The Rufford Foundation
Final Report

Congratulations on the completion of your project that was supported by The Rufford Foundation.

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. The Final Report must be sent in **word format** and not PDF format or any other 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. Please be as honest as you can in answering the questions – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

Please complete the form in English and be as clear and concise as you can. Please note that the information may be edited for clarity. We will ask for further information if required. If you have any other materials produced by the project, particularly a few relevant photographs, please send these to us separately.

Please submit your final report to jane@rufford.org.

Thank you for your help.

Josh Cole, Grants Director

Grant Recipient Details	
Your name	Tshering Kencho
Project title	Analyze human-elephant conflicts, rate efficiency of counter measures, assess human perception and conduct advocacy programs on elephant conservation in Bhutan
RSG reference	21558-1
Reporting period	February 2017-March 2018
Amount of grant	5000
Your email address	tkchok85@gmail.com
Date of this report	1st March, 2018

1. Please 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
Assess types and extent of damages caused by Elephants in southern Bhutan				The focus group discussion was carried out to find the victims of elephants in southern Bhutan. The damages were assessed using a questionnaire survey.
Determine the effectiveness of Elephant offset technology in reducing the conflicts in southern Bhutan.				All the beneficiaries of offset technology (solar and electric fencing) were interviewed using semi-structured questionnaire to rate the effectiveness of the technology.
To find suitable offset technology to mitigate human elephant conflicts				Based on the social survey result, solar fencing was found to be promising one in mitigating the human- elephant conflicts. The stability of technology and minimal damage it cause to elephants lead it to become a suitable technology.
Evaluate people's perceptions and attitudes towards Elephant				Though the elephants caused a greater damage to people's life, properties and crops, yet villagers treat it as a god that came in as disguised form. Thus, they respect its presence in the area.
Provide Elephant conservation education to youths and farmers residing in conflict area				Through this project, the awareness program on conservation of Asian elephants was given to at least 150 farmers and 500 school going children's.

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

Several unforeseen difficulties arose during the fieldwork. Access to some conflict sites was harder than expected. The roads were rough and could assess only by 4WD car. Some became completely isolated due to problems caused by the intense rain. Besides, once reached the place some respondents were not at home. All these unforeseen difficulties led to a doubled field effort since we had to return to the same site to do the interviews again.

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

The project outcome brings very important information to conservation planners and policy makers for making decisions regarding the choice of off-set technologies to reduce human-elephant conflicts within southern belts of Bhutan.

Outcome 1: Assessed types and extent of damages caused by elephants in southern Bhutan

The seasonal patterns of elephant movement was found highest from June to November, coinciding with maize and paddy growing season. The least was shown from December to February. Around 70% of damage was done on maize cultivation followed by paddy and other fruit trees. There was not much damage done on infrastructure except on few huts in Singye Gewog. The respondents in the study area said that best way to avoid elephants intruding into village or crop fields is cultivating crops which are not preferred and as repellent to elephant. It also indicates that the availability of ready food source lures the animal to the agricultural fields. Sarpang sees fewer animals during the early time of the year with no incidences being reported although there are a few incidences in Samtse.

Outcome 2: Determine the effectiveness of Elephant offset technology in reducing the conflicts in southern Bhutan.

Solar and electric fence are increasingly used as a tool for elephant conservation and believed to be effective in preventing elephant's crop raiding in general. Besides this fence, the other common mitigation measures used by the farmers to keep away elephants are the burning of wooden kerosene torches, shouting, rattling tins and drums, guarding crops at night on guard houses, torches, fences etc. People perceive solar fencing as promising offset technology as it has helped them in keeping elephants and reducing human-elephant conflict on a very large scale.

From the study area, 75 households in Sarpang and the 49 in Samtse benefitted from the solar fences. These fences were set up by the government, with funding from the conservation organisations. The fences were then handed over to the people for maintenance which was usually done on a rotational basis in order to involve everyone's participations. However, few fences in Sarpang and Samtse were found not functional and respondents perceive that these fences are effective only to certain extent.

Outcome 3: Evaluate people's perceptions and attitudes towards Elephant

Most of the respondents have referred to the animal as a religious figure but at the same time they also seemed a bit frustrated with the problems of crop damage being incurred each year. Being a culturally important species and having a religious status among then people, the elephant is highly respected among the people of Bhutan. Respondents were asked to choose between like, fear, hate, and respect towards the animal in order to see the attitude towards the animal. 42% of the male and 39% of the female respondents saying that they respect the animal as

a religious figure and pray to the animal although at the same time they also fear the animal. None of the respondent reported of killing elephants. Further, 92% of the respondents were aware of the Forest and Nature Conservation Act and Rule and 85% knew that elephant was protected and any illegal activity was strictly offensive.

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

Communities were involved in the project throughout the survey. Together with them, we visited several sites to assess the efficiency of offset technologies. As a team, we could also recommend the farmers on the way to improve the efficiency of this technology. Through this project, the conservation education was given to at least 150 farmers and 500 school going children's. They are now aware of importance of conserving elephants and how Forest and Nature Conservation Rules and Regulations mandates to protect this endangered species.

5. Are there any plans to continue this work?

The findings obtained from this study will now be submitted to concerned agencies for future planning. The same will also be reported to survey respondents to help them improve their offset technology system.

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

The findings of this research will be published in any of the international peer reviewed journals to reach to larger audience. All the outcomes will be presented in symposiums, seminars and workshops relevant to elephants in the country. The detailed report will also be submitted to national and regional elephant conservation agencies.

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

The Rufford Foundation grant was used for entire year (February 2017-March 2018). Since the project was planned for one year, we didn't face any difficulties in completing on time. In fact, the project period was found very suitable for such projects.

8. Budget: Please 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
Training for enumerators (survey planning, design and time frame)	657	550	107	
Expenses for surveyors (entire survey)	1096	1250	-154	
Food and logistics arrangement for surveyors	1500	1400	100	
Transportation (Hiring of Vehicle)	512	800	-288	
Posters and Banners	360	200	160	
Refreshment during advocacy programs	800	700	100	
Administrative cost (Fees and printings)	75	100	-25	
Total	**5000**	**5000**	**0**	

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

The first and foremost important things is to submit the project reports to concerned agencies for future planning. The recommendations will also be submitted to all the involved respondents for improving the offset technologies. Through this survey, it was felt that there needs an intensive study on movement and ecology of elephants in the study area. Having ideas on those fields will help in minimising the conflicts.

10. Did you use The Rufford Foundation logo in any materials produced in relation to this project? Did The Rufford Foundation receive any publicity during the course of your work?

The Rufford Foundation logo was put in all the posters and broachers produced out of this project. All the people involved in the project were also informed about Rufford Foundation and its contribution towards wildlife and environmental conservation across the globe.

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

Firstly, I would like to thank all the members for their dedicated support to this study throughout the year. The details of members as follows:

Surveyors and Questionnaire Survey Enumerators- all of these members were involved throughout the project period.

1. Phub Dorji
2. Yonten Jamtsho
3. Sonam Phuntsho
4. Tshering Dorji
5. Tshewang Lhamo

6. Jigme Tenzin
7. Sherab Jamtsho

12. Any other comments?

I shall always grateful to Rufford Foundation for this enormous support. Without this grant support, it will not be possible for me to carry out this study.