Final Evaluation Report

Your Details	
Full Name	Vidyaman Thapa
Project Title	Promoting Community Based Conservation Efforts in Lower Humla, Nepal
Application ID	42832-2
Date of this Report	June 30, 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
Household surveys			■	332 semi-structured questionnaires were conducted to understand the human-wildlife conflicts and local perceptions of wildlife conservation in lower Humla.
Conservation billboards establishment			■	Three billboards were installed at three strategic locations, featuring messages about protected mammals of Humla and the importance of biodiversity conservation.
Eco-club formation			■	Two eco-clubs were formed in two high schools in Sarkegad, with a goal to cultivate future conservation leaders.
Conservation documentary production		■		A draft has been made but final production is remaining.

2. Key Project Outcomes

2.1. Project Inception and Stakeholder Consultation

A consultation meeting was held with key stakeholders, including representatives from Sarkegad Rural Municipality, the Division Forest Office, Humla, and Project UKALI. The meeting facilitated discussions on the previous project outcomes and emphasized objectives for the new project, ensuring smooth implementation.

2.2 Household Surveys

We conducted 332 household surveys in Sarkegad region using semi-structured questionnaires to assess the extent of human-wildlife conflict and understand the perceptions of local people in wildlife conservation. The average age of the respondents was 42.3 (range =14 - 82 years).

Figure 1: The project lead interviewing a local woman during the first phase of the household survey.

2.2.1 Education Level (% Distribution)

The education levels of respondents are categorized as Illiterate, 1-5 grade, 6-10 grade, 11-12 grade, and Bachelor & above.

Nearly half of the respondents (48.2%) are illiterate, indicating limited formal education in the region, which may impact awareness and understanding of biodiversity conservation strategies. The 11-12 grade category is the second most common (22.3%), followed by 6-10 grade (18.1%). The respondents with higher education (Bachelor & above) were the least, at only 2.7%, indicating only few people have attended university degree.

2.2.2 Occupation

The occupations reported are farming/livestock husbandry, trade/business, and jobs (Government, NGOs, INGOs). The vast majority (89.5%) of respondents are engaged in farming and livestock husbandry, underscoring the agrarian nature of the lower Humla economy. Trade/business (4.8%) and other jobs (5.7%) are less common, suggesting limited diversification in livelihoods. This heavy reliance on agriculture may heighten the impact of human-wildlife conflicts, as farming and livestock are directly affected by wildlife interactions.

2.2.3 Religion

The religious affiliations of respondents are Hindu, Buddhist, and Other. 98.2% of respondents are Hindu, reflecting the dominant religious practice in the region. Buddhist and other religions are minimally represented (1.2% and 0.6%, respectively), indicating a largely homogenous religious profile that may shape cultural attitudes toward human-wildlife interactions.

2.2.4 Ethnicity

The ethnic groups represented in the survey are Chhetri, Shahi/Thakuri, Janajati, Dalit, Brahmin, and Lama/Bhote. The Chhetri dominates the study site (51.5%), followed by Janajati (19.3%) and Dalit (17.2%). Shahi/Thakuri represents 11.4%, while Brahmin and Lama/Bhote are negligible (0.3% each), most of whom have migrated there recently.
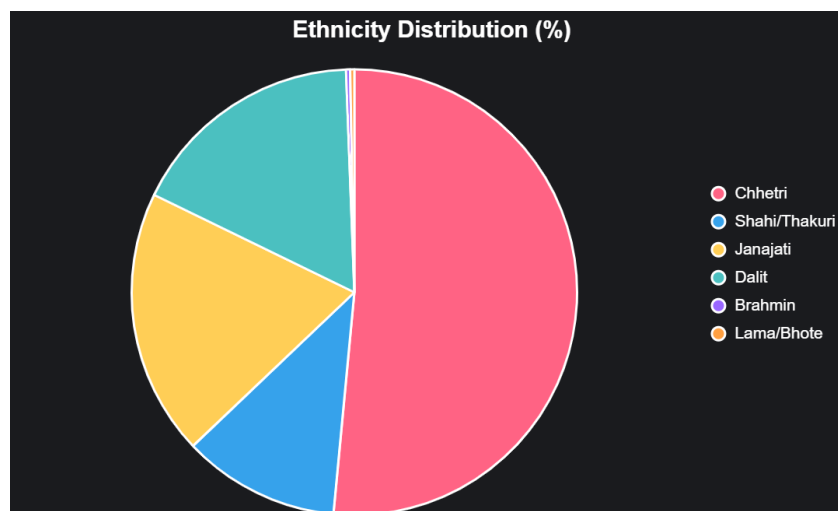

Figure 2: Ethnic diversity of respondents in the surveyed region.

