

Final Evaluation Report

We ask all grant recipients to complete a project evaluation that helps us to gauge the success of your project. This must be sent in **MS Word and not PDF format**. We understand that projects often do not follow the predicted course but knowledge of your experiences is valuable to us and others who may be undertaking similar work – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

Please DO NOT fill in and submit this form until the project has been completed.

Complete the form in English. Note that the information may be edited before posting on our website.

Please email this report to jane@rufford.org.

Your Details	
Full Name	Manju Shree Thakur
Project Title	Wildlife Road Safety: Raising Awareness about Roadkill in Banke National Park, Nepal
Application ID	41748-1
Date of this Report	August 22, 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
Questionnaire Survey Pre-Post			✓	<p>Successfully done. 300 drivers completed the questionnaire, at 3 three locations (Lamahi, Kohalpur and Nepalgunj).</p> <p>A post-questionnaire survey was conducted in the same location with 300 drivers.</p>
Camera Trapping		✓		<p>Due to technical issues, the planned 6-month survey was reduced to 60 trap nights. Initially, we placed the cameras facing the roadside, but heavy vehicle movement during the day and night quickly drained the camera batteries and filled the storage within a day (We later knew while monitoring several times). We tried 3 or 4 times, but after some cameras froze and stopped working and lost some of the data, we changed their placement and side. Once we installed the cameras a few meters away from the road they started working properly. However, a wildfire later destroyed one of our cameras, and the authorities advised us to remove the remaining cameras for safety reasons.</p> <p>The camera trap results showed that animals were more active around Fireline areas. These open spaces may make it easier for</p>

				<p>animals to move through or find food. Most animal activity was recorded during dusk, suggesting that twilight hours are the peak time for movement and road crossing. We also noticed that majority of animals were captured in north part or moving from north to south, where a large river is located. This pattern may indicate that access to water plays an important role in their movement. Some cameras placed near small seasonal water sources along the roadside captured animals coming to drink water. This shows that water availability strongly influences their behaviour and movement (Thakur et al., 2025). Based on these findings, creating artificial ponds or small waterholes inside the forest could help reduce the need for animals to come near roads. This simple action could lower the risk of wildlife-vehicle collisions and help make the area safer for both animals and people.</p> <p>We trained a local assistant who monitored the camera traps.</p>
Awareness Program			✓	<p>Successfully done.</p> <p>We distributed 1000 stickers.</p> <p>Instead of a workshop we conducted an interaction program with a total of 72 participants representing park officers, community, forest users' groups, media, forest division, traffic, transport, social workers, school, NGO/INGOs who are</p>

				<p>working in this same area.</p> <p>Approximately, we reached nearly 700-800 motorists directly and above thousands indirectly which represents all kinds of vehicles small to large.</p> <p>We broadcast a jingle 12 times a day for 2 months (14th January to 14th March) reaching 5 nearest districts.</p> <p>The national park publishes an annual report that includes records of wildlife roadkill incidents. We plan to use this data to assess any improvement in roadkill rates by comparing future records with the previous datasets, as we already have nearly 7-8 years of data with us.</p>
Interaction Program			✓	<p>Successfully done.</p> <p>Instead of conducting a formal workshop, we organized an interaction program, as described above. During the session, we introduced the project, presented our research findings, data quality and discussed existing traffic rules, regulations, and mitigation measures. We also talked about future actions needed to minimize roadkill incidents. The program included active discussions with participants and a question-and-answer session at the end. Through this interaction, we emphasized the urgency of addressing roadkill issues and raised collective awareness for wildlife conservation and its need among different stakeholders.</p>

Conservation Board Installation		✓		We had planned to install three conservation boards if the selected hotspots matched the locations shown by camera trap data. But in the end, we installed two boards at places where both the hotspot maps and camera traps showed regular animal movement.

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

- a) Improved knowledge, attitudes and perception of drivers
- b) Evidence based hotspot location; to determine the most suitable locations for installing awareness boards, we followed an evidence-based approach. We first collected and compiled roadkill data from several years within the project area. Using ArcGIS, we conducted hotspot analyses to identify areas with the highest density of wildlife-vehicle collisions. In addition, camera-trap data from the same region were analysed, and a second hotspot analysis was performed using the same ArcGIS hotspot identification tool. The overlapping areas from both datasets long-term roadkill records and recent camera-trap observations were considered as confirmed hotspot zones. Finally, the selected locations were reviewed and discussed with park authorities and local stakeholders to ensure the boards were placed in the most relevant and accessible areas for both drivers and wildlife safety.
- c) Conservation Board with minimal but effective message

At this stage, we have not yet measured a reduction in roadkill incidents, as the data for the current year will only be available at the end of the fiscal year. The awareness boards were installed recently, and therefore, it is too early to assess their direct impact on reducing roadkill. Our plan is to compare the upcoming roadkill data from the same sections of the road with the records collected in previous years. This comparison will help us evaluate whether the installation of awareness boards and other interventions have contributed to a measurable decline in wildlife-vehicle collisions.

