Department for Environment Food & Rural Affairs

DARWIN INITIATIVE

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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

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Darwin Project Information

Project reference	24-028
Project title	Future-proofing Cambodian Wildlife-Friendly farming: securing conservation and livelihoods
Host country/ies	Cambodia
Contract holder institution	Sansom Mlup Prey
Partner institution(s)	CIRAD
Darwin grant value	£299,491
Start/end dates of project	1 May 2017 – 31 March 2021
Reporting period (e.g., Apr 2017 – Mar 2018) and number (e.g., Annual Report 1, 2, 3)	May 2017 – March 2018, Annual Report 1
Project Leader name	Nicholas Spencer
Project website/blog/Twitter	http://ibisrice.com/ https://www.facebook.com/IbisRice/
Report author(s) and date	Nicholas Spencer, April 20, 2018

1. Project rationale

Critically threatened biodiversity and climate vulnerable livelihoods: The forests and wetlands of northern Cambodia are of exceptional importance for biodiversity conservation. They support more than 50 species of global conservation concern, including six critically endangered birds, among them the Giant and White-shouldered Ibises. Taken together, three protected areas located in the Northern Central Corridor (Chhep Wildlife Sanctuary, Kulen Promtep Wildlife Sanctuary and Prey Preah Roka Wildlife Sanctuary)(Annex 4, Item 1) cover more than 400,000 hectares of forest and wetland that also support more than 20,000 people. Those living in this region are amongst the very poorest in Cambodia and depend on the forest and land resources of the parks for their livelihoods.

Although Sansom Mlup Prey's (SMP) Ibis Rice project has been successful, climate change-induced droughts present a challenge to the wildlife-friendly farming that forms the link between improved incomes and biodiversity conservation. The wildlife friendly farmers are located in an area considered extremely vulnerable to climate change-induced drought. The current negative impacts of climate change and decreasing trend of productivity call for pronounced holistic changes in agricultural practices. It is widely accepted that organic agricultural practices are an effective strategy for mitigating climate change and building robust soils that are better adapted to extreme weather conditions associated with climate change in resource-limited regions. Soil, water conservation and carbon management, and

the use of a wide vegetal biodiversity, are key to adapting farming systems to climate change. The project will address this by implementing organic agricultural practices and soil conservation techniques (not currently used) to ensure land fertility, sustainable production, secure livelihoods and food security.

2. Project partnerships

Given the holistic and integrated nature of the project design required for *Future-proofing Cambodian Wildlife-Friendly Farming*, collaboration among partners is central to all project activities. SMP has finalised all sub-grant agreements that outline the formal partnerships, and the first annual partnership coordination meeting has been undertaken where project planning, implementation, and monitoring and evaluation were reviewed. A particular success has been the integration of the Master student from RUPP with ongoing research by CIRAD and Royal University of Agriculture.

The partnership between SMP, WCS and MoE (national ministry of environment)/DoE (provincial department of environment) – the core partners that initially developed the Ibis Rice concept in 2009 - has been strong for several years and this has continued through the first year of the project under several project Outputs, most notably Outputs 3 and 5. These partners meet regularly and, for critical parts of implementation, work out of the same office in Preah Vihear Province, further enhancing collaboration. Project planning and decision-making is integrated into the broader project management of WCS and MoE/DoE, including monthly leadership meetings (in Phnom Penh) and site-based, monthly planning and reporting meetings. Because data from both these partners are used in organic and Wildlife-FriendlyTM compliance, they must collaborate fully on monitoring and evaluation. Evidence of such collaboration are the joint monthly management meetings held at the site-level (an example of minutes is attached in Annex 4), and the data generated for M&E (attached in the logframe).

The collaboration with CIRAD has been highly successful with key personnel, Dr Florent Tivet and Vira Leng, spending time with SMP and DoE staff in Ibis Rice villages. This field trip under Output 2 was for assessing soil conditions, rice health and typography as well as consulting with farmers in order to complete the design and begin the implementation of crop diversification and soil-conservation techniques. Evidence for this successful collaboration is the CIRAD feasibility assessment and report attached at Annex 4, Item 19. The collaboration with RUPP (Royal University of Phnom Penh) is developing through the first year as RUPP positions to rigorously monitor project activities and outputs. RUPP master's students and their research topics have been selected and are currently being reviewed by Dr Florent Tivet, one of the key personnel from partner CIRAD.

The greatest achievement of the collaboration, given partnerships are central to all project activities, is that the project has met all its first year targets. The greatest challenge to project collaboration - the highly politicised nature of the bureaucracy in Cambodia meaning DoE/MoE priorities could diverge from those of the project – has been met by the project's greatest strength – that it is responding to government and local priorities for increased food security and income for local communities.

3. Project progress

3.1 Progress in carrying out project Activities

Output 1. *Village Marketing Networks (VMN) have the capacity to manage the expansion of Ibis Rice compliance, organic internal controls and production independently.*

Activities towards output 1 are on track with the key achievements including the successful recruitment of SMP staff and the training of VMNs on the internal control system (ICS). See photos from this training, attendance lists and the course materials attached at annex four. To inform SMP's capacity building approach the WCS community engagement technical

advisor visited the Northern Plains to assess current capacity levels of the VMNs and make recommendations for SMP's capacity building approach (see section 3.2 below).

Activity 1.1: SMP recruited Keo Socheat as Head of Agriculture to fulfil the lead agronomist role at SMP and Son Brosethy as our internal GIS officer. Four new field officers have been recruited to support the internal control system that was expanded to 504 organic Ibis Rice households in 2017 from 180 in 2016. This also increases contact time with farmers and our ability to communicate effectively.

Activity 1.2: Nine VMNs from four villages completed phase one of the three-phase Internal Control System (ICS) training in June 2017. Phase one consists of an initial training on organic requirements and inspection techniques. This was followed by phase two, which covers experiential training called 'shadow inspections' (June-August 2017) where VMN inspector trainees watch and assist experienced inspectors. It has been helpful to include village leaders, local authorities, and key people in the VMN inspector training even if those participants are not going to become VMN Inspectors. The training provides a deeper insight into the organic program's principles and rules giving them a more comprehensive understanding, and we expect generating greater buy-in to the programme.

98 VMN members received training on proper record keeping in September 2017. Eight SMP staff and 27 VMN committee members completed on the job training in organic purchasing.

The WCS community engagement technical advisor visited the Northern Plains to make recommendations as to how to increase capacity of VMNs in January 2018.

Output 2. *Ibis Rice farmers have tested and adopted drought-resilient agricultural practices and complementary soil conservation techniques along with levelling and water efficiency trials.*

Activity 2.1: 130kg of foundation breeder seed of Pkha Romdoul was purchased in May. Pkha Romdoul has been observed to resist both drought and flood more effectively than other jasmine varieties. This seed was distributed to 12 seed farmers that will replicate this breeder seed such that the entire farming group can be supplied with very high purity, '1st generation' seed stock.

Activity 2.2: We contracted CIRAD in October to begin the design and implementation of crop diversification and soil-conservation techniques. Dr Florent Tivet and Vira Leng spent a week in Ibis Rice villages in October assessing current soil conditions, rice health and typography, as well as consulting with farmers (see the feasibility report at annex four, item 19). As a result, 12 farmers in three villages are trialling a new rotational crop species (see list below) either on currently fallow land or to be sewn on rice paddy as it is harvested.

Farmers were selected based on their willingness to establish and maintain these trials, with particular emphasis on keeping livestock from entering plots. This meant that plots with existing good fencing were preferred for the first year's trials. In plots chosen CIRAD measured the depth of topsoil and took samples for full soil tests. CIRAD has chosen the trial varieties based on experience on their 15 ha experimental farm which has been under research for the last 12 years. The seed selection is varied such that we can see what performs best under the specific seasonal and localised conditions. The varieties fall into two strategic methodologies: (1) Those used primarily for soil improvement, biomass production and fodder for livestock; and (2) crops that improve the soil and have the potential to become secondary or alternative cash-crops to rice.

All farmers will be invited to meetings and trainings at the trial plots to raise general awareness about the project. For farmers that show interest there will be a field trip to CIRAD's trial facility in Kampong Cham.

Species being trialled include: 1. Cajanus cajan (Pigeon pea) 2. Amaranth 3. Crotalaria juncea 4. Stylosanthes guianensis 5. Crotalaria ochroleuca 6. Centrosema pascuorum 7.

