

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	Biraj Shrestha
Project title	Saving Mountain Frogs (Paha) Before It's Too Late; Conservation Effort at Manaslu Conservation Area, Gorkha District, Nepal
RSG reference	19362-1
Reporting period	May 2017
Amount of grant	£4990
Your email address	thepristinewoods@gmail.com
Date of this report	06/06/2017

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
Amphibian surveys in Manaslu Conservation Area (MCA)				We visited Manaslu Conservation Area in three sessions for the amphibian survey along with project's other activities: April-May 2016 (spring season), September 2016 (fall season) and March 2017 (early spring season). We travelled to six out of seven Village Development Committees (VDCs - an administrative division that represent villages in Nepal) in Manaslu spending 56 days in the field and walked around 279 km carrying out trail transect visual encounter surveys, stream surveys, quadrat surveys (10 x 10 m), opportunistic observation and aural detection surveys. We recorded the presence of five species viz; <i>Duttaphrynus himalayanus</i> , <i>Amolops formosus</i> , <i>Nanorana liebigii</i> , <i>Nanorana rostandi</i> and <i>Ombrana sikimensis</i> . Of them, the latter four species are frogs while, known as 'Paha' by the local community. We collected the information on ecology, body size, weight, morphology, weather and habitat conditions and also observed different life stages of amphibians; fresh egg mass, developed egg mass, tadpoles, tadpoles with metamorphosed legs and adults.
Production of amphibian hotspot areas and distribution maps				We mapped the occurrence location and distribution of observed amphibians (egg mass, tadpoles and adults) during our survey with transects walked and also produced the amphibian hot spot areas in MCA.
Documentation of threats to stream dwelling frogs (Paha) in MCA				We conducted the structured and semi-structured style questionnaire survey with local community members who had either hunted paha in their life or never did such acts previously but helped to garner valuable information for us. We

			did Key Informant Interviews (KII) with elders, youths, school students, mule herders, household women, MCA project staff, local traditional healers, teachers, hoteliers etc.
Production of educational materials			We developed conservation posters titled 'STOP INDISCRIMINATE KILLINGS OF THE PAHA! INSTEAD HELP FOR THEIR CONSERVATION', fact sheets about amphibians of Nepal including their status, ecological significance, threats, legal measures of protection, our responsibility etc., and didactic banners. These materials were distributed and used on various occasions during our visit to MCA. However, booklet preparation on amphibians of Manaslu is in progress.
Conservation education, capacity building and outreach programs			Our team at first celebrated 8 th Annual Save The Frogs Day 2016 on April 30 at Philim, Sirdibas village, MCA with local community members to sensitise the frogs issue through keynote speech and fun filled activities of frog art competition and frog race. We held amphibian awareness programme at all the functional schools of MCA: one secondary and two primary schools. We conducted the Amphibian Conservation Dissemination Workshop in Philim (1,431 m asl) of Sirdibas VDC, Lokpa (1,910 m asl) of Chumchet VDC, Dyang (1,914 m asl) of Bihi VDC and Prok village (2,436 m asl). The workshops were attended by local youth, students, teachers, local leaders, villagers, MCAP officials, Mother's Group and Conservation Area Management Committee (CAMC) members. Local people were encouraged to stop paha (stream frogs) collection in their villages and vowed to take necessary actions against those, if found guilty. In coordination with local community and MCAP, we supported the formation of Amphibian Conservation Groups (ACGs) in Sirdibas, Chumchet, Bihi and Prok VDCs.
Exposure/Dissemination of the project's findings			I gave frog talks after the first field visit in Kathmandu and shared my experience

		<p>with wide range of audience: university students, school students and general public. I even gave a radio interview at Choice FM 90.4 MHz titled 'Amphibian Conservation Talk' and shared our conservation effort along with cool interesting facts. For online updates, social media, websites and e-news helped to disseminate our work. We have though one national sharing workshop which will take place, this month June 2017.</p> <p>Blog: theherperwrites.blogspot.com Website: www.savethefrogs.com/countries/nepal/</p>
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2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).

The only unexpected difficulty we faced throughout our multiple visits was back in September 2016 where a huge landslide occurred just in front of our eyes in Tatopani area just 250-300 m ahead of us. We escaped death by an inch but unluckily a group of Spanish trekkers who were just ahead of us met the terrible accident. Four people died at the spot and multiple injured individuals were flown to hospital via helicopter. Well, Manaslu is one of the most dangerous remote montane amphibian habitats in Nepal. The only trekking trail runs through the deep gorge with raging torrent of Budhi Gandaki River below fed by the melt of world's eighth highest peak, Mt Manaslu (8,163 m asl). Also, the region lies just above Barpak village which was the epicentre of disastrous earthquake in 2015. Later in March 2017, we revisited MCA for the third time and resumed our incomplete tasks.

