

Final Evaluation Report

Your Details	
Full Name	Vikram Pradhan
Project Title	Developing strategies to mitigate Human Wildlife Conflict in Sikkim Himalaya, India
Application ID	20218-1
Grant Amount	£5000
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1. 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
<p>Understand the extent and intensity of HWC through intensive data collection using participatory approaches, consultations and structured questioners at household level involving all pertinent stakeholders and monthly data collection</p>				<p>Being consultative and participatory in all our methods and approaches has allowed us to acquire information which is reliable and deals with fairly sensitive issues including human vulnerability on one side and the conservation of wildlife who are perceived as the direct drivers of their vulnerability.</p> <p>An overall understanding and a very extensive representation of human-wildlife conflict and its nature in these areas was achieved through a series of focus group discussions, consultations, meetings, listing ranking, scaling, household and key informant interviews, participatory mapping, timelines, tolerance level and various other participatory methods, which has not been attained till now in the state.</p> <p>But the project team fell short on the collection of quantitative data like monthly village level participatory HWC mapping exercise, due to the commencement and befall of the local panchayat (system of local self-governance in India) elections, owing to which the communities could not devote their time, which could not only be significant in convincing administrators and policy makers but also help us understand the scale, pattern, direction of damages and identify the most vulnerable households, which over the years can play a crucial role while implementing mitigation measure.</p>

<p>Identify and develop proven environment friendly and community owned mitigation strategies</p>		<p>During the course of the study it was inevitable that almost all mitigation measures were ineffective in mitigating conflict and the fact that the state forest department only plays its traditional role and no interventions from any other institutions regarding the issue also does not help the situation. However, the community based mitigation strategy planning workshops in the study areas, at the closing stages of the project have been resourceful in discussing and identifying different possible viable solutions using proven environment friendly methods which are owned considering the communities and are implementable.</p> <p>The project team during the course of the study was able to identify similar mitigation measure 'bio-fence/life fence' which are proven to be effective and are adopted by the communities of Sepi village (Singalila range, Darjeeling). Therefore a farmer's knowledge exchange programme was organised by the team, where 27 different farmers from the study villages, visited Sepi village to explore more about the bio-fence and exchange their knowledge and understandings about HWC mitigation. Thus, this knowledge programme proved to be efficient as the communities now plan to implement bio-fences in their villages by linking it to various government schemes.</p>
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<p>To raise awareness and sensitise the communities and other stakeholders on the issue of Human Wildlife Conflict and its management</p>			<p>Different events were organised through this projects to sensitise and aware the communities regarding the issue of HWC. These events specially focused on engaging students as its target audiences as few institutions were already involved in organising similar events occasionally which incorporated farmers, but no programmes were organised in the school level, targeting the children's. The project team however was not able to produce communication products to generate better understanding and knowledge regarding human-wildlife conflict around their villages.</p>
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2. Please explain any unforeseen difficulties that arose during the project and how these were tackled.

As discussed above in the table the commencement and befall of the local panchayat (system of local self-governance in India) elections, proved to be one of the hindrance, which resulted in impeding of monthly village level HWC damage and mapping data. As these data collected over the course of the project would not be significant without the consultations and information from the entire community; the monthly HWC mapping and damage data collections were stopped owing to the significance of panchayat, constraints in time and involvement of the community members during panchayat elections, which takes place every 5 years.

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

- I. **Collection of data using participatory approaches** – Consultations, discussions, focus group discussions and various other participatory approaches with all pertinent stakeholders and the local communities have fostered the overall understanding and identification of various aspects of HWC extensively like history, trends and present status of conflict, identification of problem animals and most vulnerable crops, identification of drivers which can be a valuable insight to understand trends and nature of conflict, different mitigation measures adopted by these communities and its effectiveness, tolerance level of the communities towards the problem animals, linkage and coordination between various departments/agencies/sectors and the community to manage conflict, compensation scheme and its limitations, attitude and behaviour of community in relation to HWC and many other useful information.

Overall, the project was instrumental in creating a baseline of information on

HWC, specifically in context of eastern Himalaya and the state of Sikkim, which lack information, and there is a strong need to acquire this information in order to help mitigate and manage HWC more efficiently.

- II. Identification of potential viable mitigation strategy-** It was evident over the course of the study that almost all the mitigation measures adopted by the community, whether traditional or conventional, were inefficient in controlling the damage and required more intensive commitment and human involvement, especially during the time of harvests. The workshops conducted in each village for the planning of mitigation strategies, involved the participation of most pertinent stakeholders and the community themselves along with all the information collected over the course of study. The community members felt empowered and this also ensured their stewardship towards the decision making, which in turn has to be accepted and implemented by them. This interaction has assisted in exploring proven environment friendly and socially accepted method of 'bio-fence/life fence'. This is appreciated by the communities and the stakeholders. Further, both parties' planned to implement this technique in one of these villages and replicate it on other villages once found efficient. Furthermore, the communities and their representatives, in corporation with the team, have also been successful in convincing the government authorities to incorporate 'bio-fence' in various government schemes, which will not only reduce their vulnerability but also relieve the burden of investing in mitigation measures, as these communities are already in a way been deprived of economic security through HWC. The recent involvement of organisations like WWF and DLR Preama, Darjeeling in taking forward or implementing 'bio-fences' in these villages has also boosted the enthusiasm of the communities and stakeholders to mitigate conflict in more sustainable and environmentally friendly way, which is the sole objective of the project.
- III. Contribution to raising awareness, sensitising communities and changing the negative perception of people experiencing damages** – Another accomplishment attained by the project was increasing the resilience of these communities towards wild animals and conflicts as a whole. This was achieved through a series sensitising activities during meetings/consultations and organising awareness programmes in schools. These activities were conducted in such a way that the participants were sensitised on various ecosystem goods and services received from the forests around them and the importance of this ecosystem integrity being maintained, and the role of wild animals in ecosystem functioning by involving local biodiversity experts and the team. The fact that the mitigation method was accepted and appreciated by the communities has surely changed the negative perception of, if not the community as a whole, at least of few individuals towards wild animals. Overall the participatory and consultative approach of the project has helped to generate local support for conservation, as the natural areas around them are conserved and ensure community stewardship for conservation continues in Sikkim Himalayas as before.

