

Biodiversity Challenge Funds Projects Darwin Initiative, Illegal Wildlife Trade Challenge Fund, and Darwin Plus

Half Year Report

It is expected that this report will be a maximum of 2-3 pages in length.

If there is any confidential information within the report that you do not wish to be shared on our website, please ensure you clearly highlight this.

Submission Deadline: 31st October 2024

Please note all projects that were active before 1 October 2024 are required to complete a Half Year Report.

Submit to: <u>BCF-Reports@niras.com</u> including your project ref in the subject line.

Project reference	30-021		
Project title	Increasing climate resilience for communities and wildlife in Siem-Pang, Cambodia		
Country(ies)/territory(ies)	Cambodia		
Lead Organisation	Rising Phoenix Co. Ltd.		
Partner(s)	 Village forums Producer Groups of IBIS Rice scheme Department of Primary Industries, New South Wales, Australia Siem Pang District Governor's Office Tetra Tech – USAID Morodok Baitang IBIS Rice Conservation Co. Ltd. Sansom Mlup Prey 		
Project leader	Jonathan C. Eames		
Report date and number (e.g. HYR1)	01 April 2024 – 30 September 2024 HYR2		
media	IN/A		

1. Outline progress over the last 6 months (April – September) against the agreed project implementation timetable (if your project started less than 6 months ago, please report on the period since start up to end of September).

Although we are not looking for specific reporting against your indicators, please use this opportunity to consider the appropriateness of your M&E systems (are your indicators still relevant, can you report against any Standard Indicators, do your assumptions still hold true?). The guidance can be found on the resources page of the relevant fund website.

Output 1: 55 Climate change resilient community irrigation ponds established at three villages around SPWS leading to a reliable water supply for rice cultivation for 1,375 rural people (50% female)

1.1.1 Meetings with key stakeholders from host villages to develop and agree irrigation pond excavation, safety and maintenance protocols and agreements. First protocol developed with Khampourk village within 3 months of project start date. Similar protocols developed and signed at start of year 2 and year 3 for remaining villages (one village per year).

As requested by the deputy provincial governor of Stung Treng province, the chairman of the stakeholder forum meeting, in May 2023, (minute in Annex 1) we decided to dig 30 irrigation ponds in Year 2, ten in each of the villages of Khes Svay, Khes Kraom and Pong Kriel which surround the Siem Pang Wildlife Sanctuary.

Between 1-8 February 2024, the community engagement team, led by Soeurn Mey, conducted meetings to discuss and validate the protocol for irrigation ponds, select new locations for digging and planning for 30 new ponds with village chiefs, and villagers in the three villages with a total 22 participants (2 women). As the result the irrigation ponds protocol were finalized (Annex 2), 30 locations were selected, ten in each village.

1.1.2 Protocols and agreements relating to irrigation ponds signed by key stakeholders from host villages

The community irrigation pond agreement were signed in April 2024 by representatives from 101 households and witnessed by the relevant village chiefs (Annex 3&4).

1.2.1 275 rural people from host villages trained in pond safety and maintenance on completion of each irrigation pond

On 27 May 2024 we conducted an inauguration ceremony for the new irrigation ponds in Khes Kraom village with 94 households represented (23 women) representing 470 rural people. At the ceremony we trained participants on the principles of safety and maintenance of the irrigation ponds (Annex 5).

1.2.2 Pre and post training assessments for 275 participating rural people on irrigation pond safety and maintenance

We conducted the assessment of the training during the inauguration ceremony in Khes Kraom village (Annex 5) – before training, 30-40% knew the principles of the safety and maintenance for the ponds, after the training, 100% understood the principles.

1.3.2 Expansion of pilot irrigation ponds (years 2 and 3) in Khes Svey village (20 ponds) and Khes Kraom village (25 ponds)

In March and April, we dug 30 irrigation ponds in three villages including Khes Svay, Khes Kraom and Pong Kriel, 10 in each village (Annex 6), benefiting 101 households (Annex 7) representing 505 rural people. The remaining 15 irrigation ponds to be dug in 2025.

1.4 Monitoring framework established and implemented with key stakeholders: pond use, pond maintenance, water levels, water quality, rainfall, rice production, cover crops, income in participating/non-participating households.

On 12 July 2024, the community engagement team led by Soeurn Mey monitored the irrigation ponds in Kham Phouk villages by interviewing the farmers and by direct observation. He established a monitoring table to record all the data from the monitoring including pond use, maintenance, water level, water quality, rainfall, rice production, cover crop, and income of participating households (Annex 8 and 9).

1.5 Monthly Community Development Unit (CDU) Reports include progress updates and details of water retention, quality and use.

In July 2024, we monitored the irrigation ponds in Kham Phouk village and reported in our July 2024 report (Annex 10). In late October 2024, we monitored the 30 irrigation ponds in Khes Svay, Khes Kraom and Pong Kriel villages and the progress will be reported in our internal October report.

