.1) but delays to the workshop at BPL have prevented progress in this area for BPL. An existing 16 ha water management plot has been selected for early experimental treatment, manipulating water levels to test eleocharis community responses to differing periods of inundation. Although this work is slightly behind where we would like to be, we are still on track according to the timeline and output indicators, and a priority will be to get expert working group recommendations as soon as we are able to facilitate this workshop on-site.

Inundated forest restoration plans are underway, but most work relating to this indicator is planned for Y2 of the project. Community consultations have highlighted concerns around high mortality rates for a number of species, so the project has focused effort on investigating this issue so that the most appropriate species are selected (see Section 3.1).

3.3 Progress towards the project Outcome

It is early to assess progress towards the project outcome, but the activities and outputs are largely on track and outcomes are expected to be met, with the assumption that fieldwork and government zoning processes can recommence in early Y2 once travel and work restrictions are lifted.

As noted in Section 3.2, ensuring that 5,100 people have legally secured access to wetland resources managed through plans agreed by multi-stakeholder Liaison Panels is reliant upon an efficient zonation process, but the timelines within this project remain feasible, and success

for zonation at the smaller site, AP, bodes well for BPL. Engagement in the process has been good (see Sections 3.1 and 3.2) and timelines have been agreed by government. Zonation mapping has been proposed, including areas dedicated to sustainable natural resource management and conversion of existing agricultural land to sustainable farming initiatives (see Sections 3.1 and 3.2).

Work to improve habitat at AP and BPL will be scaled up in Y2, but the expert working group for AP has produced valuable recommendations (see Section 3.1) which have influenced the ongoing research programme at the site. Habitat restoration has started at BPL, albeit through an existing water management plot. Further restoration areas will be identified and started in Y2. Defining a baseline of 'Good' quality eleocharis habitat has been discussed by the expert working group at AP and will be signed off by the working group at BPL once both sites have been visited.

Sustainable rice programmes are on schedule and baseline data and market analyses suggest that the decreases in agricultural chemical inputs are achievable (see Section 3.2). The expert working group reviewed the water quality data and suggested revisions to the protocols (see Section 3.1) but the baselines collected prior to the project are still relevant and the working group believe that the agricultural and waste management interventions proposed could feasibly lead to levels of Ammoniacal Nitrogen (NH₄-N) and Biological Oxygen Demand (BOD) in AP reducing by 20% by the end of the project.

Bird monitoring and the sarus crane annual census is ongoing (see Section 3.1). The Sarus Crane Census data is not yet available, but early indications from monitoring teams is that the number of cranes visiting the site is comparable to the number in 2018, but this is not a measure of the proportion of regional population. It should also be noted that Cambodia experienced a heavy drought in 2019, and this is likely to affect the regional population.

Outcome indicator 0.5 has been a challenge for the project. The percentage of the 1,700 local people around AP classified as 'Poor' in the Multidimensional Poverty Index (MPI) was proposed to decrease by 10% by 2022 (based on a representative sample, disaggregated by sex). Given the number of people directly engaged in sustainable livelihood schemes through agriculture (224) and handicraft production (18), and scheduled improvements to habitat management for fisheries, improvements to livelihoods are very likely, but the MPI may not be the best way to measure this. The project has conducted a livelihood baseline through CRDT's own Livelihood Assessment Tool, and details of this will be submitted as a Change Request shortly after the submission of this Annual Report.

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, with DFWC staff joining the CLMD field assessments and working closely with project partners for Zonation and Management Planning.

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: 2019 was a year of drought in Cambodia, but initial surveys from the sites' Field Monitoring Teams suggests number are relatively stable. Annual census data will help us to explore this further.

Assumption 3: Local farmers and communities will engage with the project

Comments: 224 farmers have signed-up to programme and continue to engage, especially after seeing similar successes from a study tour to BPL.

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: Project has received full community support to date. Only challenge has been from a number of farm owners who have seen the zonation process as an opportunity to claim additional land within BPL Protected Landscape. This was anticipated and factored into the transparent zonation process devised alongside government.

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

Comments: Good support received so far. Covid-19 related travel restrictions in Feb and March 2020 have delayed some activities, but these can be caught up.

Assumption 6: Civil society groups in Vietnam engage with the project

Comments: WWF Vietnam are facilitating this and have been involved in the AP and BPL expert working group workshops.

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: No changes to note.

Assumption 8: No major increase in the number of commercial Vietnamese fishing vessels

Comments: No major increases reported by Ranger teams in Y1.

Assumption 10: Farmers transitioning to sustainable rice are able to achieve 30% profit increases

Comments: Deemed achievable if farmers adopt Tro-Nong rice variety instead of the SRP IR-504 variety (see Sections 3.1 and 3.2).

Assumption 11: The market for Sustainable Rice remains strong

Comments: Market Assessment suggested that farmers adopt Tro-Nong rice variety instead of the SRP IR-504 variety (see Sections 3.1 and 3.2).

Assumption 12: CFI financial sustainability is achievable within the project period

Comments: Too early in project to assess.

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

Comments: Demand has been challenging to identify, and scheme widened to invasive species as another 'waste/unwanted' material (see Sections 3.1 and 3.2).

Assumption 14: External threats to habitat can be managed and controlled by good transboundary cooperation and effective ranger teams.

Comments: Assumption relevant so far.

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

Comments: Assumption relevant so far.

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

The biodiversity and ecosystem service value of the CLMD was poorly understood prior to the inception of this project. In Y1, the project has identified twelve sites deemed to have high potential conservation value where we have conducted initial assessments (see Section 3.1) which will be included in a published report in Y2 to be shared with the Cambodian Government and other NGOs. Four priority sites have been identified for further conservation action in Y2. These sites are additional to AP and BPL, where project partners have worked with local communities and international experts to increase knowledge on habitat requirements and

ecosystem services, through expert working groups, biodiversity research and initial RAWES assessments (see Section 3.1). Community-based zonation and habitat restoration schemes (detailed in Sections 3.1 and 3.2) have started to ensure all community stakeholder groups are engaged in future regulations and conditions of the natural systems on which they depend. Sustainable agriculture and waste management programmes have begun at AP (see Section 3.1) and showing the potential to improve livelihoods through improved income generation and enhance biodiversity habitat through decreases in harmful environmental waste (see Section 3.2).

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.

- In Anlung Pring,
 - CRDT is working with 224 farmers on a pilot environmentally friendly rice farming (see Section 3.1). This multidimensional initiative will help to secure livelihood of the communities in a long-term perspective by conserving the soil fertility, better managing the yield, and applying less chemicals.
 - Communities have been supported to get legally recognised “Community Protected Area” designations for AP from the Ministry of Environment and conduct an election among 3 villages of the area to appoint the CPA committee members (Annex 4.42). It will support the full authority of the communities over their wetland to conduct some nature-based livelihood activities while being fully responsible for the conservation of AP.
- In Boeung Prek Lapouv
 - We are working with the Community Fisheries to explore options to convert their legal titles to Community Protected Areas. It is because BPL’s administration has recently (in 2016) been transferred to the Ministry of Environment from the Ministry of Agriculture, Fisheries and Forestry. This will protect their rights over the fisheries resources.

