

Final Evaluation Report

Your Details	
Full Name	Sagar Raj Kandel
Project Title	Diet Analysis of Tigers and Leopards in Banke National Park and Strengthening Community Engagement
Application ID	29228-2
Grant Amount	£6,000
Email Address	peace_ocean88@yahoo.com
Date of this Report	August 22, 2021

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 involve community in data collection				Community people were involved in disturbance survey. In Dang district a focus group discussion was conducted.
To conduct awareness program for school students for felids conservation (tiger and leopard) in remote village in Dang and Salyan districts				Salyan district was not included in our project as per the change made in objectives of this project.
To analyse the diet composition of tiger and leopard				After the change in project objectives, field groups spend most of time on scat collection.
To conduct camera trap survey to assess the density of Leopards in Banke National Park (BaNP)				By collaborating with Banke National Park and National Trust for Nature Conservation, Bardia Conservation Program; camera traps were deployed to study the distribution of the leopards in the study area.

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

This time the project was impacted by the pandemic (COVID-19), but with the request to foundations and our collaborating organisations we have successfully achieved our objectives. Although we had high ambitions of community involvement in disturbance survey, we were not able to meet our ambitions, but have made community participation to the best we could. While collecting the scats local people were involved. Community in the Dang district were involved in focus group discussion to know the role of park, their way of coping with felids conflicts and other related human wildlife conflicts. Regarding the awareness program school awareness programme was conducted. As per the initial agreement we have involved molecular scatology to distinguish scats of tiger and leopard but because of restriction of travel and lack of scats being collected, we shift our objectives to estimate density of leopard in BaNP. This was essential for the success of this project as National Trust for Nature Conservation (NTNC), BaNP was doing the same project in the area. This collaboration hugely benefitted the project. During that time scats were also collected.

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

The major outcomes of the projects can be described as follows:

- a. **Awareness Campaigns:** Firstly, we have visited the remote district of Dang as to educate the schoolchildren and motivate them in conservation work. As mentioned by public they told us we were the first from park who came to interact with them and involve their schoolchildren in different activities. We also had a series of interaction with Buffer Zone Management Committees of Banke National Park.
- b. **Camera Trap Survey and Diet Analysis:** Altogether, 55 and 67 Scats of tiger and leopards were collected respectively throughout the research period. The scats are currently being analysed in the lab of National Trust for Nature Conservation. Camera traps were installed in 141 locations throughout Banke National Park. Since the cameras were installed for 1 month in the field the data obtained is huge and currently undergoing management at the field office of NTNC at Bardia. One of our team members is based in the NTNC Bardia to help in the data management and analysis.
- c. **Disturbance Survey in Churia:** Surveys conducted in the churia range of Banke National Park and outside the park region found there is a high disturbance in the chure sections and buffer zones might have impact on the leopard and tiger habitat. Local people participation in the BaNP need to be enhanced. Buffer Zones User Communities, Youths should be included in the conservation work.

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

One aspect of project was to make community participation in the human disturbance survey that foster the willingness to conserve the habitat. This participation helps to increase in awareness among local people resulting in proper use of natural resources. Local communities will realise themselves to increase control to their activities minimising the use of timber extraction, excessive firewood, and fodder collection for daily use. These sorts of information from the disturbance survey also results to identify the diversification in livelihoods, which BaNP need to strengthen for community people. As our conservation program is based on community-based management. Although this was the initial phase to know the desire of community from Dang district, such interactions help to fill the gap between park and community. The feeling of ownership could be built up. This project help to make coordination between park and people.

5. Are there any plans to continue this work?

We are interested to work with schoolchildren, conduct one research based with camera trap again with leopard in BaNP to know variations in capture recapture rate of leopard in upcoming years and assess the habitat suitability.

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

The results of our work will be shared through the publication of scientific paper. We aim to publish the at least on scientific publication on density and diet of leopard in BaNP this time. We are also planning to incorporate socio-economic survey data in the research, which have not used in previous grant published report.

