

Final Project Evaluation Report

Your Details	
Full Name	Hem Bahadur Katuwal
Project Title	Conservation attitudes of farmers towards farmland birds and conservation education programmes in lowland Nepal
Application ID	26446-1
Grant Amount	£5,000
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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 farmers knowledge and conservation attitudes towards farmland birds				This is the first study to understand and evaluate the knowledge and attitudes of farmers towards the farmland bird communities in Nepal. We interviewed farmers from 50 villages/cities to know their knowledge and attitudes on 10 common and five globally threatened bird's identification, status, threats (conflicts), hunting and conservation methods required to conserve the farmland birds.
Bird hunting practices				It was very difficult to study the bird hunting in lowland Nepal. There is unseen hunting by few communities, but people do not know and some do not want to talk and express views about the hunting which made difficulties for getting required information. We also increased additional districts to know more about the bird hunting practices.
Raising education awareness activities to the farmers and school children's and other stakeholders				We raise awareness to more than 1200 farmers and 1000 students in our study sites. We also participated in Nepal Bird Fair 2019 to display poster and leaflets to disseminate information on farmland birds and simultaneously organised knowledge sharing and discussion programs to different stakeholders.

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

This project is entirely based on the interaction with the local people about farmland bird's knowledge, status, threats and hunting practices. Of all these parts, addressing hunting issues was very difficult everywhere. People were not comfortable for answering the hunting related questions and surveying hunters, hoteliers, traders and even consumers attitudes were very difficult. To tackle this problem, we used snowball sampling process. Before interviews, we clearly explained every people

about the objectives of collecting data and made them sure that all the data will be confidential and names are optional, if they don't like to share. Additionally, local people spoke different languages, which made difficulties in understanding at the beginning. However, we used local assistants to complete the survey in each sites. Local assistants can speak the local language and were known face to them from their own village, so people were somehow free and relaxed to answer the questions. We also worked together with local organizations (like Bird Education Society, Mithila Wildlife Trust, etc.) to tackle difficulties and complete the project activities smoothly.

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

This is the first kind of study addressing the farmers' knowledge and attitudes towards the farmland bird communities in Nepal. The important outcomes of the project area are as follows:

1. After the questionnaire survey, we found that farmers' do not have sufficient knowledge on the birds found in their locality. More than 50% of them don't know the names of the birds that we showed during the questionnaires and also not aware about the conservation status of birds. Some people even don't know the importance of the birds in the farmlands.
2. The population of the farmland birds are declining rapidly than expected, mostly to that of Storks species like lesser adjutant and Asian woolly neck and small Passeriformes birds. People speculated hunting and use of excessive chemical pesticides and fertilizers as the main threats to the farmland birds. Additionally, we found four levels of hunting; hunter, trader, hotelier and customer. Most of the people don't know that bird hunting is illegal. They hunt mostly in winter during the sugarcane harvesting and eating 'Bagedi' (passerine birds) are very common in this time in Province No.2.
3. More than 1200 farmers, 1000 school children and also local government officers, community forest user groups, forest officers, etc. got information on the status, threats, conservation measures of the farmland birds of their localities and the impact of using the chemical pesticides and fertilisers to the birds and human health as well.

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

I already explained that this project is directly linked with the knowledge and attitudes of the local communities. All the questionnaires were done to the local communities/farmers. We interviewed 365 farmers in 50 villages/cities in two representative districts Chitwan and Sarlahi of our study sites for knowing their knowledge and attitudes towards the birds. But, besides our study sites, bird hunting was also found to be more in other districts as well. So, we increased additional districts of Province No. 2 like Bara, Rautahat, Mohatari, and Siraha to know more about bird hunting practices. Altogether we interviewed about 250 people belonging to hotel owners, middleman, hunters, and customers to know bird hunting

practices in different cities of 8 districts. After the questionnaires, we explained and raise education awareness to them as well about the farmland bird status, threats, impact of using excessive chemical pesticides and fertilisers and promoted use of organic farming, legal consent about the hunting practices and ways for conservation of farmland birds.



Photo 1: Principal Investigator (PI) interacting with children and their parents about the farmland birds



Photo 2: Assistants interacting with farmers to evaluate knowledge and attitudes towards the birds and simultaneously raising awareness

Additionally, we conducted education awareness programmes in schools where there was active participation of the students and teachers. Awareness programmes were done in 22 schools (around 750 students) and also to around 250 students outside schools of our study sites. We did power point presentations, quiz contests and also did bird watching activities for some interested students.



Photo 3: Local partners and assistants during school awareness programs

We also participated in Nepal Bird Fare in July 219 and conducted knowledge sharing and discussion programs in Chitwan and Sarlahi in July and August 2019 where participants from division forest offices, department of national parks and wildlife conservation, local governments, community forest user groups, nature guides, local NGOs, hoteliers, local people etc. actively participated. We also used posters and leaflets, power point presentations for awareness activities in forest offices, local government offices, schools, and to local people. All the people actively participated in the programmes and all these activities helped to increase the knowledge of people about the topic of the interest.

