

Darwin Initiative Main Project Annual Report

Important note: To be completed with reference to the Reporting Guidance Notes for Project Leaders:

it is expected that this report will be no more than 10 pages in length, excluding annexes

Submission Deadline: 30 April

Darwin Project Information

Project Reference	21-007
Project Title	Livelihoods in the balance – protecting Cambodia’s remaining seasonally-inundated grasslands
Host Country/ies	Cambodia
Contract Holder Institution	Wildfowl & Wetlands Trust
Partner institutions	Mlup Baitong ((MB), Chamroen Chiet Khmer (CCK), Birdlife International – Cambodia Programme (Birdlife), Forestry Administration (FA) of the Royal Cambodian Government
Darwin Grant Value	£222,241
Funder (DFID/Defra)	Defra
Start/end dates of project	April 1 st 2014 – March 31 st 2017
Reporting period (e.g., Apr 2015 – Mar 2016) and number (e.g., Annual Report 1, 2, 3)	Apr 2015 – Mar 2016. Annual Report 2.
Project Leader name	Tomos Avent
Project website/blog/Twitter	N/A
Report author(s) and date	Tomos Avent – 29 th April 2016

1. Project Rationale

30% of Cambodia comprises wetlands providing critical natural resources to millions; 80% depend on wetlands for their livelihoods. Over half its seasonally-inundated grassland has been lost as a result of land conversion and agricultural intensification.

Boeung Prek Lapouv (BPL) and Anlung Pring (AP) are two of the last remnants of seasonally-inundated grasslands in the Cambodian Lower Mekong delta. Both sites have been given formal protection by the Cambodian government through designation as ‘Management and Conservation Areas for Sarus Crane and Other Birds’ in 2010. The threats however are complex and numerous, with a broad suit of community owned solutions required to attain sustainable conservation and secure ecosystem services for over 6,880 households around the Reserves.

Prior to the project, large tracts of land adjacent to reserves had been converted to paddy field and commercial shrimp farms. Insecure land tenure and lack of resource-use rights in and around the conservation zones hamper the ability of local people to access and sustainably manage resources. This is made more difficult by the proximity of the sites to the porous Vietnamese border, through which large-scale commercial fishing operators enter the reserve, and foreign rice farmers, with access to more lucrative markets, offer high rental income to convert land for rice farming.

Basic farming techniques result in unnecessarily high quantities of pesticide and chemical fertilizer being applied to rice paddies. Very few farmers are aware of more profitable systems of rice intensification and there is little access to quality seed, efficient equipment, or direct markets. An increase in the number of canals (some for irrigation and others for transport) has led to flood waters receding from BPL much earlier than in the past, which in turn: increases the length of the 'lean season' in between rice harvests; decreases length of the peak fishing season; and shortens the feeding period for visiting birds like the sarus crane.

The sites are very important wildlife habitats, supporting 30% of Sarus Crane (VU) regional population during the non-breeding season along with other bird species of global concern. These populations are increasingly threatened by loss and degradation of the wetland habitat as well as by human disturbance within the reserves.

2. Project Partnerships

The Wildfowl & Wetlands Trust (WWT), Mlup Baitong (MB), Chamroen Chiet Khmer (CCK), and the Forestry Administration (FA) of the Royal Government of Cambodia have been working together since 2010. During this time the partners have formed a close working relationship and have developed strong mechanisms for formal communication, through Liaison Panels and Project Management Group meetings. During fieldwork to BPL, our Biodiversity & Engagement Officer and our BPL Wetland Apprentice base themselves at the CCK offices, supporting regular communication and coordination between WWT and CCK. Birdlife have recently been added as an official project partner. This was partially to help enhance the financial management capacity CCK, so that they become more comfortable accepting sub-grants for succinct elements of the project and would have a greater chance of success when applying for further grants independently in the future. Birdlife's knowledge of Cambodian financial systems and long experience managing grants in the country will greatly support CCK.

Management-level communication between WWT and MB can be challenging due to the lack of shared physical space between organisations, but attempts have been made to mitigate this by holding regular meetings in Phnom Penh. The AP Wetland Apprentice and project Technical Officer join these meetings so that information cascades down to the AP field teams. All field staff are instructed to liaise with project partners when implementing activities, but sometimes this has been forgotten when staff are rushed to meet objectives. Our current AP Wetland Apprentice is permanently based at the site but sometime lacks the confidence to highlight areas of concern. We have worked to overcome this problem by generating clear work plans and timetables for each project partner at AP. Our much improved recent coordination of the ecotourism programme is a good example of this (Annex 4). A further initiative to bolster communication with MB has been to base our Community-Based Ecotourism Group English teacher at MB's offices, inviting MB staff to join in lessons at the AP site. This increased regular cross-over has been a good addition to our project coordination.

The formal link with the Forestry Administration has been greatly beneficial when coordinating Liaison Panel meetings and seeking formal government approval for interventions. It should be noted at this point that a sub-decree has recently (early March 2016) been signed by Prime Minister, Hun Sen, stating that the management and administration of Protected Areas in Cambodia will move from the Forestry Administration, which sits within the Ministry of Agriculture, Forestry and Fisheries, to the Ministry of Environment within the next year. It is not anticipated that this will have a significant effect on our project, as all relevant staff within the Forestry Administration will likely move into the Ministry of Environment to continue their roles. There may however be some changes (e.g. the introduction of park rangers at the sites) that the project will monitor and adapt to if necessary.

3. Project Progress

3.1 Progress in carrying out project activities

Output 1: Rights of tenure established for 6000 people of BPL

Activity 1.1 Establish land registration committee (to include government and community representatives) – As mentioned in our 1st Annual report, this Activity was delayed due to political sensitivities leading up to the district elections within the current project cycle. Meetings with the Governors of Borei Chulsa District and the Koh Andet District were held to establish land registration committees, but during these meetings it became apparent that individual land rights were unlikely to be granted within the buffer zone (see more information in section 3.2 Output 1). Community-based land tenure systems will still be strongly supported, with community resource use zones (using the projects established farming and fishery associations) endorsed at commune government level. The project is therefore seeking to expand the number and membership of community-based associations.

Activity 1.2 Create map of current land use and users in the two communes of Kampong Krasang and Chey Chouk (with village and commune chiefs) – Completed in Year 1.

Activity 1.3 Submit agreed map to Chief of Land Management (Takeo province) for approval – Land use maps were shared with the Chief during meetings to discuss land tenure with District Governors. These have been used to form an established, and government accepted, baseline for monitoring land-use and ecological change. Community Fishery (CFi) maps, and maps demarcating land used by members of Sustainable Farming Partnerships (SFPs) have been signed by all relevant communes and shared with Chief of Land Management and District Governors.

Activity 1.4 Install boundary markers at strategic locations to demarcate the newly-registered community land tenure – Boundary markers have been designed and approved by local government for demarcating community fishery zones, fish sanctuaries and sustainable farming plots, but will no longer be beneficial for individual land tenure per se. To be completed during current dry season (Y3 Q1).

Activity 1.5 Provide quarterly progress report to BPL liaison panel – Updates have been provided to the Liaison Panel meeting held in March 2016. All stakeholders have been involved in this process, attempting to identify novel approaches to granting land tenure given the constraints presented by Regional Governors.

Activity 1.6 Undertake annual review of land use at both reserves; produce report – Updated land use maps have been commissioned and should be completed within the next Quarter. These will be used to highlight areas of encroachment and monitor any other changes to land-use. The LCGs continue to monitor the BPL Buffer and Core Zones and highlight areas of concern in monthly reports. This has led to a number of government supported interventions to prevent encroachment and fill-in newly dug irrigation canals.

Output 2: Co-management structures legally/formally established for CFIs, sustainable tourism and SFPs and stakeholders are able to deliver sustainable wetland management through them

Activity 2.1 Constitute liaison panels (to receive progress reports from partners, review progress make recommendations for action) – Completed in Year 1

Activity 2.2 Hold liaison panel meetings (quarterly; plus one joint liaison panel meeting annually) – Formal Liaison Panel (LP) meetings are held bi-annually when Project Lead is in-country. The Formal LP meeting in March 2016 also included representatives of all relevant government departments, to share project progress and seek any external permissions and support necessary for the forthcoming year. Informal LP meetings are held quarterly, usually focusing on specific short-term actions and developing joint work plans.

Activity 2.3 Hold community fora quarterly – Community fora are association-specific meetings and have occurred at least quarterly for each association during Y2.

Activity 2.4 - Hold workshops on sustainable farming and SFP at both reserves – Regular training workshops to support Sustainable Farming Partnerships have been led by MB and CCK at AP and BPL respectively (see Annex 5 for example of training material). Training has covered all elements of Systems of Rice Intensification, community-led composting programmes, crop diversification, and buffalo husbandry (to support the WWT's Buffalo Bank initiative).

Activity 2.5 Identify locations for SFP demonstrations and sign agreements with SFP participants – WWT and MB have established Farmer Field Schools (FFS) at AP at a number of locations on main access routes into villages around the reserve. All farmers included in these schemes agree to become FFS ambassadors and share information with other community members interested in the programme. FFS will also be incorporated into MB's ecoschools programme, with demonstration sites proposed for Y3. WWT has created the Chres village community wetland (Annex 6) to secure fresh water access for villagers away from the AP wetland, thus decreasing pressure and disturbance at the site whilst building community goodwill. Community use agreements for the wetland have been signed. SFPs have been created at Dei Luk through WWT's Buffalo Bank programme, where villagers have become guardians for project buffalo (which are used for grazing management – see Activities 3.11 - 3.13) and in return are granted ownership of offspring, which are used as financial security in this area of Cambodia (Annex 7). CCK have developed Sarus Crane Rice Groups, working with 30 households at three locations. This will be expanded to 60 households within Y3.

Activity 2.6 Design and undertake trials of low-input and wildlife-friendly rice production, natural fertiliser production at 6 locations – The project is focusing on priority areas where chemical input to the wetlands is likely to be highest and where the threat of encroachment is most serious. The Sarus Crane Rice (SCR) project at BPL is currently operating around three villages (Keo Kamleung, Banteay Thleay and Chroy Pon), and a natural fertilizer scheme is in development to support the programme. An expansion to double the scale of the SCR project is planned for Y3. Those who have signed up to SCR project trials did originally have some scepticism, mainly because rice farming forms such a significant proportion of their livelihoods, and systems of rice intensification by nature suggest that you use few inputs and fewer rice seedlings, which may seem counter-intuitive to those not familiar with the process. Some farmers therefore chose only to allot a proportion of their land to this new technique, but results have shown that the areas under SRI produced significantly increased yields, so we are unlikely to encounter this problem again as we expand for the upcoming growing season. We had intended to work with farmers at Bantay Sleuk, but villagers here have shown some resistance to the project. This is because the formal designation of the protected area is perceived to have restricted future opportunities to expand rice farming activities, despite the land being owned by the state. CCK have been working within Bantay Sleuk on a number of community development programmes and are attempting to highlight the opportunities that the project is making available. The project hopes to make progress in this area within the next year, but generally the activity is well on schedule.

Activity 2.7 Collect data, do analysis, produce report on findings of activity – The delay in implementing activities (as a result of late recruitment of key project staff, as reported in the first annual report) meant that the baseline monitoring for the first rice trials was not fully in place in time for planting and data is limited. Evidence therefore is mainly anecdotal, and comes from comparisons of yields between adjacent areas adopting new vs. old techniques. A protocol is now being developed for the second season and this will be reported on in the final year of the project.

Activity 2.8 Develop and agree marketing strategy for wildlife-friendly rice and other products – The crop is being marketed as Sarus Crane Friendly Rice (see Activity 2.9). After market consultation we found that, although we could adopt pure organic techniques, the seasonally inundation of the sites with flood water means that there can be no guarantee that chemical fertilizers and pesticides are not getting into our crops. Therefore the nature of these

open systems will prevent our rice ever being certified as 'Organic'. The ideal marketing strategy would have been developed around the emerging demand for organic products in major cities, but has now been adapted to focus on producing highly desired seedlings for the local market (see activity 2.9). Newly purchased seed drying equipment will help enhance the quality of Sarus Crane Friendly Rice which may open up more sales opportunities in the future.

Activity 2.9 Market wildlife-friendly products – Seed produced from the first crop is being marketed as 'Sarus Crane Friendly Rice' and the product is very popular for producing seedlings due to it being of a higher quality than that normally purchased from Vietnamese traders. All bags are branded with the SCFR logo (Annex 8).

Activity 2.10 Complete legal designation process for Kampong Krasang CFi at BPL – the legal designation process was completed in Year 1.

Activity 2.11 Undertake legal designation process for Koh Andet CFi at BPL – All paperwork is completed, including zonation maps but the formal legal designation can only be given once a Management Plan is finalized, and this has been delayed for reasons outlined in Activity 2.13. This Activity is still on track to be completed.

Activity 2.12 Undertake wild fishery yield analysis for both CFis (beginning and end of project) – Report complete (Annex 9). Final report due at end of project.

Activity 2.13 Develop, agree and produce CFi management plans (including agreeing annual quota and plan for fish habitat restoration) using a participatory planning process – Kampong Krasang (KK) Management Plan is complete but dissemination of information has been poor and a review is underway. Lessons learnt from this will feed into an improved strategy for information sharing and membership incentives in KK and will be essential before formalising the Management Plan at Koh Andet (KA). Community consultation meetings for KA have taken place and the majority of information to feed into the management plan has been finalised, but the main area needing to be addressed is the incentive scheme required to ensure retention of individual members. As in many community-based programmes with a membership fee, some individuals (non-members) will be able to receive benefits without contributing to core costs. The review will address this issue in detail. Despite the lack of a formalised management plan, both CFis are functional, and the CFi concept receives strong support from local communities (see Activity 2.14 for progress on CFi initiatives). We have employed a participatory approach to work closely with the CFis to create two large fish habitat restoration areas within BPL.

Activity 2.14 Implement CFi management plans – As mentioned in Activity 2.13, the formal management plans are still under review to create mechanisms ensuring sustainable membership. That being said, both CFis are actually functional and patrols have been regular and well scheduled throughout the 2015/16 flood season. Coordination with the LCGs is strong, and large-scale crackdowns on illegal fishing techniques and itinerant fishers from outside of the region have taken place alongside regional law enforcement agencies and the Department of Fisheries. This has helped foster strong relationships between these agencies which will be essential to the sustainability of this initiative into the future.

Activity 2.16 – Develop and agree and marketing strategy for eco-tourism at AP – The Community-based Eco-Tourism (CBET) programme at Anlung Pring has required much greater support than originally anticipated. The project has had to re-structure the CBET group and invest a lot of time, effort and money to enhance the product being offered at the site. A fully-functioning CBET programme offers AP the greatest chance of sustainable community-led conservation management into the future, so it was decided that this was a vital area to focus on. A Change Request was approved to re-allocate funding into this work. During the final quarter of Year 2 we have; developed a training needs assessment, brought kit necessary to provide a quality tourism experience, secured equipment to diversify the range of activities available to site visitors, upgraded the Birdlife Ranger station to act as a CBET visitor centre and look-out point, created a tourist map of the site, and re-structured the CBET group with clearer roles and responsibilities. The programme has been presented to agents based in

Phnom Penh, Kep and Kampot (the main tourist destinations in the region) and CBET members have attended tourism festivals to showcase the site. A tourist agent familiarisation trip to the site was run in December 2015.

Activity 2.17 – Constitute CBET group for BPL – CBET consultations completed and information from workshops feeding into Activity 2.18.

