

The Rufford Small Grants Foundation

Final Report

Congratulations on the completion of your project that was supported by The Rufford Small Grants 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	Dr. Pranjal Bezbarua
Project title	<i>Strengthening One Horned Rhinoceros Conservation in Gap Areas</i>
RSG reference	37.01.10
Reporting period	22 nd June 2010 to September 2011
Amount of grant	£6000
Your email address	pbezbarua@yahoo.co.in
Date of this report	31.10.2011

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
1. Habitat suitability study in buffer zone of Manas to recommend rhino area extension			100%	The study indicated that there were potential grassland areas with small aquatic bodies for rhino habitat extension in western buffer of Manas biosphere reserve. Regarding eastern buffer, the ponds near core zone with small grassland patches found to be temporary habitat during rhino stray management actions. But strong anti-poaching strategies must be present to make these rhino habitats in buffer areas as suitable.
2. Mapping of invasive species in core of Manas for designing future long term study and management.		75%		There are different types of invasive species in core of Manas apart from most problematic <i>Chromolaena odorata</i> , <i>Leea asiatica</i> and tree like <i>Bombax ceiba</i> . The study indicated fast spread of <i>Chromolaena</i> in the southern boundary areas which were prone to external grazing and other anthropogenic pressure. Some of the prime rhino habitat is now converted to mixture of <i>Leea</i> , <i>Bombax</i> and <i>Chromolaena</i> species. The study showed maximum invasion in central range. Authority should also give importance to other weeds like <i>Plectranthus ternifolius</i> and <i>Eichornia crassipes</i> including trees like <i>Dillenia pentagyna</i> . They may be a future threat especially <i>Eichornia</i> may heavily degrade the aquatic bodies. Some of the grassland areas are converted to woodland. The study suggests taking long term action research to monitor the invading species behaviour against different management strategies.
3. Rapid survey of present livelihood pattern and potential resources to recommend community conservation strategy around fringe villages of		90%		The rapid survey in selected fringe areas of Orang NP indicated that villagers depend on agricultural items like rice and common vegetables of winter and summer season using heavy dose of pesticides. Some of them also have buffalo khuti for production of milk while

Orang national park.				<p>a major portion of poor villagers work as labour. The problem of erosion in riparian side resulted farmers a heavy loss. A section of villagers also practice fishing and encourage cattle to graze in grassland in boundary areas of Orang which is a potential threat for rhinos and its habitat. The poor awareness, lack of proper medical and education facility, including lack of savings of hard earned money resulted villagers life miserable.</p> <p>It is recommended that promotion of education, creation of health facility and awareness are necessary for the villagers. Secondly joint efforts with formation of self help groups or cooperative society incorporating microfinance is needed for improving over all agro based economic development of major section of villagers. Promotion of organic agri items instead of excess use of pesticide including value addition, dairy farming to minimise less productive buffalo and cattle and fishery are the possible alternative options. Local administration should take initiative to check erosion of river in some selected sites.</p>
4. Antipoaching kits to conservation volunteers of buffer areas of Manas.			100%	<p>We distributed antipoaching kits to conservation volunteers working in buffer areas of Manas landscape. Each kit contains rain coat, rucksack, sleeping bag while solar lamps with mobile phone charge facility, solar torches and dragon lights were also included. On request, we additionally donated 20 small torch lights to one local NGO. The need was such that volunteers of a NGO had to use it just after two hours of distribution.</p>
5. Rhino awareness campaign in untouched fringe villages of Manas and Orang National Parks.			100%	<p>This project organised rhino conservation awareness meetings in remote areas of Manas and Orang with support of audio visuals and leaflets. These awareness programmes were always incorporated with discussion of local socioeconomic problem and ecofriendly alternative livelihood options. With support two local NGOs we formed 40 self help groups in fringe of Manas for 300 families. They will be provided free training and in kind support on</p>

				piggeries and weaving and linkage with bank and rural development organizations. We also used a unique method of house to house campaign during rapid survey on alternative livelihood in project sites.
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2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).

To implement the project activities, some difficulties arose during the project period like frequent strikes, road blocks by some organisations linked to insurgency plus incidents of conflicts between different communities as well as same community with different political ideologies. Though the insurgency problem in Manas has decreased significantly in comparison to period before 2005 and creation of a tribal council in 2003, some groups are still active. There are incidents of violence and demand of money even kidnapping and life risk by those elements that also occurred in some pockets near Orang. One major incident of kidnaping of research volunteers of a big organisation and demand for money in far west to our project site in Manas resulted restriction of entry of researchers and conservation workers by administration for several times. For power, political elimination has been observed in different villages. We have to work with people with diverse political ideology. During survey period also some unaware villagers in remote areas threatened the project personnel's.

We tackled the problem using our old method (when insurgency was peak)- gathering as much as information from our network, always keep very low profile like long distance walking or cycling from one site to another taking, extra working days etc. We targeted small groups of people (5 -15 numbers) discussed their socioeconomic problem, about rural development, resource available in governmental scheme and gradually talked about conservation of rhino and other wildlife. Though it took more time but the impact found to be effective. We talked person to person specially during our rapid survey which helped in better understanding of the subject and knowledge sharing to improve the work. As some people/NGO know my work since 2000 it was an added advantage for us to access those areas. The big meetings and training programmes were organised in comparatively safe places and period. The people even female participants of difficult regions participated in these meetings. We avoided using RSGF logo in disturbed area and also did not inform of receiving fund from foreign/national agencies even when working with some of our local partner organisations/workers. We always keep good link with local administration and inform about our location and activities.