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

Camera Battery Drain and Technical Issues: We initially had a serious problem with camera traps; the batteries ran out fast, and the cameras would freeze in a day. The main cause of this was the high volume of traffic on the highway, both during the day and at night. In order to address this, we moved the cameras ten meters or so from the road, concentrating more on the animal trails than the highway. The camera's performance was stabilized by this change. In the end, we also lost three cameras.

Challenges in Conducting Questionnaire Surveys: Since Banke is one of the hottest places in Nepal, it was challenging to approach and engage drivers for the questionnaire survey during the fieldwork period due to the intense heat. At first, many were annoyed and hesitant to reply. However, we were able to better schedule the time and integrate the surveys with awareness programs, which increased participation, thanks to the assistance and coordination of the local transportation office.

Accessibility Issues Due to Road Conditions: Due to bad road conditions and lengthy travel times, getting to the project site by car became challenging at times. We took airways to make sure we could meet our deadline, which allowed us to proceed with the project's activities without suffering any major setbacks.

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

Local communities played a significant role in the implementation of this project and benefitted both economically and in terms of knowledge and awareness. We made a conscious effort to ensure that a majority of the project's operational budget was spent locally. From purchasing stationery and designing awareness stickers to printing materials, preparing conservation boards, and managing logistics local vendors and service providers were prioritized. This directly supported the local economy and encouraged ownership of the project outcomes. Beyond economic benefits, community members actively participated in awareness campaigns, roadside interaction programs, and questionnaire surveys. These engagements provided them with valuable knowledge about wildlife behaviour, road ecology, and safety measures. Many local people especially drivers, hotel owners, and roadside vendors learned about the effects of wildlife roadkill and how small behavioural changes, such as reducing speed, careful driving in hotspot areas, or frequent movement zones can contribute to wildlife protection.

5. Are there any plans to continue this work?

Yes, we did learn from this project that consistent input and long-term planning are essential to achieving truly effective and sustainable results. Thus, we do intend to carry on with these activities. Along with continued initiatives with drivers and local communities, one important area we hope to improve in the upcoming phase is passenger awareness. In order to help shape the next phase of activities, we will also think about scaling up the current work by talking with local stakeholders and reaching out to the media.

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

Through formal presentations and interaction programs with journalists, transportation offices, national park authorities, community members, and conservation stakeholders, we have already shared results to make sure our findings are understandable and helpful to both local communities and decision-makers.

We have presented our presentation on our interaction program to stakeholders (national park, community members, some representative of drivers) where we have

shared some of our results highlighting the need of awareness and mitigation measures to reduce roadkill.

We also plan to publish a detailed report on the organization's website and will submit a research article to national/international journals. And hopefully will publish article/op-ed in newspaper so that local will also gain knowledge regarding it.

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

The main next steps for the future are raising passenger awareness, increasing community outreach through transportation organizations and schools, and encouraging wildlife-friendly infrastructure in high-traffic 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?

Through community interaction programs, driver surveys, FM radio jingles, and social media outreach, the Rufford Foundation received a lot of publicity to make sure that local communities, stakeholders, and conservation partners were aware of its support throughout the project. The Foundation's logo was prominently featured on project materials such as reports, flyers, t-shirts, conservation boards, and awareness stickers.

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

Manju Shree Thakur, the project lead, was responsible for overall project planning, coordination, reporting, stakeholder engagement, and took part in all field-based activities from start to finish.

The field assistants and team member Shiwa Jnawali, Prabin Lama, Manisha Sherpa, Rona Vaidya, and Bishnu Aryal played key roles in camera trap installation and monitoring, questionnaire surveys with drivers, assisting in interaction programs, and collecting data throughout the project period. Pawan Rai and Somy Bhattarai helped in sticker design. In addition, park and division forest officers, local persons and volunteers actively supported the project by helping with transportation, organizing awareness campaigns, and participating in the installation of conservation boards.

10. Any other comments?

This project successfully addressed wildlife roadkill by fusing scientific research with community involvement. Drivers, residents, and authorities' positive reactions indicate that there is a great chance for future growth. Long-term effects and wildlife coexistence depend on sustained efforts, improved infrastructure, and policy support.

ANNEX – Financial Report
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