

## The Rufford Foundation

### Final Report

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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](mailto:jane@rufford.org).

Thank you for your help.

**Josh Cole, Grants Director**

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#### Grant Recipient Details

<b>Your name</b>	Sangay Nidup
<b>Project title</b>	Habitat Selection and Conservation Threats to Endangered Hog Deer ( <i>Axis porcinus</i> ) in the Buffer Zone of Royal Manas National Park (RMNP), Bhutan.
<b>RSG reference</b>	20538-1
<b>Reporting period</b>	7th November 2016 to 8th November 2017
<b>Amount of grant</b>	£ 5000
<b>Your email address</b>	sanzellsom@gmail.com
<b>Date of this report</b>	November 2017

**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 the habitat use and present status of Hog Deer around RMNP				Present status of hog deer and habitat assessment in the four blocks was achieved. But detail study need to be taken near future in terms of distribution and abundance.
Identify the amount of crop depredation occurring in the project area and the conditions contributing to that depredation				It was found that the human-hog deer conflict was at a higher level with 70% of the respondent reported crop depredation by hog deer. There is no significant difference in human-hog deer conflict severity four blocks. The reason of the higher crop depredation by hog deer could be because it was found that 50% of the respondents cultivated their crop in the nearby forest without fencing and left unattended during the night.
Produce a map showing depredation areas around RMNP				Coordinates of hog deer sited by the respondent are recorded and its distributional was produced. Moreover, the location of the crop depredated by Hog deer was also recorded and found that a maximum number of the crops were destroyed within a kilometer of the village.
Raise conservation awareness of Hog Deer through outreach with people living on the fringe of RMNP.				Total of 1418 households cultivates different types of crop in the study area and from this population, 710 households attended the awareness programme conducted in four different blocks. This indicates that conservation awareness programme has reached to wider farmers. Survey before and after the conservation awareness programme showed that before conservation awareness programme only 10% knows little about the hog deer and survey after the conservation awareness programme showed that 90 % of the

				people were aware of the Hog deer it threats and significant of conservation.
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**2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).**

The status of hog deer in the four blocks was assessed using pellet count method. The project was well planned and prepared before implementing the activities to achieve the objectives. The only difficulty faced was, conducting the field survey and conservation awareness programme along the Indian border, since there was a frequent gun shot across the border by the poacher.

Surveying in monsoon season due to road blocks was yet another difficulty faced causing difficulties of the execution of field work as per, but this fieldwork was compensated for in the following period. Moreover, such incidents have incurred high expenditure. While in Ngangla block, we were not able to see any hog deer despite detecting pellets in few studied plots. Since the area was located far away from the river basin and mover over, the presence of hog deer was found within Park area, where my objective was to assess along the buffer zone of RMNP.

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

**The three most outcomes of the project are as below:**

**A. Status of human-hog deer conflict in buffer area of RMNP**

Through this project, it was found that the 30% of the households have lost their crops to hog deer and other wild animals within pass five years. The reason for this could be because 50% of the households cultivate the crop nearby forest. Among the other wild animals, 40% of the crop depredation was by done by the elephant and wild pig with 60%. This indicates that the survival of hog deer is at risk and certain conflict mitigation measures have to be implemented.

**B. People's perception towards hog deer conservation**

People in the present project site are highly dependent on agriculture and livestock. Among the agriculture holding households, 30% of the households are against the conservation of hog deer and 70% of the households consider hog deer as a beneficial, which it creates good opportunity for villager by establishing the eco tourism, so that ultimately increases the livelihood of the local people. Thus, in the present project site, the conservation of hog deer is on the path of risk, since poacher from nearby the boarder hunts for hog deer. So, there should be extensive conservation workshop and other educational outreach programmes should be initiated beyond the border too.

**C. Outreach of conservation awareness programme**

The community interaction and awareness generation among the mass was one of the most important activities of the project. 90% of the households attended the conservation awareness programme. To see the effectiveness of the conservation

awareness programme towards farmers were tested by conducted questionnaire survey before the conservation awareness programme and a month after the imparting conservation awareness programme. It was found that only 10% of the households are aware of the existing policies and rules and knows about the hog deer. A survey conducted after the conservation awareness programme showed that 90% of the households are known to the policies and rules about the hog deer conservation and details of hog deer.

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

Local communities are the target population to assess their conflict with hog deer and its implication towards local community's livelihood and hog deer conservation. The goal of this project is to conserve hog deer in harmonic co-existence with the local communities. All the information's are gathered from the local communities through the questionnaire survey. Status of the human hog deer conflict has been assessed and recommendations are published, which will be distributed to relevant organisations and stakeholders for further win-win conservation initiatives. The respondents were provided with the daily substance allowances and they are provided with the working lunch, refreshment and daily substance allowance during the conservation awareness programme.

The project had broadly two aspects: research and awareness generation.