2.2.5 Duration of Involvement in Farming

The duration of respondents' involvement in farming is categorized into three groups: 1-5 years, 6-10 years, and >10 years. The majority (95.2%) of respondents have been involved in farming for more than 10 years, indicating a dominant agricultural tradition in lower Humla. Only a small fraction (2.1% for 1-5 years and 2.7% for 6-10 years) are relatively new to farming, suggesting that farming is a long-term livelihood for most respondents. This long-term engagement underscores the importance of farming in the local economy and its potential vulnerability to human-wildlife conflicts.

2.2.6 Crop diversity in the Region

To identify the major crops, we counted the frequency of each crop mentioned across all respondents. Millet and buckwheat are the most widely grown crops, cultivated by 78.9% and 72.6% respondents, respectively, reflecting their importance as staple crops in the high-altitude, semi-arid conditions of lower Humla. Maize and wheat are also significant, growing by 29.2% and 27.1% respondents, respectively, indicating a diverse cereal-based agricultural system. Paddy (rice) and potatoes are seasonal crops with 20.5% and 16.9% of respondents growing them. Other crops like barley, onion, and beans are grown by fewer respondents. The predominance of millet and buckwheat aligns with the region's agro-climatic conditions and dietary preferences, but their vulnerability to wildlife damage could exacerbate human-wildlife conflicts.

Figure 3: Gusa village, one of the most prominent farming areas in Sarkegad. (Photo credit: Sirjana Sizzu).

2.2.7 Livestock Holdings

In Sarkegad, livestock holding was quite high with 94.6% of the respondent's households keeping at least one type of animal. On average, there are 3.93 animals per holding across all livestock types (range: 0-260). Livestock-owning households typically maintain 2-3 types of animals, most commonly a combination of cattle and goats. The number of animals per household varies widely from none to 260, indicating a mix of smallholder and more affluent pastoralist families.

Cattle (cow/ox) are the most widely owned livestock in lower Humla, with 74.7% of respondents reporting ownership. This reflects their central role in rural livelihoods for

plowing fields, producing milk, and serving as a form of wealth. Goats follow at 42.5%, appreciated for their resilience in rugged terrain and their utility for both meat and milk. Dogs (33.7%) and chickens (33.4%) are also commonly kept, with dogs likely providing protection from wildlife and chickens offering a steady source of eggs and meat. Less common but still important are sheep (22.3%) and yaks (18.7%), the latter crucial in high-altitude areas for transport and wool. Jhopa (16.3%), horses (12.7%), and mules/donkeys (7.8%) appear in smaller numbers due to their more specialized functions and higher upkeep.

This widespread ownership has implications for both human-wildlife conflict and conservation. High numbers of cattle, goats, and sheep make them vulnerable to predators like leopards and wolves, while dogs, though present, may not always offer sufficient protection. The presence of yaks, mules, and horses shows some dependence on animals for transport in remote regions, which increases their exposure to wildlife. From a conservation perspective, the dominance of traditional livestock may lead to overgrazing and habitat degradation, while the low percentage of alternative species (1.2%) suggests room for more sustainable livestock diversification.

2.2.8 Forest Fire and Climate Change Perceptions

The following table summarizes the analysis of 332 responses regarding forest fires incidences and climate change. Metrics include the most frequent month for forest fires, causes, average forest area lost, proposed solutions, awareness of climate change, concern about climate change, and willingness to participate in climate change awareness campaigns.

Table 1: Respondents' perceptions of forest fires and climate change.