Jute 8. Kenaf 9. 2 cultivars of Cowpea 10. 2 cultivars of mungbean 11. Sesbania Var. Pakistan 12. Sorghum Pool preto 13. Sorghum IRAT 203

Activities 2.3, 2.4, 2.5: These activities, which are yet to be undertaken, focus on evaluating results from the various trials, and promoting among communities those actions – be they soil conservation techniques, drought-resilient jasmine rice varieties or fallow-year crops - most likely to strengthen resilience.

Output 3. *Critically endangered species populations increase as a result of improved protection around Ibis Rice villages*

Activity 3.1: In 2017, more than 60 local people from 18 villages in the Northern Plains were directly employed and trained to protect nests of threatened birds. 188 globally threatened nests, including 34 critically endangered birds' nests, were protected, fledging 338 chicks. Throughout the rainy season (May - December) community wildlife rangers conducted awareness raising and biodiversity SMART patrols in important breeding habitat areas for globally threatened waterbirds in the Northern Plains landscape. During this reporting period 26 Giant Ibis nests (24 fledglings), 8 White-shouldered Ibis nests (9 fledglings) were located, monitored and protected by local community nest protectors within both Kulen Promtep and Chepp Wildlife Sanctuaries.

Activity 3.2: WCS monitors forest loss and land use change across the Northern Plains landscapes where the Ibis Rice project works on a monthly basis using Landsat imagery and creates annual forest cover maps based on a standardised, qualitative forest monitoring system. Areas of suspected land use change are pinpointed on a map and provided to the protected area manager to plan a response. WCS community rangers and ministry of environment patrol team staff triangulate these data during regular patrols and log any land clearance in the Spatial Monitoring And Reporting Tool (SMART). The annual forestry cover assessment for the protected area in 2017 was in the process of preparation at the time of submission.

Output 4. *Community members living within the target protected areas experience reduced poverty and increased income as a result of Ibis Rice*

Activity 4.1: VMNs provide the conduit through which SMP and Ibis Rice works with communities. Currently there are 9 VMNs operating in 9 villages. This is down from a baseline of 12 due to low levels of rice production and high levels of non-compliance in certain villages. In year one we conducted a feasibility assessment for establishing one new VMN in Pour Rieng and in year two we will continue to review this with the aim of expansion. See output 1 regarding capacity-building of VMNs.

Activity 4.2: Participatory land use plans form the basis for the conservation agreements that Ibis Rice farmers sign up to. This project benefits from WCS's efforts in partnership with MoE over the past four years to map residential and agricultural land in 35 villages. Fieldwork to verify existing village level land use plans was conducted in partnership with local authorities and the Preah Vihear provincial working group on zonation. This involved meetings with a total of 200 participants including village vice-chiefs/ chiefs, commune council members, district/ municipality representatives, provincial department representatives and provincial deputy governor. This process ensured existing community land-use were accounted for in the delineation of the protected area zoning plan. The data collected have been combined with maps for sustainable use, conservation and core zones. Furthermore, 500 zonation and 1,000 grievance mechanism posters were distributed to participants. The next phase of the consultation process will involve village level consultations, after which WCS will work with the provincial government and national environment ministry to finalize an application for a Royal Sub-decree ratifying the zonation. In year two, WCS will expand into 11 new 'target villages' for this project. (Annex 4, Item 1.2/22)

In November 2017, WCS was made aware of an application by the Cambodian military forces based in Preah Vihear for a number of Social Land Concessions in KPWS. These proposed SLCs are located within an area that is critically important for biodiversity and community livelihoods, particularly due to their proximity to the internationally successful Tmatboey eco-tourism and 'Ibis Rice' wildlife friendly agriculture initiatives. Based on an initial assessment of the area subject to the SLC request they will have a severe negative impact on the integrity of the protected area and the livelihoods of local communities within KPWS. WCS consequently submitted letters raising the issue to both the Minister of Environment and the Preah Vihear Provincial Governor with a supporting document outlining the biodiversity values of the proposed SLC area and potential impacts. The letters requested that a detailed investigation into the potential impacts of the proposed SLCs on both biodiversity conservation and local community livelihoods is initiated before the application is considered.

Activity 4.3: Working with VMNs to broaden understanding of the conditionality attached to the Ibis Rice program is an extensive and on-going process. Once new farmers have joined the Ibis Rice Project by signing up to the conservation agreements, they are then confirmed on the Approved Farmer List if they pass the rigorous compliance testing associated with organic certification and can sell organic rice to the program. To ensure that farmers only sign conditional conservation agreements once they have fully understood the content of those agreements – in line with the principles of 'free, prior and informed consent (FPIC)' - requires a significant investment of SMP's time and resources. In year one 355 new members signed up to the program, and 141 existing Ibis Rice farmers continued for 496 total participants. 428 Ibis Rice farmers passed ICS and were added to the final Approved Farmer List (Annex 4, Item 12.2).

Activity 4.4: New and existing farmers participating in the Ibis Rice program receive access to organic seed and organics know-how on an as-needed basis. See activities 2.1 above regarding the distribution of drought-resilient, rice strains in year one.

Activity 4.5: The VMNs are responsible for confirming the eligibility of farmers to sell rice to the Ibis Rice program, and conversely, to identify any instances of non-compliance with land use plans that would render a farmer ineligible to sell to the Ibis Rice program. SMP and the provincial environment department provide the technical support to VMNs such that they can perform their investigative and decision-making role. In year one, 19 households were prevented from selling paddy to SMP due to issues of non-compliance, including 16 instances of unauthorized land clearance. The seriousness of the non-compliance determines the length of time that the farmer is banned from participating in the program. The number of incidents represents a significant decline (-74%) since the baseline was established in 2015. But this is likely because in 2016 with the introduction of organics and a more rigorous certification process, SMP and the provincial department of environment worked closely with VMNs to remove all recidivist law-breakers from the program.

Output 5. *Impacts of Ibis Rice program on threatened bird populations, habitat trends and human livelihoods are monitored, recorded and disseminated to a wide audience, including relevant national and regional PES policy-makers.*

Activity 5.1: 942 households were interviewed in 16 villages (including both target and matched control villages) in year one to establish the baseline poverty status and the number of families benefiting directly or indirectly from Ibis Rice. The collection of data is ongoing and will be completed in Year 2. The dissemination of results from this study is ongoing. The interviews have been conducted and the date is being collated. Further interviews are going to be conducted in new target villages to gain baseline for these communities. Establishment of the baseline poverty status and the number of benefiting families, both directly and indirectly, is to be reported on in Year 2. (Annex 4, Item 17)

Activity 5.2: In activity 4.5 above we report on the work of the VMNs to confirm eligibility of farmers to sell to the Ibis Rice program. SMP's Ibis Rice compliance unit provides the data

upon which those decisions are based. (A GIS map showing areas of non-compliance is attached at annex four, item 8 as evidence.)

Activity 5.3: Details of SMP's media activities are included in paragraphs 12 and 13 and annex four. Partnerships with CIRAD and the masters program at RUPP have been formalised and will be pivotal in disseminating technical lessons learned from this project. These are outlined in paragraph 2 above.

3.2 Progress towards project Outputs

Output 1. Village Marketing Networks (VMNs) have the capacity to manage the expansion of Ibis Rice compliance, organic internal controls and production independently.

Key to the achievement of a sustainable, affordable organic certification system is that VMNs are able to manage the internal control system (ICS) for organics independently. The capacity-building role of SMP has grown more challenging as the work of the VMNs becomes more complex with the introduction of organic certification. The WCS community engagement advisor, who has been working with Ibis Rice-growing communities since the inception of the program, visited the participating villages to assess current VMN capacity and provide recommendations on SMP's capacity building approach. He highlighted the need to strengthen the VMNs' capacity to work with participating villages and communicate a deep understanding of compliance, ICS and other relevant procedures, such as participatory land use planning.