Activity 2.18 – Agree development and marketing strategy for CBET at BPL – Complete (Annex 10)

Activities 2.19 and 2.20 – Annual reviews have taken place to feed into Liaison Panel meetings. Informal Quarterly reviews are held during the quarterly partner meetings.

Activity 2.21- Establish network of information/training points – Chres Wetland has become an important project focal point at AP. There is a sign at the site delivering environmental education messages which will be updated to include the rules around community use of the wetland. The new Birdlife and CBET centre at AP also plays an important role in sharing information about the site. Project information will also be displayed at the three ecoshools at AP in Y3. The community information points can play an important role in highlighting the progress of the project, clearly defining community-created rules and regulations, and creating zonation for different use-zones. This has led to a slight intentional delay in this activity so that all community information points can have a level of dual functionality, highlighting an environmental education message whilst also reinforcing management changes introduced by community groups. Eight Community Information Points (CIPs) have been identified for the CFi programme to be completed in Y3.

Output 3: Reserve management plans (2013-2017) for both reserves are implemented

Activity 3.1 Undertake wetland health risk assessments at both sites; produce report –

This activity is behind schedule. The field team have collected some limited data on the different wetland health risks at the sites but have prioritised other livelihood activities due to time constraints after the delayed start of the project. Although little progress has been made to date, we are confident that this element of the project can be completed in the final year.

Activities 3.2-3.5 Develop and produce training manual/deliver training programmes/train extension team –

Training needs assessments have been developed for the LCGs, CBET groups and SFPs and associated training provided (see Annex 5 for example). Training manuals have also been produced for the project's environmental education programme (Annex 11) to support facilitators to independently deliver the programme once the formalized learning has been completed by project partners during this project. Farmers at both sites have committed to becoming members of the project's extension team to inspire and give confidence to others to adopt the new environmentally sensitive techniques, as well as sharing knowledge on techniques and locally-relevant lessons learnt. Community members have been leading all invasive species monitoring and control (Annex 12) and have a much better understanding of the threats of invasive species to the reserves and people's livelihoods. Once the new CFi Management Plans are finalised alongside a sustainable business model in the next Quarter, we will also work with CFi groups on a training strategy. To date the only training provided to CFi members has been on national regulations around legal mesh-net sizes and permitted activities.

Activity 3.6-3.7 Undertake survey of rice-growing and fishing practices of Vietnamese community at BPL/deliver training programme to Vietnamese community –

The LCGs have monitored and reported on fishing practices of the Vietnamese community at BPL. This Activity is not receiving government support as all Vietnamese fishing within the reserve is technically illegal and there is concern that it may create certain expectations or somehow create the impression of validation. We will continue to work with the Fisheries Administration to identify the best wage to engage with the Vietnamese community.

Activities 3.8-3.10 Design BSMP/implement and produce annual report – Our LCGs work closely with a PhD student from Charles Darwin University to collect data for an annual report on the status and impact of conservation action on the ecological recovery of sarus crane at AP and BPL (Annex 13). Data is also collected on all bird species present in the reserve during standard LCG monitoring patrols. The scope of information available has been slightly restricted by the literacy levels within our LCG groups, so we have recently introduced a 'Cybertracker' monitoring system for LCGs at both sites. Cybertracker was originally designed as an app-based GPS-enabled monitoring system for illiterate bushmen in Southern Africa. WWT has used this software to create a programme for the LCGs, which will enable additional data to be easily collected during monitoring. Data is now being collected using this new method. Invasive species have been mapped and a community-based INNS clearance programme has been implemented at BPL during the last year (Annex 12).

Activities 3.11-3.13 Design and implement habitat management trials, produce report – Major fishpond restoration work and habitat regeneration trials have been implemented during this period. A 16 hectare habitat regeneration plot was created with dual functionality as a water retention trial (Annex 14) and 300m stream (of varying depths) was created a fish nursery habitat to support the project CFIs. Inundated forest regeneration is currently being undertaken at the latter site and will be completed in the first half of Y3. Linked with the INNS strategy (Annex 12), invasive lotus removal is prioritised in areas with highest eleocharis recovery potential (primary food source for sarus crane). The buffalo bank grassland management trial at Dei Luk village was delayed. It was decided to purchase pregnant buffalo so that communities would receive more rapid benefits to the programme. Therefore we have had to delay the vaccinations until calves were born, and deemed it irresponsible to graze buffalo on the reserve until the vaccinations were completed. The trial will have now begun.

Activity 3.14 - Support LCGs in delivering law enforcement activities – The LCGs have continued to operate well at the sites and have now been given the Cybertracker data entry system to support and increase capacity of their work (see Activities 3.8-3.10). A report on LCG effectiveness and training needs has been produced.

Activity 3.15 Undertake ESA at both sites; produce report – Scheduled towards end of Year 3.

Activities 3.16-3.17 Produce progress reports for Liaison panels – Progress presentations provided at both annual meetings.

Output 4: Water level management plans for both reserves (and floodplain land use plan for AP) developed with and endorsed by stakeholders through participatory working methods.

Activities 4.1-4.5 Create Water Level Management Plans – Digital elevation models and community water user consultations completed at both sites (Annex 15). Water Level management needs assessment completed at AP and approved by local community members. Due to the size of communities around BPL, feedback from the Liaison Panel meetings suggested that there were a number of key interventions that should be prioritised over a community-led management plan. These included a large-scale water retention trial area to monitor rates of water loss in a closed system (i.e. without canals draining water) (see Activities 3.11-3.13), and the blocking of one canal that is no longer used by community members but is contributing to the rapid rate of water loss from the site. See Activities 4.6 and 4.7 for more details. From informal community consultations and government input it is clear that all community members would benefit from extended periods of water retention, so a specific Water Level Management Plan is less important here than in AP, where sluice gates enable realistic manipulation of water levels.

Activities 4.6-4.7 Implement water level and flood plain land-use Management Plans – The primary sluice gate controlling water levels and salinity (from tidal flows) has been repaired at AP with support of the Ministry of Water Resources and Meteorology (Annex 16). This also served to increase community support and belief in this activity. The AP Water Users Group

now manages the sluice gate with support from the LCGs. At BPL, the dykes for the 16 hectare water management trial plot have been completed during the recent dry season and a monitoring protocol is currently being developed. Water retention features were installed near Dei Luk village to assess the effectiveness of blocking unused secondary canals to retain water in the surrounding areas. Unfortunately the poor and late rains resulting from the El Nino year meant that the area didn't get as much water as in most years so the impact was difficult to quantify. We will monitor this throughout the next wet season.

Activities 4.8-4.9 Reporting - progress presentations provided at both annual meetings.

Output 5: Wise-use guidelines for sustainable management of wetlands in Cambodia supported by government and in use at other wetland sites including Ramsar wetlands

Activities 5.1-5.9 – All activities in Output 5 have been delayed. The late start of the project activities (as reported in the 1st Annual Report) has led the project team to prioritise seasonally-dependant livelihood activities. The Ministry of Environment (MoE) have also been hesitant to start work on Wetland Wise-Use Guidelines until their new mandate, which now includes Protected Area Management, was finalised (see Section 2 for more details of change in mandate). This combination of issues has resulted in only provisional work being done in this output until now. We have given presentations to relevant government ministries and have now (in March 2016) been given approval to facilitate the development of wise-use guidelines over the next year. As time will be limited, we are working with Srey Sungleang (the Cambodia Ramsar Focal Point – MoE) to develop an action plan towards a realistic output delivery within 12 months. WWT have recently employed a new Sustainable Wetland Management Officer (using WWT core funds, not Darwin initiative funding) to work on wetland guidance/policy development in our international programmes, one of which will be Cambodia. A large workshop, inviting all relevant stakeholders, will be held in July 2016. Draft guidelines should be completed by Dec 2016 with a conference scheduled for March 2016. Although the project is behind on this output, WWT have recently bolstered our organisational capacity in this area and we are confident wise-use guidelines can be realistically established within the current project. Details of an updated log-frame will be submitted as an official Change Request in May 2016.

3.2 Progress towards project outputs

Output 1: Rights of tenure established for 6000 people of BPL

The Governors of both Borei Chulsa District and Koh Andet District have stated that granting individual land tenure would not be possible in the buffer zone of BPL. The area's land-use history has dramatically changed over the last 40 years, due to significant anthropogenic influences including early canal creation under the Khmer Rouge regime, and a subsequent major damming project in Vietnam. These changes have meant that the area suitable for farming has changed, and subsequently different people have utilised the same areas in different ways in recent history, with communities coming and going as hydrology and rice growing techniques have changed over time. It is therefore difficult to prove who should have what rights over land, and in some cases the district governors were concerned that there could be as many as three different claims on the same plot of land. Instigating this process could even lead to people returning from the cities to claim back land that they left decades ago, so that they can rent the land back to those farming the land now. This leads on to the second reason for preventing this output from being achieved through mechanisms originally proposed. The contentious nature of land tenure in and around the buffer zone of BPL makes this a politically sensitive area for the district governors.

Considering the above information, many of the original indicators for this output will not be met and we are adopting an alternative approach. Securing land-use rights via community-based associations (e.g. for Fishery groups and sustainable farming partnerships) is still realistic, and is now the best option for protecting land users from external pressures. Maps demarcating land within sustainable farming partnerships are being endorsed at commune government level and farming rights will be secured through these agreements. Paid-up members of KK and KA CFI will have full rights to use sustainable fishing practices (as stipulated in the Management

Plans) and will be legally empowered (working alongside law enforcement agencies) to manage other external pressures and restrict non-members from entering the fishery.

We will submit a Darwin Change Request in May 2016 clearly outlining the new indicators and activities for the final year that will work towards altering this output to focus on securing land-use rights through Community-based Associations.

Output 2: Co-management structures legally/formally established for CFIs, sustainable tourism and SFPs and stakeholders are able to deliver sustainable wetland management through them

This project has very strong community buy-in, with robust CBET, CFI and SFP associations being formed. We are on track to fully achieve the output, but Indicators 1-3 need adapting to become more appropriate for the current context. From our Assessment of Community Fisheries at BPL (Annex 9) it was highlighted that the external fishing pressure at BPL is very high, and indicators should be focused on control of illegal activity and a decrease in non-member illegal use of the fishery. The establishment of, and adherence to, quotas for CFI members would likely disadvantage CFI members even more if itinerant fishers using unsustainable and illegal fishing techniques continue to exploit the fishery.

We have exceeded our target for the number of SFPs stated in Indicator 4, with partnerships developed at Chres Wetland (AP), Dei Luk Buffalo Bank (BPL), three Sarus Crane Rice Groups (BPL), two Sustainable Farming Partnerships (AP) (see Activities 2.5 and 2.6) (see Annex 7 for example of agreements). Linked to Output 1, the project will increase the number of farmers involved in SFPs at BPL to secure land use rights for the greatest possible number of families via community based associations.

Indicators 5 and 6 are complete (evidence provided by annex 5). Indicator 7 will easily exceed the stated target of \$400, with gross income from the first Quarter of 2016 already equalling \$735.50 (Annex 17). The CBET is on course to be established at BPL by the end of the project.

Output 3: Reserve management plans (2013-2017) for both reserves are implemented

Good progress has been made implementing Reserve Management Plans at both sites. The delayed start of the project has led to a few activities being slightly behind schedule, but the majority of elements are on track.

Training programmes (Indicator 1) are active for all elements of the Management Plan, with examples of course material and needs assessments shown in Annexes 5, 11 and 18. The INNS programme (Indicator 2) is well on schedule. Annex 12 is an example of similar protocols developed for LCGs, CBET and CFPs, into which Forestry Administration (FA) of MAFF has input and provides feedback (see also Annex 19 for Liaison Panel minutes). Grazing trials linked to Indicator 3 have been delayed due to late vaccinations (see Activities 3.11-3.13) but are now underway. The protocol has been shared with the provincial governor. Results of the BSMP and sarus crane census (Indicator 4) and LCG law enforcement (Indicator 5) are shared with MAFF and reported on during LP meetings.

Output 4: Water level Management plans for both reserves (and floodplain land use plan for AP) developed with and endorsed by stakeholders through participatory working methods.

Digital elevation models (see Annex 15) and water user needs assessments have been carried out and water level management infrastructure (Indicator 2) is in place at both sites, in the form of repaired sluice gates at AP (Annex 16) and water level management trial plots at BPL (Annex 14). An informal management regime is established at AP and the Water User Group is controlling the sluice gate. We would however like to formalize this agreement in writing, and this will be done before the next half year report so that Indicators 1 and 3 will be complete for AP. As stated in Activities 4.1-4.5, a formalized Water Level Management Plan for BPL was

delayed after a request from government to implement water retention trials as a priority so that lessons could feed into a longer-term plan. As this water management trial will only yield results after the next wet season, it is unlikely that a full WMP will be achievable at BPL within the project period, but certain key interventions linked to retaining water will still be undertaken.

Land-use maps have been created to provide a baseline for current use of the floodplain around AP. The greatest threat here is the increase in the number of shrimp farm abutting the reserve. Therefore water quality testing has begun so that the project can monitor chemical concentrations in water entering the reserve and the subsequent effects on water quality inside the reserve. Any significant impact to the protected area would allow project partners to raise this issue at provincial government level and work towards supporting alternative, more sustainable, land-use options.

Output 5: Wise-use guidelines for sustainable management of wetlands in Cambodia supported by government and in use at other wetland sites including Ramsar wetlands

The project is behind schedule on the output, reasons for which are outlined in Activities 5.1-5.9. We are confident however that we can still deliver against Indicators 1-4 in the next year, aided by the additional organisational capacity in this area. Therefore by the end of the project we will have approved wise-use guidelines which will have been presented at a National Conference. The Ministry of Agriculture, Fisheries and Forests together with the Ministry of Environment are supporting the programme and plans are being developed with Srey Sungleang (Ramsar Focal Point) to hold the first meeting in July.

3.3 Progress towards the project Outcome

Outcome: 6800 households in the most wetland-dependent communities have more secure access to wetland resources which are managed in ways that sustain livelihoods and enhance wetland biodiversity

Indicators:

1. 6000 people have more secure land tenure by yr 3 – Individual land tenure cannot be granted at BPL (see Activity 1.1) but members of community-based associations will have much stronger land-use rights by the end of the project. The establishment of CFis, SFPs, SCR groups has formalised land tenure for local communities. The project plans to expand membership of SFPs beyond originally proposed targets to ensure greatest number of households benefit in this regard from the project.

2. "wildlife-friendly" products being produced and sold by SFPs by yr 3 – Sarus Crane Rice groups are now producing and marketing seed to local buyers. Members of the SCR groups have reported yield increases from 5 tonnes/ha to 7 tonnes/ha which, when combined with increased potential revenue from superior seed will generate significant financial benefits from SCR membership by the end of Y3. Machinery has been purchased in the form of drum seeders, seed driers and seed selectors, and agreements are being formalised for communal management and rental scheme to provide core income for the association for general administration and equipment maintenance.

3. Annual sustainable fish quotas agreed by CFi members based on results of wild fishery harvest analyses from yr 1 and 2 being implemented in yr 3 – As outlined in Section 3.2 Output 2, initial recommendations from our Fisheries Assessment (Annex 9) suggested quotas would be unlikely to be effective, and may even be counter-productive in this specific situation. Indicators should instead focus on decreases in external pressure and illegal activities. Therefore, during this reporting period we have run two major fine mesh illegal net crackdowns (occurring on 28th Oct & 5th November), supported additional Law enforcement alongside the CFi groups, and generated capacity within the CFis to run regular independent CFi patrols. The indicators will be changed for Y3 and written into a Darwin Change Request in May 2016.

