



Darwin Initiative Annual Report



Department
for Environment
Food & Rural Affairs

Darwin Project Information

Project Reference	20-014
Project Title	Conserving biodiversity and reducing poverty through wildlife-friendly farming in Cambodia
Host Country	Cambodia
Contract Holder Institution	Wildlife Conservation Society
Partner institutions	Forestry Administration and Ministry of Environment, Royal Government of Cambodia; Sansom Mlup Prey (SMP); Imperial College London and Royal University of Phnom Penh (RUPP).
Darwin Grant Value	£249,951
Start/end dates of project	1 April 2013 – 31 March 2016
Reporting period	Apr 2013 – Mar 2014, Annual Report 1
Project Leader name	Tom Clements
Project website	www.wcscambodia.org
Report author(s) and date	Karen Nielsen, Ashish John, Simon Mahood, Tom Clements; 9 April 2014

1. Project Rationale

The forests and wetlands of northern Cambodia and the Tonle Sap Biosphere Reserve are of exceptional importance for biodiversity conservation, lying within the Indo-Burma Biodiversity Hotspot and including two of the Global 200 Ecoregions. The region supports over 30 Globally Threatened species, including 8 listed as Critically Endangered. The remaining populations of these species are found almost entirely within a complex of protected areas that cover the range of forested and wetland habitat types. These protected areas are heavily threatened by over-hunting and conversion to agriculture, driven by the local resident human population from existing villages (which pre-date the parks) and agro-industrial concessions.

The people living in this region are amongst the poorest in Cambodia, and are dependent upon the forest and land resources of the protected areas for their livelihoods. The Royal Government of Cambodia's Poverty Reduction Strategy Paper particularly prioritises these people who are stuck in a cycle of poverty owing to remoteness of location, limited market access and insecure land tenure. Reconciling the development needs of local people whilst meeting national and global objectives for biodiversity conservation is therefore a critical question in Cambodia. This project was identified based upon WCS's long-term work on the ground at the sites and our research programme with Imperial College.

To address these challenges, the project is implementing a novel approach to linking biodiversity conservation and poverty reduction, based upon a concept developed by WCS and its partners inside protected areas in Cambodia. The approach is modelled on Payments for Environmental Services (PES). Under the Ibis Rice concept, Sansom Mlup Prey (SMP), a local NGO, buys agricultural produce from protected area residents at a price premium, contingent upon reductions in hunting and forest clearance. Produce is being marketed as 'Wildlife-Friendly™' to supermarkets, hotels and restaurants, with profits used to expand the programme. The goals of the Darwin project are to (i) reach as many farmers within Cambodian

protected areas as possible, maximising the conservation and poverty reduction impact; and (ii) establish SMP as a financially sustainable, locally managed organisation, able to manage Ibis Rice in perpetuity.

The project works across three protected areas, Preah Vihear Protected Forest (PVPF), Kulen Promtep Wildlife Sanctuary (KPWS) and Bengal Florican Conservation Area (BFPA; previously called Stoung), totalling over 450,000 hectares of forest and wetland that supports 20,000 people and over 30 globally threatened species, including Asian elephant and six Critically Endangered birds (e.g. Giant Ibis and Bengal Florican).

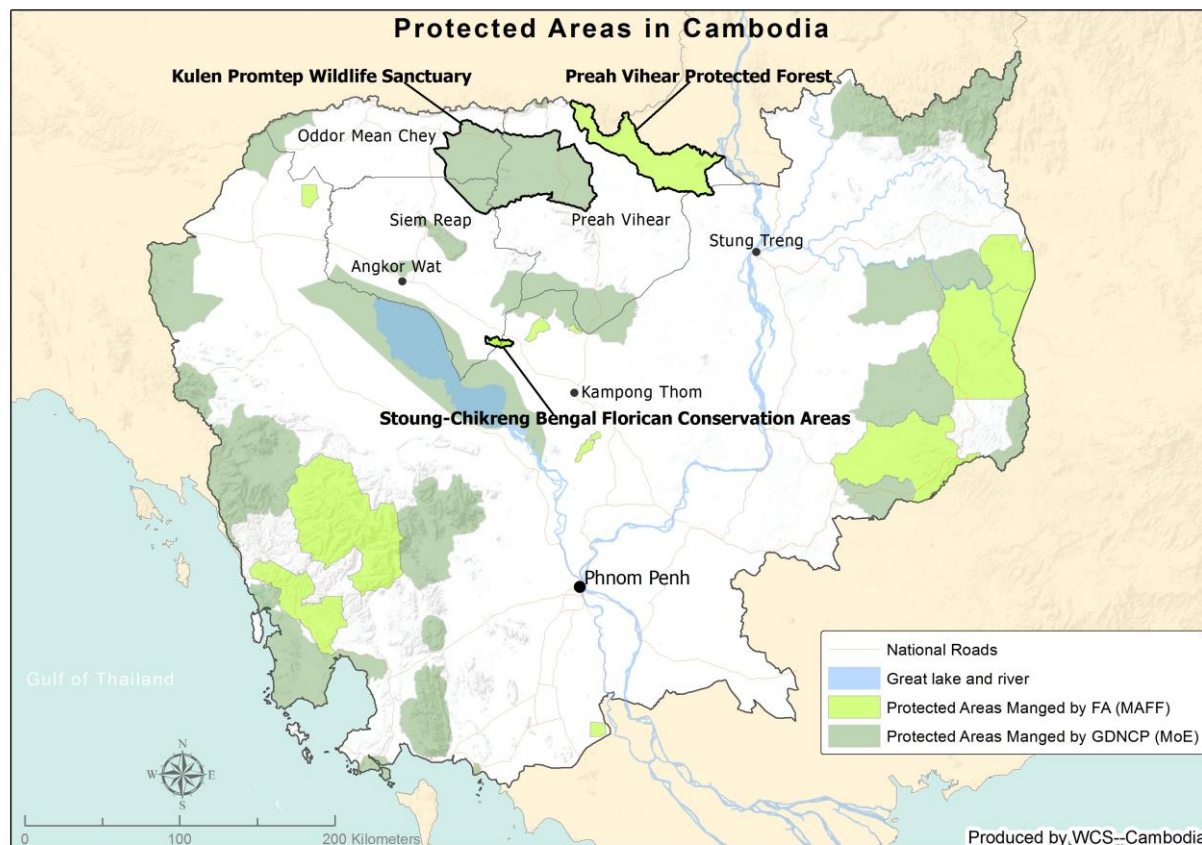


Figure 1. Project Sites

2. Project Partnerships

WCS has worked in partnership with the Forestry Administration (FA) of the Ministry of Agriculture, Forestry and Fisheries (MAFF) and the Ministry of Environment (MOE), under our MoU, to conserve the project sites since 1999. This partnership has continued through the Darwin project, with FA and MOE counterpart staff playing an active role in the management of the target protected areas. With support and oversight from WCS, the staff from each ministry takes overall responsibility for implementation of site management activities in areas under their jurisdiction. Within these areas they are responsible for protecting the forest, ensuring that land-use plans are adhered to and that the rights of local people to access resources within appropriate zones are respected. The technical support and oversight provided by WCS ensures that these activities are completed to the highest standard possible, including respecting the rights of local people and their development aspirations.

The Ibis Rice project is undertaken in partnership with Sansom Mlup Prey (SMP), the Cambodian-run civil society organisation that works with farmers to implement Ibis Rice. Under the Darwin project, WCS continues to work closely with SMP, providing financial and technical support.

Imperial College London (ICL) has partnered with WCS to design and implement high-quality research into the impacts of environment and development programmes in Cambodia since 2008. ICL was involved in the development of the project design in order to ensure that outcomes will be monitored using scientifically rigorous indicators. The international standard research design and data collection skills have been put to use in the field with counterparts

from the Royal University of Cambodia (RUPP) and the Royal University of Agriculture (RUA) in Cambodia. The research data collection phase is currently underway.

