

## 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. 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. 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](mailto:jane@rufford.org).

Thank you for your help.

**Josh Cole, Grants Director**

Grant Recipient Details	
Your name	Tej Kumar Shrestha
Project title	Ecology and conservation approaches of wild water buffalo ( <i>Bubalus arnee</i> ) in the Koshi Tappu Wildlife Reserve
RSG reference	12192-1
Reporting period	Yearly
Amount of grant	£5950
Your email address	tejthaiva@hotmail.com
Date of this report	31 <sup>st</sup> Jan 2014

**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
Understand population status of wild water buffalo and their potential threats				Key threats identified were transmission of diseases from live stocks, hybridisation, flooding and hunting by locals for meat
Understand feeding ecology of wild water buffalo in KTWR				Intensive diet analysis of <i>Bubalus arnee</i> dung samples were done in laboratory for two seasons
Understand nutrient content of feeding species and its role for buffalo health condition				Plant nutrient content of several local species were conducted for nine different parameters (calcium, potassium, ash, protein, fat, carbohydrate, fibre, moisture, sulphur) in two different seasons
Assess the carrying capacity of KTWR in terms of diet available for wild water buffalo.				Carrying capacity of <i>Bubalus arnee</i> within KTWR is partially achieved within deadline. Perhaps team continues to achieve this result with additional support from KNCF and hopes to complete by April 2014
To raise awareness among local communities on the conservation of wild water buffalo				School kids participated in various activities which were related with the conservation issues of <i>Bubalus arnee</i> . Project team negotiated with local artists who performed cultural program. This programme was very significant in terms of attracting public mass for awareness. This cultural programme was performed for about a month, which contributed to sensitise at least 1000 local people.
To study the possibility of wild buffalo translocation.				Habitat ecology of KTWR has been achieved however a habitat modelling and field verification is continuing.

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

The project found difficulty on distinguishing between pure bred and feral population of *Bubalus arnee* due to lack of genetic study of this species, similarly team was less confirming that the dung samples collected were 100 % of the pure-bred population. Team tried its best to identify pure bred

individuals and dung samples with the help of local resource person and experienced team members.

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

**i. Diet Analysis:** This project was able to identify key plant species consumed by wild water buffalo through diet analysis



Left: Research team collecting *Bubalus arnee* dung. Right: Plant species wrapped up.

**ii. Plant nutrient content:** 64 major plant species were analysed for nutrient contents in nine different parameters (calcium, carbohydrate, moisture, potassium, fibre, ash, crude fat, sulphur, protein) for summer and winter season

**iii. Conservation awareness:** Various awareness programmes were conducted in schools, villages, local authority. Approximately 1000 local people were directly made aware on conservation of wild water buffalo.



Left: Artist performing drama based on conservation of *Bubalus arnee*. Right: School kids participating on drawing competition

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

Conservation awareness programmes were conducted with the public involvement from local communities. This project focused on various VDCs those were situated on the buffer zone of Koshi Tappu Wildlife Reserve. The team members shared on the importance of wild water buffalo, key plant species that were fed by wild water buffalo and measures to protect their agriculture crops from wild water buffalo. It is presumed that these conservation programmes also helped to reduce human wild water buffalo conflict.

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

Yes, this project will continue after additional funding from KNCF, Japan until April 2014. However, I will be looking for additional funds to continue this project with new objectives such as habitat modelling, identifying alternative secured habitat for wild water buffalo which will be suitable for translocation and formation of local community conservation groups.

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

Report will be circulated to stakeholders, while findings have been shared to local community and looking forward to share with more locals during this project's continuation. I have discussed with my advisors and support team members so that the findings can be published in international journal to share the results worldwide.

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

Total duration proposed for this project was 1 year however I have to extend this project by 2 months since I was waiting for laboratory test analysis.

**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
Research Assistant (Wages & accommodation)	1690	1800	-110	Team were deployed for longer than proposed time
Local Resource person	220	250	-30	Wages underestimated
Reflecting/safety jackets for team members	100	150	-50	Cost underestimated
Safety boots for team members	180	200	-20	Cost underestimated
Appropriate Camera, GPS tools	0	0	0	
Writing materials, photocopying and printing of articles	0	0	0	

Internet, use of communication means such as phone, fax machine, etc.	0	0	0	
Food & accommodation for researcher and his team (3 Person) for field survey and conservation activities, including stay in field and hotel for workshop,	2100	2000	+100	Expenses was over estimated
Travel expenses from Ktm to KTWR	750	800	-50	Flight cost was increased
Elephant rides throughout forest for field survey	250	0	+250	Not required
Poster/ Banners/ placards	160	100	+60	Additional fund available from KNCF, Japan
Signboards/hoarding boards	250	200	+50	Additional fund available from KNCF, Japan
Workshop, Focus Group Discussion	250	300	-50	Number of participants were more than expected
Distributing RSG logo notebooks to school kids	0	150	-150	Matching fund was unavailable from other source
<b>TOTAL</b>	5950	5950	0	

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

This project will continue at least until April 2014 and looking forward to continuing further in order to accomplish additional essential objectives. I will be applying for further funding from various sources including RSG in due course.

### 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?

Yes, RSG logo notebooks were distributed to school kids. There was a cultural programme organised in KTWR where project banner with RSG logo was displayed in the stage. Banners with RSG logo were also displayed throughout workshops, focus group discussion and awareness campaigns.

### 11. Any other comments?

I am looking forward to receiving additional funds for 2<sup>nd</sup> phase of this project from RSG.