

Final Evaluation Report

Your Details	
Full Name	Tandin Dorji
Project Title	Threats to White-bellied Heron and its mitigation measure along stretch and confluence of Pochhu and Mochhu, Punakha.
Application ID	37043-1
Date of this Report	4 th August, 2023

1. Indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.

Objective	Not achieved	Partially achieved	Fully achieved	Comments
Examining local people's awareness of White-bellied Heron (WBH)				The local people's awareness of the critically endangered, white-bellied heron (WBH) was essential for this study in identifying the threats and formulating the mitigation measure.
Assess the threats to the survival of WBH				The study revealed several threats to the WBH and its habitat. A survey questionnaire was used to elicit local people's knowledge and experience (or incidents) concerning the threats to WBH. Besides, through field visits, the team observed and recorded activities held by people that may pose threats to the bird.
Awareness program				The presentation was conducted for the local community through an awareness programme emphasising threats to WBH and its habitat. The awareness programme provided a platform for the local community to discuss mitigation measures against the threats.
Threats mitigation				The team formulated mitigation measures and incorporated suggestions from the local community to protect the bird.

2. Describe the three most important outcomes of your project.

- a). The study identified the threats to WBH and its habitat along the Pochhu and Mochhu that possibly forced the bird to migrate to other suitable habitats. The major threats identified were tree felling and wood extraction, illegal fishing, rafting, and wildfire occurrence. Other threats include sand/stone extraction, transmission lines, livestock grazing, bird predator, driftwood collection, river modification, and camping.
- b). The identified threats were presented to the local community residing along Pochhu and Mochhu through an awareness programme. The awareness programme not only extended the knowledge of the WBH threats but also

provided a platform for the local community to discuss mitigation measures against the threats.

- c). Formulation of mitigation measures: the team formulated the mitigation measures after identifying the threats to WBH and its habitat. The team also incorporated the suggestion from the local community to protect the bird. Local community suggestions were important because most of them had lived long enough to see the variation in the bird's population and sighting frequency in their area.

The information on threats and their mitigation from this project will help make robust conservation plans for WBH by various decision making bodies in the country. Apart from Phochhu and Mochhu, the data (threats mitigation measures) can also be applied to other parts of the country where WBH resides.

3. Explain any unforeseen difficulties that arose during the project and how these were tackled.

1. During the survey questionnaires, the team could not meet with the villagers in some villages on the planned schedule because they were involved in local gatherings. To tackle this issue, the team had to re-visit on different occasions to get the data. However, it delayed the data collection for the project.
2. Unwilling to participate in the survey: While most people were positive about such surveys being conducted in their locality and were cooperative, a few people were unwilling. This unwilling nature of people manifested in various ways and was one of the main challenges during the survey. The reasons were:
 - Intrusiveness: Some people perceived the survey as intrusive to their privacy. They felt uncomfortable revealing their education levels and personal details.
 - Lack of interest: People with little to no interest in the survey's topic viewed it as irrelevant and a waste of time, and therefore, refused to participate.
 - Busy schedule: people with busy schedules and demanding commitments found it difficult to spare time to participate in the survey.

To address the above issues, we clearly explained the purpose of the research, the need for the survey and how the collected data would be used. We assured us of the confidentiality of their responses and how their input would contribute to the overall objectives of the research. We also offered appropriate incentives to motivate their participation and for sparing us their time.

4. Describe the involvement of local communities and how they have benefited from the project.

The local communities residing along the WBH habitat were the focal point for this study:

The survey questionnaire involved local people inquiring on four thematic areas: (1) demographic, (2) knowledge of WBH, (3) threat information, and (4) their perception of the awareness programme and WBH conservation.

Involvement of local conservation support groups (LCSGs): The LCSGs serve as Royal Society for Protection of Nature (RSPN) survey ambassadors, actively monitoring the species and recording citizen science data on population demographics. During the field visits, a member of the LCSGs from Tsekha village assisted in identifying the threats/disturbances to WBH in their community.

