Final Project Evaluation Report

Your Details	
Full Name	Bishnu Achhami
Project Title	Transforming local communities to citizen scientists for local level long-term conservation of Musk Deer in Manaslu Conservation Area, Nepal
Application ID	24193-1
Grant Amount	£4,982
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Date of this Report	August 2019

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
Developing the citizen scientist				We formed a team of 10 local people as citizen scientists who were interested and have commitment for the wildlife conservation in their area during first phase of the project. In that period they involve in the research actively. They have commitment in decreasing the level of poaching in the MCA area. However, during the second phase, due to the harvesting of *karu* (hybrid wheat) session of the farmers in the area, most of the members of the team were occupied in their field works, and all of them could not attend the programmes and events of the second phase. We communicated with those members who could be available and participate in the project. The team of citizen scientists were eager to contribute and keep updating about the information of musk deer for their long term monitoring and conservation in the area.
Assessing and raising level of awareness and willingness for conservation				The awareness material and the programme was conducted effectively and was very successful. We covered total ten schools and seven places. The school children and the locals were very interested and attentive during our awareness programmes. They responded that they got more information about the importance of musk deer through our awareness programme.
Baseline on occurrence and distribution of Musk Deer species				In MCA, very few works have been done on musk deer. This study has created baseline regarding study of musk deer in MCA, and added information about musk deer in MCA.

				This study also found the gastrointestinal parasites of the musk deer which could become threats if intensity of parasite is high.

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

Geographically, the schools in Manaslu Conservation Area are located far from each other at difficult terrain and several schools were only of basic level (up to class three). Our targeted students were from grade three to ten. To find the suitable school children and conduct the school programme, we communicated and coordinated with the local people. The locals and the staffs of the schools were cooperative in our initiative. After the communication and selection of the school, we covered five different schools of Manaslu Conservation Area for the school awareness programme which were situated at distant locations.

Although we met our objectives to conduct awareness programme in five schools, the numbers of the students in the schools were less. We came to know most of the students go to Gorkha Bazar and other adjacent districts to attend proper school education. So, before initiating second phase survey of this project, we conducted school programmes in additional five schools situated at Gorkha Bazar and made them aware about the importance of the beautiful mammal, musk deer. The participation of the school children was very satisfying and they were very happy including the school committee to have the awareness programme in their school premise.

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

a) The awareness programme for the school children was very effective and most of the students were very excited and happy to learn about the new species information through the video and the power point. Although most of the students had not seen the musk deer live, from our information lecture they were able to make drawing and also able to write essay about the musk deer so nicely in the competition organized by us after the information lecture.

b) The awareness material (poster and brochure) was very useful for the local and other people. The local people were very interest to read the information printed in the materials and they self-involved in sticking the posters and brochures in their walls. The brochure have the information about the musk deer and its importance which they don't knew before. They were very happy to know more about the musk deer which most of them said they had seen but were not sure about the species.

c) The study on the parasites of the musk deer, which are analysed from the pellets of the musk deer, is the first such study from the MCA. Before our study there was no any study done regarding the parasites of musk deer in MCA.

Parasitic disease is one of the main threats to the musk deer besides other threats.

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

Many local people actively and eagerly participated in getting the information about musk deer as they didn't have knowledge about the type of species, its legal status and the punishment for harming the species. Local people who were selected for the training to develop them as the citizen scientists were very eager and enthusiastic to learn about handling the GPS and camera traps because according to them they had not known about such devices and they had not seen such research equipment so closely before. Some social workers and the teachers of the communities were very much interested and supportive on our project that they voluntarily helped us even for the field works and also for in conducting the awareness programme.

During the project we stayed in the houses of the local people and we paid them for staying in their houses and for the food. This was our anticipation to them and we believe it helped them as their source of income for providing us homestay opportunity.

From the project they became aware for the conservation of the wild animals including musk deer. They learnt the basic research methods for the study of musk deer which can be beneficial to monitor about the wild animals found in their place by themselves. The awareness material (posters, brochures, hoarding board) gave information about the musk deer to the local and international tourists visiting the place. This is believed to increase the number of tourists and extend the days of their staying in MCA for sighting the wild animals.

5. Are there any plans to continue this work?

Yes, I have plan to continue this work in the MCA. During this study as well we came to know that there are other sites which can be potential habitat for the musk deer. Besides the illegal poaching of musk deer, other issues could also be posing threats to the musk deer in the MCA. We plan to continue this work to assess those threats and in coordination with the locals bring forth more activities on research and conservation of the musk deer in the area and in Nepal.

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

The final report will be prepared and the results will be submitted to the Department of National Park and Wildlife Conservation, National Trust for Nature Conservation, Manaslu Conservation Area Project office, Manaslu Conservation Area Lesion Office, Division Forest Office, local NGOs, local schools and others related to the Manaslu Conservation Area.

An article will be prepared and submitted in an international journal to share the outcomes to the wider scientific community.