4. Sustainable tourism project at AP will be generating \$400 income by yr3 and employment for 5 people by yr 2 – CBET income already exceeding \$400 (Annex 17) and CBET assessment clearly outlining roles and responsibilities for CBET employees.

5. Crane numbers will be stable or have increased by 5% at both sites by yr3 compared with non-breeding census results for 2012 – This year has been much drier than usual, leading to a shorter wet season at the sites. Annual censuses of cranes report decreases at both sites for the 2015/16 season, but trends prior to this season have seen an increase in numbers. Maintaining and/or increasing crane numbers at the sites is of course also dependent on external factors remaining or becoming positive. As such, this indicator may need to be reviewed if there are significant changes pertinent to crane ecology outside of the two reserves (e.g. increase in persecution, destruction of breeding habitat).

6. Eco-hydrology of *eleocharis* grassland will be in more favourable condition in yr3 based on trends of community bio-indicator species identified in yr1. Extent of these grasslands will not have reduced by yr3 – Areas of potential *eleocharis* habitat have been prioritised for action in the INNS strategy and community-based invasive species clearing has been undertaken on 45 hectares of land. It is too early to assess the impact that this has had on increasing *eleocharis* availability, but this will be evaluated in Y3 against the baseline evidence supplied in the Y1 annual report. The Buffalo Bank Grazing protocol has been approved but the trial was delayed due to reasons outlined in section 3.11-3.13. Water level management trials have been designed to create optimal *eleocharis* habitat and will be evaluated at the end of Y3. A new concern arising in Y2 has been the increase in extent of shrimp farms abutting AP. A water quality monitoring programme has been developed to assess the direct impact of water quality, which in turn affects the viability of *eleocharis* grassland.

7. At least 600 more households adopting sustainable resource management practices by yr3 compared to project start – The project is well on the way to achieving this target, with high levels of take-up into community-based associations including CBET, SFPs SCR groups, and CFis. Membership lists and attitude surveys will provide evidence for this at the end of Y3.

8. Guidelines for wise-use management of wetlands in Cambodia supported and in use by government at other wetlands including Ramsar sites by yr3 – We are confident that wise-use guidelines will be generated and endorsed by the end of Y3 but it is unlikely these will be fully integrated into daily use at that point. WWT and project partners are working on plans to ensure the long-term sustainability/legacy of this element of the project meets its long-term objectives beyond the duration of this three year project.

3.4 Monitoring of assumptions

Outcome Assumption 1: That the political unrest which continues following elections that took place in July 2013 do not reduce the government's support for our work on the two reserves or in general its Protected Area/environmental policies

Comments: The government continues to provide excellent support to our work (Annex 19). The proposed transfer of Protect Areas to the Ministry of Environment (MoE) is generally seen as a positive change for the conservation of BPL and AP. There is a chance that the MoE will not be as supportive of our livelihood approach in the buffer zones of BPL, but they have previously supported community-based conservation approaches at other sites so, although it is important to monitor, I do not think this is a serious threat to the project. Uncertainty surrounding local elections had delayed progress towards Output 1.

Outcome Assumption 2: That climatic events (or other extreme events e.g. civil unrest) do not impact on the viability of sustainable farming, fishing or tourism and cause target communities to become reluctant to enter into partnership with us.

Comments: Contrary to this concern, the recent El Nino has increased support for our sustainable farming work and crop diversification, but low rains did mean that some management trials (e.g. around Dei Luk village) were not representative of average years.

Output Assumption 1: Wet season weather does not unduly affect project implementation
Comments: This has not been a problem to date.

Output Assumption 2: Farmers and fishers are still willing to sign agreements to enter into sustainable management initiatives

Comments: Farmers and fishers volunteer to be a part of our programmes. We have not had any problem recruiting farmers for our farming partnerships, although some had chose to designate a smaller trial plot in addition to traditional farming practices for the first year. The project has resulted in an increase in yield so this same precaution by new farmers is unlikely in the future, especially as farmers from the first year will be helping to sensitize new farmers for the project. Fishers are willing to sign up to community fisheries, but we must monitor numbers who continue to pay membership fees, as benefits are likely to take longer to accrue.

Output Assumption 3: Continuing support of government especially through MAFF's Dept of Wildlife & Biodiversity

Comments: As already mentioned, management of our areas will be transferred to MoE at some point next year, so this Assumption will be more appropriate to state 'Continuing support of government especially through MoE' for the purpose of the next report. So far our associations with both MAFF and MoE are excellent. We are also working with MoE to develop National Wetland Guidance so they are very aware of our programmes. It is likely that the entire Protected Area section of the Forestry Administration will be move to MoE, so our formal project partnership with this section of FA is unlikely to need changing.

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

Impact - Seasonally-inundated grasslands and other wetlands in Cambodia are sustainably co-managed by local people, enhancing wetland biodiversity, supporting livelihoods and acting as a model for wetland management in the region.

The multiple community-based associations created by this project are all contributing to enhancing the livelihoods of those living around AP and BPL in Cambodia. Members of these associations are being provided with training and support necessary to lift themselves out of poverty whilst securing the ecosystem services on which they depend. In Y2 of this project we have made good progress towards securing community-based resource management and productivity of fisheries (see Activities 2.10 – 2.14), and supported an array of sustainable farming partnerships (see Activities 2.4 – 2.9), with conversion to higher yielding and environmentally sensitive farming processes.

Water management trials and invasive species clearance (Activities 3.11 – 3.13) as well as LCG patrols (Activities 3.8 - 3.10 and 3.14) have helped to support the regeneration of native biodiversity and control habitat encroachment. Training and awareness continues through our LCGs and large events like the 'Welcome the Bird' programme at both sites (Annex 20). Incentives to sustainably manage AP have been created through the ecotourism programme which is generating significantly greater income that anticipated (see Activity 2.16)

4. Contribution to SDGs

This project has obvious direct links to: SDG1, to end poverty in all its forms everywhere; SDG 2, to end hunger, achieve food security and improved nutrition and promote sustainable agriculture; SDG 6, to ensure availability and sustainable management of water and sanitation for all; and to SDG 15, to protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

Within this project period SFPs, SCR groups, and CFIs have all contributed to increasing food security for impoverished local communities. The sustainable rice farming underway in BPL decreases harmful chemical inputs to the wetland system, promoting sustainable use of

terrestrial ecosystems whilst also increasing yields. The Buffalo Bank and community-based savings programmes (created by MB at AP) have facilitated a mechanism for increase financial security during challenging seasons (e.g. between rice harvests) and unpredictable climatic events in the future (e.g. poor annual rains). Farmer Field School demonstration sites have highlighted opportunities for community members to diversify into other crops for enhanced nutrition and food security. Legumes for example can be grown after the rice has been harvested and also fulfils a nitrogen fixing function in the soil.

Farmers within our partnerships are also contractually obliged not to encroach into the buffer zone of the protected area, therefore halting land degradation. Community-base invasive species control creates small-scale employment whilst reversing ecological decline. The newly reformed CBET group now has a realistic mechanism with which to generate an income from a well-managed wetland system at AP, promoting sustainable use of terrestrial wetlands.

5. Project support to the Conventions, Treaties or Agreements

The project supports Cambodia's meeting of its obligations under CBD and we have close cooperation with the focal point for the Ramsar Convention from the Ministry of Environment.

Specifically, the project assists in meeting key **Aichi targets** (<https://www.cbd.int/sp/targets/>) as follows:

Strategic goal A/Target 1 (A1) – Members of the LCGs have been carrying out awareness events in local communities, the project has hosted Welcome the Bird events at both of our sites (Annex 20), and the EcoSchools programme is being implemented at schools in AP (Annex 11), with plans to run in BPL in Y3. The Wetland Apprentice scheme delivers direct biodiversity training to two local community members, who represent our conservation and livelihoods programmes within their respective communities.

A3 – Successful development of the CBET at AP (see Activity 2.16) creates an incentive mechanism for our groups to sustainably use and benefit from the conservation of biodiversity at the site.

B5 – Farmers integrated into sustainable farming partnerships have signed agreements to not encroach within the BPL buffer zone, therefore giving greater security to natural habitats around these farms.

B6 – Creation of fish nursery habitats and progress towards securing CFi tenures through formal designation and better patrolling and control of external pressures is leading towards the better sustainable management of fish stocks.

B7 – Progress towards formalisation of CFis and SFPs (see Activities 2.4 – 2.14) have helped to ensure that exiting areas under agriculture and aquaculture are managed sustainably.

B9 – Community-based clearing of alien species (including *Ipomea rubens*, *Mimosa pigra*) at BPL (see Activities 3.11 – 3.13) have cleared 45 ha of land and led to employment of over 100 days community work.

C12 – LCGs continue to monitor and guard the endangered sarus crane at both sites. All interventions in outputs 2 and 3 are striving to improve habitat for the crane – along with other species – and water management trials (see Activities 3.11 – 3.13) are targeting areas which could be viably converted into optimal crane feeding areas.

D14 – Water management plan is being developed at AP, and the fully established Chres community wetland (Annex 6) has secured fresh water access for local people. The CBET, CFis, SFPs include local women and are designed specifically to benefit rural poor local people.

6. Project support to poverty alleviation

This project is based around mechanisms to uplift people from poverty through sustainable development and securing resource access. The project has supported livelihood capitals of local communities through:

- Natural Capital – Continued work to protect the reserve through LCG patrols, alien species programmes, habitat restoration and the creation of water management features. Support to empower CFIs to independently manage sustainable natural resource exploitation, allowing local communities to benefit from the ecosystem services provided by wetlands.
- Human Capital – CBET, CFI, SFP and Ecoschools training and awareness raising programmes have improved skills, knowledge and ability of local communities to pursue more sustainable livelihood strategies.
- Social Capital – Through formal establishment of community-based associations the project has provided opportunities for the poorest people around the reserves to participate in the active management of their surrounding area.
- Physical capital – Providing equipment for agricultural groups and the CBET scheme capacitates local people to secure functioning of community-based associations and pursue more sustainable livelihoods.
- Financial Capital: The project has created direct financial benefit to communities through the use of local labour in reserve management activities (INNS, water management, tourism sales) and has empowered local community members to generate a sustainable and reliable source of income through improving farming yields, opening up new markets, secure access to fisheries, and developing a viable ecotourism programme already attracting a steady stream of paying guests.

We have worked closely with local institutions to ensure communities can define their rights, leading to fair distribution of resources and a path to self-determination.

7. Project support to Gender equity issues

We have equal gender ratios in our Wetland Apprentice scheme and membership of community associations has actively sought to attract members from a wide range of backgrounds, including ethnicity and gender. Many traditional community structures in Cambodia are male dominated so the promotion of women's membership within community associations has made a positive contribution to gender equality in the local area. A good example being the Buffalo Bank programme which supports 7 households, with women from all households attending all meetings and responsible for much of the buffalo husbandry. Attendance at SCR groups training has equal gender representation. A female-only community-based savings group has been set up at AP to help empower women to retain control of their own finances. Despite attempts to broaden membership, the CFI groups are predominantly male, with few female fishers using the reserve. There is no obvious way to alter this.

8. Monitoring and evaluation

The monitoring and evaluation (M&E) has been led by the National Programme Manager and the Biodiversity & Engagement Advisor, while being overviewed by the project lead. Monitoring is also implemented by the Technical Office and the Wetland Apprentices, and Project partners Chamroen Chiet Khmer, Mlub Baitong and Birdlife.

All data collected as part of the M&E programme are stored in two separate network positions (UK & Cambodia) to ensure this data is not lost. In addition all reports and raw data collected was shared via email to all project partners, who have stored this data in their own institutional systems. Coming to the final year of this project we will investigate potential online databases to store data collected over the life of the project. This will allow the monitoring of this project and previous phase to still be accessible for use by site managers and will allow the continued impact of the projects work after this funding phase has come to an end.

Our adaptive management approach allows monitoring data to feed directly back into our day-to-day management, with examples being:

- The completion of an elevation survey feeding data into a digital elevation model, which was utilised in selecting the site for the Water Management reserve experiment at BPL.
- LCG reporting that two new sluice gates had been installed between AP and a neighbouring shrimp farm, leading to a threat assessment and subsequent water quality monitoring programme to assess the chemical concentrations of water entering the reserve.
- A community fishery attitude survey highlighted the issues around CFI membership and engagement, leading to a full review of membership retention and incentive schemes

Local community groups are incorporated within the M&E programme whenever possible, a good example being the data collection on illegal fishing pressures at BPL by the new CFI patrols. This allows the process of data collection itself to increase capacity and knowledge, facilitating greater understanding of the wetlands and increasing people's commitment to their protection. The SCR group has also been recording data on their use of chemical inputs, this linked with the sustainable rice training provided allow them to pilot the methods and see how much money they are saving from reduced chemical inputs.

The project holds Liaison Panel Meetings, PPC meetings and community foras. At Anlung Pring we held a District Level LPM on 29th February 2016 which included all key local stakeholders. The outputs and any issues from this meeting were then taken to Provincial LPM meeting which was held on 1st March 2016. At Boeung Prek Lapouv we held a District Level LPM on 2nd March 2016 which included all key local stakeholders. The outputs and any issues from this meeting were then taken to Provincial LPM meeting which was held on 3rd March 2016. These meetings took a focus on reporting progress of the project, highlighting areas of future work and support required.

A key new development in the M&E plan for the project and protected sites include the development of a new set of indicators to monitor all the elements of Anlung Pring Wetland. These indicators are the core of a new M&E programme for Anlung Pring Community Led Ecotourism Site. These indicators are grouped into the following areas; Community, Tourism & Wetland. In the long term the data will be collected by the CBET group and MoE site managers, with the appropriate training and systems put in place. This means the project is creating a system that will be implemented after the life of the project, and will highlight the long lasting impact that this project has provided to local communities in Cambodia wetlands.

9. Lessons learnt

This is an ambitious project covering two sites with complex and numerous threats. It was anticipated that an adaptive management approach would be required, and over the first two years of the project we have learnt that:

- External fishing pressures were much greater than anticipated so greater time and resources needed to target controlling external fishing pressure.
- The existing AP CBET group was weaker than originally thought and required restructuring. The product offer and facilities available were not competitive in the region and needed to be upgraded accordingly.
- Individual incentive mechanisms to retain membership levels in community-based associations should have been given higher priority with CFI Management Plans. This is a common problem for community-based associations (not just community fisheries) and should be carefully considered by other projects applying for Darwin funding in the future. We have applied these lessons in the development of our SFPs, which have a much clearer individually-based incentive system, creating equipment share and rental schemes.
- Local governments were not willing to support individual land tenure programmes within the Buffer Zone of BPL Protected Area due to complex land-use history and the political

risk associated with a potentially contentious issue. Greater government consultation could have been undertaken prior to the project to assess the feasibility of this approach, although politicians regularly move between positions at local government level, so even the findings from preliminary discussions may have become obsolete by the time the project is being implemented.

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

Minutes of a Liaison Panel meeting are shown in Annex 19. This was requested in feedback from the 2015 report. It should be noted that this is from a District level meeting, and additional meetings are also held at provincial level for both sites. No other specific actions stated.

11. Other comments on progress not covered elsewhere

A Darwin Change Request will be submitted in May 2016 to update the project logframe and any corresponding outdated indicators. Although referenced elsewhere in the document, to ensure ease of reference, this Change Request will cover:

- Altering Indicators in Output 1 to account for the shift from individual land rights to land tenure secured through community-based associations.
- New CFI indicators (Output 2, Indicators 1 and 2) to shift focus away from quota systems and towards monitoring and controlling external pressures.
- New timetable for Activities 3.1 and 3.2 to ensure the Wetland Health Risk Assessment elements of Output 3 are completed within Y3.
- New timetable for Activities and associated Indicators within Output 5 (see Section 3.2 Output 1).