3. Project Progress

In the first year of this three-year award, the Ibis Rice project has accomplished all tasks and activities on time, making considerable progress towards the overall goal of ensuring the long-term conservation of biodiversity and maintenance of ecosystem services in Cambodia's protected areas, whilst contributing to the reduction of poverty in rural Cambodia with a focus on the hundreds of thousands of protected area residents.

3.1 Progress in carrying out project activities

All planned activities have been accomplished according to the timetable submitted.

Activities 1.1-1.6; Output 1: 2,000 households (10,000 people) taking part in the Ibis Rice initiative.

During 2013-4, SMP conducted a large number of consultations in 11 local villages regarding Ibis Rice (*Activity 1.1*). Village marketing networks (VMNs) were formed in an additional 5 villages, bringing to 11 the total number of participating villages (*Activity 1.2*). Discussions were held with the VMNs and the villagers regarding the rules and regulations of Ibis Rice and the potential benefits, and 60 new households agreed to join the scheme (*Activity 1.3*). As a result, a record number of farmers are now taking part in the Ibis Rice initiative; nearly 800 households in total.

SMP provided training and rice seed to farmers who needed them (*Activity 1.4*), and together with the VMN and the village authorities, identified eligible farmers to sell through the scheme (*Activity 1.5*). A total of 435.7 tons was bought from 339 eligible households (*Activity 1.6*) during the harvest between November 2013 and February 2014.

Activities 2.1-2.3; Output 2: Land-use planning conducted in 9 additional villages (15 total).

Land use planning activities were conducted in an additional 5 villages (*Activity 2.1*), bringing to 11 the number of villages with land-use planning activities underway or completed. As described under Activities 1.1-1.6, we have begun to expand the Ibis Rice scheme to some of these new villages with agreed land-use plans. During 2013-2014, six land-use plans were agreed with the protected areas, local authorities and the villagers (*Activity 2.2*).

The zonation process is now underway in KPWS (*Activity 2.3*). The provincial Community Zone Demarcation committee has reviewed most of the land holdings and is now very close to finalizing the community zones. To finalize the community zone we will work with another seven villages along the southern boundary of KPWS in 2014-2015. These activities were a little delayed by the national elections in mid-2013, but are now underway.

There was an increase in land clearance during the elections. One village with a land-use plan (Narong) decided to move their houses to existing paddy fields along a newly built highway, in contravention of the land-use plan. During 2014-5 we will need to review their land-use plans to discuss changes and work with authorities to regulate this development.

Activities 3.1-3.3; Output 3: Implementation of land-use plans by Government agencies (FA and MoE)

The project has invested considerably in discussions with the two main government agencies regarding implementation of the land-use plans and improved protected area management (*Activity 3.1*). Twenty-three (23) FA and MoE staff have been trained in protected area management and implementation of land-use plans, including law and roles and responsibilities of protected area officers, navigation and mapping techniques, reporting and communications, and community liaison. Their enthusiasm and effectiveness has improved.

Regular monitoring of forest cover in KPWS and PVPF has been undertaken by WCS using Landsat 6 satellite images (*Activity 3.2*). These results have been shared with the two main

government agencies and are used as a basis for discussion over land-use planning decisions (Activity 3.3).

Activities 4.1-4.3; Output 4: Bird nest monitoring and protection.

We advertised for bird nest protectors in the local villages and provided them with training to ensure their effectiveness in protecting threatened bird species (Activity 4.1). A total of 59 local villagers were then directly employed to protect the nests of threatened bird species during the nesting season, which starts in July until approximately March or April (Activity 4.2). The activity of the nest protectors was monitored by the WCS rangers (Activity 4.3).

Activities 5.1-5.3; Output 5: Ibis Rice PES programme is self-financing and sustainable.

Two out of the three activities listed in Output 5 are on going and SMP is progressing towards financial independence. Total sales in 2013 amounted to \$121,433, from \$93,371 the prior year (Figure 2). Ibis Rice was featured at the quarterly Green Night Eco Trade Fair, the Third Annual Social Enterprise Conference (Oct 2013), the Made in Cambodia Market and the 4th Khmer Small and Medium Enterprise Fair in Phnom Penh and Siem Reap; 15 potential retailers and hotels or restaurants were approached individually (Activity 5.1). 59 outlets now sell Ibis Rice, an increase of 8 on the previous year (Activity 5.2).

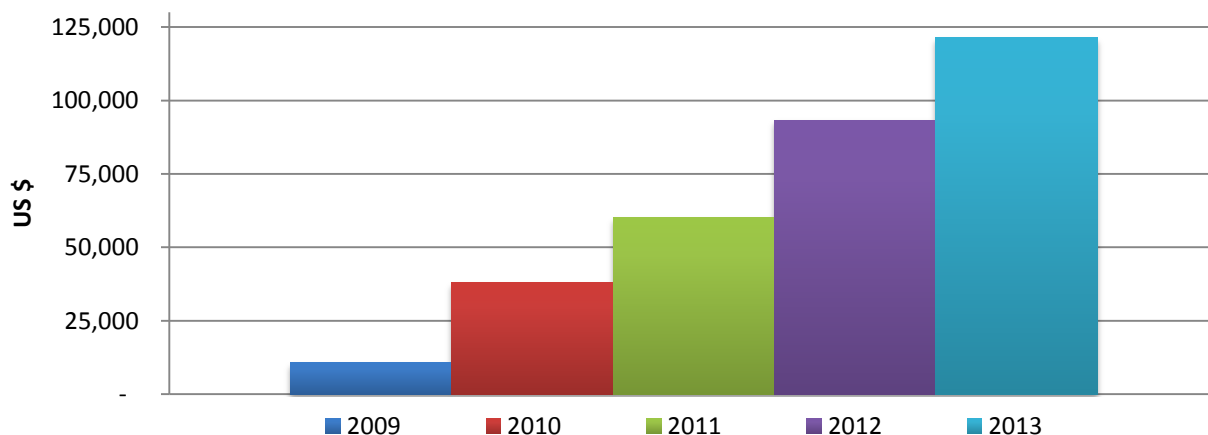


Figure 2. Growth in sales of Ibis Rice

Activities 6.1-6.3; Output 6: Impact evaluation monitoring.

For the poverty assessments, a lead researcher has been identified, and data collection is planned for the second half of 2014 (Activity 6.1). The surveys will use a "Before-After Control-Intervention" survey methodology, assessing changes in households from before (in 2008 and 2011) and after (in 2014) Ibis Rice payments were made, both for controls and those involved in the program. Poverty is assessed using the Basic Necessities Survey, as one of the five measures. Completion of the surveys will provide a six-year time series, following on from previous assessments in 2008 and 2011. The synthesis and publications will take place in the second and third years of this award, as planned (Activities 6.2 and 6.3). Researchers from Imperial College London visited and undertook seminars at the Royal University of Phnom Penh. For the land-use assessment, a detailed audit of every participating household in Ibis Rice was undertaken during July-December 2013.

3.2 Progress towards project outputs

Output 1: 2,000 households from 15 villages engaged in Ibis Rice

A total of 339 households from 11 participating villages sold over 435.7 tonnes of fragrant paddy rice to the VMN (435,732 kg). This is a 54% increase over last buying season. At the same time, the VMN membership has grown from 264 in 2008 to 781 households as of the 2013-14 harvest season (Figure 3). A total of 11 villages currently have functioning VMNs.

