

Darwin Initiative Main Annual Report

To be completed with reference to the “Project Reporting Information Note”:
(<https://www.darwininitiative.org.uk/resources-for-projects/information-notes-learning-notes-briefing-papers-and-reviews/>).

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

Submission Deadline: 30th April 2022

Darwin Initiative Project Information

Project reference	27-005
Project title	Organic livelihoods conserving Cambodia’s big five
Country/ies	Cambodia
Lead partner	Birdlife International Cambodia Programme
Project partner(s)	<ol style="list-style-type: none"> 1) Department of Environment (DoE) Stung Treng and Ratanakiri provinces, Ministry of Environment 2) Sansom Mlup Prey (SMP) 3) IBIS Rice Conservation Co., Ltd 4) Department of Land Management (DoL), Stung Treng and Ratanakiri provinces 5) Seven Villages Forums around Siem Pang Wildlife Sanctuary 6) O’Rey and O’ Koki Community Protected Areas, and Veal Kambor Community Protected Area at Lomphat Wildlife Sanctuary
Darwin grant value	£ 289,000
Start/end dates of project	01/04/2020 - 31/03/2023
Reporting period (e.g. Apr 2021 – Mar 2022) and number (e.g. Annual Report 1, 2, 3)	01/04/2021 - 31/03/2022, Second Annual Report
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Project website/blog/social media	N/A
Report author(s) and date	<p>Sopheap Mak, 29th April 2022</p> <p>Sovannarith S, 29th April 2022</p> <p>Vorsak Bou, 29th April 2022</p> <p>Lahiru S. Wijedasa, 29th April 2022</p> <p>Jonathan Eames, 30th April 2022</p>

1. Project summary

This project will enable 2,750 rural people to improve food security via an organic rice scheme at nine villages surrounding two globally irreplaceable protected areas in Cambodia: seven at Siem Pang and two at Lomphat wildlife sanctuaries. The project will work closely with local authorities and communities to support farmers and reduce illegal activities and establish two additional Community Protected Areas within the two sanctuaries, allowing for stable populations of Cambodia's Big Five Critically Endangered bird species.

Siem Pang (SPWS) and Lomphat (LWS) wildlife sanctuaries in Cambodia [REDACTED] [REDACTED] are irreplaceable, supporting globally significant populations of five Critically Endangered bird species, and 15 IUCN listed mammal species, which are at risk of extinction from local communities practicing hunting, logging, and encroachment to supplement household income. These activities are driven by poverty.

Monitoring and research by BirdLife has shown that the local communities surrounding both protected areas live at subsistence level and that food security is an issue. Both wildlife sanctuaries are relatively recently established and are located at the forest frontier. Governance is weak at this frontier and if the protected area boundaries are to be stabilized and biodiversity secured within them, management control over access to them must be in place. Since this will mean restrictions on access, compensation is required to offset any economic loss imposed by restrictions on natural resource use.

A fundamental challenge conservationists face is how to provide tangible reductions in household poverty in return for positive behaviour towards adjacent protected areas and their conservation. The IBIS Rice scheme provides the opportunity for households to significantly increase household income through growing and selling a premium organic jasmine rice. The compliance scheme that participating households are required to adopt, has been proven to reduce rates of forest loss.

The link between the IBIS Rice scheme, increased household income and reduced encroachment and deforestation has recently been established. Research by the University of Oxford and WCS shows that households participating in IBIS Rice increase levels of wealth faster and enjoy an additional household income equivalent to a family member in fulltime employment or equivalent to owning a hand tractor. Households participating in the scheme clear up to four times less forest (Travis *in litt.*).

2. Project stakeholders/ partners

In 2021 BirdLife International began its strategic withdrawal from Cambodia as part of a process to handover all BirdLife projects, assets and staff to local civil society partners. Beginning in September, implementation of BirdLife's operations at Siem Pang Wildlife Sanctuary and Lomphat Wildlife Sanctuary was transferred to Rising Phoenix Co. Ltd and NatureLife Cambodia through sub-contracting agreements. The project objectives, outcomes, and logical framework remained unchanged.

Other key partners are Stung Treng and Ratanakiri Departments of Environment (DoE), Sansom Mlup Prey (SMP), IBIS Rice Conservation Co., Ltd, and the Departments of Land Management (DoL) of Stung Treng province.

The **DoEs**, Rising Phoenix Co. Ltd and NatureLife Cambodia continue to work hand in hand for the conservation of the Sanctuaries, working together on law enforcement and awareness raising initiatives. Mr Sreng Cheaheng, the new head of the Stung Treng Department of the Environment, is more supportive than his predecessor, reflected in participation of the DoE in Stakeholder Forums, staff support of IBIS Rice meetings, awareness raising and providing technical support for problem solving in the project.

Sansom Mlup Prey (SMP) is a Cambodian NGO that has worked with farmers living in and around protected areas to reduce poverty in ways that are consistent with biodiversity conservation since 2009. Rising Phoenix and NatureLife are working with SMP through a new

partnership. Rising Phoenix-SMP have expanded the IBIS Rice scheme from six to ten villages over the reporting period. Under this Darwin project, SMP continues to develop the capacities of farmers via agricultural extension training and coach them in abiding by the rules of the compliance system.

IBIS Rice Conservation Co., Ltd (IRCC) is a not-for-profit conservation enterprise that purchases rice at a premium when farmers comply with the conservation agreements and achieve organic rice certification. At SPWS and LWS in 2021, a total 397 and 34 tonnes of IBIS Rice were sold at a 70% and 10-20% premium.

The Department of Land Management (DoL) of Stung Treng and Ratanakiri provinces have been collaborating with BirdLife since 2016 to map household rice fields. The mapping process enables monitoring of changes to the extent of rice fields and in determining whether there has been encroachment. This is an essential prerequisite for joining IBIS Rice. In March 2022 Rising Phoenix signed a sub-contract with Stung Treng DoL to register 217 land parcels which were mapped in 2021 and to map an additional 100 new land parcels in 2022.

O'Rey and O'Koki Community Protected Areas, and Veal Kambor Community Protected Area (CPA) are officially registered, and 15-year agreements have been signed with Ministry of Environment to co-manage an area of 5,662 ha within LWS for sustainable use and biodiversity protection. In O'Koki, regular meetings of the CPA committee with local officials and patrolling have been ongoing. In year 3, a management plan for O'Koki will be developed.

Project and partner Coordination over the reporting period

Rising Phoenix and SMP held a zoom meeting in April 2021 to update the work plan and timetable for implementing the IBIS Rice scheme at the ten villages surrounding SPWS in the second year. The IBIS Rice sub-grants for ten villages were signed in April 2021 between BirdLife and SMP, and in March 2022 between Rising Phoenix Conservation Inc and SMP to cover the period of September 2021 to April 2022. Two meetings with SMP and IRCC held in November 2021 updated the workplan followed by a March 2022 meeting to discuss results, production trends and KPIs followed by a revision of the IBIS Rice scheme in Siem Pang. Rising Phoenix met with DoL of Stung Treng Province in March 2022 to discuss and sign a sub-contract for rice field mapping in ten villages in Siem Pang in 2022. Four quarterly Village Forum meetings were conducted in June, September, December 2021, and March 2022, to introduce the project, recruit new members to join the IBIS Rice scheme, discuss any issues and find common solutions.

Four quarterly Stakeholder Forum meetings which is at district/provincial level were conducted in June, September, December 2021, and March 2022 at Siem Pang District hall to introduce the project, review the progress with the IBIS Rice scheme, and to seek solutions to any issues raised.

Meetings with village and commune chiefs from three new villages were conducted separately in September 2021 and January 2022 to introduce the IBIS Rice scheme and establish the Village Forum Committees to support the scheme in Sre Russei, Peam Khes, and Lun villages.

In 2021, NatureLife and SMP conducted 6 Zoom/Google meetings in addition to three online meetings with the SMP CEO. Regular meetings continued between the SMP CEO and the community outreach officer that engages with them in Ratanakiri province. Joint village consultations between NLC and SMP to support communities were carried out.