During the field work for generating data on the species and its habitat, youths from local communities assisted the field team. This gave them exposure to the research work as well as an orientation towards wildlife conservation. They were taught to read the animal signs and birding skills. With ecotourism being one of the fastest growing avenues in areas, the skills of the local youth can be a useful resource and they can act as tour guides enhancing the economic conditions in those fringe areas. The assistants were selected based on their ability to work hard in the field as well as their willingness to be a part of the team. Being with the team served as an informal training to them to act as nature guides.

Awareness programme through interaction, PowerPoint show, discussion, distribution of posters was carried out in the schools, marketplaces in the villages to sensitize them on the importance of conserving the species and its habitat. They were told that the consumption of wild meat to be an illegal activity.

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

The status of the human-hog deer conflict was found to be severe. There were many cases of crop depredation by the hog deer and maximum numbers of the local communities are against hog deer conservation and there are chances of extirpating the hog deer and which will really hamper local communities with the increase in pest wild animals like wild pig, sambar and deer. The next step is to study the hog deer abundance, distribution, density, and habitat type and habitat threats. Before starting all these activities, it is aimed at publishing the present findings.

At the very end there are plans to initiate activities that can reduce the human-hog deer conflict like, a formation of crop insurance schemes for hog deer, initiate community crop depredation compensation schemes and form citizen scientist within the local communities for further study and conservation of hog deer in harmonic co-existence with the local communities.

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

The findings of this project will be shared in two forms; firstly within the country, the finding of this project will be published and printed in a small pocket booklet and distributed all across the conservation agencies within the government and other nongovernmental organisations. To make it available whole round the globe, it will be published in research articles through peer-reviewed journals

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

This project was planned and scheduled for a year. The presented objectives have been completed successfully within the stipulated time of one year.

#### **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. 1 £ sterling = 4.44 Nuevo Sol**

Item	Budgeted Amount	Actual Amount	Difference	Comments
Purchase/ arrangement of field Equipment's ( book, pencils and printing of data collection sheets, GPS, Digital camera, camera traps and binocular)	1975	1750	-225	The left over budget was adjusted for publishing and printing of report
Purchases of night vision Binocular	175	100	-75	Budgets leftover was adjusted for writing of report ( use of technical supports)
Purchases of awareness material and printing of Pamphlet, leaflet posters	200	200	0.00	Budgeted amount was well deputed for the present activity and it well covered the expenses
Daily Substance Allowances staff of RMNP and school dropouts for field survey and conservation awareness program	850	850	0.00	Budgeted amount was well deputed for the present activity and it well covered the expenses

Vehicle rental (Transportation of materials and the survey team), food and lodging, Daily Substance Allowances for interview respondent)	400	400	0.00	
Purchases and supply of extension kits (sleeping bags, raingears ruck sacks tents boots and pack bags) for staffs during the project.	500	500	0.00	
Creation of the conservation awareness program (includes, public lunch, Daily Substance Allowances, transportation of the team, necessary arrangements etc.)	900	900	0.00	Budgeted amount was well deputed for the present activity and it well covered the expenses
Data analysis and report writing (Use of technical supports)		75	0.00	This budget was adjusted from purchases of night vision binocular
Publishing and printing of the report		225	0.00	Adjusted from purchases of field equipments
Total		5000		

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

The current status of hog deer conflict and people's perception towards hog deer has been assessed and it was found to be deemed necessary to take further actions towards conservation of hog deer with minimal conflict with local communities over crop depredation. The next important step would be to study the distribution, abundance, density, habitat types, habitat threats and fragmentation, dietary composition and initiate activities towards restoration and conservation of its habitat and activities to reduce human-hog deer conflict.

The current project is the first step towards this bigger project and I have committed to carry out aforementioned studies and activities in sequential order as mentioned above. This is my aim for the conservation of Hog deer and reduces its conflict with local communities.

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

Yes, the RF logo was used in the education material like posters and conservation awareness banner. Bilingual posters, with a picture of the species and a short write up regarding the species importance and conservation measures, were published. These were distributed among school and college students, displayed at community halls and marketplaces. Moreover, Department of Forest and Park Services are more



thankful for funding this project by Rufford Small Grant Fund and helping in reducing the crop depredation by Hog deer and Hog deer conservation.

The logo was used during the PowerPoint presentation prepared for community awareness among villagers, forest staffs and students.

### **11. Any other comments?**

The funding support from Rufford foundation is very helpful for the conservation of natural environment and especially the research carried by the young researchers. The current project was of the present issued problem and it came into implementation at right time. This project has helped to assess Hog deer crop depredation conflict and local communities' perceptions towards Hog deer conservation. This finding serves as the baseline information and further conservation actions are derived for initiation from the current findings. The conservation awareness helped the local communities to gain the knowledge of Hog deer conservation. For this prestigious help, I thank the management of Rufford and shall always remain grateful to RSG organisation. I look forward to such kind of assistance in my future projects and continue to work together as a family in conservation of nature and wild animals.

