

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	Anirudhkumar Vasava
Project title	Crying Wolf: Prioritising areas for conservation of Indian wolf in human-dominated arid region of Kutch, Gujarat, India
RSG reference	13893-1
Reporting period	September 2013- June 2015
Amount of grant	£6000
Your email address	aniruddh.vasava@gmail.com
Date of this report	30 th August 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
Objective 1: Assessing status and distribution of wolves in Kutch		Partially achieved		<p>The wolf distribution and population enumerating process needs some more time and funding support. The Kutch region extends over around 45,652 square kilometres. We were able to survey five talukas (nearly 70% of the proposed study region and potential major wolf habitats) in Kutch district namely- Rapar, Bhachau, Nakhtrana, Anjar and Abdasa. Still four talukas are required to be surveyed. I am seeking more funds to complete the survey in whole Kutch.</p> <p>Wolf signs were extremely difficult to find and its sightings were even scarcer. So interview survey formed the main basis source of information of wolf occurrence. We interviewed 653 herders and farmers within this four surveyed talukas. This has given us sufficient and reliable information on the distribution of wolves other carnivores in the study region. The data is currently being compiled and will be analysed later.</p>
Objective 2: Modelling wolf occupancy across Kutch			Fully achieved	<p>More than 60 % of the grids have been surveyed, and data on wolf occurrence, habitat parameters, and disturbances parameters have been collected. This which will allow me to model the wolf habitat suitability across the landscape. Very soon I will be coming up with a habitat suitability map of wolves across Kutch district.</p>
Objective 3: Understanding people's perception and attitude for wolf			Fully achieved	<p>This was a principal component of the proposed study and was conducted with the help of trained student assistants. We interviewed local communities, especially herders and farmers and found out about their attitudes and daily interactions with wildlife along with other pertinent socio-economic and socio-political</p>

				issues that people face. As against proposed number (~200) of interview survey, we conducted 653 interview surveys of herders from nearly 280 villages. The relations were documented and many variations are evident in the data. The information is being compiled presently.
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2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).

- a) The major difficulties arose during the project was that the project could not be completed during the specified time due to hindrance in seeking permission to conduct the survey in protected area. The field work was however successfully completed taking additional time.
- b) Due to the drought like situation in the months of February-March 2015, the villagers from many villages had shifted to towns and towards eastern Gujarat, So Many of the villages were deserted in the northern Rapar taluka of Gujarat. This hindered conducting interview surveys in that part of the study area.
- c) I suffered an accident in May 2014, which resulted in chronic back pain and lasted around 8-9 months. This hindered my working in the field for some time. And so I had to hire a research assistant. The research assistant also left mid-work due to other employment opportunities, so I had to find a new assistant and train him in a short amount of time.

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

- 1) I have been able to collect sufficient and reliable information to determine the population status, occurrence and conservation status of the Indian wolf in major part of Kutch region, an area for which previously no up to date information was available.
- 2) Increased understanding of interactions that occur between Indian wolf, landscape and people, and the extent to which human activity has influenced this interaction
- 3) Although the human-carnivore conflict data has not been properly analysed yet, I have been able to determine conflict hotspots and formulate ideas for appropriate mitigation in the area.

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

- a) As part of the questionnaire-based survey we visited the communities from many villages in Kutch. Local communities were an important source of information and data. In addition, field assistants were drawn from local communities, which helped mentor their skill and encourage their interest. Till now I have employed four local field assistants from the local communities from different areas of Kutch. They have benefited from a financial support through temporary employment, and skills training during the course of project work. They have developed skills in systematic monitoring of carnivore and herbivore population, conducting interview surveys,

ground-truthing skills and GPS handling skills. Knowledge and skill transfer to local people in the project site has been achieved significantly.

- b) Although not a current objective of this proposed project work, we spent a considerable amount of time on discussion with herders on how to deal with conflict. The herders have appeared enthusiastic about my presence with them in the field. They discussed the problems that they are facing, not only in terms of livestock loss, but also about other social and economic issues, and also about being ignored by authorities.
- c) In addition, local communities provided logistics (boarding and loading) during the fieldwork, for which they were reimbursed.

5. Are there any plans to continue this work?

Certainly, I am seeking more funds for further support for the project. After gaining more funds for field research, I am going to cover the remaining talukas of Kutch for survey and also continue looking for wolf populations in other potential wolf areas in Gujarat. After which I will write a detail final report with recommendations on where to set priorities for the conservation of Indian wolf. I am drawing up plan to build on the insights gained through this phase of the project and carry out further investigation using the same research model.

