

## **Strengthening institutional capacity and collaboration for tiger conservation**

[Interim Report]

July 2023



**Submitted**

Wild Cats Conservation Alliance

**Reporting Period**

1 February 2023 – 19 July 2023

This report will be made public. If it contains confidential or sensitive information, please also provide a revised report for sharing with the public.

Section I. Project Information	
<b>Project Title:</b> Strengthening institutional capacity and collaboration for tiger conservation	
<b>Grantee Organisation:</b> Zoological Society of London	
<b>Location of project:</b> Southern and eastern part of PNP and its buffer zone, adjoining national, collaborative and community forests (27.250N, 84.850E)	
<b>Size of project area (if appropriate):</b> 535 Sq. Km (approx.)	<b>No of tigers and / or Amur leopards in project area, giving evidence &amp; source:</b> 41 (95% CI = 38-50) estimated tigers in PNP and adjoining forest (DNPWC and DFSC, 2022)
<p><b>Partners:</b> <i>(Please give details of partners, including communities, academic institutions etc. for this project and permissions that have been received for this project.)</i></p> <p><b>Department of National Parks and Wildlife Conservation (DNPWC)</b></p> <p>DNPWC is the main government authority providing oversight for conservation and management of wildlife in Nepal. It is responsible for the overall management of Nepal's PAs including the buffer zones. ZSL has a working MoU with DNPWC since 2014 renewed for five years in 2019 and has a very good professional relationship. Through DNPWC it also has a close working relationship with the PA managers at PNP. The DNPWC, through the Programme Coordination Committee (PCC) facilitates implementation of the project activities and is responsible for overall monitoring and evaluation of the project. This is based on a monitoring mechanism established under the project. The project has been formulated under the guidance of DNPWC and the required permission has been obtained.</p> <p><b>Parsa National Park (PNP)</b></p> <p>In 1984 PNP became a designated wildlife reserve, primarily aiming to preserve the wild Asian elephant and their remaining habitat as well as other varieties of fauna. In 2015, the reserve area was extended to 627.39 sq.km from 499 sq. km and in 2017 the status was upgraded from a wildlife reserve to a National Park. PNP plays a vital role in achieving the</p>	

goals and objectives of PA management regimes in Nepal as it provides critical habitat for endangered species including tigers, as well as providing and transboundary connectivity with Chitwan NP and Valmiki Tiger Reserve in India. It is also part of the Terai Arc Landscape (TAL), which is a globally important landscape for tiger conservation. The previously established Project Management Unit (PMU) at PNP, chaired by the Chief Conservation Officer of PNP with the members of ZSL, have been facilitating and implementing the project activities. The members of the PMU are responsible for coordination, facilitating project activities, monitoring progress, and reporting to the PCC.

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**Actual start date of project:** 1 March 2023

**Reporting period:** 1 February 2023 to 19 July 2023

## Section II. Project Progress

**Summary of progress for the first 6 months:** *(please provide a summary for use in our communication materials)*

During this reporting period two awareness raising workshops were conducted, engaging 73 participants with the findings of National Tiger Survey 2022, tiger population movement patterns, and discussion on possible human tiger coexistence strategies. One workshop was shared with key stakeholders including PNP authorities, the Nepal Army, representatives of BZUCs and the other workshop was organized at a community level for the representatives of Ksusi Batika BZUC, Sunakhari BZUC and the local community etc. Similarly, two informal meetings were organized and attended by PNP Managers and the Nepal Army to share information about the use and effectiveness of SpyCamera technology in conservation, and another to establish the use of a red alert system.

In order to strengthen the capacity of the NP to control illegal wildlife activity, two training sessions were conducted on the use of SpyCamera technology, attended by 29 staff of PNP and Nepal Army. In the first session 18 staff members were trained on the SpyCamera working mechanisms, email setup, SpyCamera setup, and field demonstration on deployment. In the second session 11 staff members were trained on the identification of red alert, storage of images, database management, and analysis of photo information. Following these training sessions, 20 poacher cameras were regularly deployed in the strategic location identified. As a result, the rapid response team had apprehended an individual, seized a bicycle and timber however the offender managed to escape.

**Details of activities and results to date:** (Please give details of progress made towards the objectives & outputs of your Logframe, and activities included in your Workplan. Please add any relevant charts, maps and images.

