Final Evaluation Report

Your Details	
Full Name	Tanvir Ahmed
Project Title	Status and Conservation Initiative of Phayre's Langur in Northeast Bangladesh
Application ID	23975-1
Grant Amount	£4980
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Date of this Report	October 28, 2019

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
To estimate the population status of Phayre's Langur in north-eastern forests of Bangladesh.			■	
To assess the threats facing the Langur across the landscape			■	
To promote awareness campaign towards biodiversity conservation ensuring active participation of local communities.			■	
To develop management recommendations		■		Under preparation

2. Please explain any unforeseen difficulties that arose during the project and how these were tackled.

(i) Field costs were underestimated, moreover, extra field trips were required. Few data of Patharia Hill Reserve Forest were coming out from a different survey. One conservation program was collaborated with SAVE THE FROGS! Bangladesh. The remain amount was paid by principal investigator.

(ii) Project's laptop was stolen. A good number of raw photos and manuscripts were lost unnoticed. Nothing was possible to recover. Other data and documents were safe in external hard drive and online storage. Later a Bangladeshi conservationist donated a used laptop to the project.

(iii) Heavy rainfall hampered fieldwork and few field trips failed. It delayed the completion of data collection according to the proposed timescale. Moreover, managing personal funds for extra field trips was time consuming to cover the data collection gap.

3. Briefly describe the three most important outcomes of your project.

(i) **Phayre's Langur Population:** According to complete counting of Phayre's langur during distance sampling-based population data collection, a total of 376 individuals were recorded belonging to 36 groups in 5 study sites of north-eastern Bangladesh (Figure 1). The mean group size was 10.44 ± 5.37 (4 to 26 individuals). Altogether 47% of all the recorded individuals were adult, of which, 38% were adult males and 62% adult females and their ratio was 1:1.63. Population density following distance sampling base data analysis in each site will be presented later in peer-reviewed articles.
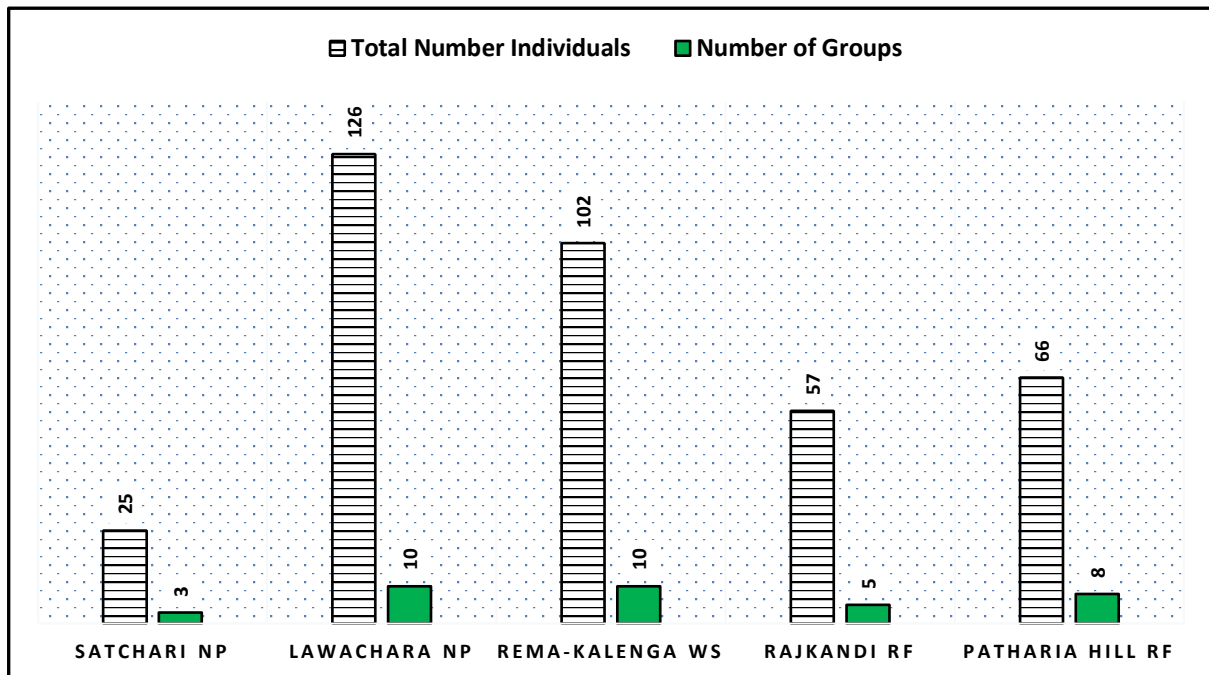
Total Number Individuals **Number of Groups**

