

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	Samya Basu
Project title	Living with Harmony-A community based initiative to develop a comprehensive management plan to mitigate Human-Elephant Interaction, Southern West Bengal, India.
RSG reference	17331-D
Reporting period	14 months
Amount of grant	£9985
Your email address	samyabasu@hotmail.com
Date of this report	18 th October 2016

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
<p>Networking with government agencies, NGOs, institutions, media, different stakeholders groups with a special collaboration with undergraduate and postgraduate to encourage students to take elephant conservation project as their dissertation or internships.</p>				<p>The response from media was below expectation though the electronic media telecasted the conservation education programme. From next time I will take special care along with the volunteers by taking them into the field with project team.</p>
<p>Identify the elephant home range in south west Bengal and expand existing research and activity-based capacity-building programme in those new areas.</p>				<p>Extended 'Human-Elephant Interaction' zones were identified and it was found that the area increased more than 50% in last 5 years.</p>
<p>An enumeration of elephant sub-groups to record their migration range and develop distribution and interface zone maps.</p>				<p>Migratory herds were counted as per project methods and planning. But, we need to engage more NGOs and volunteers to enumerate the small groups or single elephants as they are scattered in 5 districts. 'Dung Decay Analysis method was not successful due to frequent heavy rains in study area during migration. We will repeat the process in winter 2016-17.</p>
<p>Continuation of the 'Elephant Reserve Research Station' with several options of volunteering or internships.</p>				<p>The ERRS need to be updated and accessible 24/7 and thus need a full time person there.</p>

Objective	Not achieved	Partially achieved	Fully achieved	Comments
Expansion of community-based conservation programme to address and minimise this interface, and sample villages from the interaction zone was chosen to do capacity building programme to mitigate human-elephant hostility.				The number of community awareness programme was higher than the expected as we received some specific request from West Bengal Forest Department and local NGOs.
The awareness and publicity materials, education pack publication and distribution as part of awareness programme.				These materials were produced and distributed among villagers, students and local government offices.
Production and distribution of a documentary film on 'HEC' and our initiatives as part of awareness programme.				The documentary film is not released yet as the editing took a long time which was unexpected. It will be ready by first week of November 2016.
Alternate livelihood development of villagers to minimise forest resource dependency.				Most of the villagers are not agreed to adopt new and sustainable livelihood practises. They are mostly comfortable with their ancestral habit of collect the forest produce and sell/use of it. We need to do an in depth survey on livelihood practises (as it varies from area to area) before implementation of new ideas.
Review of elephant habitat ecological condition (fodder status, water and saltlicks availability, anthropogenic				

Objective	Not achieved	Partially achieved	Fully achieved	Comments
pressure on elephant corridors) for habitat improvement.				
Pre-, mid- and post-project attitudinal survey to understand the project impacts on community and analysis of HEC database to understand the project success.				Post-project survey is ongoing.
Fund raising activities to make the project self-sustaining in near future.				Secured fund from co-funders and also raised funds from 'Elefriend Club' in schools and colleges, nature camps etc.

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

Accidental death:

- ✓ **Electrocution:** The death of elephants by electrocution was faced during the study which was really not in our plan to combat with. The high-voltage electrical wire for the electricity supply in villages took life of seven elephants during the project period (including five in same place in consecutive three days). Sometimes, it happened due to retaliatory attitude of the farmers but most of the time it was accidental death. We approached to the West Bengal State Electricity Board to request to do regular monitoring of the conditions of the pole and wire both passes through identified corridor forests of elephants. We also deployed local students as volunteer through institutional collaboration to monitor the same and to send the updates to The Rufford Foundation team, nearest forest division, and other authorities. After taking these initiatives, a single female elephant was died by accident in Puruliya district.

- ✓ **Railway:** The extended 'Zone of influence' of migratory elephants is mostly dominated by human settlement and far from designated 'Elephant Reserve' area. From last year a new railway track was introduced in the area along with existing track. Both these tracks go through the elephant corridor forest.