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 on track (see Sections 3.1 and 3.2), helping to identify different conservation zones within the ecosystem and execute appropriate law enforcement and habitat restoration plans.
- Establishment of CPAs in AP and BPL is ensuring more equitable access to the natural resources, providing opportunities for communities to directly be involved in the conservation of their natural resources.
- In developing management plans for AP and BPL, the stakeholders will use the results of the vulnerability assessments of these wetlands to identify best strategies for climate-resilient livelihood development especially in agriculture.

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

- Environmentally friendly rice production has started in AP for 224 farmers, with early analysis suggesting feasible decreases to chemical inputs which is likely to generate indirect improvements in water quality at AP (see Section 3). This approach is scalable, and wider regional projects being explored with IUCN.

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

All partners have integrate gender equality measure in this project.

- Approximately 66% of the participants in the farmer groups of AP are women.
- Women were encouraged to register for the candidacy of AP’s Community Protected Area committee and Ecotourism team (Annex 4.43).

- Women participated in the planning and implementation of the Invasive Species removal in BPL (see Annex 4.38).
- Women comprise more than half of the participants in the public awareness activities (see Annexes 4.9 and 4.10 and 4.18 and 4.19)

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.

- A hazardous agricultural waste disposal system was established in Anlung Pring (see Annexes 4.32 and 4.33).
- A catchment analysis of pollution inflows around AP was conducted (see Annex 4.20)
- An ecohydrological expert working group was established, and the research priorities for AP were identified (see Annexes 4.2 and 4.6)

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

- This project is being implemented to conserve two important wetlands in the context of Cambodian Lower Mekong Delta. To develop an effective mechanism for conserving these wetlands a knowledge basis is being established by conducting an ecohydrological research component, while implementing ecosystem-based conservation approaches and providing climate-resilient livelihood solutions to the communities.
- Based on the vulnerability risk assessments of AP and BPL the partners are working with the stakeholders to develop management plans for these sites which will be used to coordinate the conservation efforts in these wetlands.

The project serves to have wide ranging impacts for **SDG 15 (15.1, 15.5, 15.8, 15.9)**, through the conservation, restoration and sustainable use of inland freshwater wetland ecosystems, especially through habitat restoration work that has begun in Y1.

5. Project support to the Conventions, Treaties or Agreements

The Ramsar National Focal Point is the head of the DFWC, and has been integrally involved in all elements of this Darwin Project. The Ramsar National CEPA focal point, Bou Vorsak, is directly involved in this project as a listed staff member. Within Cambodia, Ramsar is recognised as a lead partner in implementing CBD wetland-related activities.

This project strongly contributes to the CBD's Inland Waters Biodiversity thematic programme. The 16 ha of restoration of eleocharis habitat at BPL and improved ecohydrological and biodiversity research at AP (see Sections 3.1 and 3.2) help enhance habitat to support the recovery of threatened waterbirds (1.3, 1.4). Integrating community groups and government to zonation processes, management planning and education and awareness helps to generate increased understanding and appreciation of wetland biodiversity and include local stakeholders in decision-making (2.4, 2.5, 3.1, 3.2). This also contributes to CBD Aichi Target 1.

During this project period, progress has been made in assessing the status of CLMD wetlands alongside the DFWC, helping to generate information to be integrated into national planning (Aichi Target 2). This wider work, alongside transboundary collaborations with colleagues in Vietnam through the Expert Working Group, contributes to more equitably managed, ecologically representative and better connected systems, supporting Aichi Target 11 and Ramsar Strategic Plan (RSP) Strategic Goals (SG) 1 and 3.

Designation of AP as a Community Protected Area provides a platform for improved sustainable natural resource management, contributing to Aichi Target 4, and progress in the development of a zonation plan for BPL, informed by participatory land tenure reviews, is helping to resolve land disputes and therefore contributing to Aichi Target 5, reducing loss of natural habitats from conversion/degradation.

The 224 farmers joining CRDT's sustainable agriculture programme are contributing to decreasing degradation (Aichi Target 5) and managing agricultural areas sustainably (Aichi Target 7) and managing excess polluting nutrients (Aichi Target 8).

Ecosystem service assessments at AP and continued community-based zoning at AP and BPL are contributing to Aichi Target 14, understanding and restoring ecosystems that provide essential services to local people.

6. Project support to poverty alleviation

The Cambodian Lower Mekong Delta region supports the livelihood and wellbeing of over three million people, of whom 1.5 million are classified as poor. This project supports government and communities to improve natural resource management capacities, practice climate-resilient livelihoods, and understanding the ecological and hydrological characteristics of their wetlands.

During Y1 of this project, 244 farmers from three villages have signed up to sustainable agriculture groups, with initial market assessments suggesting that income and profit increases are highly feasible.

The project has supported communities at Anlung Pring to successfully register their wetland as a Community Protected Area, providing legal use rights for over 1,700 people. The project is working with the CPA committee to investigate management options to improve livelihood outcomes for local people.

Two Community Fishery groups at BPL are being supported to transition to Community Protected Area Groups, which would reinstate their natural resource management and use rights within the Protected Landscape.

By supporting locally employed law enforcement officers and Field Monitoring Teams, the project contributes to the improved income of 21 local people whilst also regulating illegal resource use that would decrease the productivity of important fisheries.

7. Consideration of gender equality issues

In all the project activities the consideration of gender equality was encouraged by providing equal opportunities, encouraging shared their perspectives and putting the perspectives of the other genders in consideration.

Female participation in sustainable farming groups is currently at 66% (see Section 3.2). Prior to the project it was thought that this may be difficult to achieve, but it was discovered that many men in the area have taken jobs outside of the communities (often in garment factories) to increase household income, whilst women stayed in the area and managed farms.

In public awareness activities, gender equality was promoted and both girls and boys had the opportunity to learn about the importance of their natural resources and participate in the advocacy activities through the art performance (see Annexes 4.9 and 4.10 and 4.18 and 4.19 and 4.22).

All community consultations around zonation, vulnerability assessments and ecosystem service assessments have taken special measures to ensure gender representation and the consideration of all views. For example, women only training and consultation sessions have taken place during the zonation process at BPL.

8. Monitoring and evaluation

A project M&E plan was agreed with all project partners during the first Project Steering Group at the start of the project, using the Darwin template on a shared Google spreadsheet so that all partners could edit and update and the project progresses. Each partner has been allocated specific outputs and all data, as well as evidences for reporting, are stored in a shared folder on

Google Drive. Field staff have regular informal meetings to discuss synergies between elements of the project and maintain a 'one project' identity with stakeholders.

The Project Steering Group is charged with reviewing the relevance and linkages between activities, outputs and outcomes. Although the activities and indicators are still largely relevant, the few that require minor modification have been noted in this report, with a Change Request following shortly.

One challenge to reporting is that the data produced by the annual crane census only becomes available after the Darwin reporting deadlines, so we are contacting the coordinators, the International Crane Foundation, to request early access to the raw data so that provisional comparisons can be made between similar times of year.