The ability of VMNs to manage the internal control system independently will be measured based on the number of inspection reports signed by the VMNs themselves. This is essentially 'proof' that an individual VMN inspector has passed the ICS training. VMNs will reach that point after completing a rigorous three phase training process. In year one the VMNs completed phase one and embarked on phase two. The logframe indicates that the baseline would be taken from the number of VMNs who were already capable of managing the process independently in 2016 and the target for the period of the grant would be an increase of 50% on the 2016 number. At that point in time, however, the complexity of the ICS process was underestimated and the ability of VMNs to manage it independently over-estimated. The 2016 assessment showed that no VMNs were in a position to sign off on inspection reports. Therefore, we would like to change the target to 50% of all VMNs – from a baseline of 12 VMNs – will be able by project end to sign off on the inspection reports. We do not consider this constitutes a major change in the logframe so have not filed a formal change request at http://darwin.defra.gov.uk/resources/. Having observed the progress that VMNs have made in year one, we are confident that VMN inspectors will be prepared to start signing off on ICS inspections after they complete phase 3 of the training in 2018.

Output 2. Ibis Rice farmers have tested and adopted drought-resilient agricultural practices and complementary soil conservation techniques along with levelling and water efficiency trials.

Activities towards the achievement of Output 2 are on track with trials underway to determine the most likely pathways to strengthening resilience in agricultural practices. There has been a strong uptake in growing more stress-tolerant rice varieties (490 Ibis Rice farmers covering 877 ha). Legume trials have begun with seven families participating in the trials (Annex 4, Item 9) trail plots deliberately located in highly visible areas and communities and as such we expect high participation in community meetings and recruitment for Year 2 participation in legume trials. 495 metric tonnes of organic rice were produced in year one of the project.

Output 3. Critically endangered species populations increase as a result of improved protection around Ibis Rice villages.

Activities associated with Output 3 are well established in the Northern Plains and are a central component of protected area management in the area, providing the ongoing

monitoring of efforts to avoid habitat and species loss. The indicators selected for measuring deforestation (3.1) and the number of critically endangered nests protected are appropriate for monitoring the achievement of Output 3.2. The analysis of deforestation rates in comparison with the baseline Measuring deforestation rates from the baseline to the end of year one will depend on the publication of the annual forest assessment for the Northern Plains. The deforestation analysis is ongoing and will be included in the Year 2 mid-year report. Number of critically endangered bird nests protected during 2017/18 breeding season increases by 14% to 34 nests.

Output 4. Community members living within the target protected areas experience reduced poverty and increased income as a result of Ibis Rice.

As SMP grows and strengthens the Ibis Rice organics program, people living in the local communities are set to benefit from increased incomes from their higher-value, agricultural products, enhanced resilience to the impacts of climate change, and adherence to land-use plans that sustain their natural environment. Confirming the urgency of these interventions, Cambodia's national rice production has been negatively impacted in the last two years by both floods and drought. This was also the case in 2017 when rice harvest yields across Cambodia were down on previous years due to unseasonable weather. Although this meant that supply did not meet international demand for Cambodian organic rice, it confirms the existence of a high-value market. (Annex 4, Item 11)

Overall progress towards this output is measured by the number of tonnes of organic rice produced, the number of farmers participating in or benefiting from the program, the number and coverage of Village Marketing Networks (VMNs) running the program and ultimately the impact the program has had on the poverty status of people in Ibis Rice villages. By the end of year one SMP had met all of its progress targets against these indicators.

Output 5. Impacts of Ibis Rice program on threatened bird populations, habitat trends and human livelihoods are monitored, recorded and disseminated to a wide audience, including relevant national and regional PES policy-makers.

All activities are on track to ensure the impact of this project are rigorously monitored, measured and reported on in an academically robust manner. Wider dissemination will be made possible through the broad reach of social and mainstream media. The indicators selected for measuring progress towards this output are appropriate and are evidenced in annex four and paragraphs 12 and 13.

3.3 Progress towards the project Outcome

At the end of year one, the project is on track to achieve its intended outcome, and the indicators we have identified in the logframe are suitable for providing evidence of that. Some outcome indicators will be measured annually (0.3, 0.4) and for the others we have set up a baseline in year one, which will be compared with in the endline survey in year four. Outcome indicators 0.1, 0.2 and 0.5 will be measured against the baseline in the final year. For the ongoing monitoring of habitat loss and species decline, we are monitoring levels of deforestation across the landscape, specific instances of illegal forest clearance, and the presence of critically endangered birds' nests. In year one incidents of illegal forest clearance fell 74% from the baseline as recidivist law-breakers were removed from the Ibis Rice program. Year one monitoring of critically endangered species saw a drop in the number of nests of the Giant and White-shouldered Ibis as a result of severe drought late 2015/16. We are hopeful that these numbers will stabilise again in year two.

3.4 Monitoring of assumptions

Outcome assumption 1: The primary assumption at the outcome level is that a switch to climate-resilient, rice-growing methods is needed because climate variability is likely to increase. All international modelling suggests that this assumption holds true. The logic implicit in the design of this project suggests that once SMP has strengthened farmers'

ability to withstand the negative effects of climate change, then those farmers will want to participate in the Ibis Rice scheme, growing organic rice and selling it to Ibis Rice. Those same farmers could, however, choose to sell their organic produce elsewhere. If that were the case, those farmers will still have had to adhere to organic rules, and will still have earned a premium for their produce, thus the overall conservation and poverty alleviation objectives will be met.

Output one assumption: Building the capacity of VMNs to manage organic compliance independently is certainly a challenge. The project design assumed that good trainers could be hired for the project and that VMNs would be willing to undertake the training needed to reach that goal. Results from year one bode well for managing those risks with a successful recruitment process within SMP and positive feedback from the VMN trainee compliance inspectors during phase one of the ICS training. A capacity building assessment from the WCS community engagement advisor provided further recommendations to SMP staff on VMN capacity building.

Output two assumption: The assumption holds true that we will need to identify locally appropriate, stress-tolerant rice strains and growing methods in order to make local farmers more climate resilient. To maximise our chances of success, we have successfully contracted a highly experienced agricultural researcher, Dr Florent Tivet, who has been involved in the design of this project since its inception.

Output three assumptions: The primary assumption, that financial incentives offered by conservation enterprises are sufficient to induce behaviour change, has been previously shown to be true. But we continue to monitor the parameters within which this will hold true – i.e. the level of financial incentive needed to induce the type of behaviour change needed - including through a partnership with the International Initiative for Impact Evaluation (3ie) (see section nine on lessons learnt for more detail).
The second assumption is that government park rangers will continue to enforce the Cambodian laws relevant to this project. SMP's risk mitigation strategy here is to work closely and maintain a constant, open dialogue with government partners. This means we are able to monitor this closely and would adapt the project design if the situation changed dramatically.

Output four assumptions: As a marketing enterprise, Ibis Rice Conservation Company Ltd keeps abreast of developments in international rice markets. The primary limiting factor for Ibis Rice being able to grow the incomes of participating farmers is that they choose not to participate, or do so in a piecemeal fashion. SMP is mitigating this risk through open dialogue with the VMNs, to ensure that the Ibis Rice program is still wanted by local people, and to find out and then remove any impediments to local participation. For example, during the rice buying season in year one there were many more middlemen visiting the Ibis Rice villages looking to buy rice than usual because of the poor rice crop across the country. These middlemen arrived before the ICS checks were complete. Some farmers became nervous that they would not pass organic certification, some were cash-strapped due to the drought, and some were said to have been put under significant pressure from these middlemen, thus choosing to sell to the other rice purchasers, rather than waiting for Ibis Rice. In response, Ibis Rice has adapted its approach for the 2018 purchasing season by aiming to complete all ICS checks earlier, and is strengthening VMNs' capacity to communicate more effectively – and thereby assuage the concerns of – local farmers.

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

The project has contributed to a higher impact of **biodiversity conservation** in both direct and indirect ways. It is having a direct impact on biodiversity conservation by achieving all targets for the first year as detailed in the logframe under Output 3. This is being achieved by

addressing specific Strategic Objectives and associated Key Actions of the Cambodia National Biodiversity Strategic Action Plan (NBSAP) 2016 as outlined in section 5 below.