12. Sustainability and legacy

Various education and awareness events have taken place during Y2, including Welcome the Bird events at both sites (Annex 20), the initiation of our Environmental Education programme, and monthly LCG community liaison meetings. Members of national universities were also invited to our sites during Y2 of this project.

Farming partnerships, CFis and CBET are on course to be autonomous and fully functional by the end of the project, and will continue to be supported by the local project partners, who have both have offices at their respective sites. CFI patrols have started and liaise well with the LCGs to report on any illegal activities. This has led to crack-downs on large-scale illegal fishing techniques used by itinerant fishers from outside of the community fishery zones (mostly from across the Vietnamese border). These crack-downs have had excellent support from the Cambodian police, fisheries department and border control groups and the relationships developed will be invaluable in ensuring the sustainability of the CFis into the future. The cohesion with the newly established CFI and Koh Andet are strong and we are optimistic that this will continue. At Kampong Krasang, we are reviewing the business model to identify incentive mechanisms to retain membership.

As it has been impossible to provide formal land tenure to local people at BPL (see Section 3), this element of our legacy prediction has had to be adapted. We are confident that those farmers involved in sustainable farming partnerships will ensure that no land encroachment will occur in their areas, as they would forfeit their rights to continued training and access to our equipment share scheme if encroachment is recorded by our LCGs. However, in other areas, especially around Bantay Sleuk village, there is still resentment to the reserve's original designation and encroachment must be monitored closely. CCK continue to work within Bantay Sleuk to identify opportunities to deliver project benefits to this area.

The Wetland Apprentice (WA) scheme has worked incredibly well at BPL, with our WA being regularly informed when illegal activities are taking place so that he can raise the issues with our LCGs. At our smaller AP site, the WA has been instrumental in leading activities around the

Chres community wetland and coordinating the CBET programme. As mentioned in Section 2, the AP WA still requires support to give her the confidence to present opinions to community leaders and inform the LCGs if she notices certain individuals are ignoring community-established regulations around (for example) sustainable and fair use of the Chres Community Wetland. Our project Technical Officer is working closely with the AP WA to invite her to express opinions during community meetings so that community members understand her role and obligations to the project. The project will continue to monitor this, and the AP WA is also now working more closely with MB field staff to be seen as an integral member of the collective project team.

The CBET website is currently in development and the number of 'Likes' on the Mekong Crane Facebook page has grown to 514

Adding Birdlife as an official partner intends to increase capacity of local partners to continue major elements of the programme once this funding cycle is complete.

13. Darwin Identity

Darwin Initiative logo continues to appear on all project outputs (Annexes 8, 12, 14 and 20 as examples), including reports, sign boards, training material and presentations. Darwin's major contribution to our Cambodia programme is highlighted at regional and provincial government meetings, and our field team wear t-shirts with the Darwin logo during fieldwork. T-shirts are also printed and provided for participants of all education and awareness events (see Annex 20) and Darwin is now given greater exposure to the public through the dissemination of CBET material at hotels, restaurants and other tourist attractions.

There is a clear understanding of the Darwin Initiative in the government departments and NGO partners that WWT and other project partners work with. Our work in Cambodia is funded by a number of grant awarding bodies, external agencies and WWT core funds. The Darwin logo is prominent on all outputs coming from the wider programme.

14. Project Expenditure

Table 1 Project expenditure during the reporting period (1 April 2015 – 31 March 2016)

Project spend (indicative) since last annual report	2015/16 Grant (£)	2015/16 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)			+0.2	
Consultancy costs			-4.7	
Overhead Costs			-27.8	This budget line covers items such as insurance and bank charges, including a significant contingency. Careful planning and has meant we have not had to use a significant proportion of the budgeted amount. Whilst the percentage variance is high, this is a small absolute budget line in the context of the total project budget. Therefore this underspend is counterbalanced by small overspends within the 10% limit on other budget lines that are much larger in absolute size to ensure that we used our full budget for the year.
Travel and subsistence			+9.8	
Operating Costs			-1.3	
Capital items (see below)			+0.4	
Others (see below)			+9.0	
TOTAL				

Note: Grant line amounts above are following amendments as a result of reallocation agreed by Darwin Initiative in December 2015. It was agreed that £10,544 would be reallocated from Other Costs (partner) as follows:

- £4,544 to Consultancy Costs (Partner)
- £5,500 to Capital Equipment (Partner)
- £400 to Travel & Subsistence

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2015-2016

Project summary	Measurable Indicators	Progress and Achievements April 2015 - March 2016	Actions required/planned for next period
<p>Impact Seasonally-inundated grasslands and other wetlands in Cambodia are sustainably co-managed by local people enhancing wetland biodiversity, supporting livelihoods and acting as a model for wetland management in the region.</p>		<p>Community-based associations for fisheries, farming and ecotourism have been established and received training so that they provide sustainable mechanisms to support local livelihoods whilst protecting and enhancing the ecology of AP and BPL wetlands. Further support in Y3 will ensure they are self-sustaining and able to independently expand membership and revenues. Water level management controls are in place and trails underway to support effective decision making for water management, especially in relation to the retention of water for a prolonged period after the rains. Biodiversity monitoring, water quality assessments and the mapping and community-led control of invasive species are contributing towards enhancing wetland biodiversity.</p>	
<p>Outcome 6800 households in the most wetland-dependent communities have more secure access to wetland resources which are managed in ways that sustain livelihoods and enhance wetland biodiversity</p>	<ol style="list-style-type: none"> 1. 6000 people have more secure land tenure by yr 3 2. "Wildlife-friendly" agricultural products being produced and sold by SFPs by yr 3 3. Annual sustainable fish quotas 	<ol style="list-style-type: none"> 1. Focus to shift onto community-based associations as individual land tenure no longer deemed possible. 2. On track. SCR being market and sold locally. 3. Closing resource access prioritised 	<ol style="list-style-type: none"> 1. Increase membership and expand community-based associations, especially around SFPs and CFIs. Work with commune government for formal association land tenure. 2. Identify and exploit wider market opportunities and expand SCR groups. 3. Review membership retention

	<p>agreed by CFI members based on results of wild fishery harvest analyses carried out in yr 1 and 2 are being implemented by yr 3</p> <p>4. Sustainable tourism project at AP will be generating \$400 income by yr 3 and employment for 5 local people by year 2</p> <p>5. Crane numbers will be stable or have increased at both sites by 5% by year 3 compared with Sarus Crane non-breeding census results for 2012</p> <p>6. Eco-hydrology of seasonally-inundated <i>eleocharis</i> grassland will be in more favourable condition in yr 3 based on trends of community of bio-indicator species identified in yr1. Extent of these grasslands will not have reduced in extent in yr3 compared to yr 1</p> <p>7. At least 600 more households (approximately 10% of all households for both reserves) adopting sustainable natural resource management practices by yr3 compared to project start</p> <p>8. guidelines for wise-use management of wetlands in Cambodia supported and in use by government at other wetlands including Ramsar sites by yr 3</p>	<p>after CFI Assessment. CFI patrols established and linked to LCG monitoring and local law enforcement agencies to undertake illegal fishing crackdowns</p> <p>4. Income expectations already exceeded in first quarter of calendar year. Staff roles and responsibilities clearly structured</p> <p>5. Crane numbers decreased slightly in Y2, but presumably a consequence of poor rains in 2015.</p> <p>6. Buffalo bank grazing areas, water management trials, alien invasive species programmes and water quality monitoring underway.</p> <p>7. SFPs have received training, support and machinery to produce, and profit from low-input rice and diversify crops away from wetland dependant species. CFIs supported with large-scale interventions to be empowered to control their own resource.</p> <p>8. Behind schedule. Government support for programme secured from all relevant departments and first workshop scheduled for July 2016</p>	<p>incentive schemes and adapt CFI Management Plans as necessary. Continue to work with LCGs and local law enforcement to control external pressures and ensure adherence to regulations.</p> <p>4. Continue to support CBET and train staff. Enhance product offer to tourists and develop capacity to administer bookings to increase tourist volume.</p> <p>5. Support annual crane census and optimise grassland mgmt, raise awareness of cranes and their requirements in all training activities</p> <p>6. Monitor success of interventions. Continue with INNS strategy to target appropriate habitat.</p> <p>7. Increase membership of community-based associations and expand environmental awareness campaigns into local schools at BPL. Install new Community-information points.</p> <p>8. Working Group to be established prior to July workshop. Two-day workshop to develop content. WWT staff members to draft guidelines for review in Dec 2016. National conference help towards end of Y3.</p>
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Output 1. Rights of tenure established for 6000 people of BPL	1. 6000 people in BPL buffer zone have registered land tenure by yr 2 compared to 3000 at yr 1	Not achieved and Change Request to be submitted in May 2016. Kampong Krasang and Koh Andet District Governors have stated that this will not be possible due to complex land-use/tenure histories in the area which have led to this activity being politically difficult for District Governors. We continue to work with local govt representatives to create mechanisms for securing land-use rights for local people through community-based associations.
Activity 1.1 Establish land registration committee (to include government and community representatives)		Kampong Krasang and Koh Andet District Governors and other government representatives consulted but no formal committee established due to individual land tenure not being possible.
1.2 Create map of current land use and users in the two communes of Kampong Krasang and Chey Chouk (with village and commune chiefs)		Achieved in Y1.
1.3 Submit agreed map to Chief of Land Management (Takeo province) for approval		Shared with Chief of Land Management during initial workshops. Now used as a baseline for land-use change.
1.4 Install boundary markers at strategic locations to demarcate the newly-registered community land tenure.		Boundary designed and approved for zonation of land-use rights for community-based associations. To be installed during current dry season and completed by 2016 Half-Year Report. Boundary markers to also serve as community information dissemination points, listing zone-use regulations.
1.5 Provide quarterly progress report to BPL liaison panel		Quarterly meetings held all BPL project partners, and used to evaluate new options based on District Governor's restrictions.
1.6 Undertake annual review of land use at both reserves; produce report		Part achieved. Monthly LCG reports on land encroachment but no formal annual review produced. Land-use map commissioned and to feed into review in Quarter.
Output 2. Co-management structures legally/formally established for CFIs, sustainable tourism and SFPs and stakeholders are able to deliver sustainable wetland management through them	2. Fishing quota established for Koh Andet CFI by yr 2 4. 6 pilot SFP farms established by yr 1 (3 at each reserve)	Output on track. Community-based associations established for SCR group, KK CFI, AP CBET and all other SFPs. Indicators 1-3 to be changed as a result of recommendations presented in initial fisheries assessment. Controlling external pressures and illegal activities deemed more appropriate. 2. Indicator to change after fishery report suggested a quota system may disadvantage CFI members unless external pressures can be brought under control. CFI patrols now occur regularly through peak fishing season and liaison with LCGs and law enforcement very strong, resulting in a number of large-scale crack-downs of illegal fishing 4. Complete

	<p>5. Guidance manual distributed to extension trainers by yr 2</p> <p>6. Annual sustainable farming workshop inaugurated yr2</p>	<p>5. Complete – Training and guidance material generated for core members and extension trainers for all SFPs, Ecoschools, and the AP CBET.</p> <p>6. Workshop complete and SFP members attending rice festival to highlight successes.</p>
2.1 - Constitute liaison panels (to receive progress reports from partners, review progress make recommendations for action)		Achieved in Y1.
2.2 - Hold liaison panel meetings (quarterly; plus one joint liaison panel meeting annually)		Achieved. LP meetings held quarterly with main joint LP meeting in March 2016.
2.3 – Hold community fora quarterly		Achieved. Continue into next year.
2.4 - Hold workshops on sustainable farming and SFP at both reserves		Achieved. Training workshops delivered at both sites. Continue next period.
2.5 - Identify locations for SFP demonstrations and sign agreements with SFP participants		SFP sites established in BPL and AP. Established partnerships include community wetland/vegetable growing scheme, Buffalo Bank programme, Sarus Crane Rice Groups, Crop Diversification scheme and Compost Groups. Agreements signed.
2.6 - Design and undertake trials of low-input and wildlife-friendly rice production, natural fertiliser production at 6 locations		Sarus Crane Rice Groups active in 3 locations and natural fertiliser production groups in early stages of development at BPL.
2.7 - Collect data, do analysis, produce report on findings of activity 2.6		First season's baseline data not collected but evidence from neighbouring control sites suggesting significant increase in yield. Data now being collected for second rice growing season.
2.8 - Develop and agree marketing strategy for wildlife-friendly rice and other products		Market research showed that Sarus Crane Rice (SCR) could not be marketed as 'Organic' due to open nature of BPL system. Marketing shifted towards providing quality seed for farmers in the region.
2.9 - Market wildlife-friendly products		Marketed to regional farmers. SCR logo being used to market differentiate SCR high quality seed.
2.10 - Complete legal designation process for Kampong Krasang CFi at BPL		Achieved.
2.11 - Undertake legal designation process for Koh Andet CFi at BPL		Part complete. Maps finalised but formal government approval only possible on submission of Management Plan, which will only be completed after review of KK CFi to ensure mechanisms for membership retention are integrated.

2.12 - Undertake wild fishery yield analysis for both CFIs (beginning and end of project); produce report (use to inform CFI management plans)	First yield analysis and report complete.
2.13 - Develop, agree and produce CFI management plans (including agreeing annual quota and plan for fish habitat restoration) using a participatory planning process	Management Plan completed for KK, but dissemination poor and report states that a greater incentive mechanism is required to retain membership. Review currently ongoing to feed into KA Management Plan. Quotas no longer a clear priority relative to the more significant external threats.
2.14 - Implement CFI management plans	Both CFIs functioning and working well with local authorities to control illegal activities with the CFI areas.
2.15 - Develop and agree marketing strategy for eco-tourism at AP	Complete. CBET at AP has required greater support than anticipated and received additional funding from Darwin after Change Request approval. CBET now fully functioning and generating better than expected revenue.
2.16 - Hold workshops on CBET project at BPL	Achieved.
2.17 - Constitute CBET group for BPL	CBET working groups contributing to participatory workshops but no formal agreement signed to date as still identifying mechanisms spread the benefits of this project. To be completed in next Quarter
2.18 - Agree development and marketing strategy for CBET at BPL	Complete. Tourism markets identified and agents and potential agent feedback received and reported on.
2.19 - Produce quarterly progress report for both liaison panels on all activities	Achieved. LP feedback is regular with minutes produced for main bi-annual LP meetings.
2.20 - Produce annual review of progress on all activities	Annual review presented at main LP meeting with all project partners and government department representatives in March 2016.
2.21 - Establish network of information/training points	Community Information points part established at AP CBET centre and Chres Community Wetland. Major CFI Community Information Point planned for next Quarter.
Output 3. Reserve management plans (2013-2018) are implemented	1. Training programme (based on participatory needs assessment) produced and endorsed by all stakeholders and submitted to liaison panel by yr 1 2. Stakeholders from government and local community undertaking invasive species control and biological survey programme from yr 1
	1. Complete 2. Complete. LCG and INNS programme fully functioning.