Rising Phoenix hosted The United Kingdom Ambassador to Cambodia

The United Kingdom Ambassador to Cambodia, Her Excellency Tina Redshaw visited Siem Pang Wildlife Sanctuary over 5-8 November 2021. Based at our tented camp, Tina was able to visit the wildlife sanctuary and learn about our work from Jonathan C. Eames and other staff. She met the heads of unit and Mak Sopheap gave a presentation on the work of the Community Development Unit focussed on the IBIS Rice project. During her stay, Tina was also able to meet and have dinner with Mr Phan Yut, the Siem Pang District Chief and Mr Sreng Cheaheng the Head of the Provincial Department of Environment.

3. Project progress

3.1 Progress in carrying out project Activities

Project monitoring, review and reporting

Monthly progress reports are available upon request. The project monitoring and evaluation framework has been updated properly and is available.

Outputs 1: *The IBIS Rice scheme will be expanded to an additional 2,250 rural people (50% women)*

Activity. 1.1 Establish M & E framework and baseline surveys for rice production, rice sales, financial literacy and land certification and compliance of all new participants at start of project

The M&E framework was updated to consider the achievements of the 2nd year of the project, and the progress towards the outputs and outcome [REDACTED]

Activity 1.2. Sales of IBIS Rice are made at a minimum 10% premium price at SPWS and LWS

In 2021 at SPWS we expanded the IBIS Rice scheme to include three new villages (Sre Russei, Peam Khes, and Lun villages) and 110 new households joined the scheme from these villages and 42 new households were recruited from amongst the seven villages. The scheme has now been expanded to ten villages around SPWS with a total 682 households from Khes Svay, Khes Kraom, Pong Kriel, Kham Phouk, Pha Bang, Lakay, Nhang Sum, Sre Russei, Peam Khes, and Lun villages.

The list of members is attached in [REDACTED]. The new members in 2021 signed conservation agreements in May 2021. These conservation agreements commit the members to halting illegal activities including no encroachment, no logging and no hunting within SPWS [REDACTED]

In 2021, 682 households grew IBIS Rice and 669 households achieved organic Certification from ECOCERT in December 2021 [REDACTED]. Of these households, 517 households sold 397 tonnes of IBIS Rice at a 70% premium price which generated US\$170,976 for participating households or an average of US\$331 per household [REDACTED]

In 2021 at LWS 107 households from Sre Chrey and Srepork Thom village participated in IBIS Rice of which 72 households registered and signed the conservation agreement which commits them to halting illegal activities (no encroachment, no logging and no hunting within LWS). The 72 households grew IBIS Rice and achieved the IBIS 1 (wildlife friendly), ICS result. Of these, 37 households sold 34 tonnes of IBIS Rice at a 20% premium price which generated US\$1,703 for participating households or an average of US\$ 304 per household.

Activity 1.3 Rice field mapping and registration for 260 households with the Department of Land Management (SPWS & LWS)

In 2021, we mapped 217 land parcels (625 ha) belonging to 200 households in ten villages around SPWS. In Year 2, due to BirdLife budgetary constraints, we had insufficient budget to engage the provincial Department of Land Management in mapping rice fields. Instead, following discussion and agreement with SMP we mapped the land parcels by engaging the commune and villages chiefs and the relevant households. In Year 3 Darwin project funds are available for this activity and in March 2022 Rising Phoenix signed a sub-contract with Stung Treng Department of Land Management (DoL) to register the 217 land parcels from 2021 and to map 100 new land parcels in 2022 [REDACTED]. By the end of the 2nd year of the project we mapped a total of 381 land parcels covering 1,089 ha for 346 households (includes year 1 & 2 results). The shapefiles for all the mapped land parcels are attached [REDACTED]

During monitoring of the compliance activities, the project team conducted ground truth checking and the bi-annual non-compliance village meetings in June and September 2021 with 69 villagers suspected of violations. We discovered that 30 of 682 households (4%) had violated the agreement in 2021, compared to 5 of 530 households (1%) in 2020. Offending households were suspended from the project for two years. Most of Year 2's non-compliance violations related to illegal logging (18 households), and land encroachment inside SPWS (10 cases), in addition to two cases of illegal fishing. The number of land expansion violations has increased following the announcement by the Prime Minister in July 2020, that land in protected areas would be allocated to households that could demonstrate a history of regular usage.

This review is still ongoing and has not been finalized. The most recent non-compliance report is included in this report [REDACTED]

At LWS the rice field mapping and registration committee was established which was joined by community councils, village chiefs, LWS rangers, NatureLife staff for data collection at Sre Chrey and Srepork Thom villages. A total of 80 households, most of which had more than one land parcel, agreed to demarcate and register their land [REDACTED]. A total of 191 land parcels have been mapped, of which 95 parcels of rice fields covered 262.96 ha, 26 parcels of crops covered 62.04 ha and 70 parcels of residential areas covered 18.80 ha.

Activity 1.4 Quarterly Village Forum meetings

Over the reporting period at SPWS, Village Forums were established in Sre Russei, Peam Khes, and Lun villages, in addition to the seven existing Village Forums. We conducted four quarterly village forum meetings in June, September, December 2021, and March 2022, to introduce the project, recruit new IBIS Rice members, discuss the villagers concerns and solutions. Minutes of each meeting were produced [REDACTED]

Four quarterly Stakeholder Forum meetings were conducted in June, September, December 2021, and March 2022 at Siem Pang District Hall to introduce the project, review the progress with the IBIS Rice scheme, and to seek solutions to any issues raised. Minutes of each meeting were produced [REDACTED]

28 Jan 2022, NatureLife held a district forum led by the Lomphat district governor and district administration on the co-management and conservation of natural resources in CPA. Twenty three participants of the CPA committee, rangers and village chiefs joined the meeting. They included three district officers, the DoE deputy director, LWS director, Chey Odam commune council, village chiefs, Vealkambor CPA committees, NatureLife staff, and the stone company representatives. The meeting aimed to build up the communication between CPA, local authorities, NGO, and companies and to promote the protected areas law and discuss land encroachment issues in LWS. The meeting agreed on three points for future working in co-management and conservation of the natural resource in CPA. In 2021, O'Koki CPA management committee conducted 4 quarterly meetings attended by the Sre Angkrong Commune council chief, village chiefs, totalling 54 participants including 11 women. The meeting aimed to strengthen community committee capacity, build the relationship with local authorities, share and report the results of CPA committee quarterly patrolling and biodiversity monitoring, and share information about challenges and requests for intervention.

Activity 1.5 Financial literacy skills training sessions

In November 2021 at SPWS, a training on basic financial management literacy was conducted in ten villages with 351 participants (190 females). As the result, 63% passed the training test [REDACTED]

Activity 1.6 Select two villages in LWS and pilot IBIS Rice scheme at LWS

From April to September 2021, SMP has finalized the contracts and sale agreements with the 72 new IBIS members who joined the program from the 2 target villages: 32 from Srae Chrey and 40 from Srae Pokthom [REDACTED]. In May, a total of 8,391 kg Foundation seeds were distributed to the participating households.

Thereafter, in collaboration with NatureLife and the local authorities, SMP started to prepare the implementation of the Internal Control System (ICS), by mapping the lands of the new members. 339.33 ha of mapped land was collected for the program compliance system. Different trainings on ICS and how to complete farmer diaries was provided to Village Marketing Network members as well as Village Chiefs, who then train and support IBIS farmers from their villages to comply with IBIS Rice project rules for the coming rice season. Between August and October 2021, all 72 registered IBIS members (Srae Chrey 32 IBIS households and Srae Pokthom 40 IBIS households) were interviewed and found to be compliant based on the ICS.

To support farmers in producing compliant rice, SMP team also provided trainings on climate-smart techniques throughout the season, comprising: pre-planting techniques, pest and nutrient

management and harvest/post-harvest best practices. Rice specification trainings were also provided to build the capacities of Village Marketing Network Committee members in identifying paddy grade and purity, to maintain the paddy quality and increase the income from sale. Among the 72 IBIS households, 37 (Srae Chrey: 24, and Srae Pokthom: 13) a total of 34,616 kg paddy rice was sold to middlemen at 200KHR/kg (0.05\$/kg) from the program. The remaining 35 households did not have surplus rice to sell due to unexpected low yields.