The most significant issue around M&E has been for Outcome Indicator 0.5 'Percentage of the 1,700 local people around AP classified as 'Poor' in the Multidimensional Poverty Index (MPI) decreases by 10% (baseline to be established) by 2022 (based on a representative sample, disaggregated by sex).' Project partners have decided that the MPI is not a sensible measure for this project, as a number of the indicators, for example 'No household member aged 10 years or older has completed six years of schooling' are too long-term to be affected by interventions within this three year project. We will suggest an altered indicator in the coming Change Request and a revised baseline must be approved. Baseline data was collected at the start of the project using CRDT's own established livelihood assessment tool, but we must have it confirmed with Darwin that this is appropriate.

It has been more of a challenge to get senior government representatives involved in M&E, an activity which they see as a funder requirement rather than a fundamental part of successful conservation delivery. A representative of the DFWC is invited to all Project Steering Group meetings in an attempt to create greater engagement.

9. Lessons learnt

One of the significant highlights of this project was in developing two strong partnerships. One among the project implementing parties and the second one with the wetland experts from the academic institutions. While the former, ensures the quality implementation of the project, the latter will be an investment to develop and initiate more successful projects based on the conservation science.

Agreeing a shared platform for reporting and documentation early on was essential, and better training for using Google shared drives would have saved some time rectifying issues that occurred later in Y1. Plans for the establishment of an online database are being discussed to make sure the updated monitoring data are available for the researchers and policy makers.

The institutional knowledge within the partnership is high, but other than quarterly Project Steering Group Meetings, there was no way to capitalise on this during the early stages whilst things were getting established. We are recommending a self-learning mechanism in which the project partners build the capacities of other partners rather than relying on external sources.

For the future, it would be useful to develop a plan to attract researchers (especially postgraduate students) to conduct their studies on Cambodian Lower Mekong Delta using the data produced by Darwin project.

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

N/A

11. Other comments on progress not covered elsewhere

One of the major common challenges that NGOs face in Cambodia is the hardship in recruiting appropriate personnel. It usually takes much longer than expected to fill the positions. Some positions are advertised between 2-4 times. Due to workforce market limitations, it is often difficult to find a desirable candidate for the positions. The recruitment of WWT's Research

Officer encountered the same issue. It took 2 rounds to recruit an appropriate officer, and so this role was delayed and work had to be taken up by other existing staff. By providing a series of capacity building programmes, the incumbent is fully engaged and can lead the activities.

Although the coordination with the Governmental organizations is productive and positive, due to the complicated bureaucracy as well as the political considerations, it usually takes a longer time and more effort to get the activities done.

The recent outbreak of Coronavirus has put a major question in front of all project partners about the future of the activities. Despite the endeavours to recruit smart solutions in getting the activities done, there are serious concerns about those activities that require participation of communities (e.g. public awareness activities, trainings, ...) or the government representatives will be difficult to implement. Project partners will continue to monitor the situation and report any significant changes to Darwin.

12. Sustainability and legacy

The project is well integrated into the DFWC workplans, and the DFWC have added Boeung Sne to their candidate Protected Area list after it was identified through a joint WWT and DFWC mission to explore wetlands in the CLMD. Anlung Pring is also on their candidate list for Ramsar designation, in line with the related output within this project.

The Deputy Minister of Environment attended our World Wetlands Day celebration at Anlung Pring in February 2020, alongside the British Ambassador to Cambodia, Ms Tina Redshaw (Annex 4.45) who is kindly offering ongoing support to the project. This event was showcased on national television channel BTV (Annex 4.45).

This project is designed to support Cambodia's national implementation of the Indo-Burma Ramsar Regional Initiative (IBBRI) Strategic Plan. Tools used through the assessment of the status of CLMD wetlands will be presented at the IBBRI workshop in 2021, and WWT staff attending the IBBRI workshop in Feb 2020 have had this approved by the Secretariat, enabling the legacy of this project to reach more widely across the region.

The project is working with the IUCN regional office in SE Asia to explore common challenges in the agriculture/conservation interface in the Mekong Delta (Cambodia and Vietnam) through the IUCN MekongWET project, and it is proposed that a workshop is held to investigate this further directly after the expert working group ecohydrological workshop at BPL, creating cost efficiencies and attracting wider expertise to input into both workshops.

Through this project, relationships have been built with University College London in the UK and the Institute of Technology of Cambodia, creating a knowledge sharing network for ecohydrological assessments. Potential collaborative local Masters and international PhD projects are also being explored through this network.

The project partnership is now well established and collaborative match funding proposals have been successful. A large follow-on proposal is planned for the project partnership at the end of this project, which would potentially include funding for large-scale water management features if advised by the research resulting from this Darwin project.

13. Darwin identity

The Darwin logo was used in all the document produced under the Darwin project (see Annex 4.5 and 4.6 and 4.14 and 4.15 and 4.16 and 4.17 and 4.26 and 4.37 and 4.44 and 4.45 and 4.46 and 4.47 and 4.48) and educational signboards installed in the target areas (see Annex 4.46). The project leaders addressed the progress of the Darwin project in their official and personal professional social networks e.g. LinkedIn and Twitter (see Annex 4.44)

WWT sent an appreciation note to the British Ambassador regarding the support of the British Government to the Conservation of Lower Mekong Delta Partnership under this Darwin Project (Annex 4.49). Following the visit of WWT's CEO to Cambodia, Ms. Tina Redshaw, the British Ambassador to Cambodia was invited to participate and to provide a keynote speech in an event organized to celebrate the World's Wetlands Day 2020 in Anlung Pring Protected Landscape. A Secretary of State from the Ministry of Environment, a Deputy Provincial

Governor, and other high-ranking government authorities joined the local communities in AP for this celebration (see Annex 4.45).

Darwin is well recognized among the government and international community in Cambodia. The national authorities also have a good appreciation of Darwin Initiative's legacy and it helped the project partners to upscale the communication with them.

The local communities in Anlung Pring appreciate the support from Darwin, especially after the British Ambassador emphasised on how the British government is provide funds to the conservation efforts in Cambodia to support the livelihood of the communities.

14. Safeguarding

This Darwin project works closely with local communities and as such, comprehensive safeguarding measures are in place to protect vulnerable people. For the majority of the activities in the project, the lead agency and partners are able to install mechanisms to protect vulnerable people and ensure that benefits accruing from the project are distributed fairly. Selection for sustainable agriculture support programmes for example was a detailed process, starting with open-access training and project familiarisation workshops at priority areas. These priority areas were selected from a pollution inflow analysis to target communities that, if transitions to sustainable rice are successful, would have the greatest positive impact on water quality with AP Protected Landscape. However, analyses were done prior to engagement of the number of farms in the area to see if it is feasible to support 100% of farmers, and villages were only approached if all farmers requesting support could be supported. As a result, the number of farmers engaged in our sustainable farming scheme is 224, above the target of 200 farmers. The project has committed to secure the necessary match funds to complete the programme with all farmers if a 100% retention rate is maintained.