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

The rhino habitat area can be extended to buffer zone especially in western side having large grassland cover if security could be improved through establishing antipoaching camps and strengthening present community participation. The contiguous eastern buffer with small grassland patches and aquatic bodies may serve as temporary habitat during stray management of rhinos.

The problem of invasive species is very complex in nature with fast spread of *Chromolaena odorata* apart from dominating invasive species *Leucaena asiatica* and *Bombax ceiba*. It is predicted that if proper

management action is not taken *Chromolaena* will be the most problematic weeds than other weeds. Presence of multiple weed in same area or grassland block will cause more problem to design strategies. It is recommended that long term action research is must to restore the degraded rhino habitats.

The conservation awareness programme needs to be continued and extended in sensitive gap areas with proper evaluation of local socioeconomic problems and practical solution. Additionally, capacity building and support for promoting ecofriendly alternative livelihood options and value addition of exiting options are urgently required for local community to encourage strong friendly buffer around rhino habitats.

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

The local community has been actively involved in some of the activities. During awareness programme and rapid survey for alternative livelihood options, we met different conservation workers, local teachers and students, villagers etc. in project sites. The forest dependents were motivated for adopting different alternative livelihood options specially piggeries and weaving during awareness programme. We also introduced them with different rural development schemes of the government. Further, we formed 40 self help groups in fringe of core and buffer areas of Manas to promote piggy and weaving where they will get detail training and in kind support. The antipoaching kits to local NGOs and conservation volunteers not only helped in habitat restoration but also to deter wild elephants from village areas as well as minimise injury/poaching incidents.

5. Are there any plans to continue this work?

Yes, we are continuing the programme and follow up action and hope to extend in some new and difficult areas with support of RSG and other organisations.

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

As we are working with different local, national and international organisations including government departments/ institutes involved in rhino conservation in Assam, we will share the result for future policy making, management action and joint effort. The result will be published as research papers in local, national and interantional journals and presented in seminar and conferences. We have already shared our community work with local rural development department of Government of Assam and started alternative livelihood generation programme to promote alternative livelihood like piggeries and weaving where 40 self help will be provided training and a major portion of in kind support. In next phase, we are trying to focus such support in Orang and other rhino areas considering needs of the local community.

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

RSG was used during the 22nd June 2010-30th September, 2011. We have to extend the programme with permission from Rufford due to poor law and order problem in project sites.

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
Principal Investigator	2100	2100	0	
Field Assistants	1200	1000	200	In some of the sensitive areas the field assistants were advised not to visit due to security reasons. Later the principal investigator with support of local workers accomplished the work in additional time. @£5 X2 personsX100 days
Travel (vehicle rent & Fuel)	600	600		
Invasive species mapping	300	350	-50	We have to use recent imageries for the GIS maps. We could not raised additional amount for the purpose as shown in total budget for this objective. @£350 for invasive species mapping @£350 X 2 buffer area suitability maps
Habitat suitability mapping	500	700	-200	
Antipoaching kits	800	800	0	
Conservation campaign	500	500	0	
Total	6000	6050	-50*	When the fund was received the exchange, rate was 1 pound = 67.76 Indian rupees * 50 pounds was contributed from our side. The increase of petrol price and current global economic condition slightly influence in change of values of a few items, though we managed it from other source.

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

- The habitat suitability in buffer areas of Manas can be extended with support of establishing strong antipoaching camps by the authority, continuous support to the petrolling activities of local NGOs and strong local community participation in conservation of habitat and species.
- Rhino habitat improvement in terms of grassland management should be given importance in core as well as buffer zone. Uncontrolled grassland burning in western core and buffer areas of Manas must be controlled. The problem of invasive species needs to be given more importance
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in term action research to mitigate the problem. This is to be also extended to buffer areas of Manas as well as Orang national park for better management of the rhinoceros' habitat.

- The protection and conservation of aquatic habitat is the main key to sustain the rhino habitat in Manas landscape as well as Orang.
- The awareness on overall biodiversity including rhino conservation should continue in remote fringe villages of Manas biosphere reserve and Orang national park especially in sensitive areas where there are tendency of anthropogenic disturbance and encroachment. This should be incorporated with promotion of ecofriendly livelihood options amongst the community especially poor forest dependents. Secondly overall education and health facility should be upgraded in remote fringe villages.
- Excursion and communication between conservation workers, NGOs and community leaders of Manas and Orang is necessary. This will help local stakeholders to share their local design of activities and improve conservation strategies as well as some common livelihood practiced in both the areas.

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

We used the RSGF logo in selected occasions keeping in mind the level of disturbed condition in the project sites.

11. Any other comments?

With support of two local NGOs, We formed 40 self help groups to promote weaving and piggery in two sensitive fringe areas of core and buffer of Manas biosphere reserve. Free training and in kind support will be provided to these groups where rural development department of Assam will support us. This will benefit local conservationn NGOs in gradual restoration of some encroached habitat. Already both the NGOs are succesful in recovering some habitats.

Though this is a rhino project, our unique support to conservation volunteers help in strengthening overall biodiversity of buffer areas especially Asian elephant and its habitat.