Figure 1: Recorded Phayre's langur population in north-east Bangladesh.
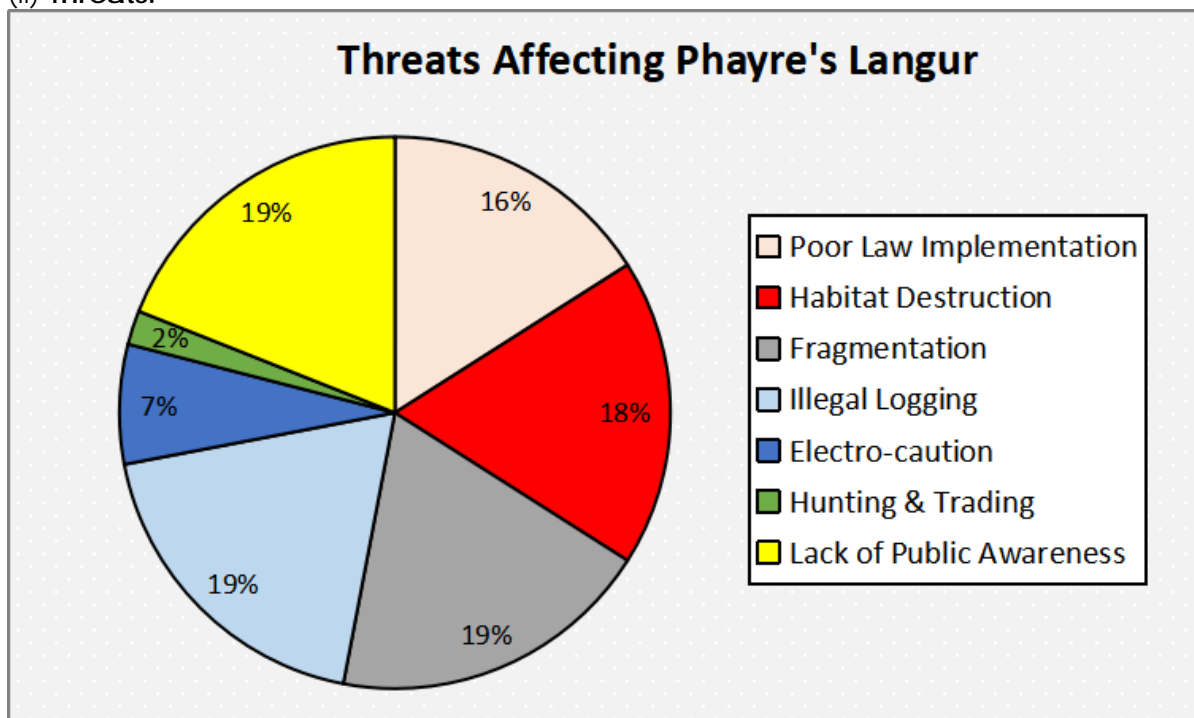
(ii) **Threats:**

Figure 2: An overview of threats to the langur in 4 out of 5 sites.

About 33% of the recorded population were found in two Rajkandi and Patharia Hill Reserve Forest. Populations in both sites are vulnerable to hunting by local ethnic communities and trading. Moreover, habitat destruction, fragmentation and illegal logging were also found besides unregulated extraction of feeding plants such as

bamboo. Besides, lack of public awareness, poor law implementation, electrocution and trading for zoos were also recorded affecting population in long term survival.

Figure 3: (A) Roadkill of 2 Phayre's Langur in Satchari National Park. © Abu Hanifa Mehedi), (B) The species in a local zoo at North east Bangladesh & © Unregulated Bamboo extraction.