Beginning of 2022, SMP went to verify the IBIS households' fields management after harvest and started to promote the IBIS project and recruit members for the 2022 rice season. At the time of writing this report, 62 households (Srae Chrey: 27 and Srae Pokthom: 35) decided to register with IBIS Rice, the team will continue to promote the project working to maintain existing and register new members in the 2 target villages.

Output 2: Two Community Protected Areas (CPAs) are established (one at SPWS and one at LWS).

Activity 2.1. Establishing M & E framework and baseline for newly established Community Protected Areas, including numbers of participating villagers, access to ecosystems services, compliance and forest cover within CPA

At SPWS we have elected not to proceed with CPA establishment, for the reasons given in the first annual report. The inactive O'Koki CPA was reactivated in LWS.

Activity 2.2. Establishment of Community Protected Area working groups at SPWS and LWS

In SPWS we are working within existing structures comprising the Kham Phouk village forum and Village Marketing Network instead of establishing a CPA working group.

In LWS, instead of established new CPA, the management team of BirdLife and NatureLife decided to reactivate the O'Koki Community Protected Area. This CPA was established and approved by the Ministry of Environment in 2015 but had not been functioning for over two years.

Activity 2.3 Participatory assessment and consultation with relevant communities at SPWS and LWS

As stated in the first annual report, the government started a nationwide process to review land claims in all protected areas and the process appears open-ended and to date no guidelines have been issued by the Ministry of Environment. Linked to this the government is registering land in the Core and Conservation zones as State Private Land. So, the future of land in the Community and Sustainable-use Zones where CPAs must be located is uncertain. CPAs and Village Forums carry out the same functions but have different levels of government recognition. We have therefore decided to work with the already established Village Forum and Village Marketing Network (VMN) of the IBIS Rice scheme in Kam Phouk village where we are developing a Fisheries Conservation Zone (FCZ) on the stretch of the O'Khampa River that flows through the Sustainable-use Zone. To date they have excavated one large fishpond and restored two others, by digging solar-powered wells at each, to offset any loss of income because of controls on fishing.

At LWS based on consultation meetings, the decision to support O'Koki CPA was endorsed by local authorities, Lomphat Wildlife Sanctuary management team, and the relevant NGOs including the Save Cambodia Wildlife (an NGO who gave the support to O'Koki CPA from 2015 to 2018).

Activity 2.4 CPA establishment application

For reasons given above no formal CPA establishment is planned at SPWS, although we will establish a Fisheries Conservation Zone (FCZ) in the third year of the project. Due to limitations in holding community meetings in Kham Phouk village resulting from the COVID-19 pandemic, progress was not made in this activity in the second year of the project.

At LWS the reactivated O'Koki CPA was originally established in 2015.

Activity 2.5 Develop by-laws and organizing of CPA structure

In SPWS, we used the existing by-laws and organizing structures of Village Forums and Village Marketing Networks established in Output 1. Although new by-laws will be developed by the community for the fisheries conservation zone in the third year of the project.

In LWS, we provided the new O’Koki CPA management committee a series of training after which they reviewed and amended the CPA by-laws. The O’Koki CPA committee is running well and implementing activities in their new by-laws such as monthly forest patrol, awareness, and quarterly meetings with stakeholders.

Activity 2.8 Baseline data collection and monitoring and evaluation of natural resource use and forest cover within the new CPAs at SPWS and LWS

In SPWS, data has not been collected on natural resource use within the FCZ, as they have not yet been established due to restrictions from the COVID-19 pandemic. Although we have been monitoring the five Critically Endangered bird species and one Endangered mammal species in the area (monthly biodiversity reports). Forest cover change assessment report will be produced in the first quarter of Year 3 to measure the forest cover change from 2021 and 2022.

At LWS the baseline forest cover assessment for 2018-2020 is completed. NatureLife supported the O’Koki CPA committee to monitor key species of birds, mammals and habitat. At least three patrols were conducted per month. Each patrol comprised four to six CPA committee members including women.

Output 3: Village Forums, with local authority support IBIS Rice and CPA initiatives and commit to SPWS and LWS protection.

Activity 3.1 Establish M & E framework and baseline surveys for numbers of village forums established and effective, awareness raising amongst village beneficiaries, compliance and forest cover within SPWS and LWS

An M&E framework for this output has been developed and updated regularly [REDACTED] We monitored local authority attendance at village forums by number of attendees, gender, and whether they hold a position of authority in the government. The compliance unit monitors and reports any household infringing the conservation agreements. The forest cover change reports, give a measure of government support for protected areas.

At the LWS, the baseline forest cover changes 2018-2020 was completed and used to measure the effectiveness of LWS management. The land use mapping of each IBIS Rice target village onwards, give a measure of government support for protected areas.

Activity 3.2 Village Forum declarations made by newly established Village Forums

Three new Village Forums of Russei, Peam Khes, and Lun villages were established in SPWS and declared by commune chiefs of Sre Sambo and Sekong communes in September 2021 and January 2022 [REDACTED] There are now a total of ten Village Forums, one in each of the participating villages. During this reporting period we strengthened the capacity of members, reviewed the management structures, by-laws, and monitored the quarterly meetings.

At LWS, the O’Koki CPA management committee (recognized as an equivalent level of village forum) conducted their regularly quarterly meetings. They conducted four quarterly meeting (from April 2021 to March 2022). This meeting aims to strengthen the O’Koki CPA capacity to implement their activities on management and conservation and improve relationship local authority and LWS official. In this meeting, the O’Koki CPA summarized the quarterly report, raised the challenges, and tried to find the solution together. Moreover, the O’Koki CPA had set up a work plan for the next quarter, such as building a headquarter, conducting awareness-raising at all villages (Phoumi I, II, and III), and conducting a monthly patrol.

Activity 3.3 Village Forum Conservation Agreements Signed

The heads of the seven Village Forums in SPWS signed the conservation agreements in Year 1, and the heads of three new Village Forums signed in Year 2 [REDACTED] During the reporting period we ensured the quarterly meetings were conducted following the agreement.

Activity 3.4 Quarterly Village Forum meetings at commune/district level

In SPWS, four quarterly Village Forum meetings were conducted between June 2021 and March 2022. All village chiefs and commune chiefs gathered to discuss issues and challenges

across livelihoods, conservation, and illegal activities in the wildlife sanctuary. The results of the meetings were shared in the district stakeholder forums [REDACTED]

Four quarterly district Stakeholder Forum meetings, chaired by the Provincial Deputy Governor were conducted in June, September, December 2021, and March 2022 at Siem Pang District Hall. Each meeting had 25 to 35 participants representing each of the ten villages and other relevant stakeholders including all village chiefs, two commune chiefs, district governor, DoE officers, local police and district military. The purposes of the meetings were to strengthen relationships between key Siem Pang stakeholders by inviting them to attend regular quarterly meetings and exchange information about common issues and threats to SPWS. The minutes of the meetings are attached as [REDACTED]

In LWS on 28 Jan 2022, a district forum was held at the Lomphat district administrative on the co-management and conservation of natural resources in CPA. The meeting was led by the Lomphat district governor. The meeting aimed to build up the communication between CPA, local authorities, NGO, and companies and to promote the protected areas law and discussed land encroachment issues in LWS. All partners briefed the report to the meeting. As a result, the companies and CPA have known each other and shared their contacts. The meeting agreed on three points for future working in co-management and conservation of the natural resource in CPA. Due to COVID-19 restrictions the LWS provincial stakeholder forum was not held during the reporting period.

Activity 3.5 Awareness raising on the importance of SPWS and LWS and the illegality of hunting/snaring conducted in nine villages by Village Forum committees

We raised the awareness on the importance of SPWS and the illegality of hunting/snaring through the ten quarterly village forum meetings, the district stakeholder forum meetings, and the nine non-compliance village meetings as reported above. In September 2021, we supported Stung Treng Provincial Working Group for SPWS boundary demarcation, chaired by Provincial Deputy Governor and the Director of Department of Environment, to hold an awareness raising meeting in Tmar Keo commune. This event was attended by 125 villagers from the three villages of Khes Svay, Khes Kraom and Pong Kriel. One main boundary pole was installed during the meeting in the presence of villagers so that they were aware of the boundary in this village. The minute of the meeting is available in [REDACTED]

In December 2021 and in January 2022, the awareness on the importance of LWS and the illegality of hunting/snaring and key species habitat protection and conservation were conducted via loudspeaker at Srepork Thom villages of O'Rey CPA. The activity was led by village chief and CPA committees. They played three hours for each village. And at Sre Chrey, VMN and village chief conducted awareness raising during the village events such as harvesting ceremonies and religious ceremonies.