On 26th August 2016, when a small group of 30-35 migratory elephants were driven by the Anti-depredation Squad, two calves and their mother were unfortunately knocked down by a passenger train at 'Ghughumora' village of Bankura district around 19:00. The mother was alive for few minutes but the calves were dragged about 100 m by the rail engine. The place was in between 'Piardoba Railway Station and Bishnupur Railway Station'. In the project we set a goal to reduce the retaliatory killing of elephants as well as loss of human lives by 80%. We definitely achieved the target but unfortunately these unforeseen incidents or accidents again took several elephants lives.

We have visited the place and surveyed the entire railway tracks and identified the vulnerable zones of approximately 8 km. To date we have communicated with all concerned authorities like forest department, Indian Railways, etc. to develop an effective information sharing system to share the location of elephant herds and also suggested to introduce the speed limit of 20 km/hr for the accident prone zone of 8 km. Apart from that, we did not find any measureable solution of the problem.

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

- 1) Government initiatives and assistance: After 15 years of notification of Mayurjharna Elephant Reserve and more than 8 years of field work of The Rufford Foundation supported project, the West Bengal Government starts to implement the recommendations derived from earlier works and published in report. Some of the important initiatives are:
 - a. Custody of 'The Mayurjharna Elephant Reserve' has been transferred to the 'Wildlife Wing Division' from 'Territorial Division' of West Bengal Forest Department.
 - b. Deployed five trained elephants along with their handlers for combating the Human-elephant 'conflict'.
 - c. Deployed two vehicles fitted with all possible equipments requires for human- elephant conflict mitigation in humane way.
 - d. Consider HEC on priority basis and introduced pre-alarm system to avoid the conflict.
- 2) The stakeholder's participation and their initiatives, assistance and cooperation to the project team to save the elephants were quite encouraging to us.
- 3) ZERO retaliatory killing of the elephants is one of important outcomes of the project. The students and local NGOs played an important role during

the migration of elephant in their respective villages. They always kept contact with forest department and us to secure the safe passage of elephant herds. We updated the villagers about present rate of ex-gratia payment and realised that the villagers can show more tolerance if the ex-gratia payment is disbursed immediately after incidents.

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

- **General Villagers:** The villagers were involved in capacity building programme on 'conflict' mitigation techniques. They shared their ideas and traditional mitigation techniques and we helped them to know about the upgraded techniques to protect the village, crops etc from elephant depredation. We also helped them to adopt the techniques of crop rotation, cultivation of unpalatable crops and safe farming period, etc. We supported the Anti-depredation Squad through field orientation and equipment (head torch, etc.). The villagers were also sensitised about the present rate of 'ex-gratia' payment also shared their grievance with the authority to solve the local issues related to elephant problem. These initiatives helped us to build a good relation with the villagers which ultimately results to the safe passage to elephants through villages.
- **Farmers:** During the capacity building programme and personal communication with the farmers we make them aware about the safe period of farming according to elephant migration calendar and also about the low cost crop-guarding techniques by natural deterrent. They were sensitised about the cash crops, unpalatable crops, etc. We distributed the seeds to the farmers on experimental basis in monsoon (for rain fed crops) and result not yet come.
- **Village administration:** We have invited the representative in community meeting and tried to understand the communication gap between the villagers and administrators. We helped them by sharing the updated information and circulars for the welfare of victims of elephant depredation. Apart from that, we also tried to sensitise them about their duties and role during elephant depredation or elephant migration.
- **Anti-depredation Squad:** A capacity building programme for the anti-depredation squad was organised which was followed by an interactive session where they shared their views, difficulties and needs. During the elephant driving The Rufford Foundation team and the ADS people jointly we reviewed their comments and also supported them with technical inputs, equipment and vehicle support.
- **Field staffs of forest department:** Field staff of forest department took part in the project with infrastructural support and knowledge sharing. They were always part of village administration and Anti-depredation Squad too and participated in all the workshops and seminars.