OUTPUT 2. 20 forest trapeangs restored within SPWS, improving climate resilience and access to water and food for 2,000 rural people (20 trapeangs x20 households each household x5 people =2,000) their livestock, Eld's Deer, and the Giant and Whiteshouldered ibis.

2.3 Trapeang monitoring framework (for both restored and unrestored trapeangs) established (including photographs of trapeangs) and operating within 3 months from project start.

This was reported in the Year 2 annual report.

2.4 5 Biodiversity Monitoring Unit (BMU) staff trained in trapeang camera trap data collection and collation.

Six staff were trained during Dr. Meek's visits in November 2023 and April 2024. Training included best practice in camera trap surveys, data collection and data analysis.

2.5 Continuous trapeang monitoring, including camera traps, capture changes in water level, and use by Eld's Deer, two Endangered ibis species, and people at restored and unrestored trapeangs (controls).

Survey was discontinued for the 2023-2024 dry season.

2.6 Monthly trapeang and biodiversity reports

The Biodiversity Monitoring Unit produced a monthly report on its activities over the reporting period (Annex 11).

OUTPUT 3. Endangered Eld's deer population at SPWS is maintained/or increases BEOP, compared to population baseline at start of project.

3.1 Develop camera trap monitoring protocol and camera trap survey manual for use by field staff

The protocol for long-term Eld's deer camera trap monitoring was designed and implemented in November 2023. Six Biodiversity Monitoring Unit staff were trained in best practice.

3.2 Establish long-term Eld's deer camera trap monitoring BEO Yr1 at SPWS (designed by Paul Meek at start of the project based on Rachel Ladd's PhD research)

Paul Meek visited SPWS from 13-26 November 2023 and again from 3-12 April 2024. A protocol for the monitoring of Eld's deer in the sanctuary was designed and implemented with Rising Phoenix's team.

54 Reconyx Professional HyperFire 2 White Flash cameras were placed in the field in a grid pattern. Camera traps were serviced every 4-6 weeks and retrieved at the end of the survey in June 2024. Only one camera malfunctioned after the last maintenance, likely because it was not turned on, and as such yielded no pictures after 13 April 2024. Some cameras were damaged by grass fire in February and March which may have impaired their detection capacities and damaged the Fresnel lens or camera lens. When necessary and possible, damaged cameras were repaired.

Т

he 54 camera-traps were active for a combined 10,956 trapping nights. A total of 349,392 images were retrieved, which were reviewed using an artificial intelligence model (MegaDetector) to identify animals, people, and vehicles in the images before proceeding to the manual identification of species flagged using Timelapse Image Analyzer software. A basic summary titled "Report on Camera Trapping - 2024 ED survey" is attached to this report (Annex 12).

3.3 Journal paper submitted on Eld's deer population BEO yr1

A manuscript entitled "Deriving a population estimate for Eld's deer *Rucervus Eldii siamensis* in Siem Pang Wildlife Sanctuary, Cambodia" was submitted to Wildlife Research and underwent a peer-review process. We received comments from the reviewers on 23 February 2024 and the manuscript is currently under revision (Ladd *et al.*).

Output 4: Numbers of Critically Endangered Giant Ibis remain stable and Whiteshouldered Ibis population increases 10% above the baseline at SPWS BEOP

4.1 Giant Ibis nests located and monitored at SPWS throughout the project's lifetime.

As of the end of September 2024 we were monitoring ten Giant Ibis nests and continued to search for more nests as young are usually fledging by November. To date two nests failed. Results as of now are below what was observed in the past three years, but in line with results of 2019 and 2020 breeding season (Table 1).

Table 1: Number of Giant Ibis nests monitored during breeding season and number of young fledged for the period 2019-2024.

	Nests	Failed	Succeeded	Young fledged
2019	11	4	7	11
2020	10	3	7	10
2021	17	6	11	14
2022	16	5	11	18
2023	17	7	10	16
2024 (to data)	10	2	8	12
2024 (lo uale)	IU	(to date)	(to date)	(not fledged yet)

4.3 White-shouldered Ibis nests located, and monitored in SPWS throughout the project's lifetime.

White-shouldered Ibis nest monitoring was completed in April 2024. A total of 41 nests were monitored in the 2023-2024 breeding, this represents the highest count since monitoring started in December 2012. This year, 31 nests successfully fledged 62 young and 10 nests failed. The nest success for this season is 75.6 %, with an average of two young fledging per successful nest. 24.4 % of the nests failed. (In 2023 we found 32 nests, of which 27 were successful and fledged 51 young while 5 failed)

4.4 Monthly Biodiversity Monitoring Reports produced and key data shared at Stakeholder Forums and the Cambodia Ibis Working Group

Six monthly biodiversity reports were produced over the reporting period (April-September 2024), and one stakeholder forum was held on 31 May 2024 where key data were shared with district level stakeholders. Romain Legrand and Samnang Eang assisted and shared data at Cambodia Ibis Working Group meetings on 26 April and 20 August 2024. Next CIWG meeting will be in December 2024.

