

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

Note: 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 2023

Project reference	DARNV008
Project title	Sound Of Safety: Testing Pingers for River Dolphins and Fishers
Country(ies)/territory(ies)	India, Pakistan
Lead partner	WWF UK
Partner(s)	WWF India, WWF Pakistan
Project leader	Leanne Quille
Report date and number (e.g. HYR1)	31 October 2013 HYR2
Project website/blog/social media	https://www.wwf.org.uk/what-we-do/projects/sound-of-safety https://www.wwfindia.org/news_facts/feature_stories/pinging_tr ue/

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

Activity 1.1 IN: 966 local riparian people (512 males, 208 females, 247 kids) from 77 villages in 6 districts were reached through 100 conservation awareness meetings organised during Apr-Sep 23.

Activity 1.5 IN: A group of volunteers called Prokriti Bondhu (Friends of Environment) is being developed in West Bengal to monitor and report dolphin occurrence, habitat, threats, mortality, and stranding. 3 training workshops on citizen science-based dolphin monitoring tools in Sitahati, Kalyanpur and Uddharanpur villages of Purba Bardhaman district have been organized; 172 local riparian people (28 females) trained with 99 persons (83 males; 16 females) registering as *Prokriti Bondhu*.

Activity 1.6 PK: >200 Bhulan Dosts including 76 women and 156 men (friends of the Indus dolphin) engaged in gathering Indus River Dolphin (IRD) sighting data through visual observation and recording the distance of IRDs surfacing from the pinger nets on data recording sheets. The field teams gather feedback from fishers participating in the Bhulan Dost Programme, collect data on a bi-weekly basis and collate into Excel for analysis. A total of 38 feedback sessions have been conducted (23 in Sindh, 15 in Punjab) with ~90% Bhulan Dosts encountering no problems while using the data collection tool. ~10% faced issues mainly due to illiteracy and difficulty in identifying/choosing the correct symbols for threats on the data sheets, therefore additional trainings were arranged to help fishers better understand the data collection process and use the data sheets more effectively.

In June 2023, a newly born Indus River Dolphin calf was rescued by a Bhulan Dost and safely released upstream of Guddu Barrage. The calf was found stranded along the riverbank. Bhulan Dost spotted the

calf and promptly alerted the Sindh Wildlife Department (SWD) and WWF-Pakistan's river guards for its timely rescue.

The ongoing monitoring of engagement in the Bulhan Dost programme is crucial. In Sindh, there is a 72% participation rate with 28% less active, while in Punjab has 83% participation rate with 17% less active. Limited engagement is primarily attributed to limited involvement in fishing activities or seasonal migration to different locations. This programme was also cover in an article in WWF-Pakistan quarterly magazine - https://wwfasia.awsassets.panda.org/downloads/natura-vol-50-edition-2_compressed.pdf

Activity 1.6 IN: The fishers of Naliyapur Duttabati and Sitahati villages of Purba Bardhaman district have assisted with data collection, setting up the experiment nets, deploying and removing pingers and placing the F-PODs during the field implementing the first pinger experiment in river Hugli from 11 April 2023 to 21 June 2023. They continue to actively monitor the security of the equipment deployed at the experiment site. A training workshop was organised between 1st and 2nd August 2023 for the frontline staff of the Nadia-Murshidabad Forest Division to enhance the capacities of the staff with regard to the ecology of the Ganges River Dolphin and associated species and their conservation.

Activity 1.7 IN: The field team of WWF-India jointly with the West Bengal Forest Department organised a meeting to present the interim finding of the pinger experiment to the Fishers Society of the Naliyapur and to collect their feedback on the utility of pinger and experiment design on 15 June 2023. 121 members (18 females) of the fisher society participated in the meeting. The fishers appreciate the idea of testing innovative technology to reduce dolphin-related fish catch loss and ensure full support for the conservation of Dolphins in the area. The society passed the meeting resolution for supporting the dolphin conservation work in their area.

Activity 2.4 PK: To ensure that the skills acquired by Bulhan Dosts during the initial training were retained, 4 refresher training sessions were conducted for the previously trained Bhulan dost at the Sindh & Punjab Sites. A total of 95 Bhulan Dosts from 4 villages participated in these sessions, reinforcing their knowledge and skills in pinger application, F-POD mooring, and data recording.

Activity 2.4 IN: 5 fishers were trained on the experimental design and equipment during the experiment phase (between 11 April-21 June 2023), assisting in data collection, setting up the experiment nets, pingers, and F-PODs. Their local knowledge and fish identification skills also helped the field team in identifying the fishes with local names.

Activity 2.5 IN: The first pinger experiment was successfully completed between 11 April and 21 June 2023 near Naliyapur ghat in River Hooghly. As per the methodology, data on dolphin occurrence and behaviour was collected daily through visual observations and passive acoustic monitoring devices (F-PODs) in alternative phases of pinger treatment and non-treatment phases. The fish catch size and compositions (species and size) were also recorded. The replication of this pinger experiment is being planned in River Roopnarayan therefore a survey was conducted from Ghatal to Geokhali (~80.8 km) to identify a suitable site based on dolphin hotspots, habitat, threats and willingness of community to participate.

Activity 2.7 PK: Pinger trials in Punjab extended from December 2022 to June 2023, comprising 165 days and totalling 990 hours of data collection efforts as part of the Indus dolphin habituation study using Cyclic pingers. Additional observations through F-PODs were recorded at the experimental control site in Ghazi Ghat, Punjab. One F-POD was installed at the experimental site, another at the control site. The aerial distance between the two F-PODs was 500 meters. The results of F-POD data interpreted thus far have shown that more dolphins and clicks are recorded at the control site, where there was no cycling pinger, compared to the experimental site. These findings indicate a deterring effect of Cycling pingers for Indus River dolphins at the experimental site. Furthermore, the results of F-POD data have been corroborated through visual observations of IRDs conducted regularly at both the experimental and control sites, engaging the Bhulan Dost.

Unfortunately, during the monsoon period, both the cycling pinger and the F-POD were lost in the strong current of the river, resulting in a high flow of water at the experimental site in Ghazi Ghat. As a

consequence, the F-POD and the cycling pinger became submerged under water due to the deposition of sand and the presence of flowing wood logs, making recovery impossible. Efforts are underway to retrieve the equipment and plans for next year's trials will be based on the outcome of these recovery attempts.

Activity 2.8 IN: It was observed that Ganges River Dolphins stayed away from the fishing nets when the pingers were active, and therefore unlikely to damage the fishing nets with active pingers. However, there were incidents reported by the fishers during the experiment when dolphins damaged a few fishing nets while attempting to access trapped fish, within 1km of other nets equipped with pingers. The result indicated insignificant differences between the cost of fish catches in the fishing nets with active pingers and without pingers.

Activity 2.9 IN: No entanglement (in the experimental pinger nets or the non-pingered nets used by other fishers in the area) or mortality was recorded at the experiment site during the experiment. The data and preliminary findings were presented and discussed with the fishers and forest officials on 06, 05, 15, 23, 28 June 2023; 27 July 2023; and 01-04 August 2023.

Activity 2.10 IN: Passive acoustic monitoring (through F-PODs) was simultaneously collected by the field teams, along with observation data on dolphin occurrence, surfacing behaviour and movement patterns, daily from 11 April to 21 June 2023.

Activity 2.12/3.3 IN: WWF-India jointly with the West Bengal Forest Department organised a meeting on 15 June 2023 to present the interim findings of the pinger experiment to the Fishers Society of the Naliyapur and to collect their feedback on the utility of pinger and experiment design; 121 members (18 females) participated in the meeting. Feedback indicated that fishers observed dolphins avoiding the nets with pingers deployed, which was not the case prior. The Fishers Society stated that if pingers- over the course of the experiment- are found to be effective at deterring dolphins from active nets, they as a fishing community would significantly benefit from their use. While the fishers were excited to use the pinger, they also showed concern over the high cost and unavailability of pingers in the local market.

Activity 2.13 PK & IN: Data from the year 1 trials were analysed and feedback was gathered to determine if any necessary adjustments to the methodology or monitoring tools were required in preparation for the Year 2 trials. A virtual consultation was organized with Rob Enever, Head of Science and Uptake at Fishtek Marine (pinger manufacturer) on 11 Sept 2023 and a consensus was reached to maintain the same methodology with a few minor adjustments. Notably, the experiment will be conducted at different locations to gather additional insights into the influence of the pingers on dolphin behaviour and fish catch data.

Activity 3.1 PK: The project team maintained regular coordination with key wildlife and fisheries departments operating at the project sites, ensuring they were kept informed about the progress and outcomes of the experiments. 6 meetings were convened during the reporting period, featuring the Inspector General of Forests at the Ministry of Climate Change in Pakistan; the Deputy Conservator of Sindh Wildlife Department; the Director of Fisheries in Sukkur; 2 meetings with Senior Officials from Punjab Wildlife and Punjab Fisheries Departments; and a seminar at the University of Mianwali.