**Output 1: Improved collaboration between multi-conservation stakeholders through regular engagement meetings and, information sharing underpinned by awareness raising for wider communities promoting tiger conservation in the region.**

**Activity 1.1: Conduct workshop among PNP, DFO, BZUCs, CFUG to build support for tiger conservation and minimizing human-tiger conflict**

A day long tiger conservation workshop was held at Adhabhar, Parsa district engaging various stakeholders including CCO and key staff of Parsa National Park, Nepal army, representatives of BZUCs, NTNC, MWT. The main objective of the workshop was to share the major findings of the National Tiger Survey 2022 and tiger dispersal patterns in 2013, 2018, and 2022 and promote human tiger coexistence through tiger-based tourism opportunities. In total 38 participants actively participated in the workshop. After the presentation session, an open discussion session was conducted.



Figure 1: Dr Ashok Kumar Ram, CCO, PNP delivering his speech in the program



Figure 2: ZSL Nepal staff giving a presentation



Figure 3: A group photo of the workshop participants

In the closing session, CCO emphasized the strategies to proactively deal with possible human tiger interactions and the chairman of BZMC focused on the role of local people in tiger conservation as well as engagement in maintaining coexistence.

**Activity 1.2: Conduct meeting with conservation stakeholders to share the result of GSM enabled surveillance cameras and threats encountered**

As the image data sent by the cameras was not in sufficient quality, further activity is planned for August.

**Activity 1.3: Conduct routine informal meetings with Nepali Army units**

Regular informal meetings are being conducted and images are shared with the Nepal Army during the joint meetings of PNP and Nepal Army. The meeting is organised by the PNP and the Park Manager, Battalion Commander of Nepal Army and key staff of the park and Nepal Army participate. In the first informal meeting, staff discussed camera mechanisms, hands on demonstration of camera features and discussed the establishment of a red alert system. While in the second meeting, sharing of red alerts (including an image of a poacher and illegal logger) helped to demonstrate the advantages of SpyCamera technology in indicating the sensitive locations for illegal wildlife crime. Through this activity the overall wildlife crime situation in the NP, importance of timely information sharing, and the need for collaboration to address challenges identified was understood by all. Along with this, the importance of robust planning was also realized.

**Activity 1.4: Engage university students and citizen scientists on tiger conservation**

Two universities viz., Tribhuvan University and Agriculture and Forestry University based in Hetauda have been identified for this activity. However due to internal examinations being conducted in the university at the time this activity was planned, the activity has been postponed until September.

**Activity 1.5: Aware local communities on increasing tiger and its conservation need**

An awareness session was held at the Kusum Batika Buffer Zone User's Committee (BZUC), championing tiger conservation and its indispensable significance to the stability of the ecosystem. A primary focus of the event was to impart knowledge about the National Tiger Survey 2022. The attendees, including the local community members, were presented with the tiger population data from Parsa National Park and its neighbouring forest. The Assistant Conservation Officer from PNP, who also holds responsibility for these regions in PNP, attended the event along with several representatives from both Kusum Batika BZUC and

Sunakhari BZUC. The awareness programme saw the proactive participation of 35 community members, indicating their rising interest in the conservation campaign.



Figure 4: Staff presenting on NTS 2022 data and pattern of tiger movement

According to the national tiger survey (DNPWC 2022), Kusum Batika BZUC and Sunakhari BZUC both observed tigers moving from Parsa National Park into the Buffer Zone Forest under these two User's Committee. We chose these site members for the program because these communities are also located in our project sites.

## **Output 2: Strengthened institutional capacity for effective wildlife law enforcement supports in the reduction of illegal human activities in the project sites.**

### **Activity 2.1 Train PNP staff on setup and deployment of GSM enabled surveillance cameras**

As wildlife numbers are increasing in PNP, the chances of illegal poaching of wildlife and logging has also increased despite the diligent efforts of law enforcement officers who patrol the area to maintain their jurisdiction. However, the clandestine illegal activities can evade the watchful eyes because it is not possible to cover all area of NP all the time through the patrol. This unsettling situation serves as a reminder that combating illegal wildlife activities requires reinforcement of patrols through advanced technology. GSM-

enabled camera technology introduced by ZSL Nepal is a proven technology from the Western Terai PAs. Therefore, the use of this technology is of immediate need.

During this reporting period a two-day training on setup/deployment of GSM-enabled cameras for 18 staff of PNP was organised. In the training, participants were provided with theoretical knowledge on the working mechanisms of the camera i.e., PIR zone, Trigger, and day and night capture, email setup, camera setup on desktop and in the field. After the theoretical session, the participants took part in a practical session, where camera deployment in the field, camouflage, field of view setting, use of GPS, and field book entry were demonstrated. Finally, a demonstration showing a photo check via email and recording basic information e.g., number of intruders, activity, time of intrusion was carried out.