Metric	Value
Most Frequent Month for Forest Fires	
Magh-Chaitra (Jan-Apr)	93.98% (312)
Baisakh-Asar (Apr-Jun)	5.12% (17)
Kartik-Poush (Oct-Jan)	0.90% (3)
Causes of Forest Fires	
Accidental	77.11% (256)
Intentional	13.55% (45)
Natural	9.34% (31)
Proposed Solutions	
Awareness	52.41% (174)
Punishment	29.22% (97)
Alternative for Livestock Grass	18.37% (61)
Climate Change Awareness	
Yes	71.08% (236)
No	7.23% (24)
Don't Know	21.69% (72)
Climate Change Concern	
Yes	72.59% (241)

No	7.23% (24)
Don't Know	20.18% (67)
Participation in Campaigns	
Yes	56.93% (189)
No	9.94% (33)
Don't Know	33.13% (110)

Note: "Alternative for Livestock Grass" refers to providing alternative grazing resources to reduce fire risks.

Household survey responses from the Sarkegad region of lower Humla provide valuable insights into local experiences with forest fires and climate change. A striking 93.98% of respondents reported that forest fires typically occur between Magh and Chaitra (January to April), a period marked by dry pre-monsoon conditions. Most of these fires are perceived to be accidental (77.11%), often linked to human activities such as careless burning, smoking, and or travelers using fire and leaving it unattended. The average area affected per fire was reported at 34.12 hectares, with individual events ranging from 2 to 200 hectares, highlighting both the severity and inconsistency in fire scale, which may stem from varying local conditions or differences in reporting.

In terms of mitigation, respondents expressed a strong preference for educational approaches, with 52.41% supporting awareness campaigns as the most effective solution. Punitive measures (29.22%) and providing alternatives to livestock fodder collection from forest areas (18.37%) were also suggested, indicating awareness of both behavioral and resource-based drivers of fire risk.

Climate change awareness is notably high in Sarkegad, with over 70% of households acknowledging and expressing concern about its effects. However, about 20% remain uncertain, and while 56.93% are willing to engage in climate-related campaigns, a significant 33.13% are undecided. These findings underscore the importance of sustained outreach, education, and inclusive participation strategies to foster long-term environmental stewardship in the region.

Figure 4: Forest fires were reported more frequently between January and April (Magh-Chaitra) in the Sarkegad region. This photo was taken during the field visit.

2.2.9 Perception Towards Wildlife Conservation and Compensation Scheme

Table 2: Respondents' views on wildlife conservation and compensation schemes in the surveyed area.

Metric	Value
Overall Wildlife Population Trend	
Decreased	99.10% (329)
Don't Know	0.90% (3)
Reasons for Decline	
Habitat Degradation and Fragmentation	58.91% (195)
Illegal Hunting and Trade	41.09% (136)
Response to Wildlife Damage	
Do Nothing (Let them live)	37.35% (124)
Chase it away	48.19% (160)
Hunt them	12.65% (42)
Don't Know	1.81% (6)
Necessity of Wildlife Conservation	
Yes	83.13% (276)
No	7.83% (26)
Don't Know	9.04% (30)
Necessity of Teaching School Kids About Wildlife Conservation	
Yes	85.24% (283)
No	7.23% (24)
Don't Know	7.53% (25)
Solutions for Human-Wildlife Conflict	
Mitigation Strategy	45.78% (152)
Implement Wildlife Compensation Scheme	34.94% (116)
Kill Problem wildlife	19.28% (64)
Awareness of Compensation Scheme	
Yes	37.95% (126)
No	24.70% (82)
Don't Know	37.35% (124)
Receipt of Compensation	
Yes	6.63% (22)
No	68.07% (226)
Don't Know	25.30% (84)
Support for Training/Awareness	
Yes	57.83% (192)
No	15.06% (50)
Don't Know	27.11% (90)

Note: "Mitigation Strategy" refers to non-lethal measures like habitat management or conflict mitigation. "Implement Wildlife Compensation Scheme" indicates support for financial compensation for wildlife-related losses.