Activity 3.6 Awareness raising on the importance of SPWS and LWS and illegality of hunting/snaring/logging conducted in two CPAs

Although this activity was included in the logical framework in the context of CPA establishment, we raised awareness on the importance of CPA and the illegality of hunting/snaring through the four village forum meetings, the four stakeholder forums meetings, and the boundary demarcation meeting as reported above.

During the COVID-19 outbreak, the government of Ratanakiri limited the number of participants for public events, so we chose broadcasting to conduct awareness. The broadcasting emphasized the importance of LWS and the illegality of hunting/snaring and key species habitat protection and conservation. The broadcasting was conducted for three hours at three villages of O'Koki CPA and four villages of O'Rey CPA in December 2021 and January 2022.

Output 4: Stable populations of five Critically Endangered bird species and one mammal species (Eld's deer) within SPWS and LWS

Activity 4.1 The five Critically Endangered bird species occurring at SPWS were monitored monthly.

The five Critically Endangered bird species occurring at SPWS were monitored monthly by Biodiversity Monitoring Team. Monthly biodiversity reports and a 2021 annual report were produced for SPWS [REDACTED]

Activity 4.2 Searching and monitoring nests of White shouldered Ibis in LWS and SPWS

Nest searching and monitoring White shouldered Ibis in SPWS was conducted from November to April. In 2021, 53 White-shouldered Ibis fledged from 31 nests making it the most successful year on record. See the monthly report and annual report [REDACTED]. Based on our data we believe the breeding population is stable.

At LWS, we conducted nest searching and monitoring for the new breeding season 2021-2022. By March 2022, we had found 8 nests with 10 chicks fledged from 6 nests. Compared to the 2019-2020 breeding season, the number of nests found seem stable, (10 nest found with 12 chicks fledged).

Activity 4.3 Searching and monitoring nests of Giant Ibis in LWS and SPWS

We undertook nest searching of Giant Ibis in SPWS from June to October 2021. We found 17 nests, which is the largest number of nests found in a single year in SPWS.

In 2021 we published a second population assessment for the giant ibis in Siem Pang Wildlife Sanctuary which estimated of 53 mature individuals. This estimate was calculated from annual nest and monitoring data and a trapeang survey implemented in February to April 2020 [REDACTED]. From our two published surveys we conclude that the population is stable.

At LWS we conducted nest searching from late of May to November 2021 and found 11 nests, with 11 chicks fledged from 8 nests. This number has increased by one nest compared to 2019 and 3 nests compared to 2020.

Activity 4.4 Searching and monitoring vulture nests at SPWS

We conducted vulture nest searching from November 2020 to July 2021 and found nine nests and again in November 2021 to July 2022 and found 11 nests. There is no discernible population trend from the number of nests found as the sample size is small. SPWS is now the only site in Cambodia with three species of breeding vulture.

Activity 4.5 Conducting monitoring of three vulture species at vulture restaurants at SPWS

We conducted weekly vulture restaurants. Fifty-one vulture restaurants were held in Year 2. The maximum vulture count at single restaurants was 97 individuals and the minimum count was 25 vultures, compared to the maximum 97 in 2020. The national vulture census for 2021 recorded 65 vultures compared to 72 recorded in 2019. The national trend and trend by site are shown in [REDACTED]. Annual vulture attendance by site confirms SPWS as the single most important site for vultures in Cambodia.

Activity 4.6 Conducting White-shouldered Ibis (WSI) roost census in SPWS (monthly and annual census)

We conducted counting in July, August, September and October 2021. Sixteen White-shouldered Ibis roost sites were counted, of which thirteen were active, and three were not in use. The maximum count was 373 birds. The maximum count in 2019 was 344 individuals. The numbers showed an increase of 29 birds compared to the 2019 baseline.

At LWS, we counted 8 roosts on the same day and date in 2021. The highest count was 5 birds. In 2019 the highest count was 25 birds. The count trend at LWS has shown a continuous decline. The reason for the decline is that since January 2011 the former Minister of Environment, Mok Mareth, granted 50,000 ha of forest habitat within the sustainable-use zone of LWS to Vietnamese and Chinese agribusiness companies as economic land concessions. These companies, including the notorious Hoang Anh Gia Lai, have now clear-felled this part of the sanctuary and planted it with first oil palm (which failed) and then fruit crops. Previously, this area held a significant proportion of the world population of White-shouldered ibis numbering several hundred birds. For example, in October 2011, 187 White-shouldered Ibis were counted at roosts in LWS by BirdLife staff.

Activity 4.7 Survey to establish baseline and monitoring White-shouldered Ibis and Giant Ibis at new CPA

Since the FCZ and CPA are within the protected areas they are already subject to the same monitoring protocols as the rest of the protected areas and a baseline already exists. During the reporting period there were three Giant Ibis and one White-shouldered Ibis nested in Kham Phouk.

Surveys and regular patrols were done by the O’Koki CPA committee. No ibises were found in the CPA, but one White-shouldered Ibis nest was found outside the CPA. This nest was monitored, and two chicks were successfully fledged. However, the CPA committee did find seven lesser Adjutant nests (a vulnerable species) inside the CPA of which 6 nests were succeeded fledged one chick and one nest fledged 2 chicks.

Activity 4.8 Searching and monitoring Eld’s deer in SPWS

The Eld’s Deer rapid survey was undertaken in April 2021. On the night of 12 and 13 April there was a thunderstorm and rain lasting several hours. The result being water everywhere in the forest. This immediately rendered our plans for a trapeang (i.e. natural water hole) based survey unworkable since Eld’s deer would have no need to come to drink at trapeangs. Therefore, the usual vehicle base survey was undertaken on 15-17 April. The minimum number of unique individuals recorded was 14. The maximum number counted was 23 [REDACTED] This was the second lowest minimum count and the lowest number of total sightings recorded during the annual survey conducted at SPWS.

A PhD student Rachel Ladd completed her thesis on the Elds deer in Siem Pang Wildlife Sanctuary in 2021. She utilised camera traps and spatial capture-recapture methodology to estimate population size and density for Eld’s deer at SPWS, which she estimated to be 272 individuals. A copy of her thesis is available upon request.

3.2 Progress towards project Outputs

Outputs 1: The IBIS Rice scheme will be expanded to an additional 2,250 rural people (50% women)

Indicator 1.1

90% of participating farmers have gained a minimum 10% income premium on IBIS Rice sales by project end.

In SPWS, 76% of participating farmers gained a 70% premium price on paddy sales to IBIS Rice Conservation Co., Ltd (IRCC) in 2021.

In LWS, 51% of participating farmers gained a 20% premium for IBIS 1 class (wildlife friendly year 1) price on paddy sales to IRCC. The premium in LWS is lower compared to SPWS as it is the first year of farmer conversion to organic farming. Once the organic certification is obtained the premium will increase.

Indicator 1.2

Over 50% of participating farmers have obtained a provincially recognized land certificate by the end of project.

In March 2022, the Department of Land Management in Stung Treng approved the registering of the 200 land certificates belonging to 187 households mapped in 2021 and signed the sub-contract to map another 100 parcels in the first quarter of Year 3. This means that 333 households or 48% of participating households in SPWS have registered their lands at provincial level by the end of Year 2. This means that we have less than 2% to meet 50% by the end of Year 3.

In Year 1 of the project a total of 191 land parcels belonging to 78 households were mapped in/out at LWS. The land mapping committee was established with participation of LWS rangers, village chiefs, commune councils, villager and BirdLife/NatureLife staff. Certificates were provided to 78 households. The purpose of land use mapping is for internal use to register land parcels in the IBIS Rice scheme followed by for official endorsement.

Indicator 1.3

90% of participating farmers have not broken the contract's rules within the project lifetime

In 2021 at SPWS 96% of participating farmers did not break the contract's rules. In 2021 at SPWS 30 of 682 households (4%) had violated the conservation agreement [REDACTED]

In 2021 at LWS, there were no households that had violated the conservation agreement.