In addition, the projects has contributed indirectly to a higher impact of biodiversity conservation by developing, testing and implementing new models for conservation and development that when widely adopted will result in broad behaviour change in Cambodia and beyond. By incentivising behaviour change in communities that results in conservation and improved protected area (PA) management and integrity, while also creating associated increases in livelihoods, social adaptive capacity and empowerment, the project is demonstrating a new model that is broadly applicable. Furthermore, by using an enterprise-based approach, the model generates sustainable financing as profits support poorly funded PA management, and is self-sustaining in not being dependent on on-going donor support for the institutions that implement the work. This unique 'triple bottom line' for a conservation intervention is being acknowledged by the wide recognition the project is receiving (see sections 12 and 13 below, and Annex 4), particularly by decision-makers (e.g. Cambodian Minister of Environment and Office of Council of Ministers – see section 12 below) who are in a position to ensure this approach is rolled out more broadly across the PA system in Cambodia (e.g. adoption of this approach in PAs in Stueng Treng Province, Cambodia[1]). For comments re poverty alleviation see section 6.

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

As detailed in section 3.5 above, the project demonstrates a higher impact for conservation and development where economic gains for poor communities are possible in a context of sustainable use of natural resources. In doing this the project is contributing to Cambodia fulfilling its obligations under 2030 Agenda for Sustainable Development, through assisting the country in meeting several Sustainable Development Goals (SDGs). In the proposal we aimed to contribute to six SDGs (1, 5, 10, 12, 13 and 15) but through the course of the first year it has become obvious that the project can also contribute to an additional three goals (SDGs 2, 8 and 16), further growing the impact achieved. Supporting evidence for the contribution to these SDGs is given in sections 3 and 5-7, and in the logframe below and are not repeated here.

The building block of the Ibis Rice approach that has been implemented in the first year are strong local institutions (SDG 16), which are inclusive of women (SDG 5), and participatory land-use planning that secures land tenure for poor rural communities (SDG 16). By incentivising conservation and incorporating biodiversity values into decision-making processes, conservation is being achieved (SDG 15). In addition, by promoting climate-smart agriculture the project is taking direct climate action (SDG 13), while the resultant sustainable agriculture (SDG 2) is improving food security (SDG 2) and increasing rural livelihoods (SDG 1). The improvements in overall human well-being for rural communities that the project is delivering through increased access to markets for Ibis Rice farmers, and their increased self-determination through inclusive local institutions, secure land tenure and access to decision-making processes, are reducing the inequalities among these communities and others in Cambodia (SDG10) while also constituting full and productive employment (SDG 8). From the farm gate to the dinner plate, the entire value chain for certified organic Wildlife Friendly™ Ibis Rice is a model example of sustainable consumption and production (SDG 12).

[1] See https://www.birdlife.org/worldwide/news/ibis-rice-bird-friendly-rice-scheme-boosting-livelihoods-cambodia

5. Project support to the Conventions, Treaties or Agreements

Through the first year of implementation, the project has assisted Cambodia to implement the Convention on Biological Diversity (CBD; Strategic Goals A,B,C,D,E) by working towards the following Aichi Targets:

Aichi Target 2 (*biodiversity values integrated into development and poverty reduction*)[2] has been supported in the first year of the project by implementation specifically incorporating biodiversity values into decision-making processes around sustainably managed agriculture within a forest-mosaic.

Aichi Target 5 (*reduction in loss, degradation and fragmentation of forests)* has been supported by putting in place land-use plans that will result in the reduction in unplanned deforestation that is a central to the Ibis Rice scheme and a core part of farmer compliance.

Aichi Target 7 (*areas under agriculture managed sustainably, ensuring conservation of biodiversity*) has been supported as Ibis Rice farmers must manage agriculture sustainably for biodiversity to qualify for the incentives that drive the scheme.

Aichi Target 11 (*areas of particular importance for biodiversity and ecosystem services, conserved through protected areas integrated into the wider landscape*) has been supported through the land-use planning undertaken and zoning of PAs, which then contributes to landscape-scale management.

Aichi Target 12 (*the extinction of known threatened species prevented and conservation status improved and sustained*) has been supported through the reduction in hunting that is another core part of farmer compliance, and by the increase in populations of threatened species that will result from this and other initiatives in coming years of the project.

Aichi Target 14 (*ecosystems that provide essential services, contribute to health, livelihoods and wellbeing of the poor and vulnerable*) has been supported by the project using government endorsed land-use lands to secure access to essential ecosystem services for poor and vulnerable rural communities while transferring the monetary value of these services on to the consumers that purchase Ibis Rice.

Aichi Target 18 (*knowledge, innovations, practices and use of biological resources of local communities respected and with their full and effective participation*) has been supported as the planning process being used integrates and protects the rights and knowledge of local communities and secures their land tenure.

Progress towards the Aichi Targets is being achieved through addressing five themes of the **Cambodia National Biodiversity Strategic Action Plan (NBSAP) 2016**. The project has been designed to address specific Strategic Objectives and associated Key Actions under each Theme. Supporting evidence is given in section 3.5 above and in the logframe below and is not repeated here.

The project has interacted with Cambodian Convention focal point, with the proposal reviewed by Mrs. Chan Somaly, CBD focal point, and the Darwin Initiative Project Half Year Report also sent to the focal point.

6. Project support to poverty alleviation

The current SMP project design has benefited from a PHD thesis (see **Beauchamp, E.,** Clements, T. and E.J. Milner-Gulland. 2017. Assessing medium-term impacts of conservation interventions on local livelihoods in Northern Cambodia. *World Development*.) that confirmed the Ibis Rice project delivered improvements in well-being, including

[2] The descriptions of the targets given in italics are paraphrased and focus on the parts of the target most relevant to the project.

increasing incomes, for project beneficiaries. The Ibis Rice project is designed to put increased money in participating farmers' pockets through access to a market for higher-value, organic rice. The direct beneficiaries are the Ibis Rice farmers themselves, who are recognised on the Approved Farmers List, can sell their product to Ibis Rice Conservation Company Ltd and any farmers that take on drought-resilient farming practices or seed. The indirect beneficiaries are other rice-growing farmers, who benefit because middlemen that come from other rice companies are forced to pay a higher price than they would if they were not competing with Ibis Rice, and those in the village that run trade stores and benefit from farmers having more disposable income. We will provide robust evidence through the 3ie-supported impact evaluation at project end whether, and to what extent, the project alleviates poverty.

7. Project support to gender equality issues

The Ibis Rice project strengthens women's role in decision-making through ensuring their membership on the VMN. All land use planning follows an FPIC process which requires active (and recorded) participation of women. The resultant community protected area committees also require female membership to be lawful. In monitoring the program, SMP maintains gender-disaggregated data, noting female-headed households on the Approved Farmer List, promoting (and counting) female participation in all training workshops, and disaggregating by sex in activities relating to the monitoring of poverty status of beneficiaries (Activity 5.1, Output 4.4, Outcome 0.5). During the first year the focus has been on training farmers in organic compliance and creating an internal seed production capacity with small scale trials of legumes. We have worked hard to encourage mixed gender representation within all institutions, committees, trainings and meetings. (Annex 4, Item 3/20)

8. Monitoring and evaluation

SMP has an annual operational planning meeting, an annual pre-harvest operational planning meeting, and monthly reflection and planning meetings. Its key planning documents are the annual operational plan, the Approved Farmer List, which documents annually the details of participating Ibis Rice farms, and the range of documentation related to the ICS. These systems are in place and robust. In the second year we will pay more attention to collating "evidence" of all grant-related activities to expedite and simplify the annual reporting process. SMP meets with project partners quarterly to determine next steps and partners provide written reports to SMP.

To show project impact, we engage a mix of direct measures of performance (e.g. number of beneficiaries participating in trials, uptake of drought-resilient methods etc.) with less direct measures (e.g. overall income increases; improvements in conservation of critically endangered birds' nests). We will rely on a proper impact evaluation assessment conducted by 3ie (with parallel funding) to demonstrate causality between the Ibis Rice program and ultimate improvements in poverty status and forest and biodiversity conservation.

9. Lessons learnt

Through its strong partnership with scientific organization, WCS, SMP has been schooled in the importance of adaptive management; an approach reflected in SMP's monthly reflection and planning sessions where all staff reflect on their achievements and challenges and propose solutions for the following month. As well as this in-house, on-going learning, SMP also partners with technical organizations to improve the design of and/or increase understanding of the impact of specific interventions. During year one, WCS's community engagement advisor recommended improvements to SMP's VMNs' capacity building approach, specifically how SMP can avoid coming between the VMNs and villages, but rather can empower the VMNs in their role as the link between farmers and the Ibis Rice scheme.