There are also activities which are supported by the project, but officially facilitated by government, where our ability to dictate terms for social safeguarding is lower. The major example of this with the project is the zonation of BPL, through which the government does have the power to make legally binding decisions which could affect vulnerable people. The project's role in these instances has been to ensure that community consultations are inclusive, and represent community voices as best we can in closed meetings between government and NGOs.

The project has a grievance mechanism in place which is publicised locally through field staff and local village elders and other representatives. Only informal grievances were reported in Y1 of the project, and those related to misconceptions around evidence requirements for land tenure disputes. These issues were quickly dealt with during community meetings. No formal register is kept, but this will be discussed during the next Project Steering Group meeting with partners. Each partner has their own Code of Conduct for field staff.

15. Project expenditure

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

Project spend (indicative) since last annual report	2019/20 Grant (£)	2019/20 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs				
Consultancy costs				Funds are in the budget for a hydrologist to complete an assessment at BPL based on recommendations of the expert working

				group. This could not be completed in Y1.
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items				
Others				Funds are in the budget for water quality assessments based on recommendations of the expert working group. This could not be completed in Y1. Some funds for micro-business were also not spent in the final months of the year.
TOTAL				

Year 1 of this project is underspent by £3,187 due to activities that could not be completed in the final months of the year due to Covid-19 related travel restrictions. A Change Request will be submitted shortly after this report to request transferring these funds to Y2 of the project so that all activities can be implemented as originally proposed.

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

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
<p>Impact</p> <p>A network of wetlands within the Cambodian Lower Mekong Delta (CLMD) is providing connected habitat for biodiversity and resilient ecosystem services for local people.</p>		<p>The Department of Freshwater Wetland Conservation of Cambodian Ministry of Environment has endorsed the assessment of the Status of Cambodian Lower Mekong Delta Wetlands. Initial assessments have highlighted a number of important, previously unknown, sites and added evidence to support the addition of Boeung Sne to the list of candidate sites for protection in the future.</p> <p>Expert working groups have been established to support improved research and management of two key conservation sites, with new management plans underway.</p> <p>Targeted sustainable rice schemes have commenced at Anlung Pring, and are helping to inform a wider trans-boundary project facilitated by IUCN Regional Office for SE Asia to evaluate methods for improved integrated conservation and agricultural projects in the future.</p>	
<p>Outcome</p> <p>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.</p>	<p>0.1 The proportion of the South-east Asian population of sarus crane (<i>Grus Antigone sharpii</i>) 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%).</p>	<p>Annual census data has is in process of being collected for this crane season (annual data collection between Nov – May each year). Data not yet available. Early indication for monitoring teams is that the number of cranes visiting the site is comparable to the number in 2018, but this is not a measure of the proportion of regional population.</p>	<p>Review Annual Census data and ensure continuation of regional census. Contribute to final publication of Regional Sarus Crane Action Plan.</p>

	<p>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).</p> <p>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).</p> <p>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).</p> <p>0.5 Percentage of the 1,700 local people around AP classified as 'Poor' in the Multidimensional Poverty Index (MPI) decreases by 10% (baseline to be established) by 2022 (based on a representative sample, disaggregated by sex).</p>	<p>Expert working group has assessed AP, but BPL assessment has not yet taken place, so 'Good' quality seasonally inundated habitat is not yet defined agreed, and baseline not yet established. This will be completed before habitat restoration commences in Y2 of the project.</p> <p>To be assessed at end of project. Sustainable agriculture and waste management projects has started.</p> <p>0.4 AP registered as a Community Protected Area and management planning process ongoing. BPL zonation process in progress with community consultation ongoing.</p> <p>0.5. MPI has been reviewed by project partners and has been deemed to not be sufficient for three-year projects (See Section 8 above). Appropriate baseline data has been collected by CRDT and will be shared with Darwin through a Change Request for this Indicator.</p>	<p>Agree a defined and measurable definition of 'good' quality habitat with working group during expert working group workshop at BPL. Extend habitat restoration efforts at both sites.</p> <p>Continue to monitor the links between more sustainable behaviours and improved water quality at AP. Ensure targeted rice farming interventions are delivered in the correct areas and further monitor utilisation of waste management systems</p> <p>Complete BPL zonation process and integrate into Management Plan. Work with Livelihoods department of the MoE to integrate CPA legislation into AP Management Plan.</p> <p>Collect baseline for CRDT's Livelihood Assessment Tool prior to sustainable rice and micro-business schemes starting in early Y2.</p>
<p>Output 1. AP, BPL and the wider CLMD wetland landscape are better understood and showcasing best practice local adoption of Ramsar recommendations and tools.</p>	<p>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</p>	<p>1.1 Output Indicator for Y2. Research programmes in progress. AP expert working group workshop conducted and research plan developed and in process. BPL workshop postponed to a time when fieldwork can fully recommence.</p>	

	<p>ecosystem services).</p> <p>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).</p> <p>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).</p>	<p>1.2 Output Indicator for Y2 and Y3. CLMD key sites identified and provisional visits and data collection completed. Priority areas around AP identified. Research ongoing</p> <p>1.3 SWOS work completed and training scheduled at the Institute of Technology of Cambodia in collaboration with University College London, UK. R-METT and RAWES assessments ongoing alongside staff from the Department of Freshwater Wetland Conservation of the Cambodian Ministry of Environment. WWT presented outline of project to IBRRI members at workshop in Feb 2020.</p>	
<p>Activity 1.1 Use Satellite-based Wetland Observation Service (SWOS) to generate information on current condition, landscape connectivity and historical trends in wetland systems.</p>	<p>Completed.</p> <p>SWOS was used to identify twelve high potential biodiversity and ecosystem service value wetlands (see map in Annex 4.4). An expedition mission was conducted in June 2019 to study 12 wetlands in Cambodian Lower Mekong Delta and assess their eligibility to be included in a wider wetland conservation scheme (see Annex 4.4 for photos).</p>		
<p>Activity 1.2 Conduct fieldwork to complete Rapid Assessment of Wetland Ecosystem Services (RAWES) throughout the landscape.</p>	<p>In process. Six sites prioritised for RAWES assessment and agreed with Department of Freshwater Wetland Conservation. RAWES Assessment completed for Anlung Pring (Annex 4.5) and assessments scheduled for; Boeung Prek Lapouv, Bong Sne, Takeo wetland, Tonle Bati, and Angkol wetland</p>		<ul style="list-style-type: none"> ▪ Prepare remaining assessments alongside training for a team of facilitators. ▪ Conduct fieldwork at two sites, including consultation workshops with the stakeholders.