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

The communities in the fringes have historically and culturally evolved on subsistence farming, with forests and its resources in their surroundings. But the recent developments in the increase of intensity and frequency of damage no doubt has changed their perceptions and attitude towards animals and conservation as a whole. Due to their challenging socio-economic status these communities could not access adaptive measures, which usually involve high investments.

And the critical role and support garnered by these communities during the establishment of these PAs in their surroundings, was being criticised and condemned by them; in other words they regretted the decision of supporting and driving the establishment of PAs in their surroundings. Most communities were severely affected by the social and economic implication of HWC on them. They always felt dismayed at the fact that their problems do not get reflected and their voices and difficulties are going unheard and unattained in these ongoing discourse of global and national movements of conservation, biodiversity hotspots and protected areas. In these situations when an effort is being made to address HWC in their communities, the project received overwhelming support and involvement from the communities. They feel empowered and continuously seek and explore more sectoral coordination to support activities for mitigating HWC. This in turn has benefitted the communities themselves through exploration and adoption of viable mitigation technique like 'bio-fence'. Ultimately they realise these involvements has developed strong community stewardship towards the forest ecosystem on which they are dependent.

5. Are there any plans to continue this work?

Yes, the team feels that more projects like these should be initiated and more understanding and innovative interventions are required to address HWC more efficiently in the state like Sikkim, which has a high concentration of forest cover and protected area network, and where the majority of its settlements live and rely on the proximity of these PAs for their livelihood and subsistence. More projects like these will also address the scarcity of scientific, social and other information/understanding regarding HWC in the region, which ensures efficient and viable strategies and policies to manage HWC. The team will like to incorporate more villages for its assessments and replicate the measures or explore more innovative measures, which are site specific and of course community owned.

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

Almost all the information collected during the course of the study has been disseminated to the communities and pertinent stakeholders during the mitigation strategy planning workshop. However, the detailed report will be shared with the state forest department and other relevant departments or institutions, after being submitted to Rufford. The team also plans to share or present the finding in various conferences or programmes concerning the issue or the state or landscape.

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

The RSG was utilised over the period of 16 months, due to the lack of involvement of the community and commencement of state Panchayat elections in all the study sites. Where each community actively engages them as it directly concerns them and their village's developmental and administrative activities. The team also plans to organise some post project activities like more awareness and sensitisation programmes, involving school students or the communities in the coming days.

8. Budget: 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. It is important that you retain the management accounts and all paid invoices relating to the project for at least 2 years as these may be required for inspection at our discretion.

Item	Budgeted Amount £	Budgeted Amount INR	Actual Amount	Actual Amount INR	Difference	Comments
Honorarium	985	80770	985	80770		
Daily wages of assistants- 2	293	24026	293	24026		
Field sustenance-food	2637	216234	2637	216,234		
Travel	468	38376	468	38376		
Workshops and meetings	359	29438	359	29438		
Interpretation materials	258	21156	258	21156		
Total	5000	410000	5000	410000		

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

- Collection and creating a baseline for more information and understanding on HWC from the region.
- Garnering more support from the communities and local stakeholders for developing community based mitigation measures.
- Developing more efficient and viable approaches to address HWC.
- Emphasising and stressing on creations of more alternative livelihood approaches in linkage with various institutions and communities to make the communities more resilient to all the changes in their surroundings.
- Continuing to advocate for the issue of HWC in the region by developing strategic links and partnerships with likeminded organisations and individuals.

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

The Rufford Foundation logo was used in all the posters used for the meetings and consultations. Besides it was also utilised in presentations made for the awareness and sensitising programmes. The RF was acknowledged and logo was also used on the poster presentation of work, presented at Eastern Himalayas Naturoconomics Forum 2017, which was held on November 2017 at Guwahati, Assam, India. (Attachment of which will be sent in the mail, along with the report). The RF logo was also used and acknowledged in the Rufford Conference 2018, hosted in Goa.

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

Vikram Pradhan– Project coordinator

Prabhat Andrew Rai- Project Assistant

Dr Sarala Khaling- Advisor for the project.

Field assistants – These individuals were hired from the villages when required, especially for the household interviews and group level interactions. These assistants were mostly educated local youth with good knowledge about their locality.



Left: A typical farm adjacent to the forest at Upper Ribdi, West Sikkim. Right: The communities from Sikkim, learning about the Bio-fence at Sepi, West Bengal, during knowledge exchange visit.