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

Project was severely impacted by the pandemic, after the acceptance of the project we were smoothly conducting the school awareness programme, community interaction from mid-December 2019. Then we were able to participate community persons in disturbance surveys. As the pandemic hit, we were even not allowed to work individually for several months because of pandemic and rules imposed by government. This has impacted the project time, as the success of this project was most necessary, we had changed our objectives. All the changed objectives were achieved with collaboration with NTNC, BaNP in camera trap survey. Scats of tigers and leopards were slowly collected in good numbers. Overall, the time taken to complete this project was beyond our expectation.

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
Fuel cost during the project @ £150	150	390	+240	Due to increased time spent in the field
Food for 2 individuals during molecular scatology for at least 30 days @ £8 per day and equal number of individuals for diet analysis 30 days at the same rate	960	1460	+500	Due to increased time spent in the field
Preliminary field visit cost to arrange and contact CBAPU and BZMC and sharing our work plan with concerned parties @ £150	150	150		
Travel cost to and from Ktm to Banke and Chitwan @ £30 for 2 individuals for 3 times = £360	560	560		

and local travel cost @ £200				
DNA extraction for species level identification @ £20 for at least 100 scats including both felids	2000		-2000	Allocated to camera trap and logistics management as per change in objectives made.
T-Shirt to CBAPU, game scouts, BZMC representative around 60 pieces @ £7 per piece	420		-420	Allocated to camera trap and logistics management as per change in objectives made
Batches "save the tiger" 300 pieces @ £80 and "stop illegal timber cutting, save chure" 300 pieces @ £80. Sticker "Zero tolerance for poaching" 1000 pieces @ £160	320	320		
One day program for sharing the findings among Buffer Zones Management Community representative @ £500 including allowance (travel and food cost)	500		-500	Allocated to camera trap and logistics management as per change in objectives made.
Long range and short-range patrol including 3 members of CBAPU @ £5 per day, approximately 20 days throughout the project and food for all members (game scouts, rangers, Nepal army) @ £300	600		-600	Allocated to camera trap and logistics management as per change in objectives made
Food cost for community visiting to forest and game scout in Dang and Salyan @£300	300	300		
School awareness program at schools @£300 including prizes and food during and awareness program	400	300	-100	Allocated in diet analysis as we have collected around 125 samples
Camera Trap Survey fund provided to NTNC BCP and BaNP as a collaboration fund in the survey		1140	+1140	The fund from DNA extraction and other unused expenses to conduct camera trap survey in BaNP
Three filed assistances for scat collection, camera trap survey	1860	3500	-1640	Due to increased time spent in the field

and churia survey for 60 days @ £8 per day, food and lodging @ £10 per day including PI and				
Diet analysis of at least 125 scats. In lab of NTNC BCP @ £4 per sample. (Including all chemicals and lab charge)	400	500	+100	For diet analysis altogether for collected samples
Total	8620	8620		

All the budgets' categories are based on changed objectives that were made with the permission from the Rufford Foundation. The budget includes the co-funding amount also. The budget from Rufford foundation was equivalent to second Rufford grant (£6000). Exchange rate is based on the time of project acceptance.

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

During this project we had visited the schools, where we did our first Rufford grant, and they were asking for us to join their school again. They requested us to motivate the eco-clubs and teach them how to run eco-clubs. During this visit community interactions and schools' children awareness programmes must praise one. So, in upcoming grant we are willing to join with schoolchildren with four different schools we had visited previously and requested few schools by community people themselves. I and my team members agree to remain in BaNP and work with them again.

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?

All the promotional materials like batches and stickers includes the foundation logo as per the grant agreement and the foundation was acknowledged during all the activities.

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

Team member	Role
Sagar Raj Kandel	Principle investigator of the project, participated in the preliminary field visit and conducted schools' awareness program in Dang and community interactions. Involve in first phase of scat collection. Combining all data and writing the scientific report.
Prasun Ghimire	Scat collection, diet analysis and disturbance survey. Maintain the financial record.

Pranaya Kumar Jha	Help in coordinating during disturbance survey.
Babu Ram Lamichhane	Help in coordination of camera trap survey and analysis in density calculation.
Rabin Kadariya	Assisted throughout the project and facilitated in collaboration of project based on our changed objectives.

12. Any other comments?

Project has been impacted as per the first proposal, but after changing the objectives we did not compromised to gain all the results. Overall, project has achieved its all objectives. We are planning to share our findings through scientific publication.