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

I have planned different ways of sharing the results of this project.

- a) A detailed report will be published (both hard copy and soft copy) and will be circulated to the various higher officials of forest department such as Principal Chief Conservation of Forests; Chief Wildlife Warden, CCF's, and all forest offices which are involved in the management of carnivores and human-wildlife conflicts. Apart from them the report will be circulated to the other institutions and conservation NGOs. The report will be also staged on the website of www.vncindia.org
- b) I also plan to write research papers to be published in peer-reviewed journals to communicate the results of this project work to wider scientific community. I am planning to publish one to two journal articles before 2017. One paper will be on land-use change and carnivore distribution and one on villager's attitude and perceptions towards large carnivores.
- c) I am also planning to write popular articles for more general audience to communicate the findings and experience gained during the project through magazine such as Sanctuary Asia, Hornbill, or Saveus which are widely read nature magazines in India.
- d) Talks and presentations are also planned, especially directed at conservation practitioners, biology students and policy-makers.
- e) A booklet (mostly pictorial in native language) on "how to mitigate conflict" is in pipeline. It would be distributed amongst the local herders and farmers.

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 was used over a period of 20 months. It has taken a longer time than what was anticipated. Due to the hindrance in seeking permission from Gujarat Forest Department and National

Biodiversity Authority, the project has been delayed by nearly 10 months, but it was still a successful project for with respect to its outcomes. The overall project will take another 1-2 years of intensive fieldwork and analysis.

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
Principle Investigator per diem	1060	1302	-242	The field work took longer than I thought and had to pay 60 days of extra per diem to the hired researcher
Field / Research Assistants	420	540	-120	Because of the extra months of field work I had to pay 60 days of extra per diem to the field assistant
Vehicle hiring	950	1040	-90	Because of more field days
Fuel costs	950	1086	-136	Because of more field days
Vehicle maintenance and repair	350	285	65	
Food & Accommodation	950	860	90	At some places the accommodation was cheaper or free
GPS instrument	250	165	85	We took a less prized GPS
Laser range finder	200	199	1	
Imagery & other secondary data acquisition	600	300	300	The GIS analysis is underway and some organisation has agreed to help me with the remote sensing data. So the expenditure is going to be less than the budgeted amount. This expense is yet to be used.
Contingencies & Miscellaneous expenditure	150	200	-50	I had to pay extra to National Biodiversity Authority for research permit (non refundable fee)
Report writing and Dissemination of information	120	100	20	This expense is yet to be used
Total	6000	6077	-77	

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

The following are important steps that need to be taken to build on the gains from this project:

- a) Conduct additional research on the insights generated by the current project. The findings of this project will be useful in prioritising future research and conservation areas. The most important at this stage is to extend this work into other parts of Gujarat and find new places for wolf research and conservation. Although our research was based on previously known sites, we believe that more studies are needed in order to identify the dispersal and distribution of wolf populations with respect to land use change and anthropogenic disturbances. To achieve these next steps I think it is important to do a longer term research, such as a PhD study, for which I have started inquiring to various universities in UK and Canada.
- b) Create awareness amongst the herders of the critical situation of wolves and how wolves are important to ecosystem, as well as how to mitigate the prevailing conflicts. When the conflict level is high, it is important to shape their attitude and present them with conflict mitigation strategies. This can be done through presentations and awareness material distribution, and even film shows. Imparting information on reasons behind conflict, about government schemes such as compensation and practices adopted to mitigate conflict which herders and farmers can employ for avoiding conflict through training workshops will surely help reduce the conflicts.

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?

No, the RSGF logo has not been used yet as no documents have been published as part of the project. The data generated from this project is currently being analysed. Once the data analysis is finished, I will use the logo in the report I will prepare and the presentation I will potentially be giving at a national/international conference. I will use the logo in a nationwide online survey of wolves I plan to conduct within coming months. However I have used the RSGF logo in some presentations I gave in some colleges.

11. Any other comments?

Thank you to the RSGF team for the speed with which they processed the initial application and their subsequent support as and when required, especially for extending the project period. I am extremely grateful as, without this support, I would not have been able to carry out this project. I received significant learning experience through this project and that it has enabled me to grow as a conservation scientist.