		<ul style="list-style-type: none"> Plan remaining sites and start to develop RAWES report for completed wetlands.
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).	Not for FY1.	<ul style="list-style-type: none"> Liaise with stakeholders and establish team. Conduct the assessment workshops at target wetlands in Q 2 and Q3. Produce and publish the reports by end of Q4.
Activity 1.4 Produce State of CLMD Wetlands report and present at workshop with MoE.	In process.	<ul style="list-style-type: none"> Develop a draft analysis report on the attributes of the wetland systems. In consultation with the Ministry of Environment, finalize the report and publish the data.
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.	Not for FY1. The activity is being discussed with MoE to be listed in MoE's annual staff training programme.	<ul style="list-style-type: none"> Develop training material in consultation with MoE. Establish and train the facilitator team.
Activity 1.6 Present wetland landscape assessment approach and local use of Ramsar tools at a side-event at IBRRI Annual Meeting in 2021.	Not for FY1.	<ul style="list-style-type: none"> Communicate the activity with IBRRI's secretariat to include it in the Agenda of the 2021 meeting and present the report in the meeting.
Activity 1.7 Establish Optimal Ecohydrological State Expert Working Group for AP and BPL and agree research methodology.	<p>The working group was established and study tour to AP completed in June 2019 (Annex 4.2). Research Plan agreed based on the recommendations from the working group (Annex 4.6) and being implemented.</p> <p>BPL working group workshop planned for March 2020 but delayed due to Covid-19 travel restrictions.</p>	<ul style="list-style-type: none"> Conduct expert working group workshop at BPL. Develop and agree research plan. Organize periodical coordination meetings for the working group. Develop a partnership with the Institute of Technology of Cambodia to conduct research activities on the ground. Collect the research data.

<p>Activity 1.8 Implement applied research programme at AP/BPL, including surface water flow models, ecological assessments of key habitats and water quality analyses.</p>	<p>A survey was conducted in October 2019 to assess the attitudes of the local communities towards wetland conservation efforts in their areas (Annex 4.47).</p> <p>A herpetological assessment was conducted in AP to identify fish, reptile, and amphibian species of the wetland (Annex 4.48).</p> <p>Plan developed in Activity 1.7 for AP being implemented.</p> <p>Biodiversity, habitat and water management data are being collected in AP and BPL every month (Annex 4.50).</p>	<ul style="list-style-type: none"> ▪ Complete research programme for AP and BPL. ▪ Install the testing equipment and train the field monitoring team to collect data. ▪ Continue data collection. ▪ Establish a database for AP and BPL. ▪ Incorporate findings into Management Planning processes
<p>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.</p>	<p>Due to the closure of the NGOs and institutions during the outbreak of Coronavirus, collecting information was not possible. The activity will be continued in FY2.</p>	<ul style="list-style-type: none"> ▪ Agree with MoE to organize the Liaison Panel meetings of AP and BPL. ▪ Present the optimal ecohydrological state research findings in the meetings and acquire agreement from the participants. ▪ Develop an action plan accordingly.
<p>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.</p>	<p>Due to the closure of the NGOs and institutions during the outbreak of Coronavirus, district meeting did not take place. The activity will be continued in FY2.</p>	<ul style="list-style-type: none"> ▪ Follow up with authorities to introduce the research findings at the provincial level. ▪ Work with the authorities to embed the research and conservation priorities in the district development plans.
<p>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</p>	<p>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</p>	<p>2.1 BPL and AP Management Plans on track for completion in 2020. Vulnerability mitigation plan completed for BPL and similar process in place for AP.</p>

<p>understanding and adhering to their regulations.</p>	<p>Management Plans based on previous management system from Ministry of Agriculture Forestry and Fisheries).</p> <p>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).</p> <p>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).</p> <p>2.4 No hectares of land are encroached within BPL in final year of project.</p>	<p>2.2 Community consultations inputting to new zonation models and regulatory frameworks for both AP and BPL. AP has now been designated a Community Protected Area, and project partners are working with the livelihood department of the Ministry of Environment to agree sustainable use of the site. Education and awareness initiatives ongoing.</p> <p>2.3 Baseline collected through Ranger teams and during fixed effort illegal fishing crackdown events in 2019.</p> <p>2.4 Baseline: All areas encroached prior to the project mapped as a baseline.</p>	
<p>Activity 2.1 Hold workshops for Land Tenure Review Committee to agree final decisions for all claims to land within BPL Protected Landscape.</p>	<p>Initial workshops completed (Annex 4.8). Final workshop for zonation endorsement awaiting submission of land tenure paperwork.</p>	<ul style="list-style-type: none"> ▪ Conduct a meeting with MoE and the provincial governor office to review and validate the collected data. ▪ Conduct a final validation workshop at the provincial level. 	
<p>Activity 2.2 Conduct Vulnerability Assessment (aligned to methods agreed by the IBRRI) at AP, including workshops in all local villages.</p>	<p>A facilitator group was established and received training. A methodology was developed to do the assessment. The assessment was planned to be conducted in Q4-FY1, and due to the outbreak of the Coronavirus, the fieldwork was re-scheduled for Q1-FY2.</p>	<ul style="list-style-type: none"> ▪ Conduct the fieldwork at the earliest possible date when the health condition allows field activities. ▪ Develop the report. 	
<p>Activity 2.3 District and provincial government and Working Group approve the final draft of AP Vulnerability Assessment.</p>	<p>To be conducted after the completion of Activity 2.2.</p>	<ul style="list-style-type: none"> ▪ Coordinate with the provincial authorities to organize the AP Liaison Panel meeting and present the report. 	
<p>Activity 2.4 Complete final zonation mapping of BPL, review with local communities and gain approval of village chiefs.</p>	<p>Accomplished.</p> <p>The final versions of BPL's zoning maps were produced by MoE.</p>		

	However, MoE required to conduct some field missions to reach a consensus with local authorities to finalize the map. (Annex 4.7).	
Activity 2.5 Government endorses BPL zonation scheme.	The map is being reviewed by MoE to be submitted to the provincial governor office for review.	<ul style="list-style-type: none"> ▪ Follow up with MoE to finalize the approval procedure by the provincial government. ▪ Make arrangements at the national level to obtain approval of the national government.
Activity 2.6 Install signs and markers clearly stating the rules and regulations within each zone.	Not for FY1	<ul style="list-style-type: none"> ▪ Develop a map of markers. ▪ Obtain agreement from the provincial authorities. ▪ Organize a meeting with rural leaders to introduce the markers' map and obtain their support. ▪ Recruit a contractor to produce and install the markers.
Activity 2.7 Hold awareness raising events at AP and BPL for communities on rules and regulations.	<p>Awareness raising event in BPL with Deputy Governor of Takeo province for 300 participants including provincial government authorities, army members, students, and commune authorities (Annex 4.9).</p> <p>A series of environmental film display events were organized in two target villages of BPL for 76 participants in September 2019 to improve the awareness of communities about the values of wetlands, and to introduce them to the concept of "wise use of wetlands" (Annex 4.10).</p>	<ul style="list-style-type: none"> ▪ In collaboration with NGO partners and the provincial Department of Environment develop an annual periodical events plan to disseminate rules and regulations. ▪ Conduct Training for Trainers. ▪ Conduct dissemination events.
Activity 2.8 Train BPL and AP rangers on Spatial Monitoring and Reporting Tool (SMART) and develop anti-corruption policy.	<p>Ongoing.</p> <p>Fifteen rangers and members of Field Monitoring Teams (FMTs) in AP and BPL received training from the Manager of Protected Wetlands on the</p>	<ul style="list-style-type: none"> ▪ Assess the knowledge of the rangers and FMT teams and conduct re-cap training if necessary. ▪ Identify training needs in collaboration with MoE. ▪ Conduct a training programme.