Indicator 1.4

90% of participants pass the financial literacy test BEOP

During Year 2 of the project, the trainings were extended to 351 rural people (190 females) in 10 villages surrounding SPWS, of which 63% of the participants passed the test after the training. Training will continue in the 3rd year; we are exploring changes to the evaluation methods to assess financial literacy.

Indicator 1.5

Establish pilot IBIS Rice schemes at two villages at LWS by the end of project

Srepok Thom and Srey Chhrey villages were selected to pilot the IBIS Rice scheme at LWS. The sub-contract to implement the IBIS Rice scheme with SMP was signed and 72 households signed the contracts to implement IBIS Rice (the last update in the 1st year report was 68 households). In year 3, we aim to increase the number of participated farmers in these two villages.

Output 2: Two Community Protected Areas are established/strengthened (one at SPWS and one at LWS)

Indicator 2.1

500 rural people at two villages (one at SPWS and one at LWS) have participated in the design and implementation of CPA management plans BEOP.

At SPWS the project will develop a FCZ instead of a CPA, and this will be completed in the third year of the project, including engaging 500 rural people with the design and implementation of the FCZ.

In LWS, by March 2021, the new committee of O'Koki CPA announced to their CPA members the development of the CPA management plan. The NatureLife team has been drafting a questionnaire on Non-Timber Forest Products to be carried out in three villages of O'Koki CPA in May which will then inform the CPA management plan.

Indicator 2.2

Both CPAs (one in LWS and another one in SPWS) are gazetted by government BEOP

We no longer propose to advance a formal CPA at SPWS for reasons already given but rather pursue an FCZ. We do believe formal gazettelement will be necessary.

The reactivated O'Koki CPA at LWS was already gazetted by the Ministry of Environment.

Indicator 2.3

85% of participating households do not break the CPA rules within the new CPAs within the lifetime of the project

In SPWS, we cannot report against this indicator yet, as the FCZ has not yet been developed.

In line with the CPA by-law, the project supported the O'Koki CPA committee to conduct regular enforcement patrols. Based on the patrol result, the CPA committee encountered some illegal activities such as two cases of land encroachments, three case of illegal fishing and three cases of logging. However, the offenders were from the other villages which are not CPA village members. The cases were reported to the LWS director and rangers for crackdown.

Indicator 2.4

Both CPAs support at least one of the five Critically Endangered bird species and BEOP

In 2021, three Giant Ibis nests and one White-shouldered Ibis were nesting in Kham Phouk sustainable use zone of SPWS. Two Giant Ibis nests successfully fledged two chicks, and another failed. One White-shouldered Ibis nest successfully fledged one chick.

The O'Koki CPA committee at LWS and patrol members regularly conducted patrols, they recorded and joined the White-shouldered Ibis roost finding and roost count, nest searching for both Ibises with field monitoring team of NatureLife. During the CPA patrol, the committee did not record any Ibis in their CPA area but found them outside of the CPA.

Output 3: *By March 2023, seven Village Forums in SPWS are strengthened and two Village Forums in LWS are established.*

Indicator 3.1

Five new Village Forums (3SPWS and 2LWS) reject illegal activities in their respective villages BEOP.

In SPWS, three new established Village Forums signed conservation agreements in September 2021 and January 2022 which committed to reject illegal activities in their villages and respect the protected area law. All members of the ten village forums at SPWS have agreed to reject illegal activities and signed the conservation agreements. Four village forum meetings were conducted to discuss on conservation issue, illegal activities and find solutions.

At LWS, one CPA committee and two Village Marketing Networks which function as Village Forums were established and have agreed to be part of a compliance system to monitor and reject illegal activities committed by their members.

Indicator 3.2

Seven Village Forums raise awareness amongst people from their villages on the importance of SPWS and LWS and the illegality of hunting/snaring BEOP.

At SPWS, the four existing and six newly established village forums raised awareness on the importance of SPWS and the illegality of hunting/snaring through the four quarterly village forum meetings and four stakeholder forum meetings at SPWS.

By the end of year 2, capacity has been strengthened of two existing CPA committees (equivalent to village forums) in LWS. Awareness raising on the importance of wildlife sanctuaries and the illegality activities were conducted at seven villages using broadcast outreach (i.e. loudspeakers) and one physical awareness raising. Each VMN (Sre Chrey and Srepork Thom) got seven trainings from SMP on soil improvement, natural fertilizer, pest management, rice cultivation technique, farm diary, harvest and post-harvest and ICS.

Output 4: *The five Critically Endangered bird species and one mammal species (Elds deer) within SPWS and LWS are regularly monitored and maintained.*

Indicator 4.1

The numbers of nests of White-shouldered Ibis, Giant Ibis and three vulture species remains stable compared to baseline at project start SPWS and LWS, during the project period.

In SPWS, we found 31 nests of White-shouldered ibis made it the most successful year on the record, 17 nests of Giant ibis made the largest number of nests found in a single year, the vulture nest searching in 2022 has not completed yet but we already found 11 nests which showed no discernible trend in population from the number of nests found.

At LWS, the trend of White-shouldered Ibis roost data declined, but the nest numbers monitored are stable for 2021. In 2021, the Giant ibis' nest, out of 11 nests, 8 succeed and produced 11 fledged chicks.

Indicator 4.2

The numbers of vultures recorded at the SPWS vulture restaurant remains stable compared to baseline, during the project period.

At SPWS, the maximum count of the three vulture species at the restaurant in 2021 was 97 and which was the same as the 2019 and 2020 baselines.

Indicator 4.3

The numbers of White-shouldered Ibis recorded at communal roosts at SPWS and LWS remains stable compared to baseline, during the project period.

At SPWS, the numbers at roost counts showed an increase of 41 birds compared to the 2019 baseline.

The count trend at LWS showed a continuous decline. In 2021, the highest count was only 5 birds. We suspect the birds migrate to other sites during the non-breeding season. Understanding the movement of this bird at LWS is a priority.

Indicator 4.4

Giant and White-shouldered Ibis are recorded at both new CPAs.

In 2021 at SPWS, two Giant Ibis and one White-shouldered Ibis nested in Kham Phouk.

At LWS, One White-shouldered Ibis nest was found outside the CPA and monitored by O'Koki CPA committee. They confirmed the Giant ibis presented and join the Giant ibis nest searching, unfortunately the team didn't find the nest just only found two birds.

Indicator 4.5

Eld's deer population at SPWS remains stable compared to baseline at start of the project.

The Eld's Deer rapid survey undertaken in April 2021 counted a minimum of 14 individuals compared with 32 in 2020, 10 in 2019 and 17 in 2018. This was the second lowest minimum count and the lowest number of total sightings recorded during the annual survey conducted at SPWS. During Year 2 a PhD study by Rachel Ladd from the University of Queensland was completed. This study determined a population estimate of 272 Eld's deer at SPWS which makes it the largest known population of the *siamensis* subspecies and accounts for nearly 70% of the Cambodian population.

Indicator 4.6

National and international awareness raised of status of focal species at SPWS and LWS.

In August 2021 BBC News and BBC World broadcast a three-minute feature on vultures at SPWS <https://www.youtube.com/watch?v=RmNrn-2wVCA>.

The paper detailing the Giant Ibis population at SPWS was published in December 2021 in the Cambodian Journal of Natural History [REDACTED]

The status of Giant Ibis and White shouldered ibis in LWS was shared with stakeholders at national level through a stakeholders meeting. NatureLife is working with other NGOs and the Ministry of Environment to establish Cambodia Ibis Working Group with the aim to draw more attention from all key stakeholders on Giant Ibis and White shouldered Ibis and leverage more resources for scale up of conservation actions.

3.3 Progress towards the project Outcome

Outcome: *2,750 rural people achieve improved food security through wildlife friendly practices, and with the support of local authorities, commit to the sustainable use of SPWS and LWS increasing endemic biodiversity.*

Indicator 1

The IBIS Rice scheme will be expanded to an additional 2,250 rural people by March 2023. Comprising 1,000 additional rural people in the four villages at SPWS that are currently participating, 750 rural people at three new villages at SPWS and 500 rural people at two new villages at LWS.

