Final Evaluation Report

Your Details	
Full Name	Kuenzang Dorji
Project Title	Socioecology and conservation of the endangered golden langur (*Trachypithecus geei*) in two landscapes, Trongsa district, Bhutan
Application ID	31215-B
Grant Amount	10,000
Email Address	kdorji@uwice.gov.bt
Date of this Report	30.10.2021

1. 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
Gather scientific data on ecology, anthropogenic activities, and people's perceptions of the golden langur				The long-term and sustainable approach citizen science-based conservation research was also initiated and around 100+ observations points were gathered.
Assess ecological and social extirpation risk for golden langur groups				The project has expanded its coverage in other areas and assess the vulnerability of golden langur to roadkill and electrocution and retaliatory kill by affected farmers.
Conduct locally based education outreach program on the golden langur				Social media group "golden langur conservation" has created platform for people to join the group and participate in discussion. This approach as enhanced the reach of conservation message to general public beyond local people living in the project.

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

Mass gatherings of public or making visits from household to another household for outreach programmes was not possible due to the Covid-19 pandemic. However, the social group using WeChat was created and single information related to conservation of golden langur and other wildlife species were posted and delivered virtually. The social group found to be more sustainable and ensure continuity as it served as platform to share, discuss and post conservation messages.

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

3.1. Conducted in-depth ecology study on the winter sleep sites of golden langur and article was published https://www.mdpi.com/2673-9461/1/2/5/htm .

3.2. Developed standard risk exposure pathways for assessment of extirpation risk for golden langur at group level. The matrix can be easily replicated in other areas.

3.3. Build capacity of leading primatologist for Bhutan by acquiring MSc in Primate Behaviour. The skills and competence acquired from the course supported by the

project build me a successful and leading primatologist in Southeast Asia who could mentor and supervise both regional and local conservation initiatives.

3.4. Strengthened connection between local people and golden langur through outreach programme "Adopt to live in harmony with golden langur". Students with their parents committed to adopt one golden langur group and conduct long term monitoring.

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

Local people were engaged in ecological research, education outreach and conservation interventions. Local people were engaged as local guides to escort researchers in laying transect through the forests; local people assisted researcher to locate golden langur and keep record of some basic ecology (sleep sites, numbers and feeding habits). Local people have participated in education outreach programme and committed to adopt at least one golden langur group and keep track of them.

The project brought significant impact on local people's professional development particularly participatory conservation research. Local people were paid with minimal fees for their participation and services, in a way benefitting them financially.

5. Are there any plans to continue this work?

Yes! There is immediate need to assess extirpation risk at group level in other golden langur distribution districts. The focus of work will be on "Local people livelihood and conservation of endangered golden langur in human dominated