Final Evaluation Report

Your Details	
Full Name	Sheila Ghimire
Project Title	Flood Modelling to determine the habitat dynamics of Greater One-horned rhinoceros in Chitwan National Park, Nepal
Application ID	37258-1
Date of this Report	15th January, 2025

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
1. Habitat Survey and Modelling			�	
2. Flood Modelling with inundation maps				
3. Integration of habitat model and flood models				

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

a). The western complex of the park has higher risk of inundation due to flood; thus posing more risk rhino since the population is concentrated in this area.

b). As the return period of flood increases, rhino habitat areas which are moderately to highly suitable are found to be affected as the inundation extent and flood depth increases in those areas.

c). Protection measures such as construction of mounds (>2m) would be needed since high risk areas has higher habitat suitability. Furthermore, since eastern area of the park has moderate to high suitable areas, internal translocation from western to eastern complex could prevent the washing away instances. However, intensive habitat management is required considering the current situation of those areas caused by infrastructure development.

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

There were two times when the project encountered some difficulties. One was during the habitat survey as the researchers had to skip few sub grids due to topographical barriers as well as the potential danger of wild elephant and tiger in the area. However, the team managed to collect representative points within the major grids.
The other difficulty arose while managing time for the national workshop. It took a lot more time than expected to bring the experts together either because of time conflict or their professional commitments. One of the reasons for this could also be the fact that the workshop was initially planned to occur in Chitwan National Park,

which also travel time as well. So, to tackle the problem the team decided to carry out the workshop in vicinity of Kathmandu, and it happened successfully by gathering experts from government officers, conservation organizations, students and professors from universities.

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

The involvement of local people was basically during the habitat survey, focus group discussion, and key informant interview. The field researchers in the habitat survey were the local people who either worked as technician in NTNC or were the member of Community Based Anti-poaching units. They benefitted technologically and financially from the project.
As for the other locals, the focus group discussion and key informant were gathered to discuss about the conservation issues and challenges, which empower them towards rhino conservation.

5. Are there any plans to continue this work?

If possible, we would like to expand the work by considering the water quality impacts of floods in the major habitat areas of rhino or the water holes where they are generally found.

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

I plan to share the results through journal publication. In fact, I am currently preparing draft manuscript and will share with the foundation once published. Importantly, preliminary sharing of the results happened in the national workshop where experts, government officials, and guests from different organization were invited. The workshop was very much interactive, so in addition to sharing the results, I received important feedbacks which will be incorporated in the final publication.

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

I think the important next step is to make the authorities realize the importance of prevention of washing away of rhino during the major flood events, and construction o mounds to mitigate rhino wash out. The government is mainly focused on the rescue operation, however the government needs to invest and work on preventative measures for such incidents in the future.

The next steps could be a study on water qualities of the waterholes constructed inside the protected areas to understand the natural mortality o rhino and their tendency of avoiding these water sources and concentrating in river and buffer zone areas.

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?

Yes, I used The Rufford Foundation Logo in the banner for focus group discussion and also during the presentation for national workshop. The foundation definitely

received publicity during the course of my work. In fact, during the focus group discussion, I was asked in detail about the foundation and the type of research work it funds. In fact they were intrigued by the design of the logo that incorporated tiger.

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

Team Member	Role	Remarks
Sheila Ghimire	Team Leader	
Dinesh Neupane	Technical Advisor	
Suraj Baral	Data Analyst (Habitat Model)	Worked partially to data mining and initial analysis.
Sailesh Ranjitkar	Data Analyst (Habitat Model)	Was hired to complete the task after Suraj's work in habitat modeling
Ranjan Raj Dahal	Research Assistant	Facilitated field surveys and workshop
Keshav Raj Pokhrel	Data Analyst (Flood Model)	Hired as support for flood model and its integration with habitat model
Ramesh Darai	Field Researcher	Carried field surveys
Suresh Shahi	Field Researcher	Carried field surveys
Tarapati Mardaniya	Field Researcher	Carried field surveys
Sani Chaudhary	Field Researcher	Carried field surveys
Mangal Magar	Field Researcher	Carried field surveys
Bifala Mahato	Field Researcher	Carried field surveys

10. Any other comments?

I am very grateful to the foundation because of the opportunity it provided to an early career researcher like me. I will forever remember the learnings that I received during the course of the project. This project has enhanced my professionalism as well as personality. I carried out the research, but alongside I also learnt to deal with difficulties that could arise during any work. I hope that this small initiation from my side has the potential to bring even a small change in the field of conservation.