	<p>3. Report of grazing trials undertaken on seasonally-inundated <i>eleocharis</i> grasslands submitted to liaison panel and MAFF in years 2 and 3</p> <p>4. Annual reports of biological survey programme submitted to liaison panel and MAFF for review from yr 1</p> <p>5. Reports on LCG law enforcement and awareness raising activities submitted to liaison panel quarterly for consideration from yr 1</p>	<p>3. Results delayed due to late start of project and change to buffalo bank timetable (due to purchasing pregnant buffalos to increase short-term benefit to communities. This meant vaccinations had to be delayed, which were required before grazing trial could begin). Report will be created in Y3.</p> <p>4. Complete and ongoing</p> <p>5. Complete and ongoing</p>
Activity 3.1 - Undertake wetland health risk assessments at both sites; produce report	Not achieved. Moved to Y3 of project to be undertaken as a priority.	
3.2 - Develop and produce training manual	Training Manuals created for Environmental Education Programme, LCG reserve monitoring and Delivery of INNS programme.	
3.3-3.5 - Develop training and conservation action programme (through training needs assessment and informed by site management plans) , train extension team, implement plan	Training and Action programme is ongoing throughout the project, with all community-based associations receiving relevant training and an ecoshools training and awareness programme in community schools. Training needs are continually assessed. Extension team receive training through SFPs.	
3.6 - Undertake survey of rice-growing and fishing practices of Vietnamese community at BPL	Will not be achieved due to specific government request.	
3.7 - Deliver training in sustainable farming/fishing and reserve regulations to Vietnamese community	Not yet achieved. Put on hold due to government request (see 3.6) but now it has been determined that education events will be scheduled for the final year of the project.	
3.8 – 10 - Design biological survey and monitoring programme (BSMP), implement and produce report	The BSMP is not consolidated into a single plan but project partners have created the following; LCG monitoring programme of key species, Sarus Crane ecology and responses to conservation action, water quality monitoring programme (to feed into BSMP), and an invasive species survey. All elements off this work are ongoing and will continue into the final year of the project.	
3.11 – 13 - Design habitat management trials, implement and produce report	Habitat management trials created through fish-pool habitat restoration, water retention trials and community-based INNS control projects. Each activity to be reported on individually in Year 3.	

3.14 - Support LCGs in delivering law enforcement activities	Achieved, ongoing. LCGs continue to be supported with necessary resources. LCGs have also started to play an important role alongside CFI patrols and illegal fishing crack-downs.	
3.15 - Undertake ESA at both sites; produce report	Year 3 activity. Results will be compared against findings of WWT studies undertaken in 2012	
3.16 - Produce quarterly progress report for liaison panels	Achieved. Ongoing until project end.	
3.17 - Produce annual review of management plan implementation for liaison panels	Annual review presented at main LP meeting with all project partners and government department representatives in March 2016.	
Output 4. Water level management plans for both reserves and floodplain land use plan for AP developed and agreed with stakeholders through participatory working methods.	<p>1. Water level management regime agreed through participatory methods for both sites by yr 2</p> <p>2. Water level management infrastructure in place at both reserves by yr 2</p> <p>3. Floodplain land use plan agreed through participatory methods for both sites by yr 2</p>	<p>1. Water use assessed at AP and Digital Elevation Models complete. Water being managed to informal regime at AP – this will be formalised in Y3. Water level management plan will be more difficult at BPL due to the much larger size and significantly greater pressures and number of users. Government have requested that we complete management trials before working on a Water Level Management Plan at this site.</p> <p>2. Complete. Sluice gates AP and Water Management control plot in BPL</p> <p>3. Floodplain maps produced and water quality assessments underway evaluate impact of new shrimp farms abutting AP.</p>
4.1-4.5 Create Water Level Management Plans	Digital Elevation Models complete for both sites. AP Water User Group (WUG) formalized and report generated from WUG consultation. Full community consultation for water level planning is unlikely at BPL due to the size of reserve and number of surrounding communities. Priorities for water level management at BPL are clearly the need to retain water within the reserve for longer periods and all stakeholders agree that interventions should strive towards this objective.	
4.6-4.7 Implement Water Level and Land Use Plans	AP sluice gate repaired and gate operation overseen by WUG to control water levels and salinity at AP. Large water retention features created at BPL (e.g. 16 ha water management trial, CFI fish pond sanctuary, Dei Luk retention trial). Buffalo Bank grazing has been delayed but is starting during the current dry season, with grazing protocol established.	
4.8 - Produce quarterly progress report for liaison panels	Achieved and ongoing	
4.9 - Produce annual review of progress and activities	Review presented governments and community members at Annual district and provincial LP meetings	

<p>Output 5.</p> <p>Wise-use guidelines for sustainable management of wetlands in Cambodia supported by government and in use at other wetland sites including Ramsar wetlands</p>	<p>1. National working group established by yr 1</p> <p>2. Participatory planning workshops agree draft guidelines by yr 2</p>	<p>The Activities within this output have been delayed due to prioritisation of other activities after the later start of the project and changes to wetland protected area at government level (moved from MAFF to MoE). Output therefore behind schedule but initial consultations complete and project partners endorsed to facilitate process. First workshop scheduled for July 2016 and guidelines set to be in place and endorsed by government by end of project.</p>
<p>Activity 5.1 - Establish national working group to draft guidelines</p>	<p>Consultations and approval through MoE. Project delayed until Y3.</p>	
<p>5.2 - Run workshop to draft guidelines</p>	<p>Not achieved. Major workshop scheduled for July 2016. Invitations to be sent to all relevant stakeholders plus regional Ramsar representatives.</p>	
<p>5.3 – 5.9</p>	<p>Not achieved. All these activities will be undertaken in Y3. It is anticipated that draft guidelines can be completed by the end of this project and WWT is committed to ensuring these guidelines are given formal government approval. A new timeline will be sent to Darwin in May for review.</p>	

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
<p>Impact: Seasonally-inundated grasslands and other wetlands in Cambodia are sustainably co-managed by local people enhancing wetland biodiversity, supporting livelihoods and acting as a model for wetland management in the region.</p>			
<p>Outcome: 6800 households in the most wetland-dependent communities have more secure access to wetland resources which are managed in ways that sustain livelihoods and enhance wetland biodiversity</p>	<ol style="list-style-type: none"> 1. 6000 people have more secure land tenure by yr 3 2. "Wildlife-friendly" agricultural products being produced and sold by SFPs by yr 3 3. Annual sustainable fish quotas agreed by CFI members based on results of wild fishery harvest analyses carried out in yr 1 and 2 are being implemented by yr 3 4. Sustainable tourism project at AP will be generating \$400 income by yr 3 and employment for 5 local people by year 2 5. Crane numbers will be stable or have increased at both sites by 5% by year 3 compared with Sarus Crane non-breeding census results for 2012 6. Eco-hydrology of seasonally-inundated <i>eleocharis</i> grassland will be in more favourable condition in yr 3 based on trends of community of bio-indicator species identified in yr 1. Extent of these grasslands will not 	<ol style="list-style-type: none"> 1. Legal documents/agreements held by Takeo provincial land management authority 2. Sales receipts, video, 3. Legal documents, CFI management plan stating annual sustainable harvest endorsed by CFI members and other stakeholders, annual reports of Takeo fisheries department, annual wild fishery harvest reports 4. CBET bank statements, CBET financial reports 5. Annual crane census records, survey reports 6. Rapid condition assessment reports, bio-indicator survey reports 	<p>That the political unrest which continues following elections that took place in July 2013 do not reduce the government's support for our work on the two reserves or in general its Protected Area/environmental policies</p> <p>That climatic events (or other extreme events e.g. civil unrest) do not impact on the viability of sustainable farming, fishing or tourism and cause target communities to become reluctant to enter into partnership with us</p>

	<p>have reduced in yr 3 compared to yr 1.</p> <p>7. At least 600 more households (approximately 10% of all households for both reserves) adopting sustainable natural resource management practices by yr3 compared to project start</p> <p>8. Guidelines for wise-use management of wetlands in Cambodia supported and in use by government at other wetlands including Ramsar sites by yr 3</p>	<p>7. Attitude/awareness/behaviour surveys undertaken by project partners at beginning and end of project.</p> <p>8. Wise-use guidelines document in existence and features foreword by government representative; national reporting forms to Ramsar Convention secretariat</p> <p>9. Guidelines referenced in government documents, site management plans for other Cambodian wetlands</p>	
<p>Outputs:</p> <p>1. Rights of tenure established for 6000 people of BPL</p>	<p>1. 3000 people in BPL buffer zone have newly-registered land tenure by yr 1 compared to zero at start of project</p> <p>2. 6000 people in BPL buffer zone have registered land tenure by yr 2 compared to 3000 at yr 1</p> <p>3. Land registration papers accepted by Takeo department of land management by yr 3</p>	<p>1. Land register for BPL held by Takeo department of land management</p>	

<p>2. Co-management structures legally/formally established for CFIs, sustainable tourism and SFPs and stakeholders are able to deliver sustainable wetland management through them</p>	<ol style="list-style-type: none"> 1. Fishing quota established for Kampong Krasang CFI by yr 1 2. Fishing quota established for Koh Andet CFI by yr 2 3. CFI members reporting favourably on success of quota system by yr 3 4. 6 pilot SFP farms established by yr 1 (3 at each reserve) 5. Guidance manual distributed to extension trainers by yr 2 6. Annual sustainable farming workshop inaugurated yr2 7. Income generated from CBET enterprise at AP increases from \$225 in 2012 to \$400 in yr 3 8. CBET established at BPL 	<ol style="list-style-type: none"> 1. Legal agreement for CFI designation 2. Membership lists for CFI 3. Quota agreements in CFI management plans 4. Contracts with landowners and farmers 5. Guidance manual 6. Workshop reports/minutes 7. CBET group (AP) bank statements 8. CBET group (BPL) inaugural meeting minutes 	<p>Wet season weather does not unduly affect project implementation</p> <p>Farmers and fishers are still willing to sign agreements to enter into</p>
<p>3. Reserve management plans (2013-2018) are implemented</p>	<ol style="list-style-type: none"> 1. Training programme (based on participatory needs assessment) produced and endorsed by all stakeholders and submitted to liaison panel by yr 1 2. Stakeholders from government and local community undertaking invasive species control and biological survey programme from yr 1 3. Report of grazing trials undertaken on seasonally-inundated <i>eleocharis</i> grasslands submitted to liaison panel and MAFF in years 2 and 3 	<ol style="list-style-type: none"> 1. Training programme, training needs workshop report 2. video, activity reports submitted to liaison panel 3. MAFF official in receipt of grazing trial reports, MAFF comments and review of findings Record of payments to local participants in conservation activities, video footage 	<p>Continuing support of government especially through MAFF's Dept of Wildlife & Biodiversity</p>

	<p>4. Annual reports of biological survey programme submitted to liaison panel and MAFF for review from yr 1</p> <p>5. Reports on LCG law enforcement and awareness raising activities submitted to liaison panel quarterly for consideration from yr 1</p> <p>6. Reports produced detailing findings of ESA at both sites submitted to MAFF and MoE in yr 3</p>	<p>4. MAFF official in receipt of biological monitoring reports, MAFF comments and review of findings Minutes of meetings/workshops</p> <p>5. Liaison panel comments in official minutes</p> <p>6. MAFF/MoE report and comments</p>	
<p>4. Water level management plans for both reserves and floodplain land use plan for AP developed and agreed with stakeholders through participatory working methods.</p>	<p>1. Water level management regime agreed through participatory methods for both sites by yr 2</p> <p>2. Water level management infrastructure in place at both reserves by yr 2</p> <p>3. Water levels managed according to plan by yr 3</p> <p>4. Floodplain land use plan agreed through participatory methods for both sites by yr 2</p> <p>5. Floodplain land use plan being implemented from yr 3</p>	<p>1. Record of endorsement of water level management plans by liaison panel and provincial government</p> <p>2. Video, field check</p> <p>3. Records held by LCGs</p> <p>4. Record of endorsement by liaison panel and provincial government</p> <p>5. Records held by LCGs and CLDMC (Community livelihoods development management committee)at AP</p>	

<p>5.</p> <p>Wise-use guidelines for sustainable management of wetlands in Cambodia supported by government and in use at other wetland sites including Ramsar wetlands</p>	<p>1. National working group established by yr 1</p> <p>2. Participatory planning workshops agree draft guidelines by yr 2</p> <p>3. Working group agrees final guidelines by yr 3</p> <p>4. National conference held on wise-use wetland management</p> <p>5. Wetland managers across Cambodia using the guidelines</p>	<p>1. Minutes of meetings</p> <p>2. Minutes of meetings, draft guidelines</p> <p>3. Minutes of meetings, final guidelines</p> <p>4. Conference proceedings</p> <p>5. Wetland managers across Cambodia using the guidelines</p>	
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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)

- 1.1 Establish land registration committee (to include government and community representatives)
- 1.2 Create map of current land use and users in the two communes of Kampong Krasang and Chey Chouk (with village and commune chiefs)
- 1.3 Submit agreed map to Chief of Land Management (Takeo province) for approval
- 1.4 Install boundary markers at strategic locations to demarcate the newly-registered community land tenure.
- 1.5 Provide quarterly progress report to BPL liaison panel
- 1.6 Undertake annual review of land use at both reserves; produce report
- 2.1 Constitute liaison panels (to receive progress reports from partners, review progress make recommendations for action)
- 2.2 Hold liaison panel meetings (quarterly; plus one joint liaison panel meeting annually)
- 2.3 Hold community fora (quarterly)
- 2.4 Hold workshops on sustainable farming and SFP at both reserves
- 2.5 Identify locations for SFP demonstrations and sign agreements with SFP participants
- 2.6 Design and undertake trials of low-input and wildlife-friendly rice production, natural fertiliser production at 6 locations
- 2.7 Collect data, do analysis, produce report on findings of activity 2.6
- 2.8 Develop and agree marketing strategy for wildlife-friendly rice and other products
- 2.9 Market wildlife-friendly products
- 2.10 Complete legal designation process for Kampong Krasang CFI at BPL
- 2.11 Undertake legal designation process for Koh Andet CFI at BPL
- 2.12 Undertake wild fishery yield analysis for both CFIs (beginning and end of project); produce report (use to inform CFI management plans)
- 2.13 Develop, agree and produce CFI management plans (including agreeing annual quota and plan for fish habitat restoration) using a participatory planning process
- 2.14 Implement CFI management plans
- 2.15 Develop and agree marketing strategy for eco-tourism at AP
- 2.16 Hold workshops on CBET project at BPL
- 2.17 Constitute CBET group for BPL
- 2.18 Agree development and marketing strategy for CBET at BPL

2.19	Produce quarterly progress report for both liaison panels on all activities	
2.20	Produce annual review of progress on all activities	
2.21	Establish network of information/training points	
3.1	Undertake wetland health risk assessments at both sites; produce report	
3.2	Develop and produce training manual	
3.3	Develop training and conservation action programme (through training needs assessment and informed by site management plans)	
3.4	Train extension training team (constituted from existing community groups at both sites)	
3.5	Deliver training and conservation action programme (including invasive species control) to target audiences	
3.6	Undertake survey of rice-growing and fishing practices of Vietnamese community at BPL	
3.7	Deliver training in sustainable farming/fishing and reserve regulations to Vietnamese community	
3.8	Design biological survey and monitoring programme (BSMP)	
3.9	Implement BSMP	
3.10	Produce BSMP report	
3.11	Design habitat management trials	
3.12	Implement habitat management trials	
3.13	Produce report on habitat management trials	
3.14	Support LCGs in delivering law enforcement activities	
3.15	Undertake ESA at both sites; produce report	
3.16	Produce quarterly progress report for liaison panels	
3.17	Produce annual review of management plan implementation for liaison panels	
4.1	Run launch workshops for both plans	
4.2	Establish stakeholder groups and work programme	
4.3	Draft plan consultations	
4.4	Secure stakeholder endorsement of final plans	
4.5	Publish and disseminate plans	7
4.6	Implement water level management plan	3
4.7	Implement land use plan	2
4.8	Produce quarterly progress reports for liaison panels	
4.9	Produce annual review of progress and activities	
5.1	Establish national working group to draft guidelines	
5.2	Run workshop to draft guidelines	
5.3	Run study tour to Cambodian Ramsar wetland for key stakeholders	
5.4	Publish draft guidelines and consult with all stakeholders	
5.5	Workshops to finalise guidelines co-chaired by MAFF and Ministry of Environment	
5.6	Publish and disseminate guidelines	
5.7	Run national conference for wetland managers and wetland policy makers	
5.8	Publish conference proceedings	
5.9	Produce quarterly progress reports for liaison panels	

