

## The Rufford Foundation

### Final Report

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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 under taking 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](mailto:jane@rufford.org).

Thank you for your help.

**Josh Cole, Grants Director**

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Grant Recipient Details	
<b>Your name</b>	Mr Dorji Norbu
<b>Project title</b>	Frogs diversity and its habitat pattern in the Upper Drangmechhu River basin, Eastern Bhutan.
<b>RSG reference</b>	21236-1
<b>Reporting period</b>	14 months
<b>Amount of grant</b>	£5000
<b>Your email address</b>	<a href="mailto:dorji1234567@gmail.com">dorji1234567@gmail.com</a>
<b>Date of this report</b>	January 2018

**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
Creation of a primary database of amphibian species from the study area.				Documented 11 species of amphibian which ranges from Least Concern to Data Deficient species according to IUCN Red List.
Publication of at least one peer-reviewed scientific paper.				A short review on the topic: "Growth in amphibian knowledge of Bhutan" was accepted by the 'Current Science,' in the 'Correspondence' section.
An assessment of threats to amphibians across the study area.				<p>Habitat destructions and fragmentations.</p> <p>Road constructions and expansions for the Kholongchhu Hydro Project.</p> <p>Forest fires, Sand extractions, Stone quarries, cattle grazing, settlements, waste dumping, erosions and agricultures are also unavoidable factors.</p>
Public awareness				<p>The environmental education and conservation outreach programmes were conducted throughout December 2017 in collaboration with park and forest officials, local administration and communities, nearby students as well as teaching faculties. With the collaboration of Tashigang Forest Division and local people, a cleaning campaign was also organised along the roads and settlements which are nearby Drangme Chhu River.</p> <p>Presentation to the scientists of Forest Research Institute about the findings of the project was done and also, a short review on the topic: "Growth in</p>

				amphibian knowledge of Bhutan" was accepted by the 'Current Science,' in the 'Correspondence' section to further disseminate the current status of amphibian in Bhutan to the international communities
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**2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).**

No major and concerning problem was encountered. However, the permission to do a research in the study area was obtained quite lately where they mentioned that it was due to some technical problems, which in turn resulted in late field work initiation.

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

- Diversity, habitat pattern and threats of the amphibian in the project site have been known. The possibility of new species (especially *Amolops* sp. and *Megophrys* sp. 3 as recommended by Dr Abhijit Das, Scientist C, Frog Expert, Wildlife Institute of India, are very high).
- Public awareness of amphibian importance and its conservation is created which is believed to enhance the status of this animal group in public eye which is in Bhutan gone unnoticed until now.
- A short review on the topic: "Growth in amphibian knowledge of Bhutan" was accepted by the 'Current Science,' in the 'Correspondence' section to further disseminate the current status of amphibian in Bhutan to the international communities and as baseline information of the country.

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

Public awareness is created on the importance of amphibians in the ecosystem and their threats.

Scientific community will be benefited from the publications.

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

Yes, with the experience and the building of the capacity by the current project I am planning to study details about the amphibian especially those species which are not described and new.

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

Results are shared with the park and forest officials, local administration and communities, nearby students as well as teaching faculties through presentations and verbal. With the collaboration of Tashigang Forest Division and local people, a cleaning campaign was also organised along the roads and settlements which are nearby Drangme Chhu River. Presentation to the scientists of Forest Research Institute about the findings of the project was done. A short review on the topic: "Growth in amphibian knowledge of Bhutan" was accepted by the 'Current Science,' in the 'Correspondence' section to further disseminate the current status of amphibian in Bhutan to the international communities. In fulfilment of my MSc Forestry thesis, I have used the collected data of this 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?**

This project took me almost 14 months to complete. I have spent extra 2 months compared to the allotted time period especially due to the priority that I have given for the awareness campaigns and also due to the late initiation of the field work which is in turn due to the late permission obtained.

**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
Field equipment (Measuring tape, vernier calliper, GPS, binocular, digital camera, compass, pocket calculator, stopwatch, mesh net, Formalin, clinometer, Plastic)	490	535	-45	Adjusted from the wages. However, clinometer could not be brought.
Field gear (Tent)	25	25	0	Adjusted with allotted budget
Standard field kits/stationaries (Printer paper, field notebook, permanent marker pen, lead	50	50		Adjusted with allocated budget

pencils, plastic bag, ruler)				
Communication	75	75	0	Adjusted with assigned money
Education and Awareness	1910	1950	-40	Adjusted from the wages
Budget for salaries/wages	1885	1800	+8 5	They willingly accepted to have a minimum wage per day.
Budgets for Guide books, Data analysis, publications	55	55	0	Poster and Brochures are adjusted with presentation slides.
<b>Total</b>	5000	5000	0	

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

Pioneer works about the amphibian have been started however the description of new species up to species level is not yet initiated in Bhutan. Therefore, it must be done.

Educating people in conservation issue is equally important to the scientist fieldwork.

Intense field survey about the amphibian should be done in Bhutan.

### 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?

Logo is used in my master thesis, scientific paper and presentations including the public awareness and outreach programs.

### 11. Any other comments?

I thank Rufford Foundation for funding the project which helped me not only doing my master thesis in Forestry but also able to contribute small contribution to the scientific community as well as amphibian conservation.

