

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	BIKASH GHIMIRE
Project title	The population Status and Breeding Ecology of endangered vulture species found in Rampur valley, Nepal.
RSG reference	19447-1
Reporting period	March 2016 to February 2017
Amount of grant	£4950
Your email address	Ghimirebiku1991@gmail.com
Date of this report	29 th February 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
Ethno-Vulture Relationship				A household survey was conducted to assess livestock practices and their number, disease problems, carcass disposal methods and sighting of vultures in and around the study area. Awareness level and mindset of people for protection and conservation of vultures was also assessed. Local veterinary doctors were also asked about the disease problems of livestock in the area, treatment methods and medicines used.
Population Estimation				Population and nest estimation could be done for 2 successive years. Five repeated total counts were conducted in March 2016. Similarly, Five repeated counts were also conducted between 20 th January and 14 th February 2017. Our project plan for February 2017 was to prepare for final reports which got delayed as we extended the field work till mid-March to understand more about population trend and breeding success over the year.
Habitat Assessment				Vegetation analysis was undertaken to understand the vegetation composition of the area by using circular plot method. The reason of nesting in the area and habitat characteristics was studied.
Information Sharing and awareness programmes				Conservation perceptions of local communities were first assessed to understand the level of awareness programmes needed in the area. Group discussions and personal visits were carried out in local communities sharing

			<p>information, conservation messages and importance of co-existence.</p> <p>Local teachers and school students were sensitised about the conservation of vultures and challenges they are facing through seminars and group discussions. Posters were placed in different areas around the study site</p> <p>The final report will be provided to local forest offices, municipality and community forest users group for their references.</p> <p>Publishing the study in reputable national and international journals will do wider information sharing.</p>
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2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).

- During the winter months (November-February) the early morning visibility is low in the study area, as it gets foggy because of the valley and riverine ecosystem. This reason got us adjusting time for morning and evening counts of population according to field conditions.
- The reporting of the project got delayed as we carried out the assessment of assess 2nd year population and nest count data. Since, the breeding season of white-rumped vulture coincided with the time of final report, we decided to extend the time frame of the project to maximum 2 months (within the financial support of Rufford grant) for better and clear results. The final report (for publication in national and international journals) will be delayed further which needs more time for data analysis.

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

I. Population Count and Nest Count

- a. The historical nesting and roosting sites within Rampur valley were examined for a period of more than 12 months to find out current preferred habitat, population trend and structure as well as nest numbers. Population and nest assessment could be carried out for 2 successive years, which is one unexpected yet outstanding output of this project.

II. Nesting Characteristics and Habitat Study

- a. The historical nesting sites were visited and local people were asked to collect information about present nesting sites in the area if any. This study found that the nesting colonies, which were sparsely distributed to six different sites in 2002-2003, are concentrated in Khaireni Community Forest. However local respondents had seen nests of white-rumped vulture in Sera and Jyagdi areas 3 years ago. Nesting and habitat characteristics were successfully studied to understand nesting behavior and the reasons for aggregated nesting in that particular locality.

III. Ethno-Vulture Relationship and awareness programme

- a. Peoples' attitude towards the focused group of avifauna was assessed through questionnaire survey followed by awareness programme. The questionnaire was divided into general background of the respondents, livestock holding and local knowledge and perception about vulture conservation. Most questions were close-ended, although some open-ended contingency questions were included. It has been noted that livestock practices in the region has come down in terms of number of livestock holdings and carcass disposal methods don't favour the obligate scavengers as half of the dead cattle get buried down in the soil. However, people are well aware about the massive decline and are welcoming the ideas and concept of any further welfare of the species.
- b. Posters were placed in places where people visit most in their daily lives, to properly deliver the conservation messages. School teachers and students were sensitised about the issues and challenges of vulture conservation on different occasions through out the project period with the help of sharing workshops, group discussions and class teachings.

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

Local communities were involved in a variety of ways including working as local guide as well as field guides. Since the start of fieldwork, traditional ecological knowledge was valued as one of the most important factor for preliminary reconnaissance of the area. Local individuals were also engaged for data collection fieldwork, and were provided with cash incentives of research assistant. In addition, the local political leaders, teachers and community peoples have been

supporting this project for scientific research, conservation and management of the target species. Sharing of information through group discussion and focal person talks was also helpful for them to better understand the urge of the study for the betterment of overall gamma diversity.

5. Are there any plans to continue this work?

Yes. The population trend and breeding behaviour as well as people's perception have been assessed through this study. Furthermore, research should be carried out to a large geographic landscape to find out pockets of habitat along the riverine belt so as to quantify the possible safe habitat for vultures around the present study area. Food availability is one of the major concerns for the vultures in the locality as the site is not contiguous to any protected areas as well as there aren't many possible wild carcasses available due to less number of large mammal population in the area. Provision of diclofenac-free safe food should immediately be thought off which could be studied further. Possibility of establishment of community managed vulture restaurant and conservation centre with possible funding from the Rufford foundation will be a milestone to keep the heart of vultures pulsating.

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

The research result will be given to donors and published in reputable peer reviewed scientific journals to reach wider audiences with profound acknowledgment of RSG. The final report will be made available to donor, decision making bodies like forest offices, community forest user groups and the result will be shared through sharing workshop to local stakeholders so as to maximise their level of knowledge as well as enthusiasm to better conserve and manage vultures in the area for a long term.