5. Are there any plans to continue this work?

Farmland birds are declining rapidly and there are not sufficient studies to address the status of the farmland birds in Nepal. There requires urgency to monitor the birds in farmlands to understand how existing crop types and adjacent landscapes support the bird communities and other possible threats being experienced by the birds in farmlands. So, I wanted to continue this work in coming days.

For continuing this work, my work will now first focus to know the bird diversity and nesting ecology of threatened birds in farmlands. In addition, I am planning to continue further study about the bird hunting practices in different districts of the lowland Nepal. Still, the awareness level is very low in the farmers. I think, there is continuous need of more awareness activities on time basis to the farmers of whole Nepal. So, I will collaborate with the local organisations and local governments for the timely awareness activities.



Photo 4: (left) PI displaying poster at Nepal Bird Fare, Pokhara, (right) knowledge sharing and interaction program in Chitwan.

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

The current project is a part of my on-going PhD work. During the project period, the outcomes of the projects are shared with the local people, local government, forest and park offices, nature guides, community forest user groups etc. through results sharing and interaction programs. Similarly, results are also shared through the news and radio programs for large audiences. Finally, the outcome of the project will be published in one peer reviewed journal and will also be presented in different workshops and conferences in different countries.

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

The grant was used during for the period of September 2018-August 2019. This time period is same with that of the proposal.



Photo 5: PI discussing about farmland birds, farmers knowledge, threats and bird conservation methods at Radio Sagarmatha 102.4 MHz

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.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Travel and vehicle hire to reach the working sites for all field works	600	700	+100	We collected bird hunting data from additional districts
Food and accommodation for research team	1560	1900	+340	We need to hire more local assistants who can speak local language and we also added additional districts for collecting hunting data
Nominal stipends for the research assistants	910	1200	+290	We hired local assistants at each sites and number of days increased to collect the hunting data
Printing of posters and	700	700		

leaflets				
Awareness program for school children	300	300		
Awareness program for the farmers	280	280		
Results sharing workshops	500	150	-350	Coordination was done with the local organizations and forest office
Report preparation and dissemination	150	150		
Total	5000	5380	+380	Additional costs were covered by my institution

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

The next important steps that are highly important for the conservation of the farmland birds are:

- Farmers speculated declining status of farmland birds. So monitoring of the farmland birds for a long period (at least 5 years) is required urgently to analyse bird's status in the farmlands of lowland Nepal.
- Need to collect more information in bird hunting process.
- Conduct additional awareness programs throughout the country for increasing the knowledge of the birds to farmers, control hunting and promote organic farming.
- Government should revise the syllabus of the schools and colleges to introduce the chapters about common and threatened birds, threats being experienced by them and conservation measures.

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 logo of The Rufford Foundation to produce the awareness materials like leaflets and the posters. I have attached the poster and leaflets design. Logo was also displayed during the knowledge sharing and discussion programs. Besides this, The Rufford Foundation will be acknowledged during the seminar and the publication in the journal latter. Using logo in these materials and events has obviously received the publicity by the foundation.



Photo 6: Poster and leaflet printed for awareness activities

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

Hem Bahadur Katuwal – Principal Investigator - conceptualized the idea, performed the field survey, data analysis, awareness activities, report preparation and started writing paper

Yam Mahato – Helped in collecting data and awareness activities

Subash Singh - Helped in collecting data and awareness activities

Avas Pradhan – Helped in collecting data

Shreeram Kushwaha – Helped in collecting data

Kanchan Timalisina – Helped in collecting data

Dev Narayan Mandal – Helped in collecting data and awareness activities

Sandip Luitel - Helped in collecting data and awareness activities

Dharma Giri – Helped in collecting data

Prashant Rokka – Helped in collecting data and awareness program

Basu Bidari- Helped in awareness activities

Subash Mishra - Helped in collecting data

12. Any other comments?

I would like to thank The Rufford Foundation for providing the grants for studying farmers' knowledge and attitudes towards the farmland birds in Nepal. I would also like to thank all my referees Hem Sagar Baral PhD, Hari Prasad Sharma PhD and Rui-chang Quan PhD, for providing references and suggestions for completing the

project activities. Also I would like to acknowledge the support all the members of the Bird Education Society, Koshi Bird Society, Green Youth of Lumbini, Mithila Wildlife Trust, Nepal Biodiversity Research and Conservation Centre, Small Mammals Conservation and Research Foundation and finally to my institute Xishuangbanna Tropical Botanical Garden, Chinese Academy of Sciences, Yunnan, China.