Survey responses from 332 households in the Sarkegad region of lower Humla, Nepal, reveal strong community concern about wildlife conservation and human-wildlife conflict (HWC). Nearly all respondents (99.10%) perceive that wildlife populations have declined over the ten years, primarily due to habitat degradation (58.91%) and illegal hunting or poaching (41.09%). Despite these challenges, attitudes toward wildlife remain largely tolerant: over one-third (37.35%) believe wildlife has a right to live even when causing damage, and 83.13% agree that conservation is necessary. Education is also seen as a key tool, with 85.24% supporting teaching children about wildlife. When asked how to address HWC, the most favored response (45.78%) was adopting coexistence strategies, followed by implementing compensation schemes (34.94%), while a smaller portion (19.28%) still support lethal responses.

Awareness and effectiveness of wildlife compensation schemes, however, remain limited. While over a third (37.95%) of respondents had heard of such programs, only 6.63% reported ever receiving compensation, indicating significant barriers to access or implementation failures. Additionally, 37.35% were unaware of the scheme's existence altogether. Still, the majority (57.83%) expressed support for further training and awareness campaigns, highlighting an opportunity for government and conservation partners to improve communication and engagement. These findings underscore a critical need for more inclusive, accessible, and transparent conservation policies that balance local livelihoods with sustainable wildlife management.

2.2.10 Livestock Mortality

The livestock and poultry losses of respondents reveals that natural death is the predominant cause across all animal types, affecting 67.84% of cattle, 74.67% of goats, 66.67% of sheep, 54.55% of chickens, 47.14% of mules/donkeys, 40.74% of horses, 44.19% of yaks, and 38.46% of jhopas. Diseases are the second most common cause, affecting 16.28% to 40.17% of animals, followed by accidents (16.67% - 8.38%), poisonous plants (6.98% - 31.44%), and extreme snow events (15.20% - 21.83%), particularly in high-altitude regions.

Human-wildlife conflict (HWC) is significant, with predators like jackals (17.47% of all records), golden eagles (13.25%), leopard cats (11.75%), Himalayan black bears (10.84%), leopards (10.24%), feral dogs (8.73%), and wolves (5.12%) contributing to losses, especially for goats (52.40%) and sheep (42.53%). The data suggests a challenging environment with environmental and predatory pressures exacerbating livestock losses. Additional causes include lack of veterinary services, fodder shortage and starvation, infectious disease outbreak, and transportation-related stress.

2.2.11 Human-wildlife Conflicts

The human-wildlife conflict (HWC) dataset highlights crop damage as the most prevalent issue, reported in 65.36% of cases, followed by livestock damage (48.80%), horticulture damage (37.95%), beehive damage (13.86%), human injury (10.24%), and other unspecified conflicts (7.83%). Rhesus monkey (90.06%) and leopard cat

(74.10%) are the most frequent conflict-causing species, primarily impacting crops and livestock, respectively, with Himalayan black bear (65.06%) and golden jackal (59.04%) also significant, often causing livestock losses. Leopards and the Himalayan wolf, though less common (12.65%–20.18%), contribute to high-severity livestock losses. Severity analysis shows 55.31% of conflicts are high, 38.11% medium, and 6.58% low, with livestock and crop damage frequently rated high (65.43% and 60.83%, respectively). This underscores the significant economic toll on agricultural and pastoral communities, necessitating targeted mitigation strategies.

The data reveals 97.89% of respondents report at least one conflict, with 86.75% involving multiple species, indicating widespread HWC. The prominence of crops and horticulture damage by the Rhesus monkey and the Himalayan langur, alongside livestock losses from predators like leopard cat and golden jackal. Human injuries, though less frequent, are notable from the Himalayan black bears.

