

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	Deyatima Ghosh
Project title	Herpetofaunal Diversity And Conservation In Eastern Indian Agroecosystems
RSG reference	18506-1
Reporting period	07/03/2016 – 07/03/2017
Amount of grant	£5000
Your email address	meetdeyatima@yahoo.com
Date of this report	7 th March 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
Preparing and conducting Ethno-herpetofaunal survey				Survey programme has been conducted in 32 villages. Five farmers were surveyed in each village. Of these, nine villages are in low intensification zone, five under mid and six under high intensification zone. Total farmers participating in the programme was 160.
We planned another survey programme for validating the data that we obtained from the previous survey programme.				We repeated this validation programme in 20 villages with a total of 200 individuals.(10 from each village)
Site selection				We selected 12 sites from the aforementioned 32 sites
Trap construction				
Sampling				We conducted sampling in 11 sites so far, eight under low intensification and three under high intensification. We plan to complete the sampling in the last sight by this month
Awareness building				Since the project started we have been building awareness among the farming communities of the respective site by continuous interacting with them informally.
Site Selection				For some unforeseen conditions we had to do a second round of site selection for selecting six sites in another town.

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

- a) The first difficulty we had, was conveying the thought of working with herpetofauna which is such an unstudied group in these areas. Because of very poor status of education it was difficult to gain their confidence of allowing me to work in their fields. But with continuous effort we could build up co-operation with the farming community and could gain their trust.
- b) We faced a huge challenge due to language barrier. The dialects used by the tribal people are to a large extent different than the non-tribal people. We had to hire an interpreter for the initial phases of the survey. We had some problems learning the names of the snakes, amphibians, lizards and skinks and most of all they do not know the names of few of them but did agree seeing them in their fields. We then had to describe their behaviour, their habitat to be sure of them identifying the correct species. The lack of knowledge was another barrier. Some of the interviewee would not interact with us as they mistook us for the forest officials, and were very reticent to express their thoughts. Gradually with time and experience we were able to deal with such situations better and get the relevant data that we needed.
- c) A major issue with our field work was the timing. We were not allowed to enter fields in August, November and December. August is the time for sowing the seeds and November and December are the growth and harvest time. This impeded our fieldwork and had to reschedule our field. Therefore we fell short of time and could only do 11 sites instead of 12 sites as we proposed in the project.
- d) The plan that we proposed was humungous keeping in account the unavailability of labours. This hindered our fieldwork. It therefore took a bit longer to meet the objectives of the project.

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

- 1. One of the major objectives that we had while initiating the project was to bring out the perception of the framing communities that are co-existing with wildlife through ages. This was a pioneering attempt and we did get a baseline data from our ethno-herpetofaunal survey which could be used for further developing conservation strategies by involving the farming community. As we started our work it reflected a huge knowledge gap and ignorance among the farming community about reptiles and amphibians. It also brought out some myths and misconceptions related to these animals that would lead to direct killing of

herpetofauna. Their ignorance about the utility of these animals in maintaining ecological balance was the major reason for the threats that they nurture within them for these creatures.

2. Our research has filled in the knowledge gap that existed for a long time about herpetofaunal diversity in agricultural lands. We chose to work on a gradient which would give us data related to timeline series. The data that we got need further processing to reach to a strong conclusion.
3. A major objective of our project was to prepare ground for designing a future conservation plan. We have succeeded to a large extent in doing so that is evident from the way we were helped by the communities while we were doing our sampling in the later phase of the work. This will help us to involve the farming community in taking active step for conserving herpetofauna along agricultural gradient.

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

Our research work essentially involved participation of the farming community. Initially we though experienced some reticent nature of the farmers to open up to us and our ideas we did try to convince them by awarding them about the importance of these animals in their farmland. Even when they were not convinced of working with herpetofauna they did support us to sample in their fields and gradually we could see a change in attitude towards these animals.

5) Are there any plans to continue this work?

Yes we do plan to continue our work. Our project has just given a preliminary data set in the proposed area of research in an Indian perspective. This gives room and warrants further studies to reach to any strong conclusion and contribute globally. We plan to complete sampling for the 12th site.