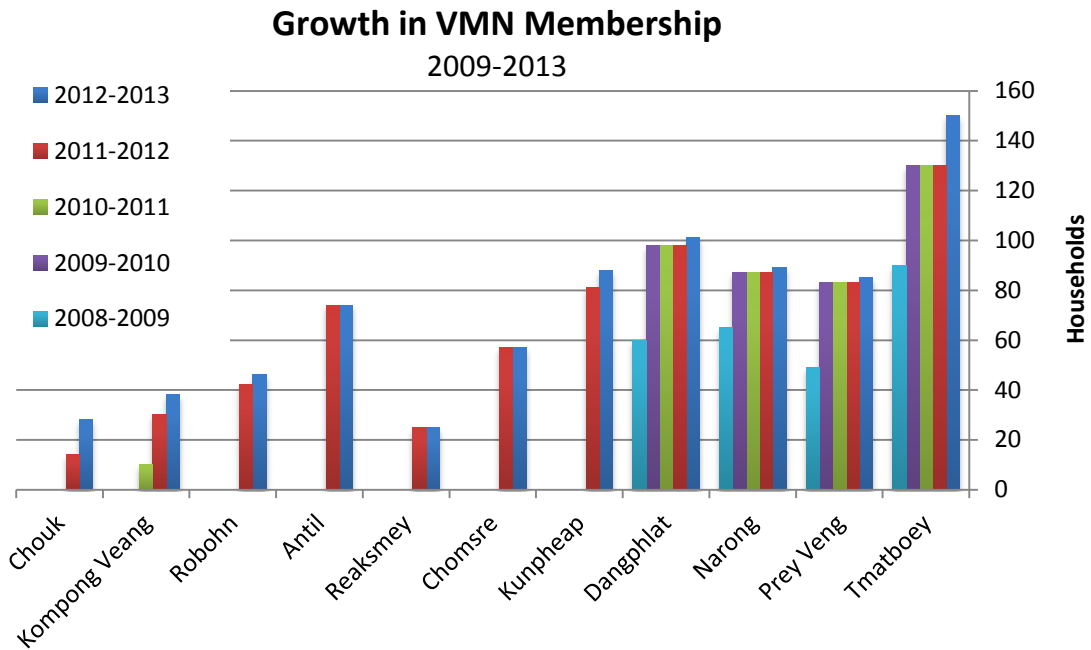


Figure 3. Increasing participation in Ibis Rice

Output 2: Land-use plans completed in 9 additional villages

A total of 11 villages (5 additional) now have completed land-use plans, meaning that the area under protection has reached 28,829 ha. The zonation process for KPWS is underway.

Output 3: Implementation of land-use plans

Protected area staff have continued to monitor land clearance, logging and hunting and have kept the levels low even when there was political instability. There was an increase in logging incidents in PVPF and land clearance in KPWS during 2013 around the elections; this has now been reduced. The teams have investigated 40 hunting incidents, 138 logging incidents and 93 land clearance incidents. Hunting, logging and land clearance have remained stable over, the period (see Figures 4 and 5).

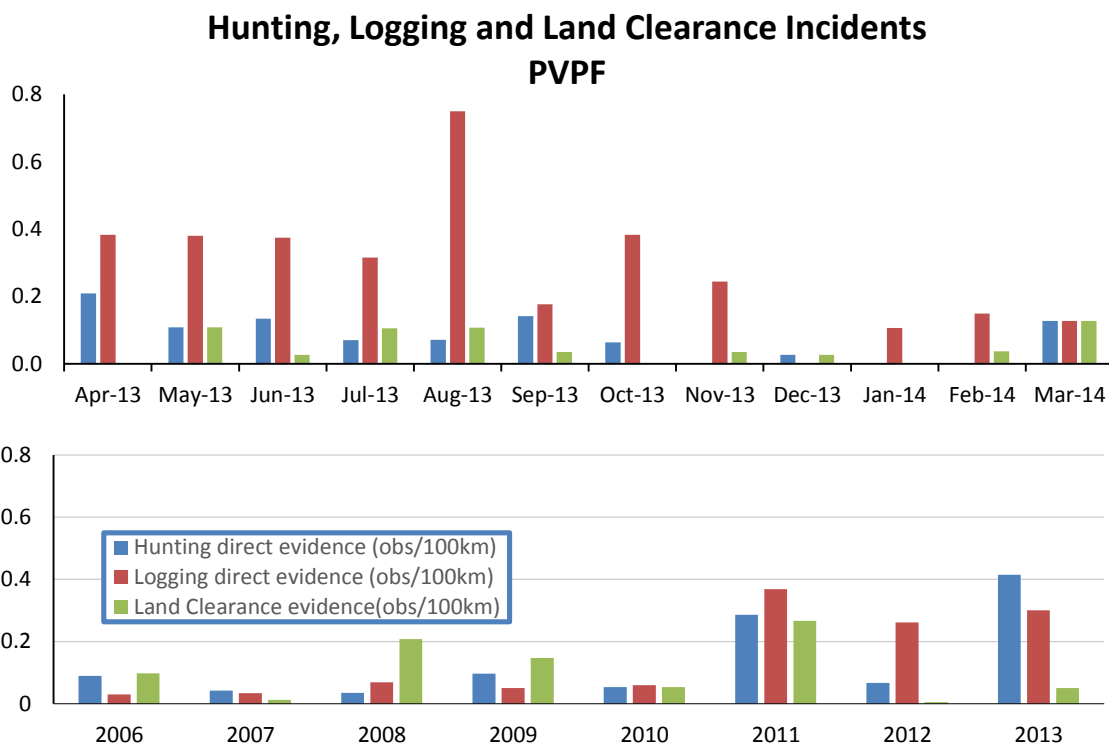


Figure 4. PVPF Hunting, Logging and Land Clearance Incidents by month (2013-4) and year (2006-13)

Hunting, Logging and Land Clearance Incidents

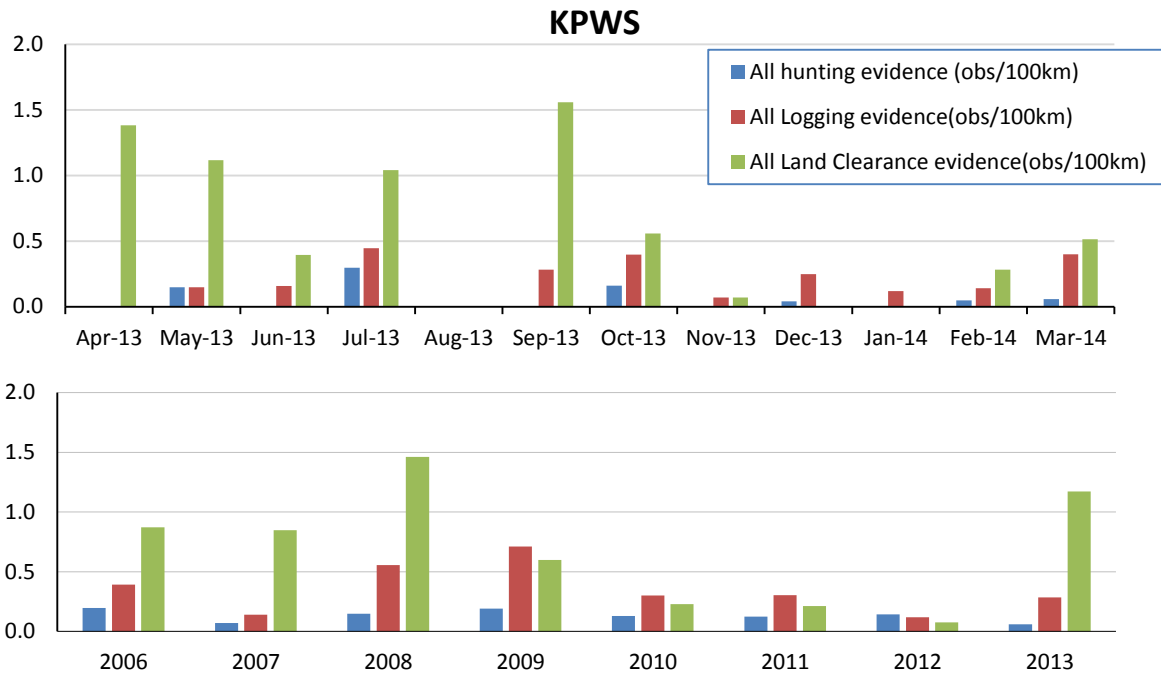


Figure 5. KPWS Hunting, Logging and Land Clearance Incidents by month (2013-4) and year (2006-13)

Output 4: threatened bird populations

Overall, there was a 21% increase in the number of threatened bird nests found, with the most notable increases being in the number of Sarus Crane and Lesser Adjutant nests. For instance, the number of Lesser Adjutant nests increased from 193 to 229, with 419 chicks fledging. Of the most threatened species, the number of Giant Ibis nests found increased from 18 to 26, with the number of chicks fledged increasing from 31 to 41. For the reporting period, the number of threatened bird chicks fledged overall was 552, a 4% increase on the previous year (Figure 6).