Also in year one, SMP began a partnership with the International Initiative for Impact Evaluation (3ie) (funded independently of the Darwin grant) for a three-year, research project

on ‘Measuring impacts of conservation interventions on human wellbeing and the environment in Northern Cambodia’. The purpose of the study is to evaluate the social and conservation impacts of protected areas and payments for ecosystem services for households practicing a range of livelihood strategies, including Ibis Rice in the Northern Plains, such as whether Ibis Rice participants are more likely to protect forests and to have their wellbeing increased than non-participants. SMP plans to incorporate recommendations of the evaluation into the adaptive management of its program.

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

N/A

11. Other comments on progress not covered elsewhere

N/A

12. Sustainability and legacy

The profile of the Ibis Rice project continues to grow from increased awareness and participation at the grass roots level through to national and international acceptance of this as a model approach to sustainable development and biodiversity conservation in and around protected areas and in high conservation-value landscapes. This profile, in addition to the financially self-sustaining nature of the business model, ensures this project will be sustained and have a legacy reaching far beyond the investment from the Darwin Initiative.

The Ibis Rice scheme has developed a very high profile in its first year through the use of social media (including 58 Ibis Rice Facebook posts with 333,728 people reached, 9229 reactions, comments and shares, 8212 Likes, 3940 On posts, 2079 On shares and 13960 Posts clicks), formal media (including 2 press releases that resulted in a number of published articles), the project being featured on radio, YouTube and websites, and project staff presenting at several conferences, workshops and meetings. Full details and lists of these profile-raising items are given in Annex 4, Item 13/18. The promotion of the projected detailed, and the overall success of the project, has resulted in it being seen as a model for sustainable development at the community level that will greatly contribute to is sustainability and legacy. For example, the MoE Minister has featured the project on his internal MoE WhatsApp group for senior staff as an example of the development he wants to promote in and around protected areas in Cambodia, and the Cambodian Office of Council of Ministers have featured the project (and reference to Darwin Initiative support) in their website (see Annex 4 for details). Although year one and two focuses on trials so we would not necessarily expect to see increased capacity or interest at this stage of the project, trials of alternative crops including legumes and cover crops have been met with interest from farmers with 7 trial plots in three villages implemented, successful diversification, especially those that are linked to markets or show tangible yield improvements will lead to permanent uptake from farmers.

Several communication tools have been developed and implemented in both Khmer and English, as evidenced by the media exposure gained and detailed below. In addition, the collection of data and stories for publication in open-access, peer-reviewed articles to be published in partnership with RUPP and UK Universities is underway and these will be produced as planned in future years of the project.

The exit strategy is to establish Ibis Rice as a locally managed, climate-change resilient initiative that can be sustained without future inputs and the progress in achieving all targets in the first year of the project confirms the exit strategy remains valid and on-track. This project by its very nature will have a sustained social, economic, ecological and technical legacy. The business model for SMP and Ibis Rice is financially self-sustaining through profit – and the VMNs are currently trialling a subscription fee - so these institutions will endure beyond the life of the project. Participation by communities is incentivised by demonstrable improvements in returns in the short-term, and increased resilience of agriculture outputs

and therefore livelihoods in the medium-turn, so their participation is also secure. The rigorous compliance as part of organic and Wildlife Friendly™ certification also ensure that the conservation outcomes will continue.

13. Darwin identity

The Darwin Initiative funding was recognised extensively through the project making a great effort to publicise the Darwin Initiative and the UK Government's contribution through the use of social media (including 6 Ibis Rice Facebook posts that specifically cite Darwin Initiative with 61,669 People reached, 1,463 Reactions, comments and shares, 1,215 Likes, 707 On posts, 508 On shares and 3,822 Posts clicks), two press releases that resulted in articles published citing support from the Darwin Initiative, and videos published in YouTube and features on websites that also cite the Darwin Initiative. Project staff have presented at several meetings and conferences, acknowledging Darwin support. A full lists of items that publicise Darwin support at Annex 4. As a result of this project, the understanding of the Darwin Initiative has increased within the host country – for example being featured on the website of the Cambodian Counsel of Ministers and through the visit to the project of the UK Ambassador and his posting about the Darwin Initiative on the UK Embassy Cambodia Facebook page that has 364,248 followers.

14. Project expenditure

Table 1: Project expenditure <u>during the reporting period</u> (1 April 2017 – 31 March 2018)

Project spend (indicative) since last annual report	**2017/18 Grant (£)**	**2017/18 Total Darwin Costs (£)**	**Variance %**	**Comments (please explain significant variances)**
Staff costs (see below)				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items (see below)				
Others (see below)				
TOTAL				

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2017-2018

Project summary	Measurable Indicators	Progress and Achievements May 2017 - March 2018	Actions required/planned for next period
mpact Long-term conservation of biodiversity and maintenance of ecosystem services in Cambodia is ensured even in a rapidly changing environment, through linking poverty reduction, security of land tenure and community-based conservation.		Systems in place for strengthening biodiversity conservation, whilst enhancing livelihoods and incentivising good resource stewardship by local communities	[redacted]
Outcome Future-proof Ibis Rice by linking organic accreditations and drought-resilient agricultural practises with international markets, thus safeguarding livelihood improvements for > 2,500 families, protecting threatened species and preventing deforestation across >400,000ha.	**0.1** The number of families benefiting from the Ibis Rice project exceeds 2,500 (baseline 2105/16: 1,230) **0.2** The number of households participating in drought-resilient agriculture practises exceeds 1,250 (Baseline mid-2015: 0) **0.3** The number of incidents of illegal clearance of forest around participating villages declines by 25% against the 2015 baseline of 72 incidents per annum) **0.4** The number of critically threatened bird species, Giant and White-shouldered Ibis, that fledge successfully is 25% more than the 2015 baseline of 29 nests, 39 chicks **0.5** The poverty status of participating households increases by 20% against the 2016 baseline	0.1, 0.2: Will be measured during endline survey. 1813 families on March 2018. Expanding to one village this year with more planned for the next period. 0.3 In year one incidents of illegal forest clearance fell 74% as recidivist law-breakers removed from Ibis Rice program. 0.4 Year one monitoring of critically endangered species saw a drop in number of nests as result of severe drought late 2015/16. 0.5 Baseline survey for measuring poverty status through basic necessities survey undertaken.	0.1, 0.2: Preassessment of expansion to two new villages with VMNs potentially implemented in next period. Further 8 villages under feasibility assessment for expansion within project period. 0.3: Continue to implement improved compliance monitoring and enforcement. Explore acceptable approaches for authorities and communities to reintegrate previously non-compliant farmers to future-proof impact. 0.4: Monitoring and protection activities will continue with an expectation to see populations improve due to improved climatic conditions and increased compliance and reach of Ibis Rice. 0.5: Baseline for new villages will be conducted such that impacts of improved income through Ibis Rice will be measurable.
Output 1. Village Marketing Network (VMN) have the capacity to manage the expansion of Ibis Rice compliance, Organic internal controls and	**1.1** By the end of the project, 50% of VMNs will be managing Ibis Rice compliance successfully	12 VMNs completed phase 1 ICS June 2017. 6 additional SMP staff recruited and trained in May 2017. Evidence of ICS training attached at annex four. We propose changing the indicator for output one to 50% of all VMNs in place at	