2. Give details of any notable problems or unexpected developments/lessons learnt that the project has encountered over the last 6 months. Explain what impact these could have on the project and whether the changes will affect the budget and timetable of project activities.

The project manager is Mr. Mak Sopheap, who is the Head of the Community Development Unit at Rising Phoenix. In the project document we listed James Lyon as Operations Manager but he has since left Cambodia and no longer works on this project. We have recruited Mr. Phan Bunthi as Head of finance and administration at Rising Phoenix, he is responsible for financial reporting for this project. Kem Dyla is the designated finance officer working under Phan Bunthi. Jonathan C Eames remains project leader.

3. Have any of these issues been discussed with NIRAS and if so, have changes been made to the original agreement?

Discussed with NIRAS:	Yes/ No
Formal Change Request submitted:	Yes/ No
Received confirmation of change acceptance:	Yes/ No

Change Request reference if known: If you submitted a financial Change Request, you can find the reference in the email from NIRAS confirming the outcome

4a. Please confirm your actual spend in this financial year to date (i.e. from 1 April 2024 – 30 September 2024)

Actual spend:

4b. Do you currently expect to have any significant (e.g. more than £5,000) underspend in your budget for this financial year (ending 31 March 2025)?

Yes 🗌 No 🖂

4c. If you expect and underspend, then you should consider your project budget needs carefully. Please remember that any funds agreed for this financial year are only available to the project in this financial year.

If you anticipate a significant underspend because of justifiable changes within the project, please submit a re-budget Change Request as soon as possible. There is no guarantee that Defra will agree a re-budget so please ensure you have enough time to make appropriate changes to your project if necessary. Please DO NOT send these in the same email as your report.

NB: if you expect an underspend, do not claim anything more than you expect to spend this financial year.

5. Are there any other issues you wish to raise relating to the project or to BCF management, monitoring, or financial procedures?

No

6. Please use this section to respond to any feedback provided when your project was confirmed, or from your most recent annual report. If your project was subject to an Overseas Security and Justice Assistance assessment please use this space to comment on any changes to international human rights risks, and to address any additional mitigations outlined in your offer letters. Please provide the comment and then your response. If you have already provided a response, please confirm when.

1. The project has decided to discontinue monitoring the Trapeang using camera traps starting in year two. Please provide an explanation of how this decision may impact the projects' anticipated Outputs and Outcome, and provide an alternative plan if required. A change request may be required.

Continuation of the trapeang camera trap array was proven scientifically to be ineffective at detecting wildlife visitation and change in water level and to continue would have been a waste of resources (Legrand *et al.* 2024). The project team did investigate the use of 360-degree cameras installed in the middle of the trapeangs however the cost and servicing was too high

and unaffordable to undertake. We have proposed testing three alternative methods:

1. Monthly aerial photography using a drone to capture the water volume across trapeangs as a measure of water resource enhancement between restored trapeangs and untreated trapeangs.

2. Photo point establishment using camera traps across the trapeangs set on timelapse to measure daily variation in water levels and volume.

3. Testing of a new camera trap methodology designed for quantifying Brushtailed Rock Wallabies in Australia and adapted for Eld's deer.

Two of the proposed methods will provide data on water retention and habitat changes over time. The third measure should provide data on wildlife visitation and population estimates for the landscape surrounding each trapeang. It is anticipated that these estimates can be used to quantify changes in occupancy at each trapeang in relation to water level changes. Caveat: this method has never been attempted and as such only one trapeang will initially be surveyed to test the robustness of the REM model.

2. The monitoring framework for assessing the performance of the irrigation ponds has not been developed (it is scheduled for year 1). It is crucial to prioritise its development and consider including an assessment of changes in the socio-economic status and/ or rice production of the community using the ponds.

We have developed a monitoring framework and this has been implemented since July 2024. This is reported upon in our monthly internal reports. We will modify this so we can measure changes in rice production and household income.

Checklist for submission

For New Projects (i.e. starting after 1 st April 2024)	
Have you responded to any additional feedback (other than caveats) received in the letter you received to say your application was successful which requested response at HYR (including safeguarding points)? You should respond in section 6, annexes other requested materials as appropriate.	
If not already submitted, have you attached your risk register ?	
For Existing Projects (i.e. started before 1 st April 2024)	
Have you responded to feedback from your latest Annual Report Review? You should respond in section 6, annexes other requested materials as appropriate.	Yes
For All Projects	·
Include your project reference in the subject line of submission email.	Yes
Submit to BCFs-Report@niras.com.	Yes
Have you clearly highlighted any confidential information within the report that you do not wish to be shared on our website?	Yes
Have you reported against the most up to date information for your project?	Yes
Please ensure claim forms and other communications for your project are not included with this report.	