

## Final Evaluation Report

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Your Details	
<b>Full Name</b>	Aditi Subba
<b>Project Title</b>	Climate Change Impacts on Bats, Chiuri and Chepang of Nepal: Indigenous Knowledge Assessment and Sustainable Intervention for Livelihood
<b>Application ID</b>	28883-1
<b>Grant Amount</b>	£5,990
<b>Email Address</b>	subba.aditi@gmail.com
<b>Date of this Report</b>	29th March 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
Understanding of Chepang communities' knowledge on climate change				Questionnaire survey was successfully conducted in the project area among the Chepang community with a range of ages and gender.
Ethno-zoological understanding of the relationship between Chiuri plant, fruit-eating bats and Chepang community				A total of 200 respondents participated in the questionnaire survey. Focused-group discussions and interviews with stakeholders were also done to gain more knowledge in regard to the dynamic of the plant, mammal and community.
Awareness program and capacity development program				1000 copies of informational posters were made and distributed to local people. Community awareness programme was also conducted in regard to climate change. Furthermore, a capacity development programme with regards to beekeeping was also conducted in the community.

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

Around the final part of the project implementation, the COVID-19 pandemic hit Nepal and the government announced national lockdown from March 2020 until July 2020. After almost 4 months of strict lockdown, things were just about to ease, but open borders of the country brought a rise in infected people and the virus spread like wildfire, especially in the Kathmandu Valley. The second lockdown in the country was hence announced in August 2020 and lasted till September 2020. At such times, it was difficult to not only travel to the field to implement remaining action plans, but also plan anything ahead since everything seemed extremely unpredictable.

Luckily, communication was going on with the Foundation's spokesperson and they were very understanding of the situation. Participants from the awareness programme were also in touch during the whole lockdown process.

Only from November 2020 were the travel restrictions loosened. However, it was risky to engage a large group of people. Hence, with much planning, protection and care,

the capacity development was conducted in January 2021 among limited people. Personal Protective Equipment (PPE) such as sanitisers, hand wash and masks were accessible to all participants.

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

#### **a. Relationship between the Chiuri, Chepang community and the fruit-eating bats**

Most of the respondents were aware of the interrelationship their community has with Chiuri plants, but fewer in comparison knew about the role bats play in the flowering and pollination of Chiuri plants. Similarly, the community has started to become less dependent on the traditional methods and have been more influenced by market products for cooking and household purposes. In fact, most of the younger generations weren't aware of the importance of Chiuri trees in their community and there were mostly the respondents from older generations who spoke about the role the plants had in their culture. 46% of the total participants answered that there had been decrease of the plant in the forest but 36% noted that they didn't know what was causing the decrease of the plant's population. A new variable that wasn't listed in the questionnaire but was often repeated by respondents was older Chiuri trees in the forest that was one of the causes of less Chiuri in the forest. This can be speculated that pollination of the plant has been low in the forest although further scientific research must be done for a more conclusive answer.

#### **b. Level of knowledge of Chepang communities' in regards to climate change**

Although 53% of the respondents were aware or had heard about the word 'climate change,' only 26% of them could describe it a bit more elaborately. The vocabularies most used to describe climate change were mostly 'more rain' 'hotter temperature' 'less production' and 'loss of trees and wildlife.' Out of them, 58% chose to use 'less production' to describe the impact of climate change in regards to their experience. Almost 94% of the respondents were eager to learn more about climate change, its impact in their livelihood and expand their knowledge about the environmental catastrophe.

#### **c. Climate Change impact awareness and capacity development program**

In response to the participants' eagerness to learn more about climate change, awareness programmes were carried out with the community. The participants were unaware of the critical dynamic they shared with the fruit-eating bats and Chiuri plants and how climate change was affecting this dynamic. Through the interactive programmes, participants were able to question and learn about the environmental catastrophes that could have been caused by climate change.

A capacity development programme was conducted among a few selected participants to provide them an alternative livelihood. As suggested by experts consulted, beekeeping was chosen to be the best alternative livelihood intervention for the Chepang community. Because bees play an important role in pollination and mitigating climate change, a beekeeping workshop was conducted with the help of local experts. To avoid crowds, 10 participants were involved where they learned how the bees help to flourish nature and by practicing beekeeping, they would not only benefit the environment, but also be able to earn money through different methods.

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

The locals from the community were consistently involved in awareness programmes, discussion and capacity building workshops. They benefited with information about climate change, knowledge on the interrelationship of bats and Chiuri plants and the overall ecosystem services in their forest. This is expected to help in reducing incidences of hunting bats along with increasing awareness of conservation.