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
5	Training: 2x WWT wetland apprentices working f/t with BEA. Training in wetland mgmt, community engagement, English language	1m,1f	Cambodian	2	2		2	2
6a	For SFP participants - Low-input rice growing; safe pesticide use, making natural compost and pesticides, using green manure	Male and female	Cambodian	100	250		250	500
6b	Training weeks			2	8		10	15
6a	English language course for WWT Finance officer	female	Cambodian	2	2		4	6
7	Training materials: ppt, handouts in khmer			2	4		6	10
14a	Various workshops and seminars inc CFi establishment, election of CFi committee, sustainable fishery practices, CBET development, SFP establishment			15	23		38	50
14b	CEPF regional workshop, Cambodia 2014			1	0		1	2

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)
No formal publications						

Annex 4 – Joint Partner work Plan for Ecotourism at Anlung Pring

Activities																					
1 CBET by-law finalisation																					WWT
1.1 CBET by-law draft finalised	X																				WWT
1.2 CBET by-law community workshop				X																	WWT (other IP)
1.3 Revise CBET by-law				X	X																all IP
1.4 Workshop for final approval of CBET by-law						X															WWT (other IP)
2 Commune CBET Recognition																					MB Lead
2.1 Prepare recognition letter						X															MB (Ratha)
2.2 submit and follow up recognition letter								X	X												MB (Pich) & CBET
2.3 Gain recognition from 2 commune chief																					MB
2.4 Decide next step for tourist community																					All IP
3 CBET - FA Approval Letter																					WWT (other IP)
3.1 WC meet with Dr Omaliss						X															WWT
3.2 Support community produce letter & FA requirements						X															WWT (other IP)
3.3 Submit letter to IP & Kimhout							X														All IP
3.4 Revise & CBET submit for approval								X													WWT
4 Ecotourism Management Board Establishment																					WWT (other IP)
4.1 Draft documentation of management board	X																				WWT
4.2 IP review documentation						X															all IP
4.3 Establish board and first term members							X	X													WWT
4.4 Ensure documents are applied										x	x	x	x	x	x	x	x	x	x	x	all IP
5 CBET Tourism Centre Expansion																					WWT (Pok)
5.1 Finalise minutes (support document)	X																				MB (Ratha)
5.2 Finalise expansion request letter	X																				MB (Pich)
5.3 Follow up request letter until approval gained						X															WWT (Tevy) & CBET
5.3 Supervise expansion of Tourism Centre							X	X													WWT
5.4 Equip Tourism Centre										X	X	X									WWT
6 CBET Staffing & Training																					WWT
6.1 CBET staff support start										x	x	x	x	x	x	x	x	x	x	x	WWT
6.2 CBET staffing approach decided with community																					WWT
6.3 Joint Training programme drafted						X															All IP
6.4 joint training programme finalised							X														IP
6.5 Training Programme implemented								X		x	x	x	x	x	x	x	x	x	x	x	MB, WWT
7 Product Development																					WWT
7.1 Purchase product equipment	X	X																			WWT
7.2 Establish Bicycle rental product							X	X													WWT
7.3 Establish Old Ranger station product									x	x	x	x	x								WWT
7.4 Finalise supporting services (signboards direction)									x	x											WWT
7.5 Finalise new ranger station product									X	X											WWT
7.6 Establish Homestay									x	x	x	x	x	x							MB & WWT
7.7 T-shirt drafting									X	X											MB
8 Interpretation Material Development																					WWT & BL
8.1 Draft content of IM						X															WWT & BL
8.2 Draft designs of IM							X														WWT & BL
8.3 Finalise all IM								x													WWT & BL
8.4 Print all IM																					WWT & BL
8.5 Install IM										x											WWT & BL
9 Marketing																					WWT lead IP support
9.1 Develop Marketing content							x														
9.2 Finalise website									x	x											
9.3 Finalise online presence									x	x											
9.4 Design and produce leaflets									x	x											
9.5 Target marketing in Kampot & Kep																					x
9.6 Follow up with Tour operators																					x
9.7 Continue social media	x	x							x	x	x	x	x	x	x	x	x	x	x	x	x
10 Ecotourism Monitoring																					WWT
10.1 Finalise monitoring indicators							x		x	x											WWT
10.2 Implement baseline data collection surveys										x	x	x	x	x	x	x	x	x	x	x	WWT

Annex 5 – An example of training material delivered to farmers within the Sustainable Farming partnerships



ដំណាំស្រូវ



តើដំណាំស្រូវជាអ្វី?

ដំណាំស្រូវគឺជាប្រភេទរុក្ខជាតិដែលដុះលូតលាស់លឿនហើយផ្តល់ដីជាតិ និងសារធាតុសរីរាង្គដល់ ដីសំរាប់ដំណាំសំខាន់ៗ។ ដីស្រូវត្រូវ បានគេដាំនៅពេលទំនេរពីដំណាំសំខាន់ហើយ គេគួរលេងវាទៅក្នុងដីនៅពេលវាលុតលាស់ ឬ កំពុងចេញផ្កា។



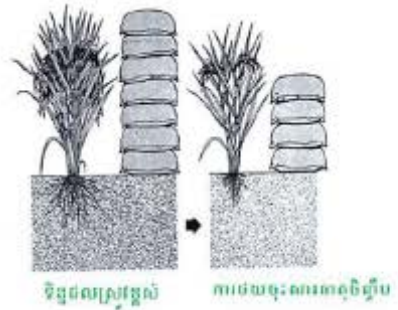
តើដំណាំស្រូវផ្តល់អត្ថប្រយោជន៍ដូចម្តេចខ្លះ?

ការប្រើប្រាស់ដីស្រូវអាចជួយអោយដំណាំទទួលបានទិន្នផលខ្ពស់ដោយសារវាមានអត្ថប្រយោជន៍យ៉ាងច្រើនដូចជា:

- ដំណាំស្រូវផ្តល់សារធាតុចិញ្ចឹមដល់ដីជាពិសេសពណ្តកសណ្តែកដែលអាចស្រូបយកសារធាតុអាសូតពីបរិយាកាស(ខ្យល់)
- បន្ថែមនូវសារធាតុសរីរាង្គដល់ដីដែលជួយកែលម្អលក្ខណៈរៀងៗរបស់ដីដូចជាសមត្ថភាព

ស្តុកទឹកខ្យល់ចេញចូលបានល្អ និងធ្វើអោយដីធូបាយស្រួលក្នុងរាស់ និងស្ងួត ជាដើម។

- ជាតំបន់ជួយទប់ស្កាត់ការហូរច្រោះ
- រក្សាសារធាតុចិញ្ចឹមដែលមាននៅក្នុងដីស្រូវទាប់ខាងលើមិនអោយបាត់បង់ដោយ សារធាតុផ្ទុកទឹកភ្លៀង ខ្យល់បក់ និងពន្លឺថ្ងៃ។
- ជួយទប់ស្កាត់ការលុតលាស់ស្មៅចង្រៃមិនអោយដុះ។
- ជួយកំចាត់សត្វល្អិតចង្រៃ និង ជំងឺ ប្រើដីស្រូវជាដំណាំផ្លាស់ជាមួយស្រូវដែលធ្វើអោយវាផ្តុំជីវិតនៃពណ្តកសត្វចង្រៃដែលមាននៅ ក្នុងស្រូវត្រូវបានបំបែកចេញ។
- ផ្តល់ជាជំរកដល់សត្វល្អិតមានប្រយោជន៍។
- បង្កើនទិន្នផលពី១៥ ទៅ២០ភាគរយ
- បង្កើនបរិមាណវីតាមីន និងប្រូតេអ៊ីនរបស់ស្រូវ



តើក្រុមគ្រួសារគ្រួសារដែលគួរដាំដំណាំស្រូវ?

យើងគួរពិចារណាចំនុចមួយចំនួនរបស់ដំណាំដែលត្រូវដាំធ្វើជាដីស្រូវរួមមានដូចខាងក្រោម:

- ត្រូវតែសមស្របនឹងអាកាសធាតុក្នុងតំបន់
- លុតលាស់លឿន និងផ្តល់សារធាតុសរីរាង្គច្រើន។
- ពណ្តកដំណាំដែលស្រូបយកអាសូតបានល្អ
- ត្រូវប្រើសមីសពុជដែលធនទ្រាំទៅនឹងជំងឺសត្វល្អិត និងមានទិន្នផលខ្ពស់។



Annex 6 – Photos of the Chres Community Wetland. Clockwise from top left; school children clear litter in the area before digging commences, community members gather for opening of the wetland, local users collect fresh water from the wetland, planting of native plant species around the wetland.



Annex 7 – Buffalo Bank Village Agreement

Dei Leuk Buffalo Bank Agreement between WWT, CCK & Dei Leuk Village

This document outlines the agreement between Wildfowl & Wetlands Trust (WWT), Chamroen Chiet Khmer (CCK) and Dei Leuk Village community. This is related to a buffalo bank that WWT are establishing in Dei Leuk community.

The following section of this agreement outlines the responsibilities of WWT, CCK & Dei Leuk Village chief on behalf on his Community.

WWT responsibilities:

1. WWT will purchase ten buffalo for the buffalo bank
2. WWT will provide the village with vet training
3. WWT will provide the money for any medicine that needs to be brought, along as a receipt is kept and we are informed when the animal is ill.
4. WWT will raise some land near the village that can be used for the buffalo during the rainy season.
5. WWT will regular check up with the village (WWT team) to make sure everything is going well and if there are any problems we can sort them out. (rainy once per month, dry twice per month)
6. WWT will provide the contact number of the Community Officer: which they can call any time.

Village chief responsibilities:

1. He will ensure that the buffalo grazing follows the instructions that we will provide him. (participatory)
2. He will support WWT efforts in water habitat management. (participatory)
3. He will ensure that the villagers are following their member agreements.
4. He will ensure the buffalo will graze together and ensure the organisation of which villagers will look after the buffalo (done in turns).
5. He will ensure that the exchange of buffalo is fair and follows what is agreed by the lucky draw.
6. He will be responsible to get in contact with us if there any problems.

Participants:

The following list contains the names of the participants and their assigned number

Name	Household	Buffalo Number	Contact Details

Explanation of how the buffalo bank will work:

- a. WWT will purchase 10 of Buffalo.
- b. WWT would like Dei Leuk village to look after these buffalo for us for three years. In payment will be provide all the offspring to the villages and then the 10 buffalo at the end of the 3 years.
- c. WWT would like to split the village into two groups:
 - i. Permanent household group
 - ii. Non-permanent household group
- d. The first group each household will have to sign a contract with WWT and they will look after a buffalo each.
- e. The first group will have a lucky draw giving each member a number from 1 to 8.
- f. The household with number 1 will be the first household to receive the first offspring born (this will under their ownership although we would request you continue to grass it with the other buffalo). Then the household with number 2 will receive the second offspring.
- g. Group 2 will also have numbers from 1-?. Same rules will apply. After villager 1 from group 1 has received the baby buffalo, villager 1 from group 2 will sign a contract with WWT and look after the buffalo for them.
- h. This is dependent on if the villager decided to move back to Dei Leuk permanently

Agreement

By signing this document will are agreeing that we will to our best ability fulfil the responsibilities as described in the above document.

Village chief
Representing Dei Leuk Community

James Lyon – Biodiversity & Engagement Advisor
Representing WWT

Annex 8 – Sarus Crane Friendly Rice Logo

ស្រូវមិត្តក្រៀល/ CRANE RICE



រូបថត ឆ្នាំ ២០១៤

ស្រូវមិត្តក្រៀលគឺជាផលិតផលរបស់សហគមន៍តំបន់អភិរក្សស្រូវមិត្តក្រៀលបឹងត្រែកល្អ (ស្រូវកោះអណ្តែតនិងបឹងសាណាតក្រុងកែវ) ដែលបានដាំដុះតាមវិធីសាស្ត្រធម្មជាតិនិងប្រើប្រាស់ជីនិងថ្នាំគីមីតិចបំផុតក្នុង គោលបំណងកាត់បន្ថយផលប៉ះពាល់សុខភាពមនុស្សនិងសត្វ (ពិសេសស្រូវមិត្តក្រៀល)។

Crane Rice is natural grown with Limited use of chemical fertilizer and pesticide by local communities living in Boeung Prek Lapouv Sarus Crane Reserve (Koh Andeth and Borey Cholsar district of Takeo province). The farmer’s produced this ecological-friendly rice in order to minimize the negative impact on human health and wildlife especially the Vulnerable Sarus Crane.

គម្រោងអនុវត្តនិងបង្កើន/Project implemented and funded by:



Annex 9 – Contents page of the Community Fisheries Assessment at BPL

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Annex 10 – Tourism Assessment of BPL. Executive Summary and Contents Page

EXECUTIVE SUMMARY

The BPL is 8,305h in size with 919 as a core zone; the site is protected by a Prime Ministerial Decree and managed under the Forestry Administration. The area is a seasonal flood plain identified as an Important Bird and Biodiversity Area (IBA). The Forestry Administration and Bird Life Cambodia together with the Chamroen Chiet Khmer and Wildfowl and Wetland Trust have been working in the site to establish sustainable management and law enforcement mechanisms for the site as well as community fisheries.

A study into tourism development for the area was conducted in 2015 and the stakeholders are looking to move forward with the development of sustainable tourism. Stakeholders involved are all supportive of sustainable tourism development and suggested that sustainable tourism development can contribute, in some ways, to both conservation and local people.

Our team has conducted 2 site visits utilizing 2 different access routes and our opinion is that if packaged and advertise properly a tourism product could fill up some gaps in the existing Cambodian tourism market, namely the adventure and wildlife markets. It is therefore suggested that tourism products and activities could be designed for this markets and adjusted to fit the different season. Is also our opinion that the remoteness and relatively high access costs might be an issue for the independent traveller and that to kick start tourism in the BPL the stakeholders can concentrate on selling a few set packages to tour operators and travel agents.

Tour packages must be carefully planned as the area is heavily influenced by water level changes of the Mekong Delta. This should be factored in trip planning, especially in dry season when birds visit the site but the water is at its lowest as 'water ways are the main roads of the area'.