production independently		the start of the project will be able to manage organic compliance independently at the end of the project from the original target of a 50% capacity increase based on the baseline established in 2016, because that 2016 assessment revealed that no VMNs were in a position to manage Ibis Rice compliance at that point in time, therefore a 50% increase made no sense (see para 3.2 above).
Activity 1.1 Additional SMP staff & VMN members are recruited and trained to manage Organic Ibis Rice internal controls, organic purchase, production, and institutional implementation.		SMP recruitment of new staff complete. 6 additional SMP staff recruited and trained in May 2017 then coached in the field. 8 staff and 27 VMN committee members completed on the job training in organic purchasing. (Annex 4, Item 15) Year 2: 4 additional staff recruited and trained in May 2018. New role created specifically for institutional VMN capacity development. Increased VMN committee members with further training.
Activity 1.2 Training in organic internal control monitoring and record keeping provided to VMN members so that the organisation can be managed without the support of partners even after the switch to organic Ibis Rice which requires much more documentation than Wildlife-Friendly alone.		98 VMN members received additional training on proper record keeping in Sept 2017 Step 1 and 2 of 3 in the internal control training completed with 12 participants from 4 villages from 8-10 June 2017. Community engagement technical advisor visited Northern Plains to make recommendations as to how to increase capacity of VMNs January 2018. Year 2: The 12 VMN inspectors that completed step 1 and 2 of training and will continue with step 3 with the expectation that 50% will qualify as VMN inspectors. 16 additional VMN members will complete step 1 and 2 of the internal control training. All new VMN member will receive training in proper record keeping in this period.
Output 2. Ibis Rice farmers have tested and adopted drought-resilient agricultural practices and complementary soil conservation techniques along with levelling and water efficiency trials.	**2.1** Number of Ibis Rice farmers taking part in stress-tolerant rice trials exceeds 20% of all Ibis Rice farmers by the end of Year 1 (baseline: 2015/16:3%) **2.2** Number of Hectares cultivated using stress tolerant rice seed produced during trials is at least 400Ha by end year 2 (baseline: 0)	Output 2 is on track with partner organisation, CIRAD, having designed and begun trialling various techniques for improving drought-resilient rice production and nitrogen-fixing legumes in target villages. Evidence is provided at annex four with CIRAD's initial feasibility report. 490 farmers are trialling stress-tolerant rice varieties - Pkha Rumduol and/or DSMK 877 ha are already planted for trials using stress tolerant rice seed (see maps attached at annex four) 7 farming families are trying more drought-resilient practices (legume trials) The number of tonnes of certified organic rice at the end of year one is 642 MT (see Approved Farmer List attached at annex four)

	2.3 Number of farmers willing to adopt drought-resilient agricultural practises (legume trials and land levelling) exceeds 1,250 families by end of Year 4 (baseline: 0) **2.4** Number of tons certified organic rice produced grows by 50% between Year 1 and Year 3 (baseline: 187 2015/16)	
Activity 2.1. Seed for drought-resilient jasmine rice strain purchased from CARDI		130kg of foundation breeder seed of Pkha Romdoul was purchased and distributed to 12 seed farmers Year 2: Plan to purchase 200kg of foundation seed.
Activity 2.2. SMP develops and tests an organic-certified version of drought-resilient rice seed stock and new soil conservation techniques. Ibis Rice fields that have been certified as organic can be used to develop the seed-stock for organic drought-resilient Ibis Rice seed.		Partner CIRAD conducted familiarisation and planning field visit in October (copy of report attached at annex four) identifies farmers, crops and methods for trials Year 2: Wet season trials of upland diversified crops will be conducted as well as analysis of previous periods post-rice dry season trails. Expansion of post-rice dry season trails will be based on this analysis.
Activity 2.3 Evaluation of organic drought-resilient jasmine rice and fallow-year crops, including yield, ease of growing, ease of harvest, water requirements, and also taste and texture. Farmers, the VMNs and SMP will all be involved in the evaluation of the new rice strain and fallow-year crops.		Trials are underway and evaluation will be on-going with initial results reported on in next six-month progress report.
Activity 2.4 VMNs promote organic drought-resilient jasmine rice and fallow-year crops across the Ibis Rice farmer network. In villages that have tested the organic drought-resilient rice, the VMNs can both promote the new rice strain to farmers within the village and to farmers in other Ibis Rice villages. At the same time they can provide training in growing the new strain of rice, based on their experiences during the trials.		Trials are underway and evaluation will be on-going with initial results reported on in next six-month progress report. Local VMNs are either directly participating in trials or will be kept abreast of results and will use those to promote successful techniques and crops to other farmers in the community.
Activity 2.5 Organic product grown in all Ibis Rice villages using soil conservation techniques. If the field trials are successful it is anticipated that the new organic drought-resilient jasmine rice strain will replace the existing jasmine rice strain used by Ibis Rice farmers across all of the villages, new and existing, that take part in the scheme.		Planned for 4th year.

Output 3. Critically endangered species populations increase as a result of improved protection around Ibis Rice villages	**3.1** Deforestation rates around target villages are lower compared to deforestation rates in the wider landscape (baseline 2012-2015: 0.93% around target villages, 3.53% in wider landscape) **3.2** Number of critically endangered birds' nests protected are 20% higher when compared to baseline 2014/15: 29.	Deforestation rates for year one not available at time of writing, but monitoring is ongoing. Number of critically endangered bird nests protected during 2017/18 breeding season increases by 14% to 34 nests.
Activity 3.1. Birds nest protectors protect nests of key species and report to birds nest protection coordinator. Some of the birds nest protectors are also Ibis Rice farmers, who protect the birds that breed near to their fields. The species protected include six Critically Endangered species Giant and White-shouldered Ibis, Bengal Florican, Slender-billed, White-rumped and Red-headed Vultures, as well as a range of Endangered and Vulnerable species, such as Sarus Crane, Lesser and Greater Adjutants, Masked Finfoot and White-winged Duck.		In 2017 more than 60 local people from 18 villages in the Northern Plains were directly employed and trained to protect nests of threatened birds. 188 globally threatened nests, including 34 critically endangered birds' nests, were protected, fledging 338 chicks. Throughout the rainy season (May - December) community wildlife rangers conducted awareness raising and biodiversity SMART patrols in important breeding areas. Activity continues in year 2.
Activity 3.2 Monitoring of forest cover and land-use change by WCS rangers and GIS team. WCS staff use remote sensing (LandSat and other satellite imagery) to monitor land-cover change. These data are cross-checked by the VMNs and all incidents recorded by the Compliance Unit, who maintain a field by field and farmer by farmer database.		Monthly assessments carried out using Landsat imagery, then cross-checked by WCS community rangers and MoE patrol team staff Activity continues in year 2.
Output 4. Community members living within the target protected areas experience reduced poverty and increased income as a result of Ibis Rice	**4.1** The number of people benefiting from the Ibis Rice project increases by 15% per annum (baseline 1,230 families in 2015/16) **4.2** The number of tonnes Ibis Rice purchased per annum by SMP from participating farmers exceeds 1,000 by the end of the project (baseline 2015/16: 557) **4.3** Number of functioning VMNs exceeds 20 (baseline 12 in 2016) **4.4** Poverty status of people in Ibis Rice villages improves (baseline to be established at project inception	The number of people benefiting from the Ibis Rice program includes those in the wider community who will benefit from agricultural interventions aimed at increasing climate resilience. This will be tested at project end. Ibis Rice Company purchased 480 tonnes of organic rice from approximately 500 households and 140 tonnes of Wildlife Friendly Ibis Rice from 70 families. Farmers selling rice to the program received a 25% premium for Wildlife Friendly and a further 30% premium for organic. All Ibis Rice farmers are now signed up to the Organic Wildlife-Friendly program ready for rice purchase later in 2018. Currently focused on redefining a "functioning VMN" as the role becomes more complex with introduction of organic certification, working with 9 pre-existing VMNs and one new VMN. 942 households were interviewed in 16 villages (including both target and matched control villages) in Q3 to establish baseline poverty status and the number of families benefiting directly or indirectly from Ibis Rice (activity 5.1)