Furthermore, the capacity development programme to the selected participants has helped them to learn the basic technicalities in beekeeping. If interested, the locals will be able to enhance their skills with other related programmes in the future.

**5. Are there any plans to continue this work?**

Beekeeping is a popular income-generation method for people of the Chitwan district. The climate and environment is very suitable for this activity and many communities of the project area have been practising beekeeping for their livelihood. Chepang community however, lacked skills and knowledge to the benefits beekeeping has in their livelihood and the ecosystem. With just the basic technicalities given during this project, many youths, especially women, were interested in doing beekeeping for their livelihood. Lack of education and limited knowledge to bees' role in the ecosystem has left the community with a negative attitude towards these pollinators. Hence, if technical training to more people of the community is to be given about beekeeping and its importance, not only would the community generate income for alternate livelihood, but the issue with less young Chiuri trees in the forest could also decrease with the help of increased pollination. Not to mention, by directing the community to other alternatives, this would encourage the community to stop hunting bats and engage in conserving them instead.

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

Some of the results from the project were shared to the local participants and local NGOs through discussions, posters, presentations and workshops. Similarly, project results were disseminated to the local government body. Final full report of the project will be published and shared with the government body of concern, conservation organisation, Nepal Chepang Association and Indigenous community forum. Furthermore, one article in regards to the findings from the project will be published in an international 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?**

The project was approved in September 2019 and funding was released in October 2019. The project action plans were implemented from November 2019 and majority of the work was conducted by February 2020. The initial plan was to complete the entire project by April 2020. However, due to the pandemic outbreak and numerous setbacks that followed, the project was only able to conclude in February 2021, almost a year later than planned.

**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
Food and Accommodation for the team	3600	3680	+80	PPE had to be bought for activities to be conducted post lockdown for safety
Travel Expenses	540	600	+60	Public vehicles had to be avoided at least for some period post pandemic and local taxis had to be hired in the field.
Stationeries for fieldwork surveys and focal group discussion	200	100	+100	Small Mammals Conservation and Research Foundation assisted in providing stationeries support.
Lunch and refreshment for participants	400	400		
Leaflet and poster designing and printing	150	150		
Technical support	100	60	-40	Some of the equipment were assisted by Small Mammals Conservation and Research Foundation
Capacity development training	500	500		
Communications	200	200		
Information dissemination and publication	300	300		
<b>TOTAL</b>	<b>5990</b>	<b>5990</b>		

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

Due to the impact COVID-19 left in the community, the already marginalised Chepang community has suffered major loss in production, employment, income and security. Because most of the survey had been conducted prior to the national lockdown, it would be important how COVID-19 has affected their livelihood. It can also be speculated that the community might have had to depend even more on the community forest to sustain themselves during the pandemic crisis.

Hence, the next important step could be to understand the anthropogenic pressure on the forest and natural resources by the community from the period of pandemic

shutdown. It would also be essential to understand how much of that pressure has been exerted to the existing forest resources and bat population.

**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?**

The Rufford Foundation logo was used in awareness materials of the project. The PDF version was emailed to the foundation.

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

**Ms. Aditi Subba** was the principal investigator of the project. She did her master's in environmental Conservation and has been working in the field of conservation for the last 5 years. Her role for the project was to lead the team into completion of the action plans while coordinating all the aspects of the project.

**Ms. Sabita Gurung** was the research assistant. She completed Masters in Zoology and has good experience of field designing, data analysis and field visit. Her role for the project was to assist the principal investigator of the project in conducting various action plans, questionnaire surveys and discussions with the community.

**Mrs. Ramjimaya Chepang** was one local research assistant from the community. As a woman from the Chepang community, she has been actively involved in social services to uplift her community from marginalization. Her role for the project was to communicate with other individuals from the community in regards to the project and assist the team in various activities involving community participation.

**Mrs. Parvati Chepang** was another local research assistant from the community. Having passed 8th standard and gotten married very early, Parvati was enthusiastic to be a part of the project and assisted the team in questionnaire survey, communication with community and various awareness programs.

**12. Any other comments?**

Rufford Foundation has been very kind and understanding in regards to completing the project amidst the pandemic crisis. Hence, the team would like to express their gratitude towards the association for its utmost support. The Chepang community like many indigenous communities of Nepal are highly marginalised but share a deep relationship with nature. The team would like to thank the foundation for giving the opportunity to explore this community from a different angle.