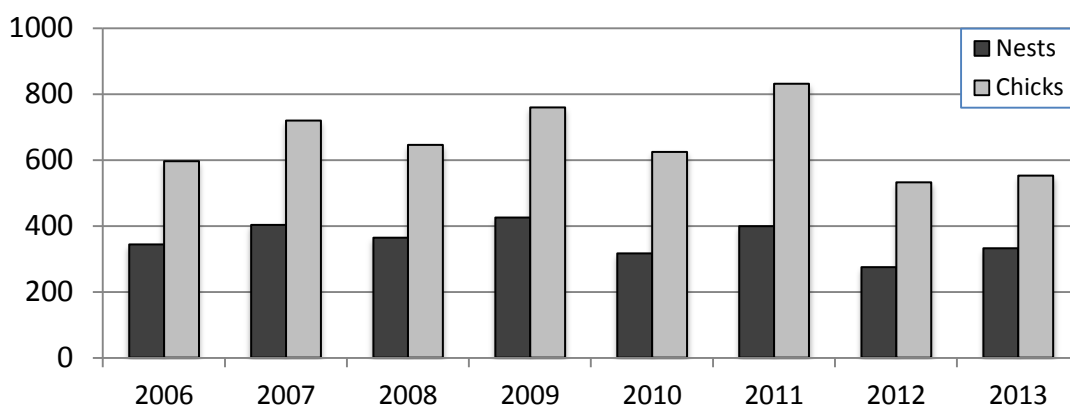


Figure 6. The number of protected nests and fledged chicks in the protected areas

Output 5: Ibis Rice is self-financing and sustainable.

Following the Ibis Rice business plan, Ibis Rice will be financially sustainable when it reaches 600 tonnes purchased per annum (expected by 2015/16). In 2013-4, purchases reached 435.7 tons (a 54% increase on the previous year), indicating that Ibis Rice is on-track to attain financing sustainability by 2016, as expected. In US dollars, \$139,559.88 was spent on paddy. This does not include other expenses related to the procurement process, which include labor, storage and transportation costs.

The graph in Figure 7 shows the amount of paddy rice procured from the VMN over the life of the project, by partner Sansom Mlup Prey. The orange line represents paddy purchased with contributions from the Darwin award.

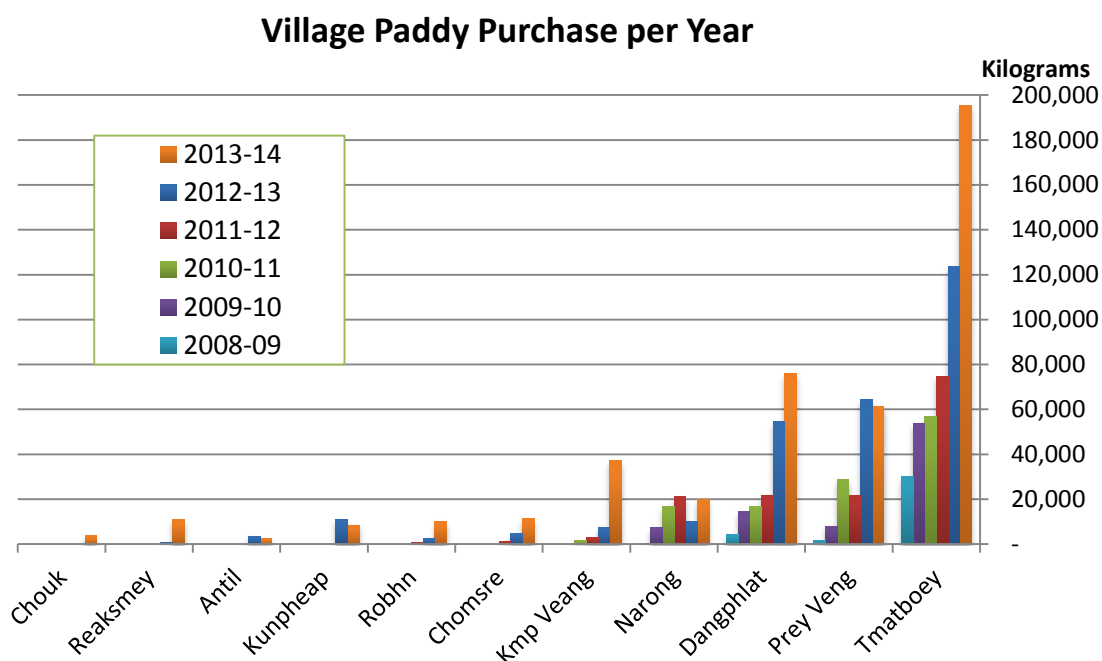


Figure 7. Amount of paddy sold by farmers increased 54%

Output 6: Impacts of Ibis Rice PES programme are assessed and documented

One draft publication for the period 2008-2011 is currently under review and will be published later in 2014. Publications for the period 2008-2014 are planned for publication in 2015.

3.3 Progress towards the project Purpose/Outcome

Improvements in the poverty status of participating households against the 2011 baseline will be determined by village surveys, which will commence later in 2014. The results from the first surveys, conducted by WCS and Imperial College London between 2008 and 2011, are now available¹. These surveys concluded that between 2008, before Ibis Rice began, and 2011, three years into the program, the average improvement in household wellbeing was 2.4 units, whereas Ibis Rice households improved by 3.1 units ($p < 0.001$), almost a 30% improvement in the rate of poverty reduction (against a target of 10-25%; *Indicator 1*).

Ibis Rice is expanding rapidly in both the original 6 and the additional 5 villages, bringing the total number of participating villages with land-use plans to 11 (against a target of 15 villages; *Indicator 2*). As Ibis Rice expands, more households join the program. Currently Ibis Rice is benefiting over 2,000 individuals (against a target of 10,000 people; *Indicator 3*), and interest continues to grow. Ibis Rice is bought 435 tons of paddy in the 2013-4 season (against a target of 600 tons; *Indicator 4*).

The protection of globally significant populations of highly threatened species continues to benefit from the growing number of participating farmers in the Ibis Rice scheme, as they agree to the no-hunting rules. The number of protected nests has declined a little from the 2011 baseline due to funding constraints in 2013, but more nests are expected to be protected in 2014 now that the Darwin funding is secured (*Indicator 5*).

Rates of land clearance in the project area increased in 2013 unfortunately as a consequence of a reduced rule of law in the lead up and aftermath of the 2013 national elections. We anticipate the land grabbing will be brought more under control by the authorities in 2014 and 2015 (*Indicator 6*).

¹ Clements, T. and Milner-Gulland, E.J. (review) The impact of Payments for Environmental Services and Protected Areas on local livelihoods and forest conservation in Northern Cambodia. *Conservation Biology*.

The capacity of SMP has remained unchanged, as assessed using the Civil Society Tracking Tool (*Indicator 7*). However, plans were put in place during 2013-4 to improve the capacity of SMP through hiring a new director, which will take place later in 2014.

3.4 Goal/ Impact: achievement of positive impact on biodiversity and poverty alleviation

The data presented above indicate that the project is on course to achieve its stated impact. The environmental benefits of the project are substantial. Monitoring work undertaken in 2013 showed that household compliance with the key criterion (clearance of new fields) is >90%. Research² shows that the Ibis Rice programmes combined with another WCS-sponsored PES scheme, community-based ecotourism, decreased habitat clearance rates by about 50% in comparison with matched controls during 2008-2011. This is a highly significant result, and is based upon an analysis using current best-practice methods.

Recently published data indicate that Ibis Rice has a significant positive impact on the rate of poverty reduction, and therefore we are confident that the project will achieve its goal of reducing poverty in vulnerable rural communities. There are multiple immediate benefits to the communities; the most obvious one is the cash price premium of 100 riel per kilogram of paddy over the standard farm gate price, paid to each participating family. This varies from village to village, between 8% and 12% over the middlemen’s price. The total amount for this buying season was \$12,416, which averages out at about \$37 per family.