	2016/17)	
Activity 4.1 Village Marketing Networks (VMNs) established in target villages. The VMNs are a vital part of the Ibis Rice process. They are made up of members of the community, always including at least one woman. They are the link between farmers and SMP. As such, the VMNs are involved in promoting the scheme among farmers, and receive training that enables them to monitor compliance to conservation agreements and provide agricultural support to farmers.		Currently there are 9 VMNs operating in 9 villages. In year one we conducted a feasibility assessment for establishing one new VMN in Pour Rieng. See output 1 regarding capacity-building of VMNs Year two: We will expand to at least one more village, Pour Rieng, and potentially one more village. Although not directly funded by this project, Ibis Rice is expanding to 3 more villages through a partnership with Birdlife and Darwin in Western Siem Peng as well as initial communications with an agricultural cooperative located within a RAMSAR site in Stung Treng.
Activity 4.2 Participatory land-use planning conducted in target villages, and land-use plans agreed by government. Land-use plans are developed in a fully participatory process and denote areas where forest is of high importance for biodiversity and must be protected, areas that are farmed, and areas that are of low conservation importance and can be cleared for farming in the future with agreement from the VMN.		PLUP ongoing in 35 villages in the Northern Plains. See example attached at annex four.
Activity 4.3 Conditional agreements explained and new members join VMNs. The conditional conservation agreements form the basis for Ibis Rice. Farmers can only sell their rice to SMP if the farmers adhere to the conservation agreements, and if they grow the correct type of rice (Jasmine Rice). The conservation agreements set out which species people are not allowed to hunt, and require them to adhere to the land-use plans; they are also not allowed use chemical fertilisers or pesticides.		From 168 farmers that had signed conditional agreements, 141 farmers were confirmed on the Approved Farmer List (AFL) in 2016. from 496 farmers that had signed conditional agreements, 428 farmers in AFL passed ICS in 2017. Year 2: We expect to have around 510 farmers participating in the organics program in existing villages and at least one additional village for recruitment of organic farmers.
Activity 4.4 Training and seed provided to farmers as necessary.		See 2.1 and 2.2 above. The first phase will be to trial a range of alternative crops. 12 seed farmers are participating in the initial trial phase and 7 farmers are experimenting with legumes and all Ibis Rice farmers will be invited to awareness sessions on those trials
Activity 4.5 VMNs identify eligible farmers and sell Ibis Rice paddy to SMP. Within each village, any land clearance must be authorised by the VMN, who make their decisions based on the land-use plan. Farmers who do not adhere to the conservation regulations cannot sell their rice to SMP, since it does not qualify as Ibis Rice. They weigh the rice before it is sold to SMP, which ensures that people in the village believe that they are getting a fair payment for their rice.		VMNs supported to identify any illegal land clearance. In year one, 19 households prevented from selling paddy to SMP due to issues of non-compliance, including 16 instances of unauthorized land clearance.
Output 5. Impacts of Ibis Rice program on threatened bird populations, habitat	**5.1** Two peer-reviewed journal articles published in academic journals by	Relationships with academic institutions formalised. Masters students have been selected and their thesis topics are being reviewed

trends and human livelihoods are monitored, recorded and disseminated to a wide audience, including relevant national and regional PES policy-makers.	WCS & RUPP researchers. **5.2** Press releases, and social media used at least monthly to disseminate impacts of the Darwin Post project	58 Ibis Rice Facebook posts, 6 specifically about Darwin. 3 press releases.
Activity 5.1 Data on poverty status is collected from target villages and appropriate paired control villages		Baseline poverty status data was collected from 942 households in 16 villages (including both target and matched control villages) in Q3
Activity 5.2 Results of monitoring are used by Ibis Rice Compliance Unit, which works closely with the VMNs to ensure that SMP only purchases rice from farmers who have kept the conservation agreements.		Ibis Rice compliance unit provides data to VMNs prior to rice purchasing to assess adherence to conservation agreements and determine eligibility to participate in program. 19 farmers removed from purchasing list due to not keeping conservation agreements (activity 4.5)
Activity 5.3 Peer-reviewed papers, reports, presentations and social media are prepared and published.		Profile given to project through 58 Ibis Rice Facebook posts with 333,728 People reached, 9229 Reactions, comments and shares, 8212 Likes, 3940 On posts, 2079 On shares and 13960 Posts clicks, 6 specifically about Darwin. 3 press releases. CIRAD have been contracted to commence legume trials. Masters students have been selected and their thesis topics are being reviewed by CIRAD

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

Project summary	Measurable Indicators	Means of verification	Important Assumptions

Impact: Long-term conservation of biodiversity and maintenance of ecosystem services in Cambodia is ensured even in a rapidly changing environment, through linking poverty reduction, security of land tenure and community-based conservation.			
Outcome: Future-proof Ibis Rice by linking organic accreditations and drought-resilient agricultural practises with international markets, thus safeguarding livelihood improvements for > 2,500 families, protecting threatened species and preventing deforestation across >400,000ha.	**0.1** The number of families benefiting from the Ibis Rice project exceeds 2,500 (baseline 2105/16: 1,230) **0.2** The number of households participating in drought-resilient agriculture practises exceeds 1,250 (Baseline mid-2015: 0) **0.3** The number of incidents of illegal clearance of forest around participating villages declines by 25% against the 2015 baseline of 72 incidents per annum) **0.4** The number of critically threatened bird species, Giant and White-shouldered Ibis, that fledge successfully is 25% more than the 2015 baseline of 29 nests , 39 chicks **0.5** The poverty standards of participating households increases by 20% against the 2016 baseline	**0.1** Signed conservation agreements, land-use plans, household records, receipts for rice purchase. (Annex 4. Item 8/19/20/21/24) **0.2** Signed and verified farmer diaries showing adoption of at least one resilient practice. (Annex 4, Item 2/4) **0.3** Monitoring reports from WCS rangers and satellite images. (Annex 4, Item 23/8) **0.4** Monitoring reports from WCS rangers. (Annex 4, Item 23) **0.5** Household poverty surveys (using Basic Necessity Survey).	The primary assumption is that through developing and trialling a comprehensive climate smart agricultural system, including more stress tolerant varieties and associated soil conservation techniques, the Ibis Rice scheme will continue to grow in size and impact. The evidence gathered during a previous Darwin project (20-014) indicates that this switch to drought-resilient organic rice is necessary. Without this, farmers would be a greater risk from climate variability and Ibis Rice would become financially unsustainable and lose the trust of the farmers, with consequences for biodiversity conservation and poverty alleviation gains made during the previous 3 years.

		(Annex 4. Item 17)	
Outputs: **1**. Village Marketing Network (VMN) have the capacity to manage the expansion of Ibis Rice compliance, Organic internal controls and production independently	**1.1** By the end of the project, the capacity of VMN to manage Ibis Rice compliance is increased by at least 50% (baseline to be established in 2016)	**1.1** Number of VMNs conducting their own internal control systems, measured using number of inspection reports signed by VMNs. (Annex 4. Item 4/5)	The primary assumption is that trainers are available and VMN are willing to learn new skills. Trainers have already been identified and prior to this project VMN have demonstrated that with the specialised and focused capacity building this project will deliver; they will be ready to manage the expansion of Ibis Rice compliance, marketing, production and sale.
2. Ibis Rice farmers have tested and adopted drought-resilient agricultural practices and complementary soil conservation techniques along with levelling and water efficiency trials.	**2.1** Number of Ibis Rice farmers taking part in stress-tolerant rice trials exceeds 20% of all Ibis Rice farmers by the end of Year 1 (baseline: 2015/16:3%) **2.2** Number of Hectares cultivated using stress tolerant rice seed produced during trials is at least 400Ha by end year 2 (baseline: 0) **2.3** Number of farmers willing to adopt drought-resilient agricultural practises (legume trials and land levelling) exceeds 1,250 families by	**2.1** SMP, organic certifier and VMN farmer records. (Annex 4. Item 6/12) **2.2** SMP, organic certifier and VMN farmer records. (Annex 4. Item 6/12) **2.3** SMP, organic certifier and VMN farmer records. (Annex 4. Item 6/12)	The primary assumption is that locally appropriate stress tolerant jasmine rice strain can be developed. Potentially appropriate drought-resilient seed-stock have already been identified, and methods for developing and testing organic seed stock have been obtained from relevant experts. Agronomists that support this activity will also identify paddy field that need most physical

	end of Year 4 (baseline: 0) **2.4** Number of tons certified organic rice produced grows by 50% between Year 1 and Year 3 (baseline: 187 2015/16)	 **2.4** SMP, organic certifier and VMN farmer records. (Annex 4. Item 6/12)	intervention for water efficiency.
3. Critically endangered species populations increase as a result of improved protection around Ibis Rice villages	**3.1** Deforestation rates around target villages are lower compared to deforestation rates in the wider landscape (baseline 2012-2015: 0.93% around target villages, 3.53% in wider landscape) **3.2** Number of critically endangered birds' nests protected are 20% higher when compared to baseline 2014/15: 29.	**3.1** Deforestation rate analysis based on remotely-sensed images. (Annex 4. Item 8) **3.2** Ranger nest protection reports and monitoring team data records. (Annex 4. Item 23)	The primary assumption is that villagers value the premium paid for Ibis Rice, and that it is sufficient to change behaviour. Experience from partnerships with DARWIN projects indicates that the premium and other benefits of the Ibis Rice scheme do change behaviour. This project will further increase the financial incentives to farmers to take part in the scheme as the purchase of organic rice will effective double the premium paid. A secondary assumption is that Cambodian law is enforced by government park rangers proportionately throughout all zones within the protected area network.