Recommended actions include crop and livestock protection measures (e.g., fencing, use of guard dogs), compensation for losses, and awareness programs to reduce conflicts and promote coexistence, particularly in areas where forest fires and scarcity drive wildlife closer to human settlements.
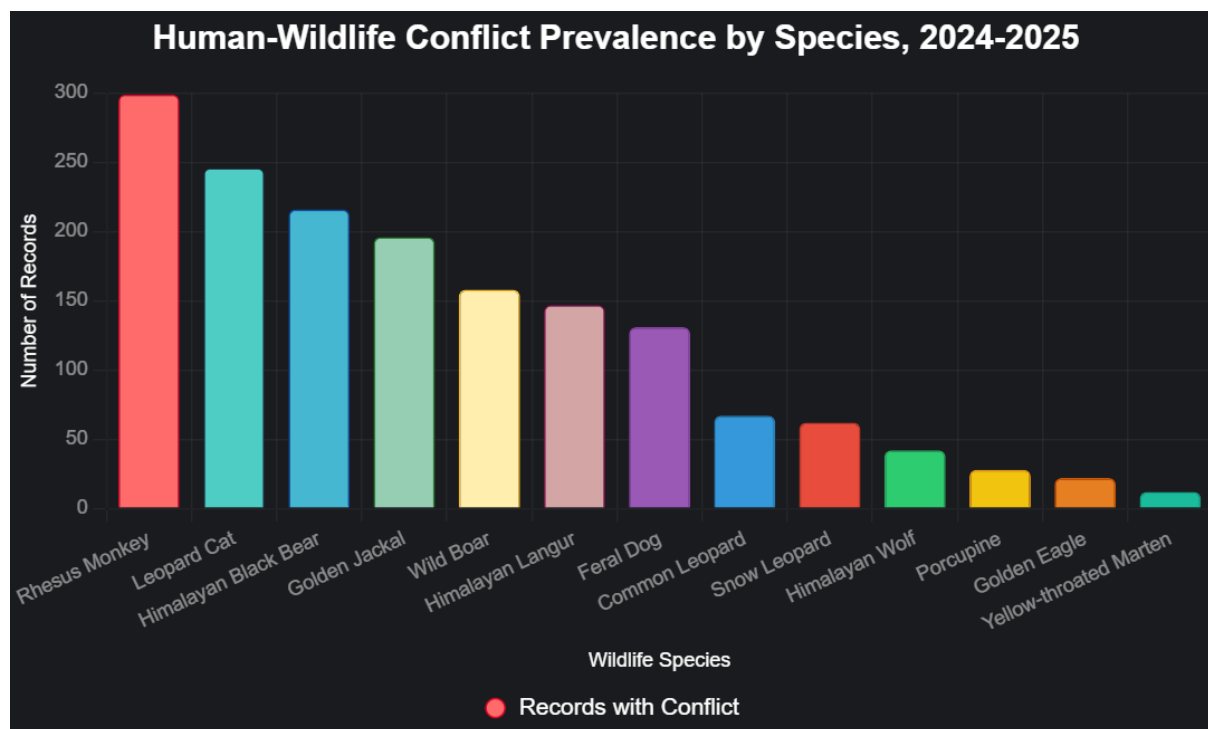

Figure 5: Prevalence of human-wildlife conflicts by species in the Sarkegad region (2024-2025). Rhesus monkeys account for the highest number of conflict records, followed by leopard cats, Himalayan black bears, and golden jackals.

2.3. Conservation Billboard Installation

Three strategically placed conservation billboards were installed with the conservation messages targeted to local people. One was installed at the Sarkegad Rural Municipality office, second at Theli, and third at Seltadi. These billboards featured messages on:

- Protected mammals of Humla and their conservation significance.

- Legal consequences of illegal wildlife activities.

- Awareness on biodiversity conservation, deforestation, and forest fire prevention.

The billboards were well received by the community, with local stakeholders pledging to maintain them.

Figure 6: A conservation billboard installed in the Seltadi region, featuring a message about the protected mammals of Humla.

2.4 Eco-Club Formation

Two eco-clubs were formed in two high schools (Shree Him Jyoti HS and Shree Laligurans HS) in Sarkegad RM. The clubs engaged students in environmental education, conservation days celebration, conservation-related discussions, and practical activities such as tree planting, school cleanliness, and biodiversity

monitoring. These initiatives have helped install a sense of responsibility for nature among the younger generation.

Figure 7: Laliguras High School, located in Lipne, Sarkegad, where an eco-club was established.

2.5 Conservation Documentary Production

A documentary has been developed to highlight the importance of wildlife and the conservation challenges faced in lower Humla. It features local perspectives, expert insights, and proposed solutions to mitigate human-wildlife conflict. As of the submission date of this report, the documentary has not yet been published. It will be broadcast on YouTube once finalized, and the link will be shared upon its release.

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

While the project achieved its key objectives, some challenges were encountered:

- **Damaging the hoarding board:** The hoarding board installed at Theli area was intentionally torn up and damaged by some unknown people (see **Fig. 8**). This showed the need for more conservation awareness programs in the area and challenges that we may face in remote regions like Humla.