The other benefits, however, are less quantifiable: (1) Ibis Rice uses unbiased scales so weight is recorded more accurately unlike what is customary when dealing with traders; (2) The VMN provide free seeds for new members and technical help to all; (3) The same variety, high-value fragrant rice, is grown by all farmers, which is worth more in the marketplace; and (4) In 2014, Ibis Rice will start paying each family who sold rice a bonus/dividend. Combined, these extra benefits might be worth another 10% more.

Finally, all farmers in the village benefit because (5) the middlemen tend to raise their prices to compete – they match Ibis Rice prices.

Hence, assuming the total benefit is approximately 20%, having spent almost \$140,000 this year, the per-household benefit average increases to \$83 ($\$140,000 \times 20\% / 339$ households), from \$37. That means Ibis Rice farmers received \$413 for their produce rather than the \$330 they would have had they sold to the middleman in a non-Ibis Rice village. This would bring the total benefit for 339 farmers to approximately \$28,000.

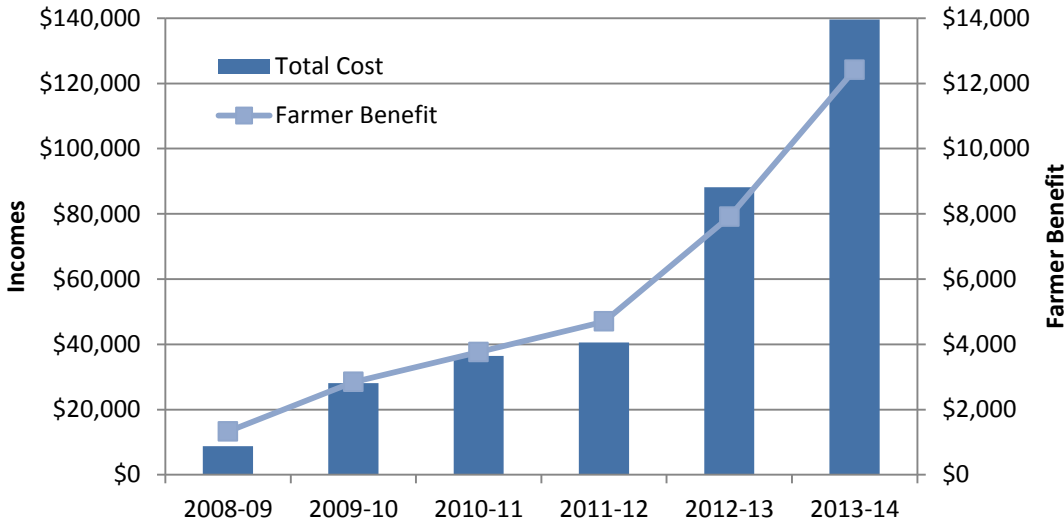


Figure 8. Immediate Benefits to the farmers from Ibis Rice during 2008-2014

² Ibid.

4. Project support to the Conventions (CBD, CMS and/or CITES)

The project is assisting the Government of Cambodia to fulfil its obligations under the CBD. Specifically, it is implementing a mechanism to ensure that agricultural areas within a forested landscape are managed sustainably, for the benefit of biodiversity (Aichi Target 7). Because these areas are within protected sites, this also contributes to Aichi Target 11, because the project has improved the management of protected areas through training increased patrolling. These two factors together mean that the conservation status of some of Cambodia's most threatened species, such as Giant and White-shouldered Ibises has been improved (Aichi Target 12). During the first year of the project this is evidenced by the increased numbers of nests protected and chicks fledged of key species such as White-shouldered Ibis.

A core theme in the project is land-use planning and the transferral to Ibis Rice customers of the monetary value of ecosystem services provided by the forest to the local people. During the first year of the project the amount of Ibis Rice produced, number of people involved and sales of Ibis Rice have increased, indicating that the project is contributing to Aichi Target 14, which specifically targets the type of people involved in the project: the indigenous and local communities and the poor and vulnerable, especially women.

5. Monitoring, evaluation and lessons

Monitoring took place according to schedule. Compliance was monitored by the Village Marketing Networks (VMNs) and SMP in turn monitored compliance to agreements. WCS and the government agencies (MoE and FA) monitored populations of threatened species and land clearance using Landsat 6 images and ground trothing and to ensure compliance to land-use plans. During 2013 WCS conducted an evaluation of compliance and the results indicated that communities were 90% compliant with the rule not to engage in new land clearance. Compliance rates varied between villages, which is unsurprising since the villages have different social situations and have been taking part in the scheme for different amounts of time. In villages where compliance rates were lower, or where there was misunderstanding regarding some of the regulations, SMP and WCS have begun discussions to the VMNs to improve compliance rates.

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

Not applicable.

7. Other comments on progress not covered elsewhere

There have been no changes to the project design or assumptions submitted.

8. Sustainability

The local market for Ibis Rice is growing, both among the Cambodian elite and the resident foreigners. The exit strategy for the project is in place, with the VMNs and SMP gradually taking over the management and expansion of Ibis Rice, and making the right decisions regarding conservation activities and monitoring the results of the activities. As this happens WCS will transition to providing a purely technical advisory and independent monitoring role and providing scientific evidence for decision-making. WCS is committed to working with the Cambodian government ministries, whose staff are project managers for the target protected areas and whose capacities are growing and expanding under WCS's guidance for as long as is necessary. They and the other local partner, SMP are committed to helping reduce poverty and linking that to conservation outputs. The expansion of Ibis Rice is in line with the business plan and we anticipate that the revenue from the sale of Ibis Rice will sustain biodiversity conservation and poverty alleviation efforts in the landscape over the long term.

9. Darwin Identity

The Darwin Initiative is credited with providing support to the project, both on the WCS Cambodia website [<http://www.wcscambodia.org/AboutUs/Partners.aspx#.U0ldgl4uxQg>] and [<http://www.smpcambodia.org/Supporters/Sponsors.aspx#.U0lfDF4uxQg>], Sansom Mlup Prey's website. There is also acknowledgement and Darwin Initiative logo on the Ibis Rice Facebook page [<https://www.facebook.com/IbisRice?fref=ts>].

10. Project Expenditure

Table 1 project expenditure during the reporting period (1 April 2013 – 31 March 2014)

Project spend since last annual report	2013/14 Grant (£)	2013/14 Total actual 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	88,812.00	88,489.51	0.36	

11. OPTIONAL: Outstanding achievements of your project during the reporting period (300-400 words maximum). This section may be used for publicity purposes

I agree for the Darwin Secretariat to publish the content of this section (please leave this line in to indicate your agreement to use any material you provide here).

The potential impacts of Payments for Environmental Services (PES) and Protected Areas (PAs) on environmental outcomes and local livelihoods in developing countries are contentious and have been widely debated. The available evidence is sparse, with few rigorous evaluations of the environmental and social impacts of PAs and particularly PES.

In Cambodia, the Darwin Initiative Ibis Rice project is setting up a very innovative form of PES within several PAs. Researchers at Imperial College London and University of Cambridge have measured the impacts on forests and human wellbeing of this PES programme, using a panel of intervention villages and matched controls.

Both the Ibis Rice PES and PAs delivered additional environmental outcomes: reducing deforestation rates significantly in comparison with controls. PAs increased security of access to land and forest resources for local households, benefiting forest resource users, but restricting households' ability to expand and diversify their agriculture. PES impacts on household wellbeing were related to the magnitude of the payments provided. Households that signed up to the higher-paying PES programs, however, typically needed more capital assets and hence they were less poor and more food secure than other villagers. Therefore, whereas the impacts of PAs on household wellbeing were limited overall and varied between livelihood strategies, the PES programs had significant positive impacts on livelihoods for those that could afford to participate. The results confirm theories that PES, when designed appropriately, can be a powerful new tool for delivering conservation goals whilst benefiting local people.

