

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 | Thakur Silwal |
| Project title | Human wildlife encounters in Chitwan National Park, Nepal |
| RSG reference | 16214-1 |
| Reporting period | December 2014 to November 2015 |
| Amount of grant | £4995 |
| Your email address | thakur.silwal@gmail.com |
| Date of this report | December 2015 |

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 factors of wildlife attacks on humans in and around the Landscapes of Chitwan National Park | | √ | | Research completed and an article entitled “Assessing Factors of Wildlife Attacks on Humans in Chitwan National Park, Nepal” has been accepted for publication in <i>Oryx</i> online journal. Two additional manuscripts related to wildlife attacks for the article will also be completed soon. However, only this research may not enough because I have considered very limited information about physical and social factors of attacks. However, the other potential factors like ecological behaviour of the attacking animals and attack patterns in relation to climate change may also equally important. Thus, it could be better to conduct further research in these aspects and develop a model. |
| Investigate injury severity of wildlife attacks on humans in the vicinity of Chitwan National Park | | | √ | The study has been completed and the findings as an article entitled “Injury Severity of Wildlife Attacks on Humans in the Vicinity of Chitwan National Park, Nepal” has been accepted for publication in the <i>Journal of Biodiversity Conservation and Forestry</i> . However, this research findings need to be materialised in plan and programmes for actions in the practice to address the issues of wildlife victims at the household levels. |
| Raise awareness about wildlife attacks causes, consequences and preventive and mitigation measures through public meeting and workshop | | √ | | In order to raise the awareness at the local level, public meetings were organised at the sites with high risks of human-wildlife conflicts. Awareness raising classes for school students were conducted in the buffer zone. However, they were at the limited areas. These issues should be incorporated in the academic curricula. |
| Share research findings with concerned stakeholders (e.g. protected area management authorities, local | | | √ | Research finding sharing meetings/ workshops was organised with the park authorities and buffer zone representatives at Chitwan National Park. Three conference papers were presented in the international forum. Two journal articles, which are in review process, could also be useful |

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|--|--|--|--|---|
| communities, conservation communities) | | | | to share with conservation communities. |
|--|--|--|--|---|

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

There was some logistic obstacles due to political instabilities like strikes, blockade. Though scheduled programmes were postponed in some places, they have been completed now.

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

i. The project documented the related information on physical and social factors of wildlife attacks on humans in the landscapes of Chitwan National Park between the period of 2003 and 2013. The findings of this study reveal that human wildlife conflicts are a serious problem in the vicinity of Chitwan National Park, Nepal. A total of 329 wildlife attacks occurred inside (11%) and outside (89%) of the park. The highest (n = 48) and lowest (n = 16) number of attacks occurred in 2010 and 2006, respectively. The number of attacks substantially fluctuated with calendar years (mean 30 attacks year⁻¹). However, trend of the attacks also steadily increased since 2008. The data showed injury severity from lacerations to life threatening injuries (n = 231) to death (n = 98) cases. About one-third (~30%) of attacks were fatal, 13% were classified as serious and 57% as minor due to physically charged by different wildlife species annually. Most of the fatal attacks (84%) occurred on the spot of incidents, 12% at hospital and 4% on the way to hospital. However, people reported that some of the victims lost their life (6 persons) due to delay in rescue and even lack of first aid treatments. Some of victims from such cases resulted being paralyzed and mentally disturbed. It was found that the injured persons were facing substantial harassments and hardship conditions physically, mentally, and economically.

ii. The study assessed the injury severity of wildlife attacks and livelihood of the victims and their family members at the household level. It might be the pioneer document on consequences of wildlife victims at the household level in the vicinity of the park. Besides victims' personal condition, it was found that the attacks not only affected to the injured persons but also directly concerned with their family and social relations. It was observed that victims' households are becoming harsh conditions due to loss of lives and property. Victims are frequently turned into family burden because of lack of resources for treatment and care. Most of the victims those have had main role in family income which results from an asset to liability. Some of the schools going children of victims' households have to dropout due to financial crisis.

In addition, it was also found that sometimes children dropout their school due to teasing from their friends by using negative adjectives to their parents disabilities like son/daughter of legless/handless/ eyeless etc. It is pity that the innocent children have had to bear the cost of conservation. This causes negative impression in children's mind and might be committed for revenge towards wildlife species through poisoning, firing and trapping. Such types of views have been noticed in some victims' family during household survey and group discussion. However, the attack prevention and mitigation measures are not so effective. Thus, there is a need of effective pro-conflict management plan and actions to ensure human wildlife co-existence.

iii. The project helped to raise public awareness on human wildlife conflicts, particularly on human casualties among local communities of the high-risk areas. Additionally, during the presentation of our research findings, we discussed with park authorities and buffer zone representatives to reduce the conflicts. The participants realized and agreed to propose to amend existing guideline with inclusion of separate budgetary provision for conflict management. However, its implication is yet to be materialized.

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

Local people have been considered as the primary stakeholders of the project, and their involvement has been given priority. Two local youth were trained for research assistant and were involved during the data collection. Findings of the research have been shared with the buffer zone representatives and park authorities. Local people and school students have been made aware of the conflicts, particularly at the high-risk areas.

5. Are there any plans to continue this work?

Well, the issues of human wildlife conflict are becoming a serious problem, particularly in the surrounding landscapes of protected areas. Moreover, the conflicts are increasing in the developing countries like Nepal where the human population is also increasing, and wildlife habitat is decreasing. However, the conservation efforts have been increasing to increase the wildlife population of endangered species like tiger, rhino, elephant etc. Thus, the conflict would also be increased in future. Therefore, I want to assess the factors of wildlife attacks on humans in other protected areas in more detail. Because the information on the factors of attack at present is very limited. So, I am also planning to design a project on ecological and biological behaviour of attacking animals and patterns of attacks in relation to climate change using the standard format. The findings of these projects would help to be useful in developing a model for wildlife attacks on humans.

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

I already have presented three conference papers in the international forums. The research findings were also shared with park authorities and buffer zone representatives. Likewise, I have shared the findings with local communities and school students in the buffer zone of Chitwan National Park. Additionally, two journal articles ((MS ID-Oryx-15-A-0263) and (MS ID- SciTech-15-1054) have already been accepted for publication. Two more manuscripts are being prepared for publication. Besides this, I will submit as a monograph of PhD thesis at the Masaryk University, Brno, Czech Republic for the partial fulfilment of PhD degree in human wildlife conflict.

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 RSGF grant was used to accomplish the proposed activities from December 2014 to November 2015.

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 |
|---|-----------------|---------------|------------|----------|
| Briefing meeting with local stakeholders | 215 | 220 | -5 | |
| Debriefing meeting with local stakeholders | 215 | 205 | 10 | |
| Group discussion meetings for data collection | 190 | 190 | 0 | |
| Interaction meetings with local communities for awareness raising | 1000 | 980 | 20 | |
| School programmes for awareness raising | 700 | 700 | 0 | |
| Travel cost (airfare, vehicle, fuel and public transportation) | 900 | 905 | -5 | |
| Field accommodation cost for researcher and field assistants | 1000 | 1050 | -50 | |
| Training for Field Assistant and questionnaire testing | 150 | 130 | 20 | |
| Equipment and materials | 450 | 445 | 5 | |
| Stationeries and communication | 175 | 170 | 5 | |
| Total | 4995 | 4995 | 0 | |

The breakdown of the budget covers the RSGF contribution only. However, the expenses to complete the research works were received Institute of Forestry/ ComForM project and WWF EFN Faculty Fellowship especially for travel and accommodation.

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

The most important next step for reducing conflicts is to make aware the people about specific species' behaviour and movement patterns, regulate people's movements particularly at the high-risk areas, provide services to handle problem animals and rescue to the victims immediately. Besides this, it is urgent to conduct study on ecological behavior of attacking animals and attacking patterns in relation to climate change. Based on the detailed information, the practical and effective attack prevention and mitigation measures should be developed and implemented.

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, I used RSGF logo on purchased field equipments (voice recorder and GPS) from this project. I also used the logo in presentation slides prepared to present conference papers and to share the research findings.