We expanded the IBIS Rice scheme from 1,545 rural people in four villages in 2019 to 3,831 rural people in ten villages an addition of 2,286 by the end of 2021 [REDACTED]. This comprised 1,074 additional rural in the four villages that were already part of the scheme, and 1,212 rural people at six additional villages at SPWS. To date we have met exceeded the target in four original villages and have exceeded the target for the new villages.

At LWS, IBIS Rice was started in 2021, this included 378 people of which 193 were women from 72 households (32 households from Sre Chrey with 165 people including 82 females and 40 households for Srepork Thom with 220 people, including 111 females [REDACTED])

Indicator 2

Across nine villages (7 at SPWS and 2 at LWS) 2,250 rural people (1,750 at SPWS and 500 at LWS) will receive organic certification for their rice production.

In Year 2 at SPWS, 3,766 rural people at nine villages at SPWS received organic certification for their rice production from ECOCERT. The target has therefore been met and exceeded. At Lun village, which joined the scheme in 2021, some members used chemical herbicide to kill grass in their cashew plantations and rice fields which meant they were considered ineligible by ECOCERT to receive organic certification. This village has only 65 participating people.

In year 2 at LWS, 385 people from 72 households (32 from Sre Chrey and 40 from Srepork Thom) were certified as wildlife friendly rice for IBIS 1 (ICS evaluated) and earn the premium price for who sold the rice. To gain the organic certificate and further increase the premium, participating farmers need to continue organic farming for two more years.

Indicator 3

By March 2023, 500 additional rural people (50% women) will have sustained access to ecosystem services from the establishment/strengthening of two CPAs and no longer engage in the illegal activities in SPWS and LWS.

A FCZ will be established in the third year of the project and this indicator will then be reported against.

For LWS, in Years 3 we will report on the benefits due to law enforcement received by CPA members.

Indicator 4

By March 2023, the populations of five Critically Endangered bird species and one Endangered mammal species (Eld's deer) within SPWS and two bird species at LWS will remain stable compared to the project baseline.

In SPWS, breeding data for Giant and White-shouldered Ibis and the three vulture species indicates the populations of all species are stable compared to the baseline. The minimum number of unique individual Eld's deer recorded during the 2021 rapid survey was 14. This was the second lowest minimum count and the lowest number of total sightings recorded during the annual survey conducted at SPWS. However, the results of this survey should not be taken as an indicator of either the population size or trend. The results of the PhD study indicate a population of 270 individuals (95% CI: 169-435) or 70% of the Cambodian total, indicating that the population is far larger than previously thought.

For LWS, the White-shouldered Ibis census of counts/roosting declined, only five birds counted in 2021 census period. However, if we compare the number of nests found the number is still stable in 2021 (10 nests) compared to 2020 (10 nests). This maybe because the birds may have moved or migrated to other landscapes, this can't be verified. For the Giant Ibis, the census/roosting counts was not done but the numbers of nest found showed an increase.

Indicator 5

Forest cover inside SPWS and LWS does not decline by more than 2% over the lifetime of the project.

The forest cover change at SPWS for 2021 will be reported in the first half year report of Year 3.

In LWS, according to the baseline land use/cover change assessment between 2018-2020, forest cover declined 9,118 ha equal to 3.65%. The deforestation and degradation have been focused on the east part and along Srepok River. Forest cover change for 2021 will be reported in Year 3.

3.4 Monitoring of assumptions

Outcome level assumptions

Assumption 1: *Government support and socio-economic conditions nationally remain favourable to implementation.*

Comments: The Royal Government of Cambodia, through the Ministry of Environment and other agencies, has been supportive of project implementation during Year 2. Weak management and corruption amongst DoE staff at SPWS continue to be an issue hindering effective enforcement. Since 2016, when Rising Phoenix Co. Ltd assumed responsibility for supporting enforcement at SPWS, the company has invested in infrastructure, for example there are now three ranger stations, a protected area wide radio communications system, standard operating procedures have been strengthened, a scout force was trained and deployed to support the enforcement team. Siem Pang PATROL (Partnership Against Transnational-crime through Regional Organized Law-enforcement) which provides a government sanctioned forum for all law enforcement agencies within the district was established in 2021 with the support of the ministries of Interior and Environment and the Stung Treng provincial authority. This included the establishment of a PATROL coordination centre, and 15 Army and 15 Border Police were trained to form a new Tiger Unit to provide support to the DoE rangers in implementing effective law enforcement of SPWS. These outcomes show that government support has increased in Year 2.

The Ministry of Environment and central government support for LWS exists. However, pressures for land conversion due to migration into the site from outside continue due to strong local community actors promoting land encroachment. The Ministry of Environment has shown support in addressing these local level actions by providing NatureLife endorsement and encouragement to setup and implement a REDD+ project, which would bring finances and management needed to ensure the long-term conservation of LWS.

Assumption 2: *Rate of community compliance with conservation agreements remain high.*

Comments: In 2021 for SPWS, 30 of 682 households, or 4% broke the terms of the conservation agreement. The rate of community compliance therefore remains very high at 96%. The number of violations has increased in proportion to the increased membership of the scheme especially in relation to land encroachment from three villages located in the southern boundary of SPWS. In December 2021, Stung Treng DoE demarcated 32 boundary poles along the southern boundary of SPWS to stop encroachment by those villagers. In LWS, the members of the O'Koki CPA have complied with the conservation agreement and bylaws.

Assumption 3: *Community compliance with conservation agreements reduces rate of habitat degradation.*

Comments: In SPWS encroachment hotspots are around Khes Svay and Kam Phouk villages [REDACTED]. We addressed this in part by supporting the demarcation of 33 Km of the southern boundary of SPWS and this was completed in December 2021 and we hope this will reduce encroachment which is a greater problem than degradation. In LWS, less encroachment around the CPA exists, however hotspots do exist in the east of Srephok river where NatureLife is not active.

Assumption 4: *Land speculation outside the protected areas does not force villagers to clear land inside the protected areas.*

Comments: In SPWS, there has been land grabbing and fencing at Khes Svay, Khes Kraom and Pong Kriel villages and a few poorer households have grabbed land within the Sustainable-use Zone. We fear this is a growing trend. Stung Treng provincial authority announced in the March 2022 to reclaim all illegally cleared land and to prosecute offenders. A similar situation exists in LWS, where land encroachment east of the Srephok river suggests that this assumption is incorrect. Land encroachment is being monitored and engagement of communities through Village Forums and CPAs is being strengthened to try to mitigate this.

Assumption 5: *Rates of inward migration to villages around the protected areas remains low.*

Comments: No new inward migration to the villages around SPWS was recorded during Year 2. In LWS inward migration exists for the active plantations of the Economic Land Concession

(ELC) which is the northern and eastern part of LWS. As ELC development continues through forest clearance, inward migration may increase.

Assumption 6: Rainfall patterns remain stable and there are no prolonged dry seasons caused by El Nino events.

Comments: The rainfall pattern in 2021 was slightly variable and lower than average rainfall in July causing some rice seedlings in the nurseries to die and resulting in slower growth following transplanting. As a result, farmers had a reduced harvest in 2021 compared to 2020. In the first quarter of 2022 there was considerable unseasonal rainfall, especially in March suggesting a *La Nina* event.

Assumption 7: The premiums paid by IBIS Rice continue to make it profitable for villagers to participate in the scheme.

Comments: In SPWS, previously IBIS Rice committed to a 10% premium price to farmers prior to organic certification. It was increased to 51% in 2020 and to 70% in 2021. In LWS, 10-20% premium is being obtained as it is prior to organic certification. These increasing premiums are considered generous and profitable for villagers to remain in the scheme.

Output level assumptions

Output 1:

Assumption 1.1: Villagers voluntarily report infringements.

Comment: The IBIS Rice Village Marketing Network (VMN) supported project staff to conduct inspection on illegal activities among their members and nine compliance village meetings were conducted with support of VMN in Khes Svay, Khes Kraom, and Pong Kriel villages to identify the non-compliant members from 69 suspected violations. As a result, villagers voluntarily reported that 30 of 682 households (4%) had violated the rules in 2021 and accordingly offending households were suspended from the project for two years. No infringements reported in LWS, ground visits suggest this is accurate.