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2013-2014

Project summary	Measurable Indicators	Progress and Achievements April 2013 - March 2014	Actions required/planned for next period
<p>Goal/Impact</p> <p>Ensuring the long-term conservation of biodiversity and maintenance of ecosystem services in Cambodia's protected areas, whilst contributing to the reduction of poverty in rural Cambodia with a focus on the hundreds of thousands of protected area residents. The project will contribute towards this by building on pre-existing linkages between natural and human systems in remote, forest dependent communities. It will secure land tenure for vulnerable communities and guarantee access to essential forest resources. Through payment mechanisms community incomes are increased, patterns of sustainable resource use are established and threatened species protected.</p>		<p>The project has delivered increased incomes for over 2,000 people and provided them with secure land tenure, ensured that >90% of participants do not engage in new land clearance, and contributed towards the direct protection of nearly 30,000 hectares of forest of global importance for biodiversity conservation.</p>	
<p>Purpose/Outcome</p> <p>The outcome of the project will be to reduce deforestation rates across 300,000 hectares of three protected areas in Cambodia by 25-50%, protect globally significant populations of highly threatened species, support the livelihoods of up to 10,000 local residents through greater land security and greater incomes, increase understanding regarding how to integrate poverty reduction and conservation, and build the capacity of local partners to sustain the project outcomes. This will be achieved through the implementation of an innovative, payment for environmental services</p>	<ol style="list-style-type: none"> 1. Improvements in the poverty status of participating households by 10-25%, against the 2011 baseline. 2. The number of villages inside or adjacent to protected areas with signed land-use plans and conservation agreements increased to 15 from a baseline of 6 in 2011. 3. The number of people taking part in the Wildlife Friendly™ Ibis Rice scheme increased to 10,000 from a baseline of 750 in 2011. 4. The number of tonnes of Wildlife Friendly™ produce bought annually by SMP increased to at least 600 tonnes from a baseline of 141 	<ol style="list-style-type: none"> 1. The poverty status of participating households increased by 30% in comparison with the counterfactual. 2. Number of villages is up to 11 as of this reporting period. 3. Number of people taking part increased to 2,300. 4. Number of tonnes increased to 435.7 for the first year of this award. 	<ol style="list-style-type: none"> 1. This rate should prevail for the next procurement season. 2. Continue land-use planning in the protected areas. 3. Expand Ibis Rice to 2 new villages. 4. The amount of rice to be procured in the next harvest season should approach 550 tonnes or more.

<p>scheme that links poverty reduction to successful conservation of forests and critically endangered species through conditional agreements.</p>	<p>tonnes in 2011.</p> <p>5. The population of birds of conservation concern increased by 10% from a baseline of 408 nests protected and 865 chicks fledged in 2011/2012.</p> <p>6. 25% reduction in incidences of illegal land clearance and hunting around participating villages from a baseline of 65 incidences in 2011.</p> <p>7. Capacity of SMP increased from a baseline of 53 in March 2012, as measured using the Civil Society Tracker Tool (developed by the Critical Ecosystems Partnership Fund).</p>	<p>5. The population of birds of conservation concern increased by 4%.</p> <p>6. There was an increase of 43% instead of a 25% reduction in incidences of illegal land clearance, due to factors outside project control.</p> <p>7. SMP score has not changed from 53.</p>	<p>5. Nest protection schemes to continue as planned.</p> <p>6. Existing participants will be reminded of their commitments to the land-use plans during the month of April 2014.</p> <p>7. SMP will hire a new director to take responsibility for the next phase of the organisation's growth.</p>
<p>Output 1. 2,000 households (10,000 people) receive payments for environmental services as a result of taking part in the Ibis Rice initiative.</p>	<p>1.1. The number of signed conditional agreements linked to agreed land-use plans between SMP, Village Marketing Networks and participating households: current: 707, expected: 2,000 households (10,000 people).</p> <p>1.2. Receipts and SMP ledger records of purchase of Ibis Rice from participating households: current: 140, expected: 2,000 households (10,000 people).</p> <p>1.3. Number of functioning VMNs: 2012: 4; expected: 15</p>	<p>1.1. Number of households to date: 781</p> <p>1.2. Receipts for rice purchases to date: 339</p> <p>1.3. Number of functioning VMNs in 2013: 11</p>	
<p>Activity 1.1. SMP inform target villages about Ibis Rice scheme</p>		<p>In 2013, 9 villages in Preah Vihear province, 2 villages in Kompong Thom</p>	

		province and 3 villages in Banteay Meanchey province were informed.
Activity 1.2. Village Marketing Networks (VMNs) established in target villages		So far, 11 VMNs have been established.
Activity 1.3. Conditional agreements explained and new members join VMNs		New members to the scheme in 2013: 74 households
Activity 1.4. Training and seed provided to farmers as necessary		Training took place in 11 villages over 9 months; 391 (222 females) community members were trained on compliance, understanding rules and regulations, use of GPS to measure paddy fields, rice quality, how to select seeds and clarifying roles and responsibilities for VMNs and local authorities. 4,767 kg of pkha malis rice seed was distributed to 161 VMN members.
Activity 1.5. VMNs identify eligible farmers with proper quality paddy		This process took place in October 2013 and 339 households were identified.
Activity 1.6. VMNs sell Ibis Rice paddy to SMP		A total of 339 VMN members sold paddy to SMP
Output 2. Land-use planning conducted in 9 additional villages, thereby securing land tenure, legalising access to forest resources and reducing additional habitat loss.	2.1. The number of land-use plans developed and agreed: current: 6 villages, expected: 15 villages. 2.2. Area of land under agreed contracts: 2012: 21,153 hectares; expected: 100,000 hectares. 2.3. At least one protected area is zoned.	2.1. Number of land-use plans developed: 11; number of villages: 11 2.2. Area of land under agreed contracts in 2013: 28,829 2.3. The zoning of KPWS protected areas is on going.
Activity 2.1. Participatory land-use planning conducted in target villages, including identification of community protected areas (community managed forest areas inside protected areas) and community conservation forests (community managed forest areas inside protected forests).		Five community protected area (CPA) agreements have been sent to the MoE after they were endorsed by the province. The Ministry is verifying the information and we hope the CPA committees will be recognized by June. Seven more villages have elected CPA committee members and demarcated the boundary of the CPA area. They are finalizing their rules and regulations for submission to provincial authorities.
Activity 2.2. Land-use plans and zoning agreed by villagers		Land use plans for 2 villages were finalized bringing the total to 9. Other villages teams are verifying and updating old data before finalizing the

		land use plans.
Activity 2.3. Land-use plans used to legalise Community Zones in protected areas, community protected areas, and community conservation forests.		The Provincial Community Zone Mapping Committee, appointed by the provincial governor, is verifying all land use in KPWS.
Output 3. Implementation of land-use plans by Government agencies (FA and MoE).	<p>3.1. Rate of reduction in illegal land clearance and hunting around target villages from baseline: 2007: 166 incidences of land clearance; 2008: 138; 2009: 74; 2010: 61; 2011: 65; expected: <30.</p> <p>3.2. Deforestation rates around target villages. Baseline (2006-2010): 1.3%; Expected (2012-2015): 0.65-1%.</p>	<p>3.1. The illegal land clearance rates have increased by 43% to 93 incidents across the landscapes. The increase is because of external factors that were beyond the control of the project (political parties encouraging land clearance), We expect levels to drop once the situation is back to normal.</p> <p>3.2. Not done this reporting period. We have hired GIS staff who are being trained to download images and monitor deforestation. We will present figures in the next annual report.</p>
Activity 3.1. Consultations with government agencies and provincial authorities regarding land-use planning decisions, including allocation of lands for largescale economic development within conservation areas.		The Provincial Community Zone Demarcation Committee have agreed to provisional zone map produced by the project, a similar response has been obtained from the MoE.
Activity 3.2. Monitoring of forest cover and land-use change by WCS using satellite images.		GIS unit being set up and staff are being trained.
Activity 3.3. Monitoring reports used as the basis of further discussion and consultation regarding activities causing deforestation and land-use planning decisions.		MIST reports are being used by managers to target patrols in protected areas.
Output 4. Threatened bird populations increase.	<p>4.1. Number of birds nests protected: 2012: 408; expected 543 (10% increase per annum).</p> <p>4.2. Number of chicks fledged successfully from protected birds nests: 2012 865; expected 1,151 (10% increase per annum).</p>	<p>4.1 The number of birds nests protected in 2013 was 332. The baseline given in the proposal was an error: the number of nests protected in 2012 was 274, so the increase was 21%.</p> <p>4.2 The number of chicks fledged in 2013 was 552. The baseline given in the proposal was an error: the number of nests protected in 2012 was 532, so the increase was 4%.</p>
Activity 4.1. Community birds nest protectors are recruited through village consultation meetings.		59 community members were recruited and trained as birds nest protectors.
Activity 4.2. Community birds nest protectors protect nests of key species		The nests of ten Globally-threatened or Near-threatened species were