Figure 5: staff instructing trainees on the installation and use of poacher cameras



Figure 6: participant handling the SpyCam



Figure 7: Reorienting participants before having them try installing the camera in the field



Figure 8: Trainer briefing on camouflage



Figure 9: Battalion commander delivering a speech emphasizing the value of using technology in conservation



Figure 10: CCO of PNP delivering his acknowledge to ZSL Nepal and WCCA for the event



Figure 11: Group photo of participants of training

## Activity 2.2: Provide training to response units to manage data of GSM enabled surveillance cameras

As GSM enabled surveillance cameras are deployed in the field it is also very important to understand the red alert system and keep the record of the information extracted from the images which are emailed by the cameras. For this purpose, a-day long training to 11 staff members of PNP was delivered through this project. The chosen participants were the staff of RRT who are dedicated to reinforcing the outpost team in order to take action against illegal wildlife activities. The training was divided into three sessions; an opening session, a presentation session on red alert identification and rapid response, record keeping and analysis, and a closing session. In the first session, the CCO of PNP delivered an opening speech signifying the importance of rapid response and database management. While in the presentation session, participants were provided with an insight into record keeping

(camera detail, deployment date, deployment place, nearest post, cellular balance status, battery status, phone number and email associated with the camera system etc.), maintaining the database of monthly data (number of types of images sent by cameras, type of information on intruder, day, and date, etc.), maintaining the database on wildlife images, and analysis of the photo information. The CCO of PNP delivered the closing session and included a vote of thanks to the donor and instructed the staff to respond rapidly to red alerts and maintain the database. After the completion of the training the PNP was provided with two logbooks for keeping the records as illustrated in the training.



Figure 12: Staff presenting on camera information database



Figure 13: Photo of participants including CCO of PNP

### **Activity 2.3: Install 10 GSM enabled surveillance cameras in vulnerable locations throughout the year for real time monitoring to reduce tiger threats**

The project supported PNP with regular deployment of 20 GSM enabled cameras to control illegal wildlife activities inside the park. These cameras are covertly deployed in the core areas where illegal wildlife activities could take place. Before the deployment a meeting is conducted in the JOC (Joint Operation Cell) to identify strategic locations. The locations to deploy the cameras are chosen based on patrol reports and information obtained from park informants. Cameras are then setup in the JOC by the park ranger. During the setup process the camera setting is selected with number of photos to take, sensitivity of the trigger, GPRS network detail, and image sender and receiver email detail. Finally, a dedicated team (also rapid response team including the park staff and Nepal Army) deploy the cameras in the identified locations. The same team has access to the email and can respond to images sent by the cameras.

## Success from SpyCam

### Case I

In May, based on information obtained from covertly installed spy cameras in one of the PNP's most sensitive areas for poaching and illegal logging, the park and Nepal Army collaborated on an operation that resulted in the capture of one bicycle which had been loaded with timber that was about to be taken by illegal loggers from the PNP's core area. As a result, park authorities have increased patrol actions in such areas to combat illicit wildlife poaching and logging in park core areas.



Figure 14: Intruders hauling timbers on their bicycle illegally from the park's core area,



Figure 15: The park conducted an operation in coordination with the Nepal Army in the location

### Case II

In June, a photo was emailed by the camera showing a poacher carrying monitor lizard. The rapid response team responded to the red alert and the poacher with the kill was arrested within 1 hour. It was again one of the major accomplishments made possible solely by the real-time information acquired from the deployed spy camera. The arrested person is being held by park authorities for additional investigation into the offense.



Figure 16: Poacher carrying monitor lizard



Figure 17: Poacher arrested with the kill (left), monitor lizard buried by the authority (right)

#### **Activity 2.4: Provide equipment and field gears for rapid response team**

During this reporting period procurement of equipment is complete and the detail of equipment supported to PNP will be reported in the next report.

**Give details of any obstacles to success that the project has encountered over the last 6 months.** *(Please provide detailed examples, explain what impact these will have on the project results and the changes to the budget and timetable of project activities)*

Uncontrolled forest fires occurred due to prolonged drought from March – May and this hindered the activities which were due to be conducted inside the forest e.g., regular deployment of the cameras. To avoid damage to cameras and concerns over staff safety, not all of the cameras were installed throughout the period. Similarly, during heavy rains, the rapid response team took longer to reach the location with four-wheeler/motorbike because of muddy forest roads and slippery paths.

**Budget:** Is the spend on target? If not, please give details and provide an updated budget sheet.

**Media:** Please provide a list of recent publications and media both local and national which mentions the work funded by this project and/or mentions WildCats Conservation Alliance

N/A

WildCats Conservation Alliance asks for at least 5 relevant high-resolution jpeg files of images of the project activities during this time period.