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Annex 11 – Example of Mlup Baitong environmental education training material

កសិករប្រើប្រាស់ថ្នាំពុលគីមីកម្មវិធីស្រែចម្ការក្នុងតំបន់ ដែលយើងសង្កេតឃើញនៅក្នុងស្រុក ចម្ការ ឬចម្ការដំណាំ។ ការប្រើប្រាស់ថ្នាំពុលគីមីនេះអាចបង្កគ្រោះថ្នាក់ដល់មនុស្ស សត្វជាហានៈ សត្វស្លាប និងបរិស្ថាន។ ថ្នាំពុល កសិករម្រៀមប្រើទៅក្នុងខ្លួនមនុស្សតាមផ្លូវសំខាន់ៗគឺ

ក/ ប្រាបចូលតាមមាត់: ប្រការនេះកើតឡើងតាមរយៈការបរិភោគចំណីអាហារដែល

ប្រឡាក់ដោយថ្នាំពុល ការប្រើប្រាស់សម្ភារៈវិទ្យុប័ណ្ណ ឬទុកដាក់ ដែលប្រលាក់ដោយថ្នាំពុល ការប្រើប្រាស់ថ្នាំពុលទៅលើដីដី ដូចជាការយកមាត់ដឹករូបភាពលើបំពង់បាញ់ថ្នាំនៅពេលស្ទះ ការលេប ឬផឹកទឹកស្អាត។

ខ/ ប្រាបចូលតាមស្បែក: ប្រការនេះកើតឡើងតាមរយៈ ការខ្ចាតខ្ចាមប្រឡាក់ដីដីដីដីដី ឬទូលក្រែងនៅពេលយល់ប្រើប្រាស់ (បាញ់ប្រឡាច) ការប្រើប្រាស់ សម្លៀកបំពាក់ប្រឡាចដីដីដែលប្រឡាក់ថ្នាំពុល។

គ/ ប្រាបចូលតាមផ្លូវដង្ហើម: ចំហាយជាតិថ្នាំពុលអាចអាចចូលទៅក្នុងខ្យល់ នៅពេលបាញ់ប្រឡាច ឬទុកដាក់មិនត្រូវតាមបច្ចេកទេស។ ចំហាយជាតិថ្នាំពុលក្នុងខ្យល់នោះ អាចប្រាបចូលទៅក្នុងខ្លួនមនុស្ស បានតាមរយៈការដកដង្ហើម។

ការប្រើប្រាស់ថ្នាំពុលនេះមិនមែនគ្រាន់តែអាចប្រាបចូលទៅក្នុងខ្លួនមនុស្សប៉ុណ្ណោះទេ ប៉ុន្តែវាក៏អាចប្រាបចូលទៅក្នុងសត្វ រុក្ខជាតិ និងបរិស្ថានផងដែរ។

៥. ការពុលថ្នាំគីមីកសិកម្ម

ការពុលថ្នាំគីមីមានពីរសណ្ឋានគឺ ពុលស្រួចស្រាវ និងពុលរ៉ាំរ៉ៃ។ ពុលស្រួចស្រាវ គឺ

ជាការពុលដែលកើតឡើងភ្លាមម្ខាងពីជាតិថ្នាំពុលប្រាបចូលក្នុងខ្លួន។ ពុលរ៉ាំរ៉ៃ គឺជាការពុលដែលកើតឡើងមួយរយៈក្រោយពេលដែលជាតិថ្នាំប្រាបចូលទៅសន្លឹកទុក នៅក្នុងខ្លួនជាមុនៗទៅ។

ជាទូទៅ ថ្នាំពុល ពុលមិនមែនមុនឡើយ។ ថ្នាំពុលមិនអាចបែងចែកតាមកម្រិត និងប្រភេទប្រយោជន៍ (សត្វយុត្តាធិការ) ដែលអ្នកប្រើចង់កំចាត់ ឬមិនចង់កំចាត់ឡើយ គឺវាពុលគ្រប់អ្វីទាំងអស់ដែលវាទៅដល់។ ខាងលើ ពេលដែលយើងបាញ់ថ្នាំកំចាត់កង្កែប ថ្នាំពុលនោះក៏សម្លាប់សត្វមានប្រយោជន៍ដូចជា កង្កែប ត្រី ពស់និងសត្វស្លាបផ្សេងទៀតដែលជាចំណីអាហារសម្រាប់មនុស្ស និងសត្វ ហើយដែលមែនជាអ្នកជួយកំចាត់កង្កែបនោះផងដែរ។

ក្នុងករណីដែលសមាជិកគ្រួសារអ្នកប្រើប្រាស់ថ្នាំគីមីកសិកម្មដោយមិនដឹងថាវាជាអ្វី អ្នកត្រូវលើកច្បាប់កាត់ឱ្យអាចស្លាកសញ្ញា និងការណែនាំអំពីរបៀបប្រុងប្រយ័ត្នក្នុងការកម្សាន្ត និងការប្រើប្រាស់ គ្រូបង្ហាញដល់ជំនាញរបស់ខ្លួន មនុស្ស សត្វ និង បរិស្ថានរបស់វាឱ្យបានច្បាស់លាស់។ អ្នកត្រូវជួយលើកច្បាប់កាត់ឱ្យត្រូវតែប្រើប្រាស់ការពារសុវត្ថិភាពទាំងឡាយផងដែរ—ដូចជា ខោអាវដីង វ៉ែនស្រោចដីង ប្រឡាចដីង ម៉ែនកា មួកមានបាយ/រឹម ម៉ាស់ការពារផ្លូវដង្ហើម (ក្រមាអាចជំនួសបាន) ដុំ និងទឹកសម្រាប់លាងមុខ កែវក្រិកសម្រាប់លាងមុខ ឈើកូរ និងដុំបាញ់ថ្នាំ ឬ ឧបករណ៍បាញ់ថ្នាំ។



សហការជាមួយកម្មវិធីយល់ដឹងប្រជាជន ដើម្បីបង្ហាញ ប្រកបដោយសុវត្ថិភាព ខេត្តកំពង់

Annex 12 – INNS Management Plan front page, invasive species map, and photographs of community participation



**MANAGEMENT PLAN FOR THE CONTROL OF INVASIVE PLANT SPECIES
IN BOEUNG PREK LAPOUV SARUS CRANE RESERVE
IN BOREI CHULSA AND KOH ANDET DISTRICTS,
TAKEO PROVINCE**

A collaborative project between the Forestry Administration, Wildfowl & Wetlands Trust,
BirdLife International Cambodia Programme and Chamroen Chiet Khmer

Prepared by:
Seng Kimhout
National Project Manager

Reviewed by:
James Lyon
Biodiversity and Engagement Project Adviser

Provided Comments and Inputs by:
Andy Graham
Project Leader and Head of Community Working Wetlands of WWT



Cambodia, 31st July 2015

Map of Invasive plant species in/around core zone of Boeung Prek Lapouv Sarus Crane Reserve

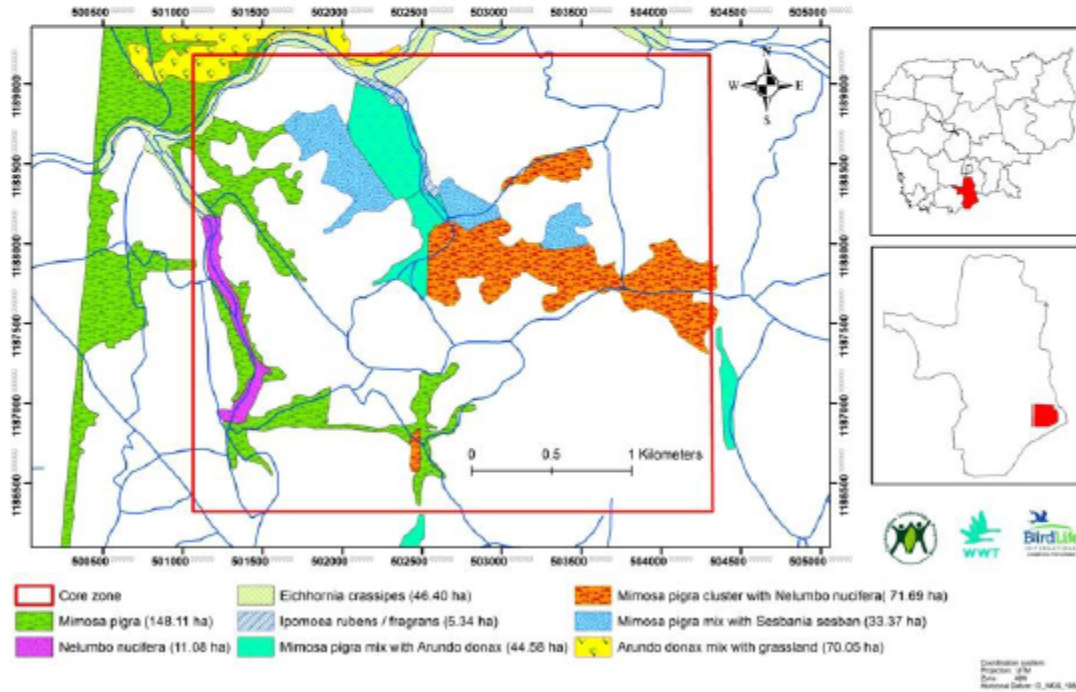


Figure 5 & 6: *Eichhornia crassipes* blocked waterway in Prek Laouv creek and local villagers were hired to round up to the shore.

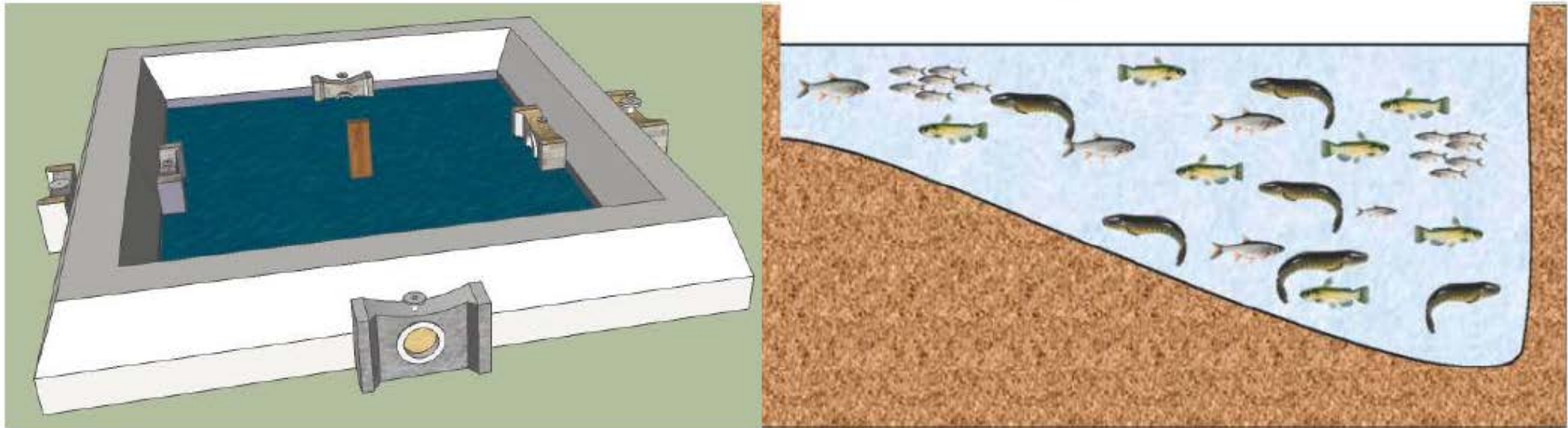
Annex 13 – Table from van Zalinge & Triet (2015) Census of non-breeding sarus cranes in Cambodia and Vietnam 2015

Table 1: Dates, times, locations and number of cranes counted at sites in Cambodia and Vietnam, December 2014 – May 2015

Site	December	Adult	Juv	Unid	Tot	%	January	Adult	Juv	Unid	Tot	%	February	Adult	Juv	Unid	Tot	%	Site coordinators
Tonle Sap alluvial plains																			
Ang Trapeang Thmor	26-27/12			0	0	0,0%	31/1; AM			191	191	33,4%	28/2; AM			147	147	34,4%	WCS/FA
Tonle Sap Grasslands	27/12; AM			18	18	6,2%	30/1; PM	4	4	0	10	1,7%	28/2; AM			27	27	6,3%	WCS/FA/ACCB
sub-total Tonle Sap				18	18	6,2%				201	35,1%					174	40,7%		
Mekong delta alluvial plains																			
Boeung Prek Lapouv	27/12; AM	170	34		204	70,3%	31/1; AM	17			17	3,0%	27-28/2			0	0	0,0%	WWT/FA
Anlung Pring/Phu My/Rach Go	27/12; AM			19	19	6,6%	30/1; PM			321	321	56,1%	23/2; AM			171	171	40,0%	WWT/FA
Site	March	Adult	Juv	Unid	Tot	%	April	Adult	Juv	Unid	Tot	%	May	Adult	Juv	Unid	Tot	%	Site coordinators
Tonle Sap alluvial plains																			
Ang Trapeang Thmor	27/3; PM			237	237	47,4%	25/4; AM			239	239	43,4%	30/5; AM			93	93	48,2%	WCS/FA
Tonle Sap Grasslands	28/3; AM			54	54	10,8%	25/4; AM			92	92	16,7%	28/5; AM			47	47	24,4%	WCS/FA
sub-total Tonle Sap				291	291	58,2%				331	60,1%					140	72,5%		
Mekong delta alluvial plains																			
Boeung Prek Lapouv	27-28/3			0	0	0,0%	24-25/4			0	0	0,0%	No Count				0	0,0%	WWT/FA
Anlung Pring/Phu My/Rach Go	27/3; PM			174	174	34,8%	25/4; AM			133	133	24,1%	30/5; AM	0	6	0	6	3,1%	WWT/FA

Annex 14 – Water Retention Trial Signboard at BPL

គម្រោងសាកល្បងគ្រប់គ្រងទឹក និងគម្រោងស្តារកន្លែងអភិរក្សជលផល នៅតំបន់អភិរក្សសត្វក្រៀលបឹងព្រែកល្អៅ ខេត្តតាកែវ



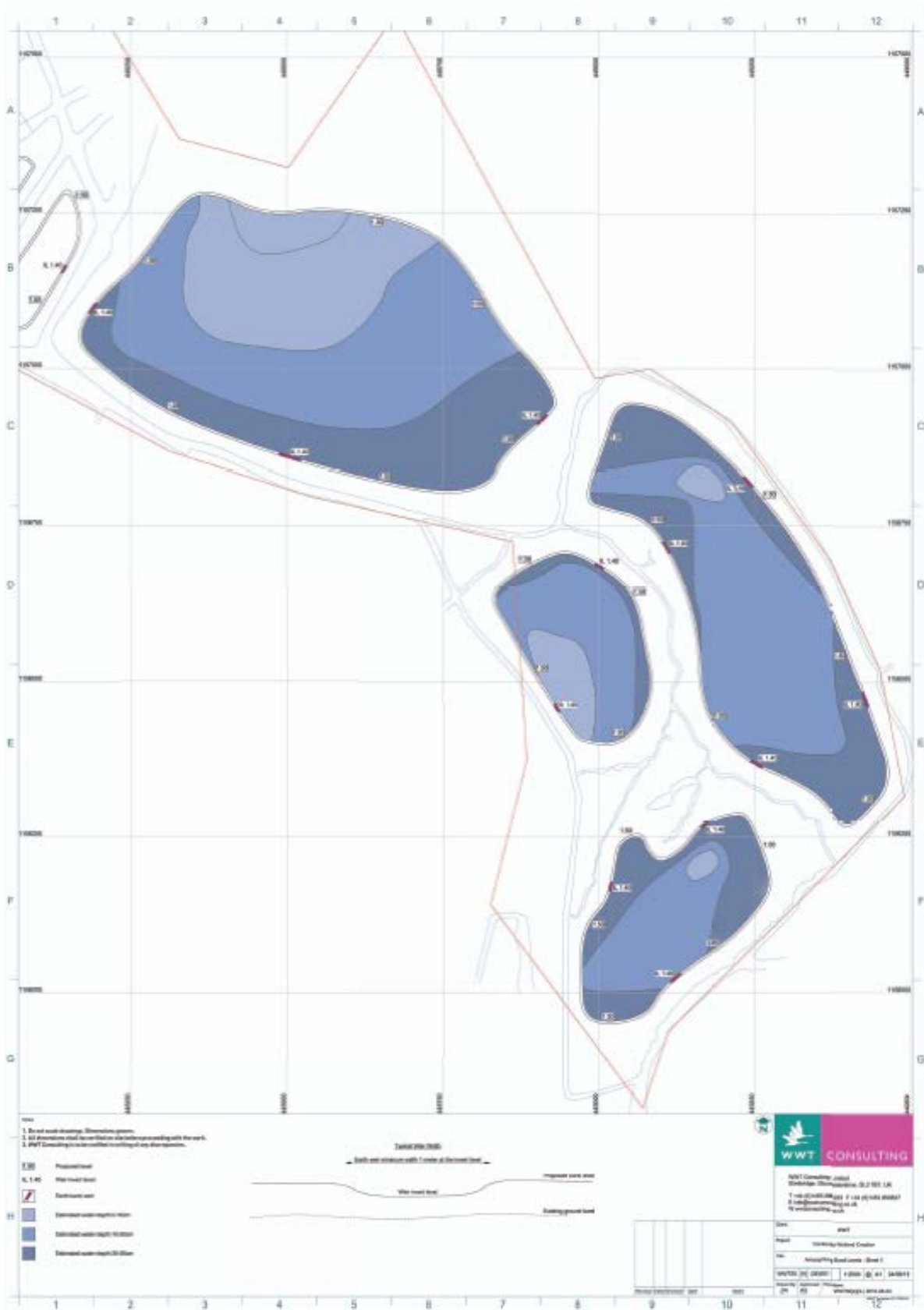
គម្រោងទាំងនេះកសាងក្នុងគោលបំណងថែរក្សានិងការពារធនធានធម្មជាតិ ដើម្បីបានជាប្រយោជន៍ដល់យើងទាំងអស់គ្នា សូមចូលរួមថែរក្សាការពារ!