and report to birds nest protection coordinator.		protected by community members.
Activity 4.3. WCS Rangers monitor the results of nests protected by community members.		Two WCS Rangers and one Technical Advisor monitored the results of community nest protection throughout the year.
Output 5. Ibis Rice PES programme is self-financing and sustainable.	5.1. Following the Ibis Rice business plan, Ibis Rice will be financially sustainable when it reaches 600 tonnes purchased per annum (expected by 2015/16): 2011 rice purchase 141 tonnes.	Amount of Ibis Rice paddy purchased in 2013-14 harvest season: 436.7 tonnes.
Activity 5.1. Marketing activities conducted with potential retailers in Phnom Penh and Siem Reap.		Marketing activities include one-on-one sales calls to hotels, restaurants and retail outlets in Phnom Penh and Siem Reap throughout the year. The total sales of Ibis Rice for 2013 equals \$121,433.
Activity 5.2. Ibis Rice is sold in more outlets (supermarkets, hotels and restaurants).		The number of outlets for the period increased to 59 by the end of 2013, from 51 the year before.
Activity 5.3. SMP business plans demonstrate that Ibis Rice has achieved financial sustainability.		SMP business plan indicates that Ibis Rice is on schedule to achieve financial sustainability by the end of the project.
Output 6. Impacts of the Ibis Rice PES programme on poverty, land-use trends and threatened species monitored and documented.	6.1. Two peer-reviewed journal articles published in academic journals by WCS, Imperial and RUPP researchers.	One article to be published in 2014.
Activity 6.1. Data on poverty and land-use trends is collected from target villages and appropriate paired control villages, through analysis of satellite images and ground surveys.		Data collection is underway.
Activity 6.2. Data regularly synthesised and fed back to project team.		All data collected is regularly synthesised and communicated to project teams.
Activity 6.3. At least two scientific papers written.		One article to be published in 2014.

Annex 2 Project's full current logframe

LOGICAL FRAMEWORK

Impact

The Impact is not intended to be achieved solely by the project. This is a higher-level situation that the project will contribute towards achieving. All Darwin projects are expected to contribute to poverty alleviation and sustainable use of biodiversity and its products.

(Max 100 words)

Ensuring the long-term conservation of biodiversity and maintenance of ecosystem services in Cambodia's protected areas, whilst contributing to the reduction of poverty in rural Cambodia with a focus on the hundreds of thousands of protected area residents. The project will contribute towards this by building on pre-existing linkages between natural and human systems in remote, forest dependent communities. It will secure land tenure for vulnerable communities and guarantee access to essential forest resources. Through payment mechanisms community incomes are increased, patterns of sustainable resource use are established and threatened species protected.

Outcome

(Max 100 words)

The outcome of the project will be to reduce deforestation rates across 300,000 hectares of three protected areas in Cambodia by 25-50%, protect globally significant populations of highly threatened species, support the livelihoods of up to 10,000 local residents through greater land security and greater incomes, increase understanding regarding how to integrate poverty reduction and conservation, and build the capacity of local partners to sustain the project outcomes. This will be achieved through the implementation of an innovative, payment for environmental services scheme that links poverty reduction to successful conservation of forests and critically endangered species through conditional agreements.

Measuring outcomes - indicators

Indicator 1	Improvements in the poverty status of participating households by 10-25%, against the 2011 baseline.
Indicator 2	The number of villages inside or adjacent to protected areas with signed land-use plans and conservation agreements increased to 15 from a baseline of 6 in 2011
Indicator 3	The number of people taking part in the Wildlife Friendly™ Ibis Rice scheme increased to 10,000 from a baseline of 750 in 2011
Indicator 4	The number of tonnes of Wildlife Friendly™ produce bought annually by SMP increased to at least 600 tonnes from a baseline of 141 tonnes in 2011.
Indicator 5	The population of birds of conservation concern increased by 10% from a baseline of 408 nests protected and 865 chicks fledged in 2011/2012
Indicator 6	25% reduction in incidences of illegal land clearance and hunting around participating villages from a baseline of 65 incidences in 2011.
Indicator 7	Capacity of SMP increased from a baseline of 53 in March 2012, as measured using the Civil Society Tracker Tool (developed by the Critical Ecosystems Partnership Fund).

Verifying outcomes

Indicator 1	Household poverty surveys conducted by Imperial College and WCS
Indicator 2	Signed land-use plans and conservation agreements
Indicator 3	VMN membership rosters

Indicator 4	Receipts for rice purchase and SMP ledger records
Indicator 5	Monitoring reports by WCS and community rangers
Indicator 6	Monitoring reports from WCS rangers and satellite images (e.g. LandSat)
Indicator 7	Civil Society Tracker Tool (developed by the Critical Ecosystems Partnership Fund)

Outcome risks and important assumptions

Assumption 1	The primary assumption of the project is that local communities will be receptive to the wildlife-friendly farming initiative “Ibis Rice”. Our field surveys have suggested the scheme is very popular and large numbers of people want to join. The local people understand that the programme will provide genuine benefits, in terms of increased incomes, stable land tenure and legal rights to sustainably harvest forest resources in protected areas. We are therefore confident that sufficient farmers will want to take part in the programme.
Assumption 2	The success of the Ibis Rice initiative depends on people keeping to the terms of signed agreements. Research conducted during the development of the Ibis Rice concept has shown that most people keep to the agreements because of the strong incentives for them to do so, and due to the independent monitoring of compliance (Clements et al. 2010). One key factor for success is local involvement in management of the programme, which promotes self-enforcement. PES research conducted by Imperial and WCS in Cambodia has shown that people who break the agreements in the first year will then apply to re-join the scheme and will keep to agreements in the following year after seeing the benefits that their neighbours received previously (Clements et al., unpublished). WCS and SMP will undertake specific capacity-building activities to ensure that local residents fully understand the PES programme.
Assumption 3	The project assumes that the populations of threatened bird species can be increased through simple low cost conservation measures linked to conservation agreements. Previous research has shown that nest collection by local people is the primary factor limiting populations (Clements et al. 2013). Nest collection brings marginal economic gain (birds have little value as food or in trade) and existing experience suggests that with increased awareness and the provision of cash incentives it is possible to change local behaviour (Clements et al. 2013).
Assumption 4	The project assumes that the local civil society partner SMP, government agencies, village authorities and local people responsible for implementing the project have the capacity to implement activities to a high standard. Project staff with experience in local level indigenous institutional analysis will select reliable staff, identify skills gaps and build their capacity where necessary.
Assumption 5	Project target areas within the protected areas are not allocated for large-scale concessions for agro-industrial development. Significant portions of Cambodia’s protected areas network (10-15% or higher) have been allocated as concessions for economic development since 2008. In May 2012, the Royal Government announced a moratorium on all future concessions, however it is unclear the extent to which this moratorium will be enforced. Nevertheless, the evidence suggests that empowered local villages are able to advocate for their rights and can persuade local politicians and national ministries not to allocate lands for development, if alternatives (such as opportunities provided by Ibis Rice) are available. Although significant areas of some of the target protected areas have been allocated for development in the last two years, the villages engaged in PES programmes developed by WCS have been able to successfully persuade

	decision-makers not to place concessions on the lands around their villages. Implementing the Ibis Rice concept and helping the target communities to safeguard their rights to land and natural resources (through land-use plans, land titling and determining the Community Zone of each of the protected areas) will therefore have a strong impact on reducing the likelihood of land concessions. Under the law, the Community Zone is the area of the protected areas allocated for local use, which prohibits large-scale economic development activities.
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Outputs

Output 1	2,000 households (10,000 people) receive payments for environmental services as a result of taking part in the Ibis Rice initiative.
Output 2	Land-use planning conducted in 9 additional villages, thereby securing land tenure, legalising access to forest resources and reducing additional habitat loss.
Output 3	Implementation of land-use plans by Government agencies (FA and MoE)
Output 4	Threatened bird populations monitored by community members and WCS rangers.
Output 5	Ibis Rice PES programme is self-financing and sustainable.
Output 6	Impacts of the Ibis Rice PES programme on poverty, land-use trends and threatened species populations are documented in at least two peer-reviewed papers published in scientific journals.