We are planning to start a mobile computer training unit to help them to learn the basic computer operation and internet to share the information instantly with higher authorities and also to maintain digitised database.

- **Institutions and NGOs:** The local ground level NGOs and institutions were a vital part of the project and worked with The Rufford Foundation project team as local coordinators. They have identified the stakeholders, organised seminars, workshops, village meeting and conducted such programmes on collaboration.
- **Students:** Students were one of the important stakeholders in the project. The students of schools and colleges from the high intensity conflict zone participated in the capacity building programme and worked as Community Sensitizer in their respective villages. They also shared the information on migration/depredation/community attitude with the project team. In early 2016, in Barjora-Sonamukhi area of Bankura District of West Bengal, two incidents of electrocution by accident took lives of five elephants. At that time, these students took initiatives to prevent such incidents and also started vigilance in their respective villages to share the information with The Rufford Foundation project team to pass it to the Forest Department to take precautionary action to avoid such incidents.

5. Are there any plans to continue this work?

Yes, we will continue the Asian elephant conservation work and have planned to scale up the work in existing project area. The project will continue the research and concentrate on more stakeholders' participation with special emphasis on training and capacity building. The main issues in future projects will be right of passage for elephants, zero retaliatory killing of elephants and measurable impacts of mitigation of human-elephant interaction.

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

We will share our results in a half-day seminar followed by interaction in presence stakeholders' representatives, media personnel and Directorate of Forests - Government of West Bengal. The programme will be organised in collaboration with Ministry of Culture, Government of India in Indian Museum, Kolkata. Apart from that, we will circulate the hardcopy and upload digitised (soft) copy for public access.

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 Rufford Foundation Grant was used from June 2015 to September 2016.

	Anticipated Length	Actual Length
Date	June 2015	September 2016
Months	13 months	16 months

The actual project length was higher than the anticipated length as there was restriction of movement in interior places, forest and organising meeting etc. due to general election in West Bengal. The project area is considered as high sensitivity zone due to extremist movement for last one decade. Apart from that another 2 weeks were disturbed due to flood in project area and adjacent areas too.

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.

Local exchange rate £1 = INR 92 (approx.)

Item	Budgeted Amount	Actual Amount	Difference	Comments
Project Personnel	1800	1800	0	-
Local conveyance for coordination and field survey	520	643	-123	The travel cost increased due to Expansion of project area due to increase in elephant range and 'conflict' prone areas.
Visit to rice research centres and agricultural institute for consultation	100	20	+ 80	We did not visit the institution as the local farmers (participants from previous Rufford Foundation project) are able to replicate the long-awned paddy seeds (collected during previous Rufford Foundation project) for redistribution among willing farmers. But, we are in touch with these institutions for technical support.
Accommodation & meals during field survey	700	533	+ 167	The Directorate of Forests, Government of West Bengal provided rooms at a concession rate during awareness programme. Local NGOs and some colleges also provided the accommodation in

				<p>their guest room during work in their villages.</p> <p>But, in all cases we paid the meal cost.</p>
Maintenance of equipment's used for survey & awareness programmes	100	217	-117	<p>Apart from the budgeted amount we spend £117 excess.</p> <p>Our Nikon D5000 DSLR camera was damaged during the field work which was not repairable. We purchased a new DSLR which cost around £400. We took 40% from this project and 60% from other two co-funders.</p>
Documentary film production & education pack for distribution (500 copies)	450	250	+ 200	<p>Documentary film is in process and the final payment is due.</p> <p>This will be uploaded by 1st week of November 2016.</p>
Communication & publicity materials for media (TV and radio), posters, leaflets, booklets, pamphlets, banners, stickers, T-shirts & raincoats for patrol parties	300	288	+12	<p>All the proposed resource/information materials were produced and distributed among students, institutions, NGOs and forest offices.</p>
Inception meeting with government, media, stakeholders group and Pre-Mid-Post project evaluation of community attitude and elephant migration intensity	275	275	0	<p>Inception meeting was done as per project planning and pre- and mid-project evaluation of community attitude and elephant migration intensity was done. Only the post project evaluation is pending.</p>
Consultation meet with forest departments government agencies, NGOs, wildlife and agricultural institutes	110	96	+ 14	<p>Consultation meet was done in every quarter of the year and reviewed the feedback from them.</p>
Community capacity building & sensitization programmes	2250	2253	- 3	<p>Community capacity building and sensitisation programme was stakeholders' specific and total</p>