- **Logistical Difficulties:** The remote location and rough terrain made transportation and coordination challenging.

- **Seasonal Constraints:** Harsh weather conditions affected the scheduling of some activities.

- **Coordination Constraints:** After completing the first phase of the project, I had to leave the country to begin my PhD. This resulted in communication and coordination challenges with the local team, affecting the pace of follow-up and reporting tasks. Despite these hurdles, the team continued to work on the ground, and we adapted our workflows to manage progress as effectively as possible.

Lessons learned from this project will help in designing future conservation initiatives in similar remote regions.

Figure 8: Damage caused by unknown individuals to a conservation billboard at Theli, highlighting the challenges faced in this remote region of Nepal and emphasizing the need for more awareness activities.

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

There was direct involvement of 332 people during household surveys, about 70 people were engaged in the installation of three conservation billboards, around 50 people (including eco-club members, students, teachers, and staff) participated in the formation of eco-clubs, and approximately 100 people involved in the making of a conservation documentary.

The engagement was inclusive. Efforts were made to ensure representation of women, youth, and marginalized groups. For instance, more than 35% of household

survey respondents were female, and eco-club activities included students from underrepresented ethnic backgrounds.

Key benefits and impacts include:

- Increased awareness of human-wildlife conflict mitigation measures among diverse community members.
- Strengthened collaboration between local authorities, conservationists, and residents.
- Enhanced student involvement in conservation efforts through eco-clubs.
- Improved understanding of conservation policies and wildlife protection laws among community members.

After installation of billboards, informal feedback with local leaders and people indicated that they were happy to see the initiative program in the area and learned about the laws and conservation policies of wild animals that are mostly found in the Humla region. Teachers reported that students began initiating nature-related activities such as planting flowers and trees, limiting the use of plastic materials etc. even outside the formal eco-club schedule.

5. Are there any plans to continue this work?

Yes, I plan to continue and expand this work. Based on the positive response from local communities, we aim to establish more eco-clubs in neighbouring schools, install additional awareness materials, and organize community-led conservation workshops. I am also exploring funding opportunities to support long-term engagement and monitoring of community-based conservation outcomes.

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

The results of this project will be shared through:

- Community meetings and local workshops.

- Social media platforms and online reports.

- Academic presentations and publications.

- Collaboration with conservation organizations and government agencies.

During the **first Rufford's small grant** project, we recorded the Eurasian otter (*Lutra lutra*) in the Sarkegad region, marking the northernmost distribution of the species in Nepal. This important finding has been documented in a scientific article published in the IUCN Otter Specialist Group Bulletin. The discovery has been featured on Mongabay News, highlighting both the conservation potential and emerging concerns.

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

The successful completion of this project has laid the groundwork for sustained community-based conservation efforts in lower Humla. Moving forward, we recommend:

- Strengthening eco-club activities with additional resources and training.

- Expanding conservation awareness programs to more villages.

- Conducting long-term monitoring of human-wildlife conflict trends and overall biodiversity of lower Humla.

- Collaborating with local authorities to integrate conservation initiatives into local policies.

Additionally, there are plans to continue similar conservation activities in other parts of Humla, building upon the success of this initiative.

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 prominently displayed on conservation billboards. The foundation received significant publicity during household surveys, through media coverage, and stakeholder engagement, ensuring its contribution to conservation efforts was well recognized. Furthermore, the Rufford Foundation's logo was used in all our reports and presentations and will always acknowledge them for future publications.

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

Vidyaman Thapa: Project Lead
Jesse Alston, Ph.D.: Project Advisor
Ramji Bogati, Ph.D.: Project Advisor
Rinzin Phunjok Lama: Project Supervisor
Anup Raj Shahi, Abinash Lama, and Binod Phadera: Field Assistants

10. Any other comments?

We extend our sincere gratitude to the Rufford Foundation for their generous support, the local government, community members, and schools for their active participation, and the project team for their guidance, proper implementation and dedication to wildlife conservation. Special thanks to Shruti Lamichhane for assisting in household data input.

Additional photos from the field site: