

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 2022

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)	HYR1
Project website/blog/social media	Blog post: https://wwf.exposure.co/innovative-dolphinsaving-devices-bring-hope-for-remaining-river-dolphins

1. 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).

Output 1.1:

PK: Preliminary assessments of the Indus River dolphin habitat in Punjab and Sindh were carried out for the finalisation of sites for piloting of Dolphin Dost Programme. Site selection criteria included a higher number of Indus dolphin bycatch. A total of 125 fishers (men and women) will be included in the dolphin dost programme in four villages, two in Ghotki District and two Kashmore District in Sindh and 75 fishers (men and women) would be engaged in the programme in four villages, two in DG Khan district and two in District Ali Pur along the Indus River.

Output 1.2:

IN: The methodology to gather baseline data on dolphin bycatch in fisheries, dolphin-related costs incurred by fishers, fish catch composition, the dependence of fishers on dolphin habitat, and community knowledge on dolphins & sustainable fishing practices has been finalised and the field data collection has been initiated in the six selected villages of the Ganga and River Yamuna.

PK: The questionnaire surveys were developed to understand the extent of bycatch, losses of Indus dolphins, socio-economic impacts of a bycatch on fishing communities (loss of fish catch, damage to fishing nets), depredation on fish by dolphins and different fishing practices. A detailed baseline survey consisting of structured interviews and questionnaires included 340 fishers from the 14 villages within the priority habitats of Indus dolphin in Sindh and Punjab. The interviews took place between 2022-01-08 and 2022-09-29. This detailed survey has helped us in identifying the hotspots of net entanglements and depredation on fish catches by the dolphins. The vast majority of the interviewed fishermen in both Punjab and Sindh reported that they rarely

or never have bycatch of dolphins. However, 67% in Punjab and 32% in Sindh did report that they had dolphin(s) entangled in their nets at some point. The majority (in both regions) of those reported entanglement of between one and three animals each fishing effort/season. Depredation by dolphins was found to be very rare, with the fishermen reporting that they rarely or never observe dolphins coming close to the nets, see them taking fish nor find bite marks on the fish caught. The ones who had experienced entanglements of dolphins at some point did report that it caused both loss in catch and damage to nets. On average, the cost to repair or replace a damaged net was approximately 25,000 PKR in Punjab and 7000 PKR in Sindh.

Output 1.3:

PK: The project hired two social mobilisers (a woman and a man) to develop close liaison with the local communities and equally communicate with women representatives at the grassroots level. A total of eight engagement and mobilization meetings with fisher communities were conducted for engaging fishers in six villages of Punjab and Sindh. Training content development and data collection tool designing is underway in local languages.

Output 1.4 & 1.5: Not initiated this quarter, now taking place in Q3.

Output 2.1:

IN: WWF-India has submitted the documents for permission to the Uttar Pradesh Forest Department and a follow up discussion was also held in August 2022. However the permission is still awaited. Anticipating further delays and its potential impact on the project, the team in consultation with the knowledge partner (Wildlife Institute of India), have identified the river Hooghly and river Roopnarayan in West Bengal as a potential alternate site. Based on this, the team has been conducting simultaneous discussions with the West Bengal Directorate of Forests. (Update- On October 21, the West Bengal Directorate granted permissions to WWF-India to conduct the work under SoS Pingers. See Section 2.)

PK: The relevant government departments are very supportive of this innovative research using pingers, exclusive permits are not required for the pinger trials in the Indus River. Consultative meetings and sessions were held with Punjab and Sindh Fisheries and Wildlife Departments for finalising the pingers trails methodology and sought support for the trail of pingers.

Based on the in-depth analysis of the field situation and fishing practices, the experiment will involve three different types of pingers including banana, loud, and cycling pingers to determine their effectiveness to deter dolphins and a potential solution to mitigate dolphin bycatch.

Output 2.2:

IN: In collaboration with the Wildlife Institute of India and international experts Mr. Nick Tregenza (Chelonia Ltd.) and Mr. Rob Enever (Fishtek Marine), WWF-India developed a scientific methodology for the pinger field trials. The pinger trial sites will be selected based on good dolphin abundance and fishing pressure in River Hooghly and River Roopnarayan in West Bengal. At each selected trial site, three dolphin recording devices (F-PODs) will be moored— one at the fishing area and two 400m upstream and downstream of the fishing areas. The study comprises three phases namely phase I (Non- Pingered pre-treatment phase), phase II (Pingered treatment phase) and phase III (Pingered treatment phase) which will be carried out at all the selected sites with different typologies based on dolphin abundance and fishing pressure etc. The first ten-day of the non-pinger period as the pre-treatment phase (or Phase I), followed by two phases of pingered (treatment phase) and non-pingered (post-treatment phase), each lasting ten-days and occurring three times in an alternate manner.

PK: A comprehensive methodology for the trials of three type of pingers as a possible solution to mitigate dolphin killing in fishing nets was prepared with the help of expert group Mr. Nick Tregenza (Chelonia Ltd.) and Mr. Rob Enever (Fishtek Marine) that will be overseeing the pingers experiments component for the project.

The experimental design for the Sindh section of the Indus River in Pakistan has been finalised in consultation with the experts. The fishing methods include fixed and drag net combination.

Banana pingers will be installed on fixnets every 35 m across the width of the main river channel /side channel) and considering that a net is dragged after day towards the fixed net the area upstream the fixed net will be cleared using anti-depredation pingers. These anti-depredation loud pingers will be used on a rope and activities for 3-5 minutes to clear the area of any dolphins. This will be done on alternate days and days without pingers will be used as controlled days for comparison within the experiment.

In Pakistan, cycling pingers will be part of the trials carried out on the Punjab side of the Indus River. The Government of Punjab has imposed a ban on all kinds of commercial fishing operations in the Indus River Section falls within Punjab. The experiment would be carried out at a single location i.e Ghazi Ghat identified as a dolphin bycatch hotspot and the experiment design will focus on testing the habituation of dolphins in response to pingers. The design of the experiment would include one cycling pinger and two FPODs for testing dolphin habituation. A cycling pingers/FPODs trio will be left at a fixed site throughout the year. Observation data will be recorded in the data sheets and FPODs data will be downloaded every week.

Output 2.3 WWF is organising a training in Nepal from 5-9th December 2022 under another project that involves tracking river dolphins through passive acoustic monitoring (PAM), with Nick Traganza (Chelonia/University of Exeter) leading the training. Output 2.3 was to organise online trainings, however we recognised this as a great opportunity for the teams to learn through actual demonstration of dolphin PAM. Therefore, we have shifted to combine the FPODs training with the one in Nepal, with a relevant experiment lead from Pakistan and India attending the training in Nepal.

Output 2.4: Trainings were not initiated this quarter, the high floods in Pakistan this year and associated devastation impacts on riverbank communities could not allow the teams to begin field activities. However, now the water level has receded and these activities will begin in Q3.

Output 3.1:

Core team (IN, PK & UK) raising awareness and creating buy-in for project:

- a) WWF hosted a SoS Pingers launch webinar with attendees from Chelonia, Fishtek, Sindh Fisheries & Wildlife Departments, Punjab Wildlife & Fisheries Department, University of Karachi, Zoological Survey of Pakistan, University of Punjab, PK Ministry of Climate Change, Forest Department Uttar Pradesh, Wildlife Institute of India, World Bank, National & State Missions for Clean Ganga, and wider WWF network on 7th July.
- b) WWF showcased the project in a [wider dolphin pinger exposure story](#).
- c) In Islamabad, Pakistan, WWF-PK organised an International Conference (5-7 Oct), partially supported by the Darwin project (Fig. 1). This resulted in the agreement by five governments (Bangladesh, Cambodia, Indonesia, Nepal, Pakistan) to develop an Asian river dolphin Conservation Management plan focused on sustainable fisheries, under the umbrella of the International Whaling Commission. The innovative pinger solution was an important part of the discussions where it was discussed how pingers have successfully curtailed net entanglements of the Irrwaddy dolphin in the Mahakam river and is expected to be part of the CMP (if/when proven effective). A blog post by the global river dolphin lead regarding this event is [here](#). The press coverage was very good (interviews on radio and tv, 5 newspapers); see [here](#) the Daily Pakistan article.
- d) To raise awareness on both river dolphin species involved, video clips are created and posted in the week leading to #WorldRiverDolphinDay (October 24th); [Indus river dolphin](#) (launched 18/10) and [Ganges river dolphin](#) (20/10).
- e) Events organised on Indian River dolphin Day (Oct 5) to commemorate the National River Dolphin Day in the Ganga. Five awareness programmes were organised in the Hastinapur Wildlife Sanctuary and the Upper Ganga Ramsar Site from October 2–8, 2022. Dolphin *Mitras* village head (*Pradhan*), riverbed farmers, fishers, schoolchildren, and officials took part in these programmes. [Posters](#) and [pictures with descriptions](#) have

also been posted on the official social media accounts of the WWF-India on October 5th 2022 to spread awareness for River Dolphin Conservation far and wide.

- f) For International River Dolphin Day (Oct 24) by WWF-Pakistan, two events one at Taunsa Barrage Information Centre, Punjab and Guddu Information Centre, Sindh engaging local fishers, representatives of Sindh and Punjab Wildlife and Fisheries Departments and other key partners attended these events.



Fig. 1: Attendees (inc. Pingers team centre seated) at the 'Building momentum and tackling the threats from fishing practices- Inauguration and technical workshop' 5 – 9th October, Islamabad, Pakistan.

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: There has been a delay in receiving permissions from the Uttar Pradesh Forest Department (Output 2.1) which has delayed implementation. Anticipating further delays and its potential impact on the project, the team in consultation with the knowledge partner (WII), have identified the river Hooghly and river Roopnarayan in West Bengal as a potential alternate site. Based on this, the team had been conducting simultaneous discussions with the West Bengal Directorate of Forests. On October 21, the Directorate granted permissions to WWF-India to conduct the work under SoS Pingers. Given this, we will propose switching implementation areas to West Bengal. This is the alternate plan to avoid disruption to the project and seek approval to modify the project. Due to the delay in receiving permissions, we estimate that the experiment has been delayed by three months. However with permissions now in place and flexibility of scheduling already built into the project plan from the outset (Force majeure risk in risk register), we are confident of catching up on the lost time.

PK: i) The Govt of Punjab imposed a 10-year ban on the commercial fishing operation in March 2022 in the Indus river stretch within the boundaries of the province. This is a welcoming step for the revival of fish stock and protection of Indus dolphins from gillnet mortalities, however it has impacted the methodology of pinger trails as we wanted to test two scenarios in Pakistan; commercial, contract fishing, and individual licence. The trial's methodology has been updated slightly by seeking support from the Fisheries Department and the international experts advising this project.

ii) The devastation of floods that started in June 2022 in Pakistan left over 100 districts across the country already adversely impacted including the project sites located along the Indus River in Punjab and Sindh provinces. A majority of the population in the flood-hit areas are amongst the marginalised and vulnerable groups that have limited access to basic amenities. The extent of damage and destruction might affect the strategy of social mobilisation and engagement in the fisher driven 'dolphin dost' programme. However with flexibility of scheduling already built

into the project plan from the outset (Force majeure risk in risk register), we can shift the timing of the community engagement without significant effect to the project.

Given the above delays, we are currently anticipating an underspend of approximately £20k. We are planning to re-forecast and will submit a separate re-budget change request shortly.

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

Discussed with NIRAS-LTS: Yes

Formal Change Request submitted: No

Received confirmation of change acceptance n/a

Change request reference if known:

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

Yes No Estimated underspend:

4b. 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.

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

If you are a new project and you received feedback comments that requested a response (including the submission of your risk register), 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.

Please note: Any planned modifications to your project schedule/workplan can be discussed in this report but should also be raised with NIRAS-LTS International 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**