	<p>use of SMART handheld data collection systems (Annex 4.12).</p> <p>An anti-corruption guideline updated (Annex 4.14).</p>	<ul style="list-style-type: none"> Develop a mechanism to implement the Anti-corruption policy in collaboration with MoE and juridical authorities.
Activity 2.9 Ranger & Field Monitoring Team patrolling at AP and BPL.	<p>Ongoing</p> <p>Patrolling missions conducted regularly with data collected through electronic SMART systems with maps produced (Annex 4.15). Further information in Section 3 (above).</p> <p>Rangers and FMTs receive ongoing support to improve patrolling and data management systems at the sites.</p>	<ul style="list-style-type: none"> 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.	Not for FY1.	<ul style="list-style-type: none"> Obtain the support of AP and BPL's Liaison Panels on the methodology and timeframes drafting the management plans. Conduct consultation workshops to finalise plans.
Activity 2.11 Present Management Plans to AP and BPL Liaison Panels to secure approval.	Not for FY1.	
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.	Not for FY1.	<ul style="list-style-type: none"> Agree with MoE on the roles, scopes, timeframes, and activities. Collate required data. Draft the Ramsar and EAAFP forms. Follow up from MoE to follow government processes. Submit designation request for AP to EAAFP secretariat.
Activity 2.13 Upgrade WWT environmental education programme materials, train NatureLife staff and deliver the course alongside local teachers in the CLMD.	<p>Educational books ("learning about Sarus Crane", and "How to protect our environment") updated (Annex 4.16) and an environmental education curriculum was developed or environmental scout group (Friends of Anlung Pring). The curriculum will be</p>	<ul style="list-style-type: none"> Continue the environmental education programme. Assess the effectiveness of the programme and revise it if needed.

	<p>translated to Khmer to initiate the group (Annex 4.17)</p> <p>Teachers from 6 schools (18 classes in total) in AP and BPL received training on the environmental education programme (Annex 4.18) and the environmental education programme is being taught for over 370 schoolchildren in AP and BPL (Annex 4.19).</p>	
<p>Activity 2.14 Hold multi-media awareness events including presentations, films and competitions in communities around AP and BPL.</p>	<p>Ongoing.</p> <p>Total of over 1,000 people reached through; celebration of World Migratory Birds Day, “Welcome to the birds” festival, celebration ceremony of the designation of AP as Cambodia’s first East Asian Australian Flyway Network Site, celebration of World Wetlands Day, attended by the British Ambassador to Cambodia and officials of the Ministry of Environment and authorities of Kampot province (Annex 4.4).</p> <p>An educational field visit from BPL was conducted for 50 university students from Takeo province in August. The provincial Deputy Governor joined the students to learn more about BPL’s ecological values and services. The visit was convened by planting 200 tree seedlings in a local school (Annex 4.51).</p> <p>A clean-up activity around AP was conducted in February 2020 in collaboration with 25 school children (Annex 4.52).</p> <p>In AP and BPL 5 educational signboards were installed to increase the awareness of the communities about encouraging them to support</p>	<ul style="list-style-type: none"> ▪ Conduct a meeting with the project partners and the provincial Environment Authorities to develop an annual awareness raising work plan. ▪ Implement the workplan.

		Sarus Crane conservation activities by avoiding illegal land encroachment, hunting, poisoning and fishing (Annex 4.46).	
<p>Output 3.</p> <p>1700 local people in AP and BPL are directly profiting from sustainable livelihood ventures that also reduce wetland degradation.</p>	<p>3.1 200 farmers (at least 50% women) in AP are averaging an increased profit of 30% after transitioning to sustainable rice farming by end of Year 3 (Baseline to be collected at start of project).</p> <p>3.2 Average quantities of pesticide and fertilizer decreased by 70% amongst the 200 farmers in the sustainable rice scheme by end of Year 3 (Baseline to be collected at start of project).</p> <p>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).</p> <p>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).</p>	<p>3.1. 224 farmers signed up to project, of whom 142 are female. Profit baseline collected (See Section 3.2.)</p> <p>3.2. Baselines collected for both seasonal crops (see Section 3.2 for figures)</p> <p>3.3. No significant progress until BPL Zonation is completed in first half of Y2.</p> <p>3.4. Businesses established for handicrafts from invasive water hyacinth and further businesses being explored for plastic waste handicrafts and agricultural waste transport (see Section 3.2).</p>	
<p>Activity 3.1 Conduct catchment analysis of pollution inflows around AP to identify priority target sites for sustainable rice farming.</p>		<p>Accomplished.</p> <p>Water inflow models were generated for the site (Annex 4.3.1) and shared with CRDT for cross-referencing with the locations of local farms to identify</p>	<p>NA</p>

	priority farmers for the sustainable agriculture scheme (Annex 4.20)	
Activity 3.2 Deliver advocacy campaign for farmers to voluntarily join the sustainable rice farming scheme.	<p>Accomplished.</p> <p>A rapid assessment to identify the target communities was conducted.</p> <p>Seven farmer groups comprising 224 farmers (142 women and 82 men) were formed in 3 villages around AP (Annex 4.21). For each group, a management committee was selected by the members, and the rules and responsibilities were identified (Annex 4.22).</p>	NA
Activity 3.3 Hold pollution awareness workshops and an exchange visit for new farmers to meet and learn from existing BPL pilot farmers.	<p>Accomplished.</p> <p>A series of general educational events were delivered to 60 rice farmers at AP to raise their awareness about the impact of using chemical pesticides (Annex 4.23).</p> <p>A three-day study tour was organized for 25 representatives of the farmer groups to visit some pilot farms in BPL in December 2019 (Annex 4.24).</p>	NA
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.	<p>A training needs assessment was conducted among seven farmer groups (Annex 4.25).</p> <p>Seven training courses (two days per training) on SRP farming techniques, production of compost fertilizers, and soil nutrition management were delivered to the farmer groups (Annex 4.26).</p> <p>Pre and post evaluations were conducted to assess the knowledge increase of the participants. It shows an average of 53% increase in the knowledge of the participants (37%</p>	<ul style="list-style-type: none"> ▪ Conduct training on “general business management, and market connection concept” after the Coronavirus crisis.