4. Community members living within the target protected areas experience reduced poverty and increased income as a result of Ibis Rice	**4.1** The number of people benefiting from the Ibis Rice project increases by 15% per annum (baseline 1,230 families in 2015/16) **4.2** The number of tonnes Ibis Rice purchased per annum by SMP from participating farmers exceeds 1,000 by the end of the project (baseline 2015/16: 557) **4.3** Number of functioning VMNs exceeds 20 (baseline 12 in 2016) **4.4** Poverty status of people in Ibis Rice villages improves (baseline to be established at project inception 2016/17)	**4.1** Signed conditional agreements, database of households benefiting from Ibis Rice. (Annex 4. Item 17) **4.2** Receipts and SMP ledger records. (Annex 4. Item 11) **4.3** SMP farmer records. (Annex 4. Item 12) **4.4** Basic Necessity Survey (BNS) scores. (Annex 4. Item 17)	The primary assumption is that the market for Ibis Rice will continue to grow, and that organic certification will open up new markets. Market research and consumer trends indicate that there is no shortage in market demand for Ibis Rice, and projections by commodity traders suggest global demand for organic rice will outstrip supply for several years to come. The primary limiting factor is the number of farmers taking part and the number of tons Ibis Rice produced.
5. Impacts of Ibis Rice program on threatened bird populations, habitat trends and human livelihoods are monitored, recorded and disseminated to a wide audience, including relevant national and regional PES policy-makers.	**5.1** Two peer-reviewed journal articles published in academic journals by WCS & RUPP researchers. **5.2** Press releases, and social media used at least monthly to disseminate impacts of the Darwin Post project	**5.1** Data on changes in household poverty, species populations and habitat trends; peer-reviewed journal articles. **5.2** Number of Facebook posts, tweets and news stories about Ibis Rice. (Annex 4, Item 13)	Research permits will be granted. Excellent relationship with MoE means that this should be no problem
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** Additional SMP staff & VMN members are recruited and trained to manage Organic Ibis Rice internal controls, organic purchase, production, and institutional implementation. **1.2** Training in organic internal control monitoring and record keeping provided to VMN members so that the organisation can be managed without the			

support of partners even after the switch to organic Ibis Rice which requires much more documentation than Wildlife-Friendly alone.

2.1 Seed for drought-resilient jasmine rice strain purchased from CARDI

2.2 SMP develops and tests an organic-certified version of drought-resilient rice seed stock and new soil conservation techniques. Ibis Rice fields that have been certified as organic can be used to develop the seed-stock for organic drought-resilient Ibis Rice seed.

2.3 Evaluation of organic drought-resilient jasmine rice and fallow-year crops, including yield, ease of growing, ease of harvest, water requirements, and also taste and texture. Farmers, the VMNs and SMP will all be involved in the evaluation of the new rice strain and fallow-year crops.

2.4 VMNs promote organic drought-resilient jasmine rice and fallow-year crops across the Ibis Rice farmer network. In villages that have tested the organic drought-resilient rice, the VMNs can both promote the new rice strain to farmers within the village and to farmers in other Ibis Rice villages. At the same time they can provide training in growing the new strain of rice, based on their experiences during the trials.

2.5 Organic product grown in all Ibis Rice villages using soil conservation techniques. If the field trials are successful it is anticipated that the new organic drought-resilient jasmine rice strain will replace the existing jasmine rice strain used by Ibis Rice farmers across all of the villages, new and existing, that take part in the scheme.

3.1 Birds nest protectors protect nests of key species and report to birds nest protection coordinator. Some of the birds nest protectors are also Ibis Rice farmers, who protect the birds that breed near to their fields. The species protected include six Critically Endangered species Giant and White-shouldered Ibis, Bengal Florican, Slender-billed, White-rumped and Red-headed Vultures, as well as a range of Endangered and Vulnerable species, such as Sarus Crane, Lesser and Greater Adjutants, Masked Finfoot and White-winged Duck.

3.2 Monitoring of forest cover and land-use change by WCS rangers and GIS team. WCS staff use remote sensing (LandSat and other satellite imagery) to monitor land-cover change. These data are cross-checked by the VMNs and all incidents recorded by the Compliance Unit, who maintain a field by field and farmer by farmer database.

4.1 Village Marketing Networks (VMNs) established in target villages. The VMNs are a vital part of the Ibis Rice process. They are made up of members of the community, always including at least one woman. They are the link between farmers and SMP. As such, the VMNs are involved in promoting the scheme among farmers, and receive training that enables them to monitor compliance to conservation agreements and provide agricultural support to farmers.

4.2 Participatory land-use planning conducted in target villages, and land-use plans agreed by government. Land-use plans are developed in a fully participatory process and denote areas where forest is of high importance for biodiversity and must be protected, areas that are farmed, and areas that are of low conservation importance and can be cleared for farming in the future with agreement from the VMN.

4.3 Conditional agreements explained and new members join VMNs. The conditional conservation agreements form the basis for Ibis Rice. Farmers can only sell their rice to SMP if the farmers adhere to the conservation agreements, and if they grow the correct type of rice (Jasmine Rice). The conservation agreements set out which species people are not allowed to hunt, and require them to adhere to the land-use plans; they are also not allowed use chemical fertilisers or pesticides.

4.4 Training and seed provided to farmers as necessary.

4.5 VMNs identify eligible farmers and sell Ibis Rice paddy to SMP. Within each village, any land clearance must be authorised by the VMN, who make their decisions based on the land-use plan. Farmers who do not adhere to the conservation regulations cannot sell their rice to SMP, since it does not qualify as Ibis Rice. They weigh the rice before it is sold to SMP, which ensures that people in the village believe that they are getting a fair payment for their rice.

5.1 Data on poverty status is collected from target villages and appropriate paired control villages

5.2 Results of monitoring are used by Ibis Rice Compliance Unit, which works closely with the VMNs to ensure that SMP only purchases rice from farmers who

have kept the conservation agreements.
5.3 Peer-reviewed papers, reports, presentations and social media are prepared and published.

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
7	Number of (i.e., different types - not volume - of material produced) training materials to be produced for use by host country. Training materials may take many forms but may include videos, information leaflets or posters providing advice or guidance on specific topics, or guides, tool kits, and manuals which are to be translated by project staff for wider use in host countries. Training materials are those to be developed directly by the project. They will not include materials donated to the project, those items to be included at Standard Measures 20 or lecture notes to be distributed to course participants.	Mixed	Mixed	24 training materials			24 training materials	TBD
11A	Number of papers to be published in peer reviewed journals.	Mixed	Mixed	0- Masters students have been selected and their thesis are being			0	Two peer-reviewed journal articles published in academic journals by WCS & RUPP

				reviewed by CIRAD.				researchers.
14B	Number of conferences/seminars/ workshops **attended** at which findings from Darwin project work will be presented/ disseminated.	Mixed	Mixed	6. Ibis Rice concept presented at the Sustainable Rice Platform Conference in Bangkok December 2017. IR presented to WCS seminar and board of trustees June 2017.			6	24
21	Number of permanent educational/training/research facilities, structures, or organisations to be established and then continued after Darwin funding has ceased. Structures (e.g., committees), facilities or organisations should only be included where their establishment will come as a direct result of the Darwin project. They may include facilities such as research laboratories or outreach facilities or formalised societies or organisations co-ordinating and administering aspects of	-	-	0			0	10 VMN's projected.

	training or research. Informal groups should be entered under Measures 17.							
22	Number of permanent field plots and sites to be established during the project and continued after Darwin funding has ceased. Field plots and sites are those to be established for the purposes of field research under the Darwin project.	-		756 new plots totalling of organic rice were established in year 1021 ha. (Annex 4, Item 14)			756 plots	
23	Value of resources raised from other sources (i.e., in addition to Darwin funding) for project work. Funding from all other sources are to be included including contributions in kind which should be quantified.	-						

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

Checklist for submission

	Check
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	YES
Is your report more than 10MB? If so, please discuss with Darwin-Projects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line.	NO
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	YES
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number.	NO
Have you involved your partners in preparation of the report and named the main contributors	YES
Have you completed the Project Expenditure table fully?	YES
Do not include claim forms or other communications with this report.	