Activity 3.1 IN: During the reporting period, the project team presented the interim findings of the pinger experiment and updates on the river surveys and community engagement work to different government officials including the Head of Forest Forces, Principal Chief Conservator of Forests (Wildlife), Chief Wildlife Warden, Divisional Forest Officer, Deputy District Magistrate, and Block Development Officer (BDO) of concerned districts and blocks.

Activity 3.7 PK & IN: The project team hosted a 90 minute hybrid event at World Water Week, Stockholm on 20th August 2023: [‘Sound-of-Safety: Innovative Technology for Food Security and River Dolphins’](#). During this session, participants discussed the innovative pinger technology, the role of different stakeholders in and opportunities for scaling pingers, and the pinger trials and community engagement programmes in India and Pakistan. The session featured presentations from a range of experts in global and national river dolphin conservation, including representatives from Reckitt, The Engro Foundation, Fishtek Marine, Yayasan Konservasi RASI, Wildlife Institute India and the Government of West Bengal.

The primary objective of the engagement in this global gathering was to share our findings with relevant governments, partners, and potential supporters, emphasising the importance of our collaborative efforts in safeguarding river dolphins.

In Pakistan, a national workshop on Key Biodiversity Areas (KBAs) was organised on 22-23 August 2023, convening key partners and experts to raise awareness on the role of KBAs in safeguarding and sustaining vital ecosystems. The event covered crucial aspects including the identification, management, benefits, and assessment processes associated with KBAs. The objective was to raise awareness about the significance of Key Biodiversity Areas in conserving biodiversity, discuss the process of KBA identification, management, benefits and assessment process, apply KBA criteria to an Indus River dolphin site in Punjab and develop a plan for the comprehensive assessment of KBAs across Pakistan. The technical leads of this workshop were Dr. Andrew Plumptre (Head of the KBA Secretariat in Cambridge) and Wendy Elliot (Deputy Lead of Wildlife Practice, WWF Int). The event provided a valuable platform for sharing the broader outcomes of the pinger trials and allowed us to engage with federal and provincial government departments deeply involved in dolphin conservation efforts. The [KBA workshop report](#) is available.

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.

In Pakistan, the persisting unrest due to ongoing tribal conflicts along the Indus River in the Sindh has given rise to security concerns. This situation poses a continuing challenge, because of the government led operation against those tribes that are protecting criminals. This may potentially disrupt the ongoing trials or necessitate a relocation of the project site. In response, an in-house strategy has been devised to prioritise the safety of our field team. This includes providing them with robust logistical support and strengthening coordination with partner communities and wildlife departments, ensuring the smooth execution of our work. Similarly, at the Punjab site in Pakistan, the issue of equipment loss due to heavy river flow remains a recurring challenge. Unfortunately, both the cycling pinger and an F-POD were swept away by the forceful current and have proven difficult to recover, we are ordering one cycling pinger to ensure that our habituation study comes back on track, one cycling pinger cost about 250 GBP therefore this can be managed within the budget.

In the UK, we have recognized that lean budgeting can stifle opportunities for dissemination and sharing of knowledge. We needed to undertake an extensive budget reforecasting and reallocation exercise to ensure we had resources to allow us to showcase our project at World Water Week. While additional match funding was also secured to help support this event, the associated staff time in securing additional funds must also be factored in. Similarly, project teams would benefit from additional training on FPOD data interpretation and analysis- especially critical for Innovation projects utilising new technologies- but this will be difficult to include within the remaining budget. WWF UK is now ensuring that communications, learning and dissemination costs are included in budgets from the outset.

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
Formal Change Request submitted:	No (Budget Revision for Year 2 is pending)
Received confirmation of change acceptance	No
Change request reference if known:	

4a. Please confirm your actual spend in this financial year to date (i.e. from 1 April 2023 – 30 September 2023)

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 2024)?

Yes No Estimated underspend: £ 0

4c. If yes, then you need to 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 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?

We will shortly be submitting a Change Request Form as would like to request changes between budget lines within the Year 2 budget.

We also attach the following documents to this report:

1. Updated Risk Register
2. Feedback to the Annual Report Year 1.

If you are a new project and you received feedback comments that requested a response, or if your Annual Report Review asked you to provide a response with your next half year report, please attach your response to this document.

All new projects (excluding Darwin Plus Fellowships and IWT Challenge Fund Evidence projects) should submit their Risk Register with this report if they have not already done so.

Please note: Any planned modifications to your project schedule/workplan can be discussed in this report but **should also be raised with NIRAS through a Change Request. **Please DO NOT send these in the same email.****

Please send your **completed report by email** to BCF-Reports@niras.com. The report should be between 2-3 pages maximum. **Please state your project reference number, followed by the specific fund in the header of your email message e.g. Subject: 29-001 Darwin Initiative Half Year Report**