				number was greater than the proposed number.
Habitat management activities (surveys, plantations etc.) & enumeration of elephants population	1870	1917	- 47	<p>The anticipated cost increased due to inclusion of new areas during enumeration.</p> <p>Habitat management programme was done in five strategic locations in elephant migration corridors.</p> <p>Enumeration was done in Mayurjharna ER, influence zone and migratory, residential elephants were identified and recorded separately.</p> <p>But in future we will involve more number of volunteers during the enumeration.</p>
Introduction on unpalatable cash crops to mitigate crop raids of elephants	265	273	- 8	Introduced in three sample sites in monsoon 2016.
Introduction of unpalatable long - awned & fast growing rice varieties according to seasonal migration calendar of elephants	150	122	+ 28	Introduced in two sample sites on experimental basis.
Project report publication & dissemination workshop and press meet	220	200	+ 20	The project report (in form of a booklet) and dissemination workshop is pending.
Publication of books in local and English language	200	200	0	The book has been published. We will distribute the book along with project report during report dissemination.
Office rent & maintenance cost for continuation of research station	600	600	0	<p>For the coming years, we will request forest department for research station room donation.</p> <p>Otherwise we need to increase the cost in future project to develop a permanent research station.</p>
Communication	75	75	0	-

(telephone, fax, internet) and postal charges				
Total	9985	9762	223	The remaining £223 is including due payment of £200. The final unspent amount is £23.

As proposed in the application, we have raise funds for the self-sustainability of the project and also received grants from People’s Trust for Endangered Species of UK and also from Mohamed bin Zayed Species Conservation Fund of UAE as co-funder.

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

I am doing the Asian elephant conservation activities in the area for more than 8 years and will continue the exercise until the area is secured for the elephants. I will continue the field works and community capacity building and awareness programmes to reach all the elephant corridor forest dependent villages and ‘conflict’ prone zone. We will now continue the implementation of project recommendation to mitigate the Human-Elephant ‘Conflict’ and secure the passage of the elephants in a greater area of ‘conflict prone zone’.

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

The Rufford Foundation logo was used in the following materials:

- I. Documentary film and education pack.
- II. Communication and publicity materials:
 - a. Letterheads and visiting cards.
 - b. Posters.
 - c. Leaflets.
 - d. Booklets.
 - e. Pamphlets.
 - f. Banners and standees.
 - g. Car stickers.
 - h. T-shirts and raincoats for patrol parties.
 - i. Power-point presentations.
 - j. Awareness boards.
- III. Project report.
- IV. Press release.
- V. Books in local and English language.

The Rufford Foundation received publicity during each and every meeting, seminar and workshops. A special introductory slide on The Rufford Foundation activity was included in audio-visual presentation used during stakeholders meet. Approximately 27000 students and teachers from 30+ institutions, 14000+ villagers from 20+ villages, 17 NGOs and different government departments were directly introduced with the activities of The Rufford Foundation.

11. Any other comments?

As we mentioned earlier, we received matching funds from People's Trust for Endangered Species (<https://ptes.org/grants/worldwide-projects/asian-elephants-in-india/>) of UK and also from Mohamed bin Zayed Species Conservation Fund (<http://www.speciesconservation.org/case-studies-projects/asian-elephant/3123>) of UAE as co-funder.