	pre-training to 90% post-training). (Annex 4.27)	
Activity 3.5 Support monitoring to confirm compliance with Sustainable Rice Platform standards.	<p>An Internal Control System (ICS) was established to assess if the farmer's practices on rice growing techniques comply with the project goals to reduce negative impacts on AP habitat and biodiversity. ICS is a tool to monitor parameters such as the size of the paddy lands, the number of livestock, the amount of organic and chemical fertilizers, herbicide, insecticide and fungicide used, the crop yield and residue management.</p> <p>A rapid assessment was conducted to identify the best strategy to implement the project based on the problems and root causes. The assessment used field observation and community consultation to collect data.</p>	<ul style="list-style-type: none"> Conduct regular schematic assessments on the different components of the rice component, and develop reports.
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.	<p>A Rice Market Value Chain and Link to Key Private Sector was developed in September 2019. And recommended the use of the Tro-Nong rice variety instead of the SRP (IR-504 variety) due to high market demand of the former. There is also a preference for wet rice, so this activity is being reviewed (see Section 3)</p>	<ul style="list-style-type: none"> Continue working on Tro-Nong rice variety and develop a set of standards to improve the environmental friendliness of this rice.
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.	<p>Training of transitions of CFis to 40 members of CPAs under the new zoning system completed (Annex 4.29).</p>	<ul style="list-style-type: none"> Follow up the finalization of the zonation of BPL. Follow up with MoE and MAFF to agree on the best solutions to support a community-based fisheries conservation in BPL.
Activity 3.8 Launch call for applications on micro-grants for local community members for recycling scheme start-up and initial operating costs.	<p>Start-ups established for Lepironia and Hyacinth handicraft scheme at AP and linkages between a local art centre and the AP community has been established to make crafts from waste plastic. Other recycling scheme start-</p>	<ul style="list-style-type: none"> Develop an agreement with local authorities and the AP ecotourism team to support a seeding start-up fund for the communities and

		ups proving difficult to initiate (see Section 3 – above)	<p>schoolchildren with ideas related to waste management.</p> <ul style="list-style-type: none"> ▪ Conduct a start-up event. ▪ Support the winners to initiate their ideas.
Activity 3.9 Train community fisheries, farming groups and waste management businesses on financial management and administration.		Seven waste bins to temporarily store the agricultural hazardous waste were installed in AP (Annex 4.32) and a series of advocacy and training events were conducted to encourage the farmers to collect their hazardous waste in these points were conducted (Annex 4.33).	<ul style="list-style-type: none"> ▪ Assess the effectiveness of the waste management scheme. ▪ Explore more innovative options to initiate waste-related businesses in a micro-scale.
<p>Output 4:</p> <p>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.</p>	<p>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.</p> <p>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).</p> <p>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).</p> <p>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.</p>	<p>4.1. 16 hectares under regeneration in Y1. Remaining 34 ha scheduled in Y2.</p> <p>4.2. 100 hectares currently cleared. Monitoring of regeneration in place.</p> <p>4.3. Background research for restoration underway. Community schools nurseries being investigated. Planting planned for November 2020.</p> <p>4.4. Indicator to be assessed in Y3.</p>	
Activity 4.1 Optimal Ecohydrological State Expert Working Group identifies habitat restoration areas.		Habitat restoration areas identified for AP, but BPL expert working group workshop delayed to Y2. Habitat	<ul style="list-style-type: none"> ▪ Work with BPL Expert Working Group to identify habitat restoration areas.

	restoration underway in a 16ha pre-existing water management plot at BPL.	
Activity 4.2 Design and implement community-based invasive non-native species (INNS) scheme, with focus on <i>Mimosa pigra</i> and <i>Eichhornia crassipes</i> , <i>Ipomoea rubens</i> and <i>Nelumbo nucifera</i> .	<p>The Invasive Species (<i>Monochoria hastata</i>, <i>Mimosa pigra</i>, and <i>Ipomoea rubens</i>) have been identified in Biodiversity Use and Habitat Map of BPL to identify the priority areas for clearance (Annexes 4.35 and 4.36).</p> <p>A protocol for controlling <i>Mimosa pigra</i> in BPL was developed by BirdLife international (Annex 4.37).</p> <p>Removal of <i>Mimosa pigra</i> and <i>Ipomoea rubens</i> conducted across 100 hectares at BPL (Annex 4.38). Monitoring ongoing.</p>	<ul style="list-style-type: none"> ▪ Conduct a meeting with the community to plan for the Invasive Species removal act in 2020. ▪ Conduct the activities and observe the improvement of the habitat.
Activity 4.3 Develop and implement community-based and ecoschool inundated forest restoration programme.	In development	<ul style="list-style-type: none"> ▪ Conduct a series of consultation meetings with the community members to agree on the steps of forest restoration. ▪ Train the community on forest restoration. ▪ Establish a community-run nursery in BPL. ▪ Conduct the activity and observe the restored habitat.
Activity 4.4 Create and monitor experimental eleocharis regeneration plots over 50 hectares including re-planting areas, fire management plots and water retention features.	An <i>Eleocharis Dulcis</i> habitat restoration experiment underway in 16 hectares BPL water management plot.	<ul style="list-style-type: none"> ▪ Conduct research on new methods used in the world to regenerate Eleocharis. ▪ Share the methods with experts for their approval. ▪ Develop a workplan. ▪ Conduct the workplan and observe the results.
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.	Not for FY1	<ul style="list-style-type: none"> ▪ Work with national and regional entities (including MoE, Ministry of Water Resources and Meteorology, IUCN, World Bank, and Asian Development Bank) regarding their national

		<p>and regional irrigation and water conservation projects and establish an information-sharing platform.</p> <ul style="list-style-type: none"> ▪ Develop a proposal.
Activity 4.6 Share proposal with DFWC for escalation to the MoE.	Not for FY1	<ul style="list-style-type: none"> ▪ Involve DFWC in developing the proposal.

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

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Impact: 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.	<p>0.1 The proportion of the South-east Asian population of sarus crane (<i>Grus Antigone sharpii</i>) 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%).</p> <p>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).</p> <p>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).</p> <p>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).</p> <p>0.5 Percentage of the 1,700 local people around AP classified as 'Poor' in the Multidimensional Poverty Index (MPI) decreases by 10% (baseline to be established) by 2022 (based on a</p>	<p>0.1 Annual sarus crane Census reports.</p> <p>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.</p> <p>0.3 Annual independent analysis by Kampot Provincial Department of Water Resources and Meteorology.</p> <p>0.4 Zonation map endorsed by government, BPL Protected Landscape Management Plan, Liaison Panel meeting minutes.</p> <p>0.5 Analysis of responses to start and end of project social surveys.</p>	<p>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).</p> <p>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.</p> <p>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 government zonation process. The project has strong evidence from a previous pilot sustainable farming project that</p>

	representative sample, disaggregated by sex).		demonstrates significant increases in profitability. Farmers from this pilot scheme will visit new farmers to relay benefits).
<p>Output 1</p> <p>AP, BPL and the wider CLMD wetland landscape are better understood and showcasing best practice local adoption of Ramsar recommendations and tools.</p>	<p>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).</p> <p>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).</p> <p>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</p>	<p>1.1. Working Group minutes, research proposals, research reports and Liaison Panel meeting presentations and minutes.</p> <p>1.2 State of CLMD Wetlands Report, Provincial government meeting minutes (Takeo Province and Kampot Province), review of District Plans.</p> <p>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.</p>	<p>Local community members engage with the project and support assessments.</p> <p>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).</p> <p>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).</p>
<p>Output 2</p> <p>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</p>	<p>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</p>	<p>2.1 Final Management Plans, minutes of Liaison Panel meetings, photographs and field reports.</p>	<p>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</p>