គម្រោងសហការដោយ

ឧបត្ថម្ភដោយ



Annex 15 – A section of the Digital Elevation Model at Anlung Pring



Annex 16 – Photographs of the Anlung Pring sluice gate before (left) and after (right) repair



Annex 17 – Page 3 of Three Month Activity Report on CBET Progress at Anlung Pring

3. Tickets income summary:

The tickets price is 5 \$ for foreigner and 1.5 \$ for Cambodian. The total income of this three months ecotourism activities is 735.5 \$. The 60% of total income was shared for conservation activities which is 441.3 \$. The 40% of total income was shared to communities which is 294.2 \$.

January 2016				Foreigner	
	Number	Income	exchange VND to \$	Nationality	Number
Foreigner	41	\$205.00	\$203.50	Hong Kong	2
Cambodian	5	\$7.50	\$7.50	Germany	4
PUC students	46	\$69.00	\$69.00	France	8
Cambodian Bird Watcher	21	\$31.50	\$31.50	Vietnam	13
Total:	113		\$311.50	USA	6
Income sharing:	LCG	\$186.9		Australian	3
	CBET	\$124.6		Russian	5
		\$311.5			41

February 2016				Foreigner	
	Number	Income		Nationality	Number
Foreigner	33	\$165.00		Holland	6
Cambodian	17	\$25.50		Germany	2
RUPP students	51	\$76.50		France	4
Total:	101	\$267.00		Vietnam	11
Income sharing:	LCG	\$160.2		USA	6
	CBET	\$106.8		Australian	1
		\$267		English	3
					33

March 2016				Foreigner	
	Number	Income		Nationality	Number
Foreigner	29	\$145.00		France	9
Cambodian	8	\$12.00		USA	4
Total:	37	\$157.00		Vietnam	14
Income sharing:	LCG	\$94.2		England	1
	CBET	\$62.8		Italian	1
		\$157			29

Annex 18 – Contents page from WWT’s Strategy to Increase Capacity of LCGs

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Minute Meeting
Of
The Meeting with District Authorities and Relevant District Offices
Chaired by Mr. **Chuon Sophea**, Deputy and representative of Kampong
Trac District Governor

29 February 2016 at 9:00 am – 11:30 am
In District Agricultural Office Hall



Minute Taker: TY Srun
Minute Contributors: Seng Kimhout & Hour Pok

Minute edited:
James Lyon

The purposes of the meeting

The meeting has two main objectives:

1. Report to district Governor and relevant District agencies on the accomplishments achieved by Sarus cranes conservation projects at Anlung Pring Conservation Reserve and

livelihood improvement of local people living around the area, carried out by the Forestry Administration in collaboration with partner organizations.

2. Report on the issues that the project went through and request the support and intervention from District Governor as well as from all provincial relevant agencies to project implementation process smooth and successful.

Meeting Chair and Participants

The meeting was headed by Mr. Chuon Sophea, Deputy Governor and representative of Kampong Trac District Governor and members attended a total of 25 (Appendix 1), which from the unit around Kampong Trac District as well as all relevant stakeholders around AP such as the Agricultural Office, Village's chiefs, Commune's chiefs, tourism agencies, environmental activists, Villager activists, conservationist, Saving Group, Community Committees, School director and Phnom Penh participants from BirdLife, WWT, Blup Baitong, ICF and AP manager from FA.

Introducing Speeches

After introducing meeting participants, Mr **Chuon Sophea** chairman of the meeting, said the welcome remarks and suggested the purpose of the meeting proposed by partner organizations as in the purpose of the meeting and declared open the meeting and had provided an opportunity to the four partner organizations did presentations about conservation projects and livelihood improvement projects, as well as the problems that have faced and are facing in the protected area are as follows:

1. Mr **Tomos Avent**, WWT's Program Manager, introduced the background and visions of WWT and the key values of AP and request for more collaboration from all partners in order to improve productivities and find solution to manage AP in a sustainable way.

2. Mr **Seng Kimhout**, manager of Anlung Pring Sarus cranes reserve from Forestry Administration showed a map of the location, use of land, shelter, habitats and vegetation in Anlung Pring conservation area as well as the record number of cranes since 2004 to 2015, there were 321 individuals in 2015 and the importance of wetlands, which provided resources to people living in the area equal to around \$1 million each year and also presented new headquarters recently-built for conservation team working.

3. Mr. **James Lyon**, WWT projects' technical advisor presented about the Sarus cranes conservation project in Anlung Pring conservation reserve in line with the promotion of living of the people and the accomplishments achieved of the project includes the creation of community based eco-tourism (CBET) and management of Anlung Pring conservation area. In his presentation, James also raised four key points for discuss in the meeting as follows:

- Waste management
- Water management in the Anlung Pring conservation area
- Shrimp farming in the south and east of the Anlung Pring Sarus cranes Conservation Area
- If district tourism development plan have included tourism activities in Kampong Trach district?

4. Ms. **Oeung Soratha**, project coordinator of the organization Mlub Baitang presented about the summary report on the implementation of projects relating to the promotion of the level of living of the communities and the conservation of cranes at Lake Canyon Pring (ELISCR) from January to December 2015. The project was implemented in three villages, including the Village of Palm Island Farm Island and spent four main activities:

- The creation of 10 self-help groups or 10 saving groups (SHG) with the total of 10000\$ cash saving today.
- The farmer field schools (FFS)
- Environmental education in the community or environmental focal (VECAT) and
- Environmental education in schools

She also showed the activities continued until the end of September **2016**, the end of the project date as follows:

- Continue to facilitate self-help groups
- Environmental education campaign
- Continued monitoring group farmer field schools
- In cooperation with all partners, especially WWT strengthen community tourism.

5. Ms. **Leav Phalen**, a coordinator of the International Crane Foundation (ICF) presented about the project's achievement of handicrafts, weaving mats, baskets appliances variety made from a species of sedge called Lepironia Plant (Ma Chaud in Khmer), which is contributing in improving the community livelihood in relation to the conservation of cranes in AP. The main purposes of the project are: to help in reducing poverty, to create a business manual processing from classical to modern, to expand the number of participants in the business manual, and to the effectiveness of the conservation of wetlands and cranes. In her presentation also highlighted the success of the project since 2012, and some problems such as lack of raw material supply for the production and a lack of good knowledge of the manufacturer. As a result, the project has the community as a producer of 120 in 3 villages, Chres Village, Koh Chamkar Village and Koh Thnort Village as well as group of women designing products in Phnom Penh which is so far they had designed 200 models of products.

6. Mr **Yav Net**, Wetland Coordinator of BirdLife International Cambodia Programme, presented about "Conserving the last remaining wetlands in the Lower Mekong Basin in Cambodia", including AP in Kampot province and BPL in Takeo province. In his presentation highlighted about the importance of wetlands for both humans and wildlife, and he also mentioned on the process and success of the project in the past, which has been implemented in Anlung Pring. In addition, he suggested to all partners to join together in order to sustainable manage these wetlands for the benefit of people and wildlife as well as for future generations.

Discussions

After NGOs partners has completed the presentation, all relevant stakeholders had discussed, gave comments and recommendations as following:

- Mr **Chuon Sophea**, chair of meeting thanked to all partner organizations for their conservation efforts and helps improve the livelihoods of communities around the area, and fully supported and agreed to all these activities. He then provided some comments answer to the requests of partner organizations as follows:

- For shrimp farms were practicing naturally not affect the conservation but should be have more pre-caution, anyway fisheries experts had been checking the water quality there already in 2011. Based on the government's directive not to allow Vietnamese do shrimp farm but local people can continue shrimp farm with a proper management.

- Expand Headquarter: commune authorities to help study clearly and make a report to district.

- The authorities do not think about the compensation or other exchanges because partner organizations come to help develop communities.

He then asked the stakeholders to show their willing, provide comments and make suggestions.

- Mr **Seng Kimhout**, AP manager: requested to local authorities along with the organizations help to measure the location that could allow the organization to the office with a clear report approved from district authority. We have no big issues to address because of work process is going well and he thankful to all participants for taking the time to join the meeting and gave important information for the project successfully implemented.

As a result of discussions the meeting agreed some action points as follows:

- All relevant authorities and partners agreed to check the location for enlarge office on March 11, 2016.

- WWT will recruitment two more staff to stay at the office for selling ticket, Mr Bora will helps to choose new staff for ticket selling.

- Mlub Baitong responsible for preparing documents with agreed from all partners before being submitted to the district and provincial governments.

- Local authorities will continue to advocate in cases local people stealing water without notice leading to loss of water and causes water shortage which is a about 10 families don't have enough water for daily use.

- Related to lack of water, the community asked to hold water from October or November to retain much more water for using during the dry season.

The District Deputy Governor very appreciated for the efforts of all stakeholders, appreciated and thanks the government for giving this area to conserve cranes, thank community who participated in conservation and other development projects. He had admired the four partner organizations that collaborate to create a tourist destination in the area and coupled on improving livelihood of the community. He also added some more comments and suggestions as following:

- Please join together to help projects run faster.

- Encourage all organizations to do the same direction even though the organization has different sources of funding and the authorities will always support.

- All projects should be prior consented from community.

- The four organizations please continue working in the area by focusing on roads, water and electricity following the border development strategy of the government.

- Please all NGOs help to address water shortage problems so that people have enough water for daily use.

- Please help to solve the problems of lacking electricity, the NGOs are the supporters and authorities are the monitors.

- Please help to increase the national and international tourists but have to figure out different kinds of disturbing factors that can affect animals

- Thanks for invited him to this meeting he himself will put more efforts and help to disseminate more through various social networks.

As a result of meeting the local authorities and representatives of all relevant entities have completely agreed and fully support the report as well as the request of partner organizations and will continue to cooperate with the action proposed by the partners in the future. Before closing the meeting, Mr **Chuon Sophea**, chair of the meeting asked all NGOs help to prepare reports and regularly submit to the district government so that the district authorities know the project's activities and cooperate more effectively. He also thanked the development partners and all participants and officially closing the meeting.

List of participants in the meeting



បញ្ជីចំនួនអង្គបុគ្គលិក:

..... កិច្ចប្រជុំបណ្តុះបណ្តាលសម្រាប់បុគ្គលិកក្រសួងកសិកម្ម រុក្ខាប្រមាញ់ និងនេសាទ

..... ថ្ងៃ ១១ កុម្ភៈ ២០១៤

ល.រ	គោត្តនាម-នាម	ភេទ	គុណាមី	មកពី	លេខទូរស័ព្ទ	ហត្ថលេខា
០១	គង់ សុខ	ប	គង់	ជំរក់ កសិកម្ម	០១១៥១១១៤៥៨	
០២	គង់ ភិក្ខុ	ប	គង់	គង់ ភិក្ខុ	០១៧២៤១១១២០	
០៣	គង់ ភិក្ខុ	ប	គង់	គង់ ភិក្ខុ	០១៧៤១១៥៣៨	
០៤	គង់ ភិក្ខុ	ប	គង់	គង់ ភិក្ខុ		
០៥	គង់ ភិក្ខុ	ប	គង់	គង់ ភិក្ខុ		
០៦	គង់ ភិក្ខុ	ប	គង់	គង់ ភិក្ខុ	០១១៤៤៤៤៤៤	
០៧	គង់ ភិក្ខុ	ប	គង់	គង់ ភិក្ខុ	០១៧៤១១៥៣៨	
០៨	គង់ ភិក្ខុ	ប	គង់	គង់ ភិក្ខុ	០១៧៤១១៥៣៨	
០៩	គង់ ភិក្ខុ	ប	គង់	គង់ ភិក្ខុ	០១៧៤១១៥៣៨	
១០	គង់ ភិក្ខុ	ប	គង់	គង់ ភិក្ខុ	០១៧៤១១៥៣៨	
១១	គង់ ភិក្ខុ	ប	គង់	គង់ ភិក្ខុ	០១៧៤១១៥៣៨	
១២	គង់ ភិក្ខុ	ប	គង់	គង់ ភិក្ខុ	០១៧៤១១៥៣៨	
១៣	គង់ ភិក្ខុ	ប	គង់	គង់ ភិក្ខុ	០១៧៤១១៥៣៨	
១៤	គង់ ភិក្ខុ	ប	គង់	គង់ ភិក្ខុ	០១៧៤១១៥៣៨	
១៥	គង់ ភិក្ខុ	ប	គង់	គង់ ភិក្ខុ	០១៧៤១១៥៣៨	
១៦	គង់ ភិក្ខុ	ប	គង់	គង់ ភិក្ខុ	០១៧៤១១៥៣៨	
១៧	គង់ ភិក្ខុ	ប	គង់	គង់ ភិក្ខុ	០១៧៤១១៥៣៨	
១៨	គង់ ភិក្ខុ	ប	គង់	គង់ ភិក្ខុ	០១៧៤១១៥៣៨	
១៩	គង់ ភិក្ខុ	ប	គង់	គង់ ភិក្ខុ	០១៧៤១១៥៣៨	
២០	គង់ ភិក្ខុ	ប	គង់	គង់ ភិក្ខុ	០១៧៤១១៥៣៨	
២១	គង់ ភិក្ខុ	ប	គង់	គង់ ភិក្ខុ	០១៧៤១១៥៣៨	
២២	គង់ ភិក្ខុ	ប	គង់	គង់ ភិក្ខុ	០១៧៤១១៥៣៨	

Welcome to the bird in Cambodia

Anlung Pring Sarus Crane Reserve and Beoung Preak Pov

28th February 2016

Report by: Pal Holly

Photo credited: Taing PorChhay



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