We have decided three areas for work –

- a) We would look into the pesticide load of each group of herpetofauna in the 12 sites along the intensification gradient. This would give a clue about the intensity of agricultural intensification and the effect it might have on the diversity of herpetofauna in the long run.
- b) We will do a campaign in the coming year with posters and distributing pamphlets in the 12 field sites to raise further concern among the farming

community about herpetofauna and this will help us to proceed to the next phase of our research.

- c) We next will plan experimental setup to look into the functional role of herpetofauna as a biological pest controller. This we wish to do in enclosure based experiments by involving the farming community and eventually propose a management strategy to the farmers.

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

We are processing the data from farmer's survey. We have plans to communicate the results in peer reviewed journals and mass media. We are in the process of preparing a manuscript on the survey part of the project.

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 project was funded for one year from 2016-2017. The date of grant release was 7.03.2016. We proposed to start the project on January 2016 but for some unavoidable circumstances the work got delayed by three months. But we did abide by the time distribution that we did for the different phases of work.

Time Line As Proposed			Time Line Followed	
Ethno-Herpetofaunal	Dec'2015-Jan'2016		Ethnoherpetofaunal Survey	Mar'2016-Aprl'2016
		New	Validating The Survey With 200 Farmers	Aprl'2016-May 2016
Field Site Selection	Jan'2016-Feb'2016		Field Site Selection	Aprl'2016-May 2016
		New	Repeating The Survey With 5 Farmers In Each Of The 12 Field Sites	May 2016-June 2016
Trap Construction & Installation	Jan'2016-Feb'2016		Trap Construction & Installation	Aprl'2016-May 2016
Herpetofaunal Sampling	Feb'2016-Jan'2017		Herpetofaunal Sampling	May 2016-Feb'2017
		New	Reselecting 6 Of The Sites Under High Intensification Zone	Nov'2016-Dec'2016
Public Awareness	Jan' 2016-Jan'2017 (Throughout The Work)		Public Awareness	Mar'2016-Mar'2017

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
Equipment	600	1123	(+)523	The difference in the budget is because we had to buy certain equipment to obtain environmental data, lux meter, soil moisture meter, pH meter, rainproof paper, a DSLR for photo documentation of the animals as we had no permission for marking the animals, GPS, Range finder and some other essentials for the field. This money was not foreseen initially and we had to add these equipment to our budget list.
Drift Fence	150	116	(-34)	We could not buy any trap but had to buy raw materials to construct them which lowered our estimated budget to some extent
Pitfall Traps	55	55		
Double-Ended Funnels	200	166	(-34)	We could not buy any trap because of unavailability in these backward areas and also because of transport problems. So we had to buy raw materials to construct them which lowered our estimated budget to some extent
Cover boards	45	45		
Pvc Pipes	50	–	(-50)	We did not lay PVC pipes in our sampling areas.
Animal Handling Tools	50	74	(+14)	The prices exceeded our budget because of low stock of the animal handling tool.
Communication	50	50		

Expenses				
Vehicle Hiring Charges	2300	1973	(-)327	
Vehicle Rents	2000	1587		The car hiring charges were @ 159/month
Fuel	300	386		Fuel cost was more due to a sudden hike in price
Wage	2000	1904	(-)96	We did not get the number of labours that we proposed for. We could hire maximum of 2 labours @3/day for 10 months
Contingency	100	100		
Total	5000	5100	(+)100	

Exchange Rate=Rs. 94.52

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

Work related to herpetofauna in an agricultural intensification gradient is in its pristine stage. This gives a lot of room for new research ideas. Though informally we have made the farming communities aware of the importance of herpetofauna we will do an official campaign where farmers will be allowed to express their thoughts and perceptions about these animals and will be able to come up with ideas of conserving them. This will help us to pique their interest and involve them in conservation strategies that we plan to do in the next phase of the project.

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 we did use the Rufford logo in the power point presentation that we did for the farmers Survey. We will use the logo in places where we will be communicating the results from this research.

11. Any other comments?

I would like to express my gratitude to The Rufford Foundation for funding my project and allowing me to take up such a relatively new research area in regions where no previous work has been done. It has given me experience and knowledge of handling unfavourable situations and reaching a solution. It has increased my interactive skills and has taught me how to plan and lead a research team through many unforeseen situations.