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

S.N.	Activity	Actual time	Expected time
1	Preliminary Survey	November 2018	April 2018
2	First field survey	December 2018	May & June 2018
2.a	First baseline survey	December 2018	May 2018
2.a.1	Key informant interview	December 2018	May 2018
2.a.2	Sign Survey	December 2018	May 2018
2.a.3	Camera trap	December 2018	May 2018
2.b	Capacity building	December 2018	May 2018
2.c	First phase awareness program	December 2018	May & June 2018
3	Faecal matter analysis in the lab	January 2019	July 2018
4	Data entry and analysis	February 2019	August 2018
5	Second field survey	April 2019	November 2018
5.a	Second phase baseline survey	April 2019	November 2018
5.a.1	Sign survey	April 2019	November 2018
5.a.2	Camera trapping	June 2019	November 2018
5.a.3	Key informant interview	June 2019	November 2018
5.b	Second phase awareness program	June 2019	November 2018
6	Faecal matter analysis	July 2019	December 2018
7	Second phase data entry and analysis	July 2019	January 2019
8	Draft report preparation	July 2019	February 2019
9	Final report preparation	August 2019	March 2019

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
Poster designing and printing	150	150		
Question printing for interview, stationeries and report printing	146	128	-18	
Fee for the GIS expert	124	124		
Lab equipment	102	102		
Launch for the participant in the awareness program	655	630	-25	

Notebook and pencil for participant in awareness program	145	125	-20	
Installation of hoarding board with metal frame	75	100	+25	The price of the hoarding board was high because of the foldable design
Hoarding board designing and printing	102	102		
Transportation of the hoarding boards to the two different sites of MCA		90	-90	The hoarding board was carried by the porter to the destinations because the trail to the destination was possible only on foot.
Fee for local assistants		30	-30	In some places we had to hire the local assistants in the field as our guide and support.
A4 size brochure designing and printing	65	65		
Wall calendar designing and printing	115	50	-65	The wall calendar was printed in few numbers
First aid kit	34	34		
Communication fee	13	20	+7	We communicated with different local bodies and people for the information and regular update regarding the information on the Musk Deer
Local transportation	22	33	-11	Local transportation is high due to the off road
Food and accommodation	2867	2830	-37	
Transportation	367	367		
Total	**4982**	**4980**	**-2**	

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

The Manaslu Conservation Area contains suitable habitat for the musk deer. Awareness program is one of the parts for the conservation of musk deer and other wild animals and minimising the threats. However, there are other threats to the musk deer including illegal poaching, and habitat degradation. For that the action-oriented programme is needed for which the government and non-governmental body's joint conservation programmes in coordination with the local bodies is needed. Ensuring the community participation towards the conservation of musk deer is very important for long-term sustainable steps for its conservation.

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?

Yes, I used The Rufford Foundation logo in each and every material produced in the project. The public information boards, brochures and posters on the musk deer conservation contained the Rufford Foundation logo. The Rufford Foundation also received the publicity during the awareness programme in the school and in awareness programme among the local people. I also acknowledged the Rufford in our every programme, meetings, group discussions and sharing during the project.

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

Ms. Sabita Gurung: She has completed her MSc from Central Department of Zoology, Tribhuvan University, Kathmandu, Nepal. She had helped in field designing and data analysis for the project. She had also helped in creating the GIS map. She helped in creating the awareness video on Musk Deer and narrated in the video.

Ms. Shyam Saru: She has completed her MSc in Ecology and Environment from Central Department of Zoology, Tribhuvan University, Kathmandu, Nepal. She helped in the field work and in the awareness program. She also helped in communication with the local people and conducting questionnaire surveys.

Sujan Deshar: He has completed his MSc in Botany from Ascol College, Tribhuvan University, Kathmandu, Nepal. He helped in the field work and in school awareness program. He also helped in identifying the plants along the transect in the habitat of Musk Deer.

Sapana Khaiju: She has completed her MSc in Ecology and Environment from Central Department of Zoology, Tribhuvan University, Kathmandu, Nepal. She helped in the field work and also in the conducting the awareness program.

Swechhya Shrestha: She has completed her MSc in Environment from Goldengate International College, Kathmandu, Nepal. She helped in conducting the school awareness program.

Aditi Subba: She has completed her MSc in Environment from University of Greenwich, United Kingdom. She helped in dubbing in Nepali language in the school awareness video.

Deelip Chand Thakuri: He has completed his MSc in Environment from Goldengate International College, Kathmandu, Nepal. He helped in dubbing in Nepali language in the school awareness video.

Ambir Tolang: He has completed his BBS from Namuna Machindra Campus, Lalitpur, Nepal. He is also a still photographer. He helped in the field surveys, in organising the school awareness program and in capturing the photographs and videos.

Saroj Thapa: He has completed his MSc from Central Department of Zoology, Tribhuvan University, Kathmandu, Nepal. He helped in the field survey.

12. Any other comments?

We are immensely thankful to the Rufford Foundation for funding this project and we hope to continue this conservation program with similar support in the future as well.