Assumption 1.2: Community compliance with conservation agreements reduces rate of habitat degradation.

Comment: Encroachment resulting in forest destruction rather than degradation is a greater threat. The forest cover loss at SPWS in Year 2 will be evident when we complete the report in Year 3 since we did not produce a forest change report in Year 2. In LWS, based on monthly ranger reports the number of encroachment events in the CPA is lower than the areas outside the CPA and will be verified by the forest cover change report in Year 3.

Assumption 1.3: Communities remain engaged in organic, wildlife-friendly rice certification scheme for the duration of the project.

Comment: Overall the number of households participating in the scheme has steadily increased, which means continued and increased commitment.

Assumption 1.4: A close partnership is created with SMP and IBIS Rice Conservation Company (IRCC) who commit to continue purchasing the IBIS Rice produced in the villages even after the project ends.

Comment: In 2021, SMP in collaboration with IRCC purchased 397 tonnes of paddy from ten villages at SPWS (one village did not receive organic certification but still sold their rice to the programme at a lower premium). There is no reason to doubt the commitment of SMP or IRCC and Siem Pang has become the second largest producing area in Cambodia for IRCC. SMP are seeking funding from the USAID Morodok Baitang project to cover costs for five years (2022-2026) at SPWS and Rising Phoenix are discussing with SMP and IRCC future collaboration to expand the scheme and scale up production in Siem Pang including integrating climate change adaptation measures, agricultural innovation, and making the shift towards sustainability. In LWS, the collaboration between SMP, IRCC and NatureLife has led to an increase in number of IBIS Rice villages and access to funding through USAID Morodok Baitang would allow extension of this collaboration after the project ends.

Output 2:

Assumption 2.1: Villagers understand what a sustainable use zone means in the context of protected area management.

Comment: Above we have reported encroachment into SPWS from Khes Svay, Khes Kraom, and Pong Kriel villages into the sustainable -use zone which indicates they do not understand the meaning of the zone or choose to ignore the law. The formal awareness raising meetings on boundary and zoning demarcation were held September 2021 to improve the situation. A similar situation as SPWS exists in LWS.

Assumption 2.2: *Villagers wish to become engaged in CPA development and management.*

Comment: In SPWS, Village chief and Village Forums members in Kham Phouk were very supportive to establish an FCZ. They chose to restore water sources for aquaculture and water storage capacity for their village in Year 1. The challenge of COVID-19 in 2021 delayed the formal establishment and policing the no-fish take FCZ along the O'Khampa River during the reporting period. In LWS, the progress of the reactivated O'Koki CPA and its activities reflect villagers' interest in CPA development and management.

Assumption 2.3: *Villagers will abide by the protected area zonation plan.*

Comment: Although villagers were consulted in the development of the zonation plan and were involved in protected area boundary demarcation the concept of a protected area is new to most of them and the zonation plan adds a layer of further conceptual complexity. Further awareness raising meetings and engagement in the Village Forums and CPA will improve the situation.

Assumption 2.4: *Villagers will abide by the rules of the CPA that they establish and not log within the protected areas.*

Comment: In SPWS, 30 out of 682 households broke the rule in 2021, while 96% followed the rules. The 30 households have been excluded from the project for a period of two years. In LWS, logging inside the CPA is lower than outside the CPA.

Output 3:

Assumption 3.1: *Local authorities perceive the value of the project and start preventing poachers and middlemen from conducting illegal activities in their villages.*

Comment: In SPWS and LWS, patrolling presents the best opportunity to address this issue, from year 2 when patrols in SPWS commenced. We expect to see evidence of local authority support in prosecuting middlemen in Year 3.

Assumption 3.2: *Local communities and local authorities continue to be interested in engaging and contributing to these forums.*

Comment: In SPWS, participation in forums by villagers and officials remained high with from 25 to 35 participants attending each meeting. In LWS, the local authorities and Law enforcement team have met and supported CPA committees through addressing their concerns on forest management and forest patrols.

Assumption 3.3: *Close relationship with Government at District and Provincial level ensures a reduction in encroachment from the Army and private companies.*

Comment: During this report in SPWS, there was evidence of pressure from a company named Siemon (Cambodia) Agriculture Comprehensive Development Co, Ltd. In March 2022, the PATROL team arrested three trucks of timber belonging to this company near the southern boundary of SPWS. Siem Pang PATROL programme was essential at resolving this issue between the wildlife sanctuary and company. This incident was addressed again in at the quarterly stakeholder forum meeting in March 2022. Addressing this incident provides an illustration of our close relationship with government at district and provincial level.

Output 4:

Assumption 4.1: *That nesting success, roost counts and restaurant counts reflect overall species trends.*

Comment: Nesting success as an indicator of population trend is difficult to evaluate. For example, since monitoring began in 2013, we have monitored the fledging of 97 Giant Ibis young [REDACTED]. However, two population estimates six years apart estimated 25 and 26 pairs. What becomes of the young annually? We do not yet know the juvenile survival rate or the recruitment rate into the breeding population.

Assumption 4.2: That there is no destruction of nest and roost trees.

Comment: During the reporting period there were no reported cases of nest and roost tree destruction at SPWS. In LWS, there was one recorded nest disturbance.

Assumption 4.3: That there is no poisoning of vultures.

Comment: There was no reported case of vulture poisoning during the reporting period.

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

In Year 2 of the project, we saw a positive impact on the species monitored at SPWS compared to the baseline. For example, 2021 saw the greatest number of white-shouldered ibis nests found and young fledged, in addition to the largest number of giant ibis nests found in a year. The annual census of White-shouldered ibis roost counting in 2021 increased over the baseline and the vulture count at restaurant remained stable compared to the baseline.

The IBIS Rice scheme provides the opportunity for households to significantly increase household income through growing and selling a premium organic jasmine rice. In 2021, at the ten participating villages at SPWS 517 households sold their paddy to IBIS Rice at a 70% premium price and received US\$ 170,976.00 as cash income or US\$ 331 per household. This is income that would have not been otherwise earned and is a quantifiable impact on poverty reduction. In LWS, two participating villages with 37 households sold 34 tonnes of rice at 20% premium to IBIS Rice, resulting in a 51% increase in income. There was also an increase in Giant Ibis nest numbers and stable white shouldered Ibis nests.

4. Project support to the Conventions, Treaties or Agreements

The project supports CBD Aichi biodiversity targets 12 and 14. A meaningful contribution will be made towards target 12 as both project sites support the protection of globally significant populations of five Critically Endangered bird species and mammal species that are found at SPWS and LWS and are now at high risk of extinction. The five Critically Endangered birds' species our work will support are: Giant Ibis *Thaumatibis gigantea*, White-shouldered Ibis *Pseudibis davisoni*, White-rumped Vultures *Gyps bengalensis*, Slender-billed Vultures *Gyps tenuirostris*, and Red-headed Vultures *Sarcogyps calvus*. The Critically Endangered and Endangered mammal species our work will address are Sunda pangolin *Manis javanica*, Germain's langur *Trachypithecus germaini*, Red-shanked douc *Pygathrix nemaeus*, Northern yellow-cheeked crested gibbon *Nomascus annamensis*, Dhole *Cuon alpinus*, Large-spotted civet *Viverra megaspila*, Asian elephant *Elephas maximus*, Eld's deer *Rucervus eldii* and Banteng *Bos javanicus*.

The project contributes to CBD Aichi target 14 by safeguarding the access of poor and vulnerable rural communities to essential ecosystem services. This project aims to support 2,250 rural people through its interventions, which is a third of the total population of the nine target villages, seven in SPWS and two in LWS. Lessons learned will be shared at the national level with the Government and other NGOs for potential replication in other provinces.

5. Project support to poverty reduction

The IBIS Rice scheme provides the opportunity for households to significantly increase household income through growing and selling a premium organic jasmine rice. In 2021, at the ten participating villages at SPWS (four existing villages and six new villages) 517 households sold their IBIS Rice at a 70% premium price and received US\$170,976 as cash income or US\$331 per household. This is income that would have not been otherwise earned. During Year 2, the project helped secure the customary land-use rights by mapping a total of 217 land parcels belonging to 200 households in ten villages around SPWS bringing it to a total of 381 land parcels and 346 households to date. For LWS, two villages practiced the IBIS Rice scheme, 72 household joined as the member and 37 households sold their rice to middleman with added price 0.05 \$ per Kg from SMP. 20% premium price and received an additional US\$ 11,250 as the cash income or US\$304 per households for the IBIS Rice year 1.

6. Consideration of gender equality issues

When working with local communities, we build relationships at the family level. In this project both men and women continue to be engaged in project activities. A database of IBIS Rice participants in trainings, meetings and site visits is maintained and allows the team to track participation based on gender in all activities. IBIS Rice agricultural trainings, the financial literacy training, Village and Stakeholder Forum meetings, IBIS Rice promoting meetings, SPWS boundary awareness meetings helped women better understand both livelihoods management and conservation involvement. A total 49 meetings and trainings activities in the 10 target villages directly involved 1489 people (40% or 603 females) and the total IBIS Rice member of 3831 people involved 1903 females (50%) benefited from IBIS Rice scheme [REDACTED]. The same level of participation is found at LWS with 195 females (50%) out of a total of 385 people in the programme.

7. Monitoring and evaluation

Monitoring and evaluation framework

We have created the monitoring and evaluation (M&E) framework for this new Darwin project, and we have updated this framework to take account of the logical framework of this project.

Biodiversity monitoring

Biodiversity indicators focus on the combination of key habitat features notably forest cover and species monitoring using remote sensing and ground patrols. The project Biodiversity Monitoring Unit are responsible for the monitoring of the five Critically Endangered bird species occurring at the site; White-rumped Vulture, Slender-billed Vulture, Red-headed Vulture, Giant Ibis and White-shouldered Ibis, and Eld's deer. Monitoring of these species was conducted throughout Year 2 and will be continued during Year 3, with the three vulture species counted at the four vulture restaurants provided each month, and Giant and White-shouldered Ibis are monitored at their roosting and nesting sites.

Monitoring conservation agreement compliance

During Year 2, the project measured and registered rice fields in ten villages. The project Data Management Officer is responsible for monitoring rice field expansion and checking reports of law enforcement (SMART) to find the rule breakers among the IBIS Rice members. An annual report of "Forest cover changes at SPWS" has been conducted since 2016 while a 2018-2020 forest cover change analysis for LWS has been completed. These will provide a baseline for monitoring of future changes in forest cover.

The Data Management Officer will use the existing compliance database to monitor the participants' respect of the rules. This compliance system crosschecks information provided by staff on the ground, biodiversity reports, and law enforcement reports (SMART), to create twice a year a list of rule breakers.

Poverty reduction monitoring

Poverty reduction is monitored through the IBIS Rice sales data, which highlights how much additional income is made by each participating household. In addition to data collection on how many participants pass the financial literacy training. We have created the monitoring and evaluation (M&E) framework for this new Darwin project, and we have updated this framework to take account of the logical framework of this project [REDACTED]

8. Lessons learnt

In 2021 at SPWS, 76% of IBIS Rice farmers sold their paddy to IBIS Rice. The farmers who did not sell their rice was because they did not have any surplus rice to participate in the scheme, instead their rice was used for home consumption. We have discussed this with SMP and IBIS Rice Company and we agreed that in Year 3 we will focus on improving the rice productivity in the current villages rather than expanding to new villages. We aim to get 90% of IBIS Rice members to sell their paddy to IBIS Rice.

In 2021 at LWS, 51% of IBIS Rice famers sold their paddy to IBIS Rice [REDACTED] This rate is low because farmers sold only their surplus rice and the kept the rest for their home consumption for the year. In addition, rice yield was affected by droughts at the early part of the season and then floods in the middle of the season. COVID-19 also limited the number of in-person trainings the farmers could get from the SMP technical supporter . This reduced the number of participants and events that could be conducted. An additional issue was that SMP had only one staff to cover an area of five villages.

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

There was one point raised from the previous reviews to act. It was “It would be helpful in future for figures and maps included in the reports to have legends in English.” We have changed the legends in English in all figures.

10. Other comments on progress not covered elsewhere

N/A

11. Sustainability and legacy

During 2021 BirdLife contacted LTSI to seek their advice with regards to the continued management of this project taking account the BirdLife transition plan. LTSI indicated that it would be acceptable for BirdLife to remain the grant holder for this Darwin Initiative project and to subcontract Rising Phoenix and NatureLife Cambodia.

The Darwin project is part of a much larger and wider intervention at SPWS by Rising Phoenix. Rising Phoenix is negotiating an agreement with the Government of Cambodia that would see management responsibility for the site under a private public partnership for 30 years.

NatureLife Cambodia is now recognised as the BirdLife partner in Cambodia. BirdLife will continue to work closely with Rising Phoenix and NatureLife Cambodia beyond the lifetime of this project as part of its long-term commitment to protecting key ecosystems and biodiversity of Cambodia. Both sites are currently in discussion with USAID Morodok Baitang to expand IBIS Rice and improve access to markets over 2022-2026.

12. Darwin identity

Darwin Initiative support has been acknowledged (using the Darwin logo) at workshops, meetings, and signboards held by the project, which has been profiled as a distinct project. This has raised the profile of the Darwin Initiative within government departments in Cambodia, as well as the project partner organisations and other stakeholders.

13. Impact of COVID-19 on project delivery

Due to government imposed COVID-19 restrictions, meetings and gatherings were restricted from March until November 2021. This situation resulted in delayed the CBO’s establishment activity in Kham Phouk village for Fisheries Conservation Zone (FCZ). Therefore, the Year 3 work plan will be adjusted accordingly. The restrictions also included holding a limited number of awareness raising meetings in villages, the financial management literacy training was late, and the external audit of organic certification ECOCERT was late. However, as will be clear from the content of the report good progress has still been made on the project to date.

14. Safeguarding

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

If you have ticked the box, please ensure these are reported to ODA.safeguarding@defra.gov.uk as indicated in the T&Cs.

Rising Phoenix and NatureLife Cambodia believes that everyone we come into contact with, regardless of age, gender identity, disability, sexual orientation or ethnic origin has the right to

be protected from all forms of harm, abuse, neglect and exploitation. Rising Phoenix will not tolerate abuse and exploitation by staff or associated personnel, or by our Partners or other organisations with whom we work. Rising Phoenix and NatureLife Cambodia commits to addressing safeguarding throughout its work, through the three pillars of prevention, reporting and response.

We have a safeguarding policy, which includes a statement of our commitment to safeguarding and a zero-tolerance statement on bullying, harassment and sexual exploitation and abuse

During the reporting period, Rising Phoenix conducted four village forums meetings and four stakeholder forums meetings while NatureLife conducted two village meetings in which we provided opportunities for the communities and project stakeholders to discuss any grievances from their communities. No grievance was reported during the reporting period.

15. Project expenditure

Table 1: Project expenditure during the reporting period (1 April 2021 – 31 March 2022)

Project spend (indicative) since last Annual Report	2021/22 Grant (£)	2021/22 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)				
Monitoring & Evaluation (M&E)				
Others (see below)				
TOTAL				

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

Breeding season	Nests found	Successful nests	Total adults	No. chicks fledged	Total individuals
2013	2	1	4	1	5
2014	4	3	8	4	12
2015	11	6	22	6	28
2016	9	9	18	16	34
2017	15	13	30	19	49
2018	16	12	32	16	48
2019	11	7	22	11	33
2020	10	7	20	10	30
2021	17	11	34	14	48
Total	95	69	190	97	287

Table S4: Giant Ibis nest success in Siem Pang Wildlife Sanctuary 2013-2021.

Checklist for submission

	Check
Different reporting templates have different questions, and it is important you use the correct one. Have you checked you have used the correct template (checking fund, type of report (i.e. Annual or Final), and year) and deleted the blue guidance text before submission?	✓
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	✓
Is your report more than 10MB? If so, please discuss with Darwin-Projects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line.	
Have you included means of verification? You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	✓
Do you have hard copies of material you need to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number. However, we would expect that most material will now be electronic.	
Have you involved your partners in preparation of the report and named the main contributors	✓
Have you completed the Project Expenditure table fully?	✓
Do not include claim forms or other communications with this report.	