The presentation was conducted for the local community through an awareness program emphasising threats to WBH and its habitat. The awareness programme not only extended the knowledge of the WBH threats but also provided a platform for the local community to discuss mitigation measures against the threats. The team then incorporated suggestions from the local community to protect the bird.

5. Are there any plans to continue this work?

We have completed the initial phase of the research project and we are pleased to share that we have completed a threat assessment for WBH through a social survey interview. We conducted a comprehensive assessment of the threats faced by the WBH, it included identifying and quantifying factors such as habitat loss, degradation, habitat disturbances, and changes in prey availability. We were also able to understand local peoples' perception towards WBH and its conservation activities and how local communities in the WBH habitat area can have a direct link to the threats faced by the WBH. These results have opened up new possibilities for further exploration. At this point, there are indeed plans to continue this research project. The promising outcomes have encouraged us to seek further funding and resources for the next phase. We are committed to continuing this research project as we strongly believe in its potential impact. Moving forward, our focus will be on public awareness programmes and education. Even though we conducted awareness programmes in six different villages in the current research phase, awareness and education efforts about the plight of the WBH can garner support for conservation initiatives and encourage responsible behaviour from the community. We can also focus on developing and implementing specific mitigation measures based on the identified threats such as establishing buffer zones to safeguard the WBH and its habitat, controlling disturbances from tourism and human activities, and supporting fishery management to ensure adequate prey availability for the WBH. We can also focus on long-term monitoring programmes to track the effectiveness of the mitigation measures and adapt conservation strategies based on new insights and changing threats. We are excited about the prospects of this research and remain dedicated to its success. We hope to contribute to the global WBH conservation.

6. How do you plan to share the results of your work with others?

The collaborating institution, the Royal Society for the Protection of Nature (RSPN), will receive the final research report. This report will contain much of the raw data, results, and discussion following our preliminary research. Secondly, with feedback

from RSPN, I aim to publish the findings in a reputable conservation journal. Lastly, the technical report will be translated into the national language (Dzongkha), and the team will disseminate it to the leaders of local communities. Besides, the team has presented the identified threats to WBH and its habitat to local communities through awareness programmes.

7. Looking ahead, what do you feel are the important next steps?

We should consider the following next steps:

- 1. Studying habitat restoration and connectivity:** Investigate habitat restoration techniques to improve degraded areas within the WBH habitat range. Additionally, explore the importance of maintaining ecological corridors to promote connectivity between fragmented habitats.
- 2. Climate change impacts:** Study the potential impacts of climate change on the WBH and its habitat. Assess how changing environmental conditions may exacerbate existing threats or create new challenges for conservation.
- 3. Economic valuation of conservation:** Conduct an economic valuation of the ecosystem services provided by the WBH's habitat. Quantify the benefits of conservation to local communities and stakeholders, which can help build support for conservation initiatives.

8. Did you use The Rufford Foundation logo in any materials produced in relation to this project? Did the Foundation receive any publicity during the course of your work?

The Rufford Foundation logo was inserted into the presentation slides during the awareness programmes, and the team emphasised the support and funding provided by The Rufford Foundation to the local communities. The Rufford Foundation logo and acknowledgment will appear on the technical report submitted to RSPN. The logo and acknowledgment will also appear in the technical report translated into the national language (Dzongkha). Similarly, The Rufford Foundation will be acknowledged in any publications resulting from this work.

9. Provide a full list of all the members of your team and their role in the project.

Tandin Dorji: Project team leader (principal investigator) – Handled the overall project activities: engaged in data collection (survey questionnaire), awareness programs, report writing, field visits, and budget management.

Kinley Dorji: Team member – involved in data collection (survey questionnaire and field visits), awareness programs, and data analysis.

Norbu: Team member – involved in data collection (survey questionnaire and field visits) and awareness programs.

10. Any other comments?

The team would like to thank The Rufford Foundation for funding this essential research project work, without your support we couldn't have achieved the given objectives. We believe that this research project output will contribute to conservation of the critically endangered, white-bellied heron (WBH).