

## Final Evaluation Report

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Your Details	
Full Name	Prakash Chandra Mardaraj
Project Title	Finding space for coexistence of human and Sloth bears in Balasore, Eastern India
Application ID	23397-2
Grant Amount	£ 4912 (GBP)
Email Address	pmardaraj@gmail.com
Date of this Report	23/02/2020

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
To assess the distribution and population status of sloth bears in Nilgiri Range				Estimating distribution and density indices from indirect evidence were only possible. Due to high human disturbance, estimating population status by direct bear counts in the vicinity of den sites and while walking on the transects was not possible, as bears came out of their dens after dark.
To assess the impact of biotic pressures on bear habitat and identify 'conflict zones'				105 plots from 21 trails transect reveal that 43% of the habitat is intact whereas 30% is critically destroyed. 24 species of food plants used by bears are extracted from the forest by locals.
To initiate a comprehensive community awareness education program about the Sloth bear conservation in affected areas				Four training programmes for forest field staff and the villagers were performed. They were aware of the do's and don'ts to avoid bear conflict. Three friends of bears groups were created, and they did commendable work.
To sensitize among the school students and village communities about the issues of conservation with Bears specific				102 selected students from 26 remote schools among the conflict-affected villages participated in the painting competition. Three different venues were organised to reach the maximum number of contestants.

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

We needed at least three local field assistants for the fieldwork as working with the nocturnal mammal species there should be a good support team. We tried to manage with the existing two field assistants.

The local stone quarry operators were against the fieldwork as this project would highlight their illegal activities, but we managed to work with the local administrative influences.

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

- A. With the successful implementation of the training on sloth bear rescue operations jointly with the villagers and the forest staff, a good communication relationship was developed with them. With the awareness and education programmes in the conflict villages, the local people helped in saving bears instead of killing them. During the project, we successfully rescued and released nine sloth bears which were trapped in wild pig snares, had fallen into a well or were trapped inside a house.
- B. Four comprehensive community awareness education programmes about sloth bear conservation were very effective in showing forest staff the direct and indirect evidence of the presence of sloth bears in their areas. The sloth bear behaviour, movement pattern, aggressive behaviour and feeding habit, were also explained during the meetings. This training was very useful to locate the bears near the villages and regular monitoring will make local people aware of bear presence or absence in their locality.
- C. A conflict zones map with the extent of biotic pressures on bear habitat was created and submitted to the Divisional Forest Officer for implementation of protection and restoration of habitat. The suitable habitat for the sloth bears along with the requirement of the sloth bear to survive was proposed for the long-term conservation of the sloth bears in the study area.

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

With the sponsorship of the Rufford Foundation, the schoolchildren from the remote villages got recognition through their painting talents in the subdivision level.

The Friends of Bear group (15 young villagers) got a vast experience of the modern techniques used to deal with the conflict situation. They also got temporary remuneration for local forest works by the forest department, which enhanced their financial need.

The workshops created a good rapport between the villagers and the forest department which minimised the negative interaction between them. The local people can now easily apply for any forest compensation for the wildlife damage.

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

The population estimation with camera trap method and non-invasive genetic DNA hair sampling techniques with DNA profiling will be a future proposed study. Taking forward the last two project successes for more workshops and visits to a nearby zoo by the students will construct strong ethics towards wildlife conservation.

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

We have presented the result at the Rufford India Conference 2019 at Corbett and we also presented poster at Student Conference on Conservation Science (SCCS)-Cambridge 2019. A detailed report has been submitted to the Divisional Forest Officer, Balasore for implementation and necessity action towards the sloth bear conservation.

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

The Rufford small grant work was proposed for 12 months starting from December 2017, but the project work continued for 16 months (December 2017-April 2019). The delay was due to the absence of field assistants, as one of the field assistants was mauled by a sloth bear while surveying the dens during the fieldwork. The new assistant was frightened to go into the deep forest so we waited for the old assistant to completely recover from their injuries.

**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	Actual Amount	Difference	Comments
Establish baseline				
Desk study	93	93		
Collecting information from the field	114	114		
Field surveys				
Cost of hiring vehicles	1400	1260	-140	We managed the fieldwork in 45 vehicle trips (-5 trips). We need to hire field assistants for 16 days more.
Support for local field	1197	1273	+76	
Village awareness & training				
Villagers Meetings and discussions	420	420		Organizing 3 painting venue in remote area with limited facilities increase the expenditure which was not considered during the budget proposal.
Workshop/Training program	475	475		
Awareness campaigns	655	655		
Students activities	308	374		
D/ Reporting and Analysis	250	250		
<b>Total</b>	<b>4912</b>	<b>4914</b>	<b>+2</b>	<b>(GBP 1£= Rs.90.16 INR) 4/4/2019</b>

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

With the success of first and second Rufford grant projects, we have constructed a baseline of conservation for the highly problematic sloth bear population of Nilgiri range. Strengthening the goal, we now have to monitor the population using modern genetic techniques and simultaneously we also have to mobilise our Friends for Bear team rigorously. We have to encourage different skill development activities through our awareness and education campaign in the conflict-affected zones.

**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?**

Yes, we have used the RF logo in all our awareness posters. During our workshop and training, we used the logo in our educational leaflets. Rufford Foundation was highlighted among the children as we used the RF logo in our consolation prizes to all the participants apart from the winner's trophies. We also used RF logo in the poster presentation at Student Conference on Conservation Science at Cambridge. People were eager to know about the Rufford Foundation objectives and its activities in the conservation field. During our project work, we distributed books nameplate stickers in 26 Schools.

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

**Prakash Mardaraj-** Manage all the fieldwork to complete the proposed objective. From scheduling to conducting all the workshops, meetings, school competitions. Preparing, text and designing all the posters, pamphlets, distributing educational materials.

**Jayant Mardaraj Harichandan-** Participate in the School awareness campaign. Plays a vital role in consoling the stone quarry goon from doing mishap. Provided all sources of forest official supports from his old government contacts.

**Sitaram Prasad Panda-** Contributed extensively towards the report writing and analysis of the data obtained. Identifying and illustrating plants in the local language.

**Shiva Sing & Susanta Mohapatra-** Assisted during the fieldwork. Arranging and photo-documenting the meetings, workshops and painting competitions.

**12. Any other comments?**

On the behalf of all the sloth bears of Nilgiri, we pay our thanks to The Rufford Foundation for providing monetary assistance for adding knowledge and fostering conservation of sloth bear in one of the highly neglected landscapes of central India. With the help of RF so many people and sloth bears were saved from this

conflict. Looking forward to continuing the conservation work on a larger scale with The Rufford Foundation. "Namaste".