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 RSG original plan was to accomplish activities between March and November 2016 for data collection and December to January for data analysis and February 2017 for write up. However, the budget was used till March 2017 as fieldwork for second population count and nest count was done in the month of March 2017. Therefore, the project is accomplished 1 month later than the expected timeframe.

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
Transportation and communication	680	620	+60	
Field assistants remuneration for 210 days (210*2*450 Nrs)	1059	1227.27	-168.27	The field work was planned for 182 days which had to be done for 210 days
Food and accommodation for field assistants for 210 days (210*2*350 Nrs)	824	954.54	-130.54	
Capacity Development of field assistants	110	110	0	
Stationaries	530	440	+90	
Promotional materials	250	250	0	
Awareness campaign	460	441.19	+18.81	
Field gears	787	787	0	
Miscellaneous	100	-	+100	Miscellaneous amount was used to cover extra expenses cost, Field assistants accommodation and remuneration
Report dissemination	150	135	+15	
Total	4950	4965	-15 (Nrs 15*154 = 2310)	

The differences in some of the items are due to the number of days spent in the field. Additional money has been used in connection with this project from my own funds, which has been used to cover extra field costs.

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

The project goals are well accomplished. For a long-term survival, of species that are critically endangered, rigorous works have to be done in the field. Through the experience of this project, I have outlined some of the important areas to cover hereunder:

- I. **Continuous Population Count and Nest Monitoring Over Large Landscape**
Monitoring of populations and nesting sites on a regular basis to a larger areas

would give a new line of information which is useful in developing site specific and locally adoptable management approaches devising appropriate conservation strategies. Protection of nesting through regular monitoring of nesting habitat and minimising disturbances may help to stabilise and increase population growth. There are reports of pockets of vulture populations from other parts of the district as well as around the neighbouring districts. Study can be focused in a larger landscape so as to understand the breeding and non-breeding population and disturbances vulture population is facing. Local people and concerned body should collaborate for the conservation of vulture habitat.

II. Food Management and Vulture Restaurant

- a. Rampur valley is not contiguous with any protected areas and the forests do not have significant large mammal diversity. The availability of wild animal carcasses for vultures is very minimal which urge for vulture safe food provisioning. One of the ideas is to collect old and unproductive cattle from the household and leave them in the forests for natural death, which is a basic concept of safe feeding station. Establishment of safe feeding sites and vulture restaurant should be focused in the valley, as the valley is potentially safe site for vultures.
- b. Natural forests with *Bombax ceiba* trees around water bodies were highly preferred by white-rumped vulture for breeding. Therefore, such types of sites need to be identified elsewhere in the Nepal and the sites are required to declare as Vulture Safe Zones. These VSFs need to be monitored continuously and conserved with active participation of local communities. Incentives should be provided to the local communities who participate in the vulture conservation in their areas.

III. Strict Monitoring of Diclofenac and other Harmful Chemicals Use

The catastrophic decline of vultures across the major landscape due to harmful effects of NSAIDs like diclofenac is well known. Keeping this in mind, strategies should be made to aim population growth of vultures in near future by removing the toxic chemicals from the environment. It has been observed that meloxicam and ketoprofen are being used replacing the harmful drug diclofenac. However, the use of ketoprofen is also proved to be harmful to these birds of prey. Actions should be timely taken to remove traces of these harmful chemicals.

IV. Awareness Campaign in and around Nesting and Roosting Colonies for a Wide Range of Audience

Local people are not directly involved to kill or poison vulture species in Rampur but livestock practices and number of livestock is declining which

indirectly affects the food availability for vultures. Vulture conservation and its extension programme should be effectively implemented throughout the area. Awareness in the use of right kinds of pesticides and veterinary medicines for agricultural and livestock practices should be conducted in regular basis to eradicate problems of harmful intoxicants from the area if any. This will serve as a ground for long-term survival of the species in the study area.

V. Sharing of Information with Local Bodies for Conservation vis-à-vis Development Activities.

Rampur is one of 27 Important Bird Areas of Nepal, and the valley is in a huge stage of developmental activities. Most of the local people do not know about the importance of the area in terms of biodiversity and its conservation. Ecologically important sites like, Khaireni community forest for vultures and other avifauna should be promoted and made accessible and well known by providing adequate information i.e. sign posting, brochure and poster distribution and with the help of mass media like local radio channels. Conservation and development can be complimentary in nature if formulated in a collaborative manner. Hence, Local development authorities should be encouraged so as to take right decision for the betterment of environment and eco-system as a whole.

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 logo of RSGF is used on Posters placed around different places of the valley, Power-point presentations for sharing workshops to local schoolteachers as well as students and acknowledged on every article. Further, I will use the RSGF logo for any materials and reports produced in relation to this project and for the final document.

11. Any other comments?

The study would not have been possible without funds. I am indebted to the Rufford foundation for the necessary RSGF funding, which was obligatory to conduct this research. Thus, I would like to thank you very much for your grant support and contribution to save and conserve the endangered vultures. Many thanks for your contribution for the conservation and would like to encourage the efforts for many more projects to come.