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

Outcome 1

Information on amphibians, specifically stream dwelling frogs (paha), their ecology, habitat associations, morphology, distribution and hotspot areas in MCA. Of all the seven VDCs in Manaslu, paha were basically found along the mountain brooks and cascades, mostly in Sirdibas VDC then in Chumchet VDC and lesser in Bihi VDC. We also observed clumped egg masses of paha and eggs in long jelly coated chain laid by Himalayan toad. This information is helpful for identifying key areas of paha for monitoring and conservation.

Outcome 2

Documentation of prevailing threats to paha in MCA as we collected information on paha hunting, the season and time, methods deployed, quantity of kills and so forth. This is the first comprehensive study of threats to paha by humans and will act as valuable source for curbing such practice. We have also garnered information

about whether the hunted frogs are traded or not? And gained information on the consumption procedure of paha as they are presumed for health benefits, protein supplements and delicacy. Generally, Paha is hunted down for local consumption mostly by young aged males and school children in Sirdibas VDC. There is no local reporting of amphibian in Lho, Samagaun and Chhekampar VDCs and hunting is restricted under religious moral obligations including, Chumchet and Prok VDCs.

Outcome 3

Sensitisation of paha hunting issue in MCA at local, national and international level through awareness programme at local schools, production and distribution of frog conservation educational materials, dissemination workshops in community, 8th Annual Save The Frogs Day celebration in the heart of MCA - Philim, frog talks and media exposure (radio interview, e-news, Face book, LinkedIn, Twitter, blog and SAVE THE FROGS! website). Empowerment of local community members in paha conservation through the formation of Amphibian Conservation Groups, collaborating with MCA Project.

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

There has been community level participation since the start of this project as during the first phase of field work in April-May 2016, local community members joined our 8th Annual Save The Frogs Day in Philim, Sirdibas VDC and celebrated enthusiastically the fun filled activities; stony frog art competition and frog race. We gave a key note speech about the amphibian's importance, status of frogs globally and locally at MCA due to paha collection. This helped to evoke sympathy in women participants where they alleged the male members to have involved in such unethical behaviour and stated to discourage such acts from anyone in future.

We even accompanied local youth during paha survey in nearby streams where we learnt about the occurrence location of paha. In turn, we helped the locals by educating them their ecological role in environment and taught about data collection and necessary morphological measurements.

Prior to our intervention, local communities had very little information about amphibians and their importance in environment. We had run school awareness programs, Amphibian Conservation Dissemination Workshops including people from all walks of life where we educated the local community about amphibians, interviewed locals and empowered them through establishing Amphibian Conservation Groups to safeguard their own biological resource - paha in their own surroundings. The ACG members have expressed undertaking to conserve paha from their region by deterring paha collection practice in the community and taking necessary legal actions against violators.

5. Are there any plans to continue this work?

Yes of course, since hunting paha is a commonplace thing in most of the mountainous regions of Nepal. Basically, youth and kids collect it as mode of

recreation since the frog's meat is taken for local delicacy and available free. Some people consider it as their regular diet for supplementing proteins and for other health benefits. Local use of paha has been rampant in Nepal from time immemorial, which spells grave danger for frog survival as the Nepalese human population is growing rapidly. Lack of awareness and amphibian conservation education is the major cause of this problem. Thus, I would like to continue my frog conservation endeavour to other parts of Nepal where paha consumption is left unchecked and will keep on expanding my efforts of saving frogs in Nepal.

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

We have been sharing the updates of our work through different outlets; Blog (theherperwrites.blogspot.com), Website (www.savethefrogs.com/countries/nepal/), Face book, Twitter, LinkedIn, Radio Interview (<https://www.youtube.com/watch?v=1T-uNUcv9B0>), e-news (ujyaaloonline.com/news/72670/paha/), frog talks and so forth. I will also be sharing our paha conservation effort story of MCA amid international audience as I will be participating in the Amphibian Conservation Research Symposium (ACRS) to be held at University of Kent, Canterbury, UK from June 23rd-25th 2017 and for that I have won the Future Leaders of Amphibian Conservation Award.

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 grant from RSG was used from March 2016 till May 2017 which is 3 more months than the actual length of the project. But the extension was permitted by the consent from RSG authority regarding the unforeseen difficulties I had during one of my field trips (September 2016), as explained in one of the emails and updates earlier.