<p>regulations.</p>	<p>Management Plans based on previous management system from Ministry of Agriculture Forestry and Fisheries).</p> <p>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).</p> <p>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).</p> <p>2.4 No hectares of land are encroached within BPL in final year of project.</p>	<p>2.2 Attitudes and awareness survey at end of Year 3.</p> <p>2.3 Monthly ranger patrolling reports.</p> <p>2.4 Satellite imagery and ranger reports.</p>	<p>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).</p> <p>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).</p> <p>Community belief in the value of the process remains strong.</p>
<p>Output 3</p> <p>1700 local people in AP and BPL are directly profiting from sustainable livelihood ventures that also reduce wetland degradation.</p>	<p>3.1 200 farmers (at least 50% women) in AP are averaging an increased profit of 30% after transitioning to sustainable rice farming by end of Year 3 (Baseline to be collected at start of project).</p> <p>3.2 Average quantities of pesticide and fertilizer decrease by 70% amongst the 200 farmers in the sustainable rice scheme by end of Year 3 (Baseline to be collected at start of project).</p> <p>3.3. 100% of community fishery groups (CFis) at both sites, benefiting 1500 people, are covering their core operation costs through sustainable</p>	<p>3.1 Independent consultancy report, rice farming group records, community-based monitoring programme (results collated at annual harvest festival), case studies.</p> <p>3.2 Farmer diaries, project monitoring scheme report.</p> <p>3.3 CFi operating and financial records, USAID capacity assessments.</p>	<p>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).</p> <p>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).</p>

	<p>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).</p> <p>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).</p>	<p>3.4 Group operating and financial records, USAID capacity assessments.</p>	<p>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).</p> <p>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).</p>
<p>Output 4</p> <p>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.</p>	<p>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.</p> <p>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).</p> <p>4.3 Five hectares of inundated forest restored at BPL by end of Year 2, through community-based restoration and protection programme,</p>	<p>4.1. Vegetation Assessments at start and end of project in target regeneration areas.</p> <p>4.2 Annual Invasive Non-Native Species monitoring reports of BPL.</p> <p>4.3 End of project habitat survey, eco-school nursery records.</p>	<p>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.</p> <p>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</p>

	<p>and ecoschool nursery showing at least 75% tree survival at end of Year 3 (Baseline: n/a).</p> <p>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.</p>	<p>4.4 Community field monitoring reports.</p>	<p>eleocharis regeneration plots wherever possible).</p>
<p>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)</p>			
<p>Activity 1.1 Use Satellite-based Wetland Observation Service (SWOS) to generate information on current condition, landscape connectivity and historical trends in wetland systems.</p> <p>Activity 1.2 Conduct fieldwork to complete Rapid Assessment of Wetland Ecosystem Services (RAWES) throughout the landscape.</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>Activity 1.6 Present wetland landscape assessment approach and local use of Ramsar tools at a side-event at IBRRI Annual Meeting in 2021.</p> <p>Activity 1.7 Establish Optimal Ecohydrological State Expert Working Group for AP and BPL and agree research methodology.</p> <p>Activity 1.8 Implement applied research programme at AP/BPL, including surface water flow models, ecological assessments of key habitats and water quality analyses.</p> <p>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.</p> <p>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.</p>			
<p>Activity 2.1 Hold workshops for Land Tenure Review Committee to agree final decisions for all claims to land within BPL Protected Landscape.</p> <p>Activity 2.2 Conduct Vulnerability Assessment (aligned to methods agreed by the IBRRI) at AP, including workshops in all local villages.</p> <p>Activity 2.3 District and provincial government and Working Group approve the final draft of AP Vulnerability Assessment.</p> <p>Activity 2.4 Complete final zonation mapping of BPL, review with local communities and gain approval of village chiefs.</p> <p>Activity 2.5 Government endorses BPL zonation scheme.</p> <p>Activity 2.6 Install signs and markers clearly stating the rules and regulations within each zone.</p> <p>Activity 2.7 Hold awareness raising events at AP and BPL for communities on rules and regulations.</p> <p>Activity 2.8 Train BPL and AP rangers on Spatial Monitoring and Reporting Tool (SMART) and develop anti-corruption policy.</p> <p>Activity 2.9 Ranger & Field Monitoring Team patrolling at AP and BPL.</p> <p>Activity 2.10 Project Steering Group drafts Management Plans for AP and BPL, informed by applied research and participatory zoning process.</p> <p>Activity 2.11 Present Management Plans to AP and BPL Liaison Panels to secure approval.</p> <p>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.</p> <p>Activity 2.13 Upgrade WWT environmental education programme materials, train NatureLife staff and deliver the course alongside local teachers in the CLMD.</p> <p>Activity 2.14 Hold multi-media awareness events including presentations, films and competitions in communities around AP and BPL.</p>			
<p>Activity 3.1 Conduct catchment analysis of pollution inflows around AP to identify priority target sites for sustainable rice farming.</p> <p>Activity 3.2 Deliver advocacy campaign for farmers to voluntarily join the sustainable rice farming scheme.</p> <p>Activity 3.3 Hold pollution awareness workshops and an exchange visit for new farmers to meet and learn from existing BPL pilot farmers.</p> <p>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.</p>			

<p>Activity 3.5 Support monitoring to confirm compliance with Sustainable Rice Platform standards.</p> <p>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.</p> <p>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.</p> <p>Activity 3.8 Launch call for applications on micro-grants for local community members for recycling scheme start-up and initial operating costs.</p> <p>Activity 3.9 Train community fisheries, farming groups and waste management businesses on financial management and administration.</p>
<p>Activity 4.1 Optimal Ecohydrological State Expert Working Group identifies habitat restoration areas.</p> <p>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.</p> <p>Activity 4.3 Develop and implement community-based and ecoschool inundated forest restoration programme.</p> <p>Activity 4.4 Create and monitor experimental eleocharis regeneration plots over 50 hectares including re-planting areas, fire management plots and water retention features.</p> <p>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.</p> <p>Activity 4.6 Share proposal with DFWC for escalation to the MoE.</p>

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

	training on SMART tool and use of GPS to the rangers and Field Monitoring teams							
	Number of teachers received Training of Trainers for environmental education	Male and female	Cambodian	2			2	6
7	Environmental educational books for schoolchildren Educational curriculum for children Environmental awareness signboards	N/A	N/A	2 1 5			8	8
9	Rapid Assessment for Wetland Ecosystem Services Site Management Plans	N/A	N/A	1 0			1 0	6 2
14A	Film displays Awareness raising events Educational field visits	N/A	N/A	3 4 1			7	20
14B	Indo-Burma Ramsar	N/A	Cambodian, Thai, Vietnamese, Laotian,	1			1	3

	Regional Initiative		Chinese, Burmese					
14B	Liaison Panel Meetings	N/A	Cambodian	0			0	4
17	Members of the Optimal Ecohydrological State Expert Working	Male and female	Cambodian, British, Vietnamese, Canadian, Iranian, French	9			9	N/A
	Members of the BPL zoning committee	Male and female	Cambodian	20			20	20
22	Number of water level measurement networks	N/A	N/A	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)

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.	No
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.	Yes
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	Yes
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number. However, we would expect that most material will now be electronic.	No
Have you involved your partners in preparation of the report and named the main contributors	Yes
Have you completed the Project Expenditure table fully?	Yes
Do not include claim forms or other communications with this report.	