(iii) **Discovery of a new site for Phayre's langur:** Interviewing local field guides and forest departmental staffs revealed a new site in north-east Bangladesh named "Sagarnal Forest" that has been supporting the langur. Evidence of Phayre's langur presence (e.g. photographs) in the area were collected from local journalists and field guides. Urgent investigation on population size in the new site is required. Because the informers alerted about Phayre's langur hunting by ethnic people for meat in the site though the hunting intensity was undetermined.

4. Briefly describe the involvement of local communities and how they have benefitted from the project.

We developed conservation education programmes for the local people who are directly or indirectly depends on forests for their livelihood. As an initiative, our works focused on building their trusts on project activities, engaging them into awareness campaigns, enriching their understanding of ecosystem services of the forests and the conservation importance of wildlife in their area focusing Phayre's langur. Conservation materials were distributed among different communities. We arranged two major community consultation programmes in Rema-Kalenga Wildlife Sanctuary and Rajkandi Reserve Forest ensuring active participation of local leaders, community people, forest departmental staff and stakeholders. Our focus was to enlighten the local people about their economic development through primate based eco-tourism development in local scales and encourage them to be trained eco-tourist guide. We helped four local people of different forest sites to develop their skills in this respect. Now they voluntarily collect information of wildlife hunting, trading and other illegal activities into the forests and share with local forest departmental staffs and the project members for necessary steps.

Figure 4: Ending session of Community Consultation Meeting at Rajkandhi Reserve Forest.

Figure 5: Awareness campaign towards biodiversity conservation with SAVE THE FROGS! Bangladesh.

5. Are there any plans to continue this work?

Yes.

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

(i) A report on the findings was submitted to Bangladesh Forest Department.
(ii) Two manuscripts are under preparation to submit in peer-reviewed journals.
(iii) Preliminary results were presented in two conferences:
   - Speed Talk at Rufford India Conference 2019, Corbett Tiger Reserve, India.
   - Poster at Students Conference on Conservation Science (SCCS) -Bengaluru 2019, IIS, India.
   - Findings will be presented at least in one more international conference.
(iv) Project news and few findings were featured in popular news portals and magazines.
(v) TV news will feature the results after publishing articles in peer-reviewed journal.

7. Timescale: Over what period was the grant used? How does this compare to the anticipated or actual length of the project?

According to project proposal, the time scale for this project was January 2018 - December 2018. But the fund was used from March 2018 – June 2019. Later we completed data collection in early September 2019 by personal funds. There were no other funding options for the project.

8. Budget: Provide a breakdown of budgeted versus actual expenditure and the reasons for any differences. All figures should be in £ sterling, indicating the local exchange rate used. It is important that you retain the management accounts and all paid invoices relating to the project for at least 2 years as these may be required for inspection at our discretion.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Transport	980	1360	+380	
Accommodation	650	720	+70	
Food	860	1200	+340	
Field Assistant Charges	960	1125	+165	
Laptop	330	560	+230	
GPS	150	90	-60	
Binocular	190	195	+5	
Range Finder	170		-170	
Awareness Campaign	360	360		
Knowledge Sharing	200	100	-100	
Reporting	80		-80	
Others	50	50		

| Total Costs | 4980 | 5760 | +780 | Due to extra field visits |

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

(i) Continuous population survey in the new site of north-east Bangladesh and south-eastern forests.
(ii) Investigation on its activity pattern, ranging and feeding ecology in fragmented landscapes.
(iii) Population genetics of the species in Bangladesh.

10. 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?

Yes. The Rufford Foundation logo was used in all produced materials (e.g. banners, t-shirts, mugs and pamphlets). We also acknowledged the funding organisation in the poster and presentations.

11. Please provide a full list of all the members of your team and briefly what was their role in the project.

Dr. Habibon Naher - Advisor
Dr. M.A. Baki - Advisor
Dr. Sabir Bin Muzaffar - Advisor
Dr. Craig B. Stanford - Advisor

Field Team:

Tanvir Ahmed	Principal Investigator	Research co-ordination, data collection and reports writing
Md. Sabit Hasan	Associate Researcher	Data collection
Shimul Nath	Field Manager	Data collection
Sajib Biswas	Research Assistant	Data collection
Naim Islam	Volunteer	Data collection

Besides, local field guides supported in all field works.

12. Any other comments?

Thank you, The Rufford Foundation.