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
Purchase of field equipment, rental, permit, communication, stationery, prints, orientation etc.	344	720	-376	
Purchase of Canon EOS 700D 18-135 mm lens	420	637	-217	
Food, Accommodation and Transportation for field survey	1433	2258	-825	
Per diem allowance: Research Assistants, Local Guides and Porters	1140	966	174	

Production of educational materials	498	603	-105	
Amphibian Conservation Dissemination Workshops, Amphibian Conservation Groups formation and training, Group Discussions, Questionnaire surveys, Interviews and Awareness program at schools	665	497	168	
Celebration of 8th Annual Save The Frogs Day	220	364	-144	
Personnel (GIS, Data Entry, Analysis and Report production)	220	358	-138	
Media exposure & results sharing	50	95	-45	
TOTAL	4990	6498	-1508	
We did a crowd funding campaign from SAVE THE FROGS! USA on their website (www.savethefrogs.com) and raised GBP 1315 as additional funding to complete the tasks associated with this project. We even received a nominal amount (GBP 193) from The Pollination Project to celebrate the 8th Annual Save The Frogs Day.				

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

Collection of paha is only for local consumption by male community members in MCA and not for commercial purpose, so it has nothing to do with their livelihoods. Also, since the project location is situated inside a protected area that restricts damaging, torturing, disturbing and killing of wild animals but hardly there's any restriction over paha collection from streams. This is due to less awareness about amphibians. However, the upper reaches of MCA have imposed serious restraints over killing by Buddhism and have declared 'kill-free zone' since ancient times. As people have been hunting paha in southernmost VDCs; Sirdibas, Bihi and lesser in Chumchet since long time, hence it requires long term monitoring, awareness and continual support in changing people's habit regarding paha exploitation for food and medicine.

The Amphibian Conservation Groups (ACGs) should be strengthened with regular meetings, awareness workshops, monitoring training, supply of educational and stationery materials etc. An eco-club should be erected in Shree Buddha Secondary School at Philim, Sirdibas to heighten the awareness of environment, nature, wildlife and stream frogs (paha) among students. There must be set up of legal measures in collaboration with MCAP office against violators.

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?

Yes, of course! The RSGF logo was used in various materials we produced related to this project. We used it in the production of colour paha posters, in educational flex, program banners, factsheets and will be used in booklet. We have included the logo of RSGF in our presentations during workshops, trainings, flyers and conference.

11. Please provide a full list of all the members of your team and briefly what was their role in the project.

Bishnu Maharjan - maps preparation

Mr Kiran Lohani - media exposure and

Mr Min Bahadur Gurung, Mr Sanej Pd Suwal and Mr Manoj Konga - Field team members.

12. Any other comments?

Amphibian conservation is relatively a newer approach in Nepal and studies regarding this class of animals in Nepal are still at their infancy. However, amphibians are the most threatened animals on this planet according to the IUCN Red List of Threatened Species. Thus, very sincerely I would like to appreciate and thank wholeheartedly to The Rufford Foundation, UK for entrusting me to undertake this project. My sincerest gratitude goes to SAVE THE FROGS! The Pollination Project, Friends of Nature (FON) Nepal for their continual support (technical and additional finance). Thanks are also due to the Department of National Parks and Wildlife Conservation (DNPWC) at Kathmandu and National Trust for Nature Conservation, Manaslu Conservation Area Project office at Gorkha and Philim, Sirdibas for the permits and cooperation throughout the project. We are very much indebted to all the local community members of MCA who welcomed our initiative and coordinated with us in every possible way to help saving mountain dwelling stream frogs (paha) in Manaslu. Finally, I would like to personally thank Mr Bishnu Maharjan for helping out with maps preparation, Mr Kiran Lohani for the media exposure and field team members; Mr Min Bahadur Gurung, Mr Sanej Pd Suwal and Mr Manoj Konga. Thank you very much!



Nanorana liebighi



Ombrana sikimensis



Tadpoles



Metamorphosed tadpoles



Eggs



Developed paha tadpoles inside the jelly coated egg mass.



Local boys helping in stream frog's survey.



Taking measurements of an unidentified tadpole at Yuwang River, Manaslu.



Choice FM 94.0 MHz studio.



Amphibian Conservation Dissemination Workshop at Philim, Sirdibas.



Amphibian Conservation Group at Pemathang monastery, Lokpa.



MCAP Office at Philim with Amphibian Conservation Group.



Amolops formosus.