Measuring outputs

Output 1: 2,000 households receive payments for environmental services as a result of taking part in the Ibis Rice initiative	
Indicator 1.1	The number of signed conditional agreements linked to agreed land-use plans between SMP, Village Marketing Networks and participating households: current: 707, expected: 2,000 households (10,000 people).
Indicator 1.2	Receipts and SMP ledger records of purchase of Ibis Rice from participating households: current: 140, expected: 2,000 households (10,000 people).
Indicator 1.3	Number of functioning VMNs: 2012: 4; expected: 15

Output 2: Land-use planning conducted in 9 additional villages, thereby securing land tenure, legalising access to forest resources and reducing additional habitat loss	
Indicator 2.1	The number of land-use plans developed and agreed: current: 6 villages, expected: 15 villages.
Indicator 2.2	Area of land under agreed contracts: 2012: 21,153 hectares; expected: 100,000 hectares.
Indicator 2.5	At least one protected area is zoned.

Output 3: Implementation of land-use plans by Government agencies (FA and MoE)	
Indicator 3.1	Rate of reduction in illegal land clearance and hunting around target villages from baseline: 2007: 166 incidences of land clearance; 2008: 138; 2009: 74; 2010: 61; 2011: 65; expected: <30.
Indicator 3.2	Deforestation rates around target villages. Baseline (2006-2010): 1.3%;

	Expected (2012-2015): 0.65-1%.
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Output 4: Threatened bird populations increase	
Indicator 4.1	Number of birds nests protected: 2012: 408; expected 543 (10% increase per annum).
Indicator 4.2	Number of chicks fledged successfully from protected birds nests: 2012 865; expected 1,151 (10% increase per annum).

Output 5: Ibis Rice PES programme is self-financing and sustainable	
Indicator 5.1	Following the Ibis Rice business plan, Ibis Rice will be financially sustainable when it reaches 600 tonnes purchased per annum (expected by 2015/16): 2011 rice purchase 141 tonnes.

Output 6: Impacts of the Ibis Rice PES programme on poverty, land-use trends and threatened species monitored and documented.	
Indicator 6.1	Two peer-reviewed journal articles published in academic journals by WCS, Imperial and RUPP researchers.

Verifying outputs

Output 1	Signed conditional agreements, receipts and ledger records documenting rice purchases from households, updated databases of participating households in each village.
Output 2	Land-use plans, protected area zonations, community protected area or community conservation forest areas declared.
Output 3	Illegal activity reports, deforestation rate analyses based upon analysis of remote-sensing images.
Output 3	Nest protection reports and data records
Output 4	SMP financial records, SMP annual reports, updated business plans
Output 5	Data on changes in household poverty. Peer-reviewed journal publications resulting from the project.

Output risks and important assumptions

Assumption 1	Villages value the premium paid for Ibis Rice paddy and it is sufficient to change villager behaviour.
Assumption 2	Land-use planning process continues to proceed in a timely manner, with villagers opting to participate in usual numbers.
Assumption 3	Financial incentives of the project are properly understood and sufficient to encourage the VMN members to abide by rules and regulations.
Assumption 4	The market for Wildlife Friendly™ Ibis Rice grows and can absorb the increased volume.
Assumption 5	Researchers from RUPP are sufficiently motivated to participate over the 3-year life of the project.

Activities

Output 1: 2,000 households receive payments for environmental services as a result of taking part in the Ibis Rice initiative	
Activity 1.1	SMP inform target villages about Ibis Rice scheme
Activity 1.2	Village Marketing Networks (VMNs) established in target villages
Activity 1.3	Conditional agreements explained and new members join VMNs
Activity 1.4	Training and seed provided to farmers as necessary
Activity 1.5	VMNs identify eligible farmers with proper quality paddy
Activity 1.6	VMNs sell Ibis Rice paddy to SMP

Output 2: Land-use planning conducted in 9 additional villages, thereby securing land tenure, legalising access to forest resources and reducing additional habitat loss	
Activity 2.1	Participatory land-use planning conducted in target villages, including identification of community protected areas (community managed forest areas inside protected areas) and community conservation forests (community managed forest areas inside protected forests)
Activity 2.2	Land-use plans and zoning agreed by villagers
Activity 2.3	Land-use plans used to legalise Community Zones in protected areas, community protected areas, and community conservation forests

Output 3: Implementation of land-use plans by Government agencies (FA and MoE)	
Activity 3.1	Consultations with government agencies and provincial authorities regarding land-use planning decisions, including allocation of lands for largescale economic development within conservation areas
Activity 3.2	Monitoring of forest cover and land-use change by WCS using satellite images
Activity 3.3	Monitoring reports used as the basis of further discussion and consultation regarding activities causing deforestation and land-use planning decisions

Output 4: Threatened bird populations increase	
Activity 4.1	Community birds nest protectors are recruited through village consultation meetings
Activity 4.2	Community birds nest protectors protect nests of key species and report to birds nest protection coordinator
Activity 4.3	WCS Rangers monitor the results of nests protected by community members

Output 5: Ibis Rice PES programme is self-financing and sustainable	
Activity 5.1	Marketing activities conducted with potential retailers in Phnom Penh and Siem Reap
Activity 5.2	Ibis Rice is sold in more outlets (supermarkets, hotels and restaurants)
Activity 5.3	SMP business plans demonstrate that Ibis Rice has achieved financial sustainability

Output 6: Impacts of the Ibis Rice PES programme on poverty, land-use trends and	
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threatened species monitored and documented.	
Activity 6.1	Data on poverty and land-use trends is collected from target villages and appropriate paired control villages, through analysis of satellite images and ground surveys
Activity 6.2	Data regularly synthesised and fed back to project team
Activity 6.3	At least two scientific papers written

Annex 3 Standard Measures

Table 1 Project Standard Output Measures

Code No.	Description	Year 1 Total	Y2	Y3	Y4	Total to date	Number planned for reporting period	Total planned during the project
Established codes								
6A	Number of community members trained for natural resource management	500	500	500		1,500 (956 females)	500	1,500
7	Community facilitator's training framework		1			0	0	1
8	Number of weeks UK staff on project work in Cambodia	6	4	4		6	6	14
9	Number of protected forest management plans to be produced for Ministry of Ag, Forestry & Fisheries in Cambodia			1		0	0	1
11A	Number of papers to be published in peer reviewed journals		1	1		0	0	2
12A	SMART database		1			0	0	1
14B	Conferences attended at which findings from Darwin project work will be presented		1	1		0	0	2
15A	Number of national press releases in Cambodia		1	1		0	0	0
23	Matching Funds Norwegian Agency for Development Cooperation (NORAD) John D & Catherine T MacArthur Foundation Margaret A Cargill Foundation Acadia via Imperial College London							
New - Project specific measures	Annual Sales Reports of ibis Rice	1	1	1		1	1	3

	Annual Report on VMNs' Membership & Benefits	1	1	1		1	1	3
	Civil Society Tracker Tool			1		0	0	1

Table 2 Publications

Type (eg journals, manual, CDs)	Detail (title, author, year)	Publishers (name, city)	Available from (eg contact address, website)	Cost £
N/A	N/A	N/A	N/A	N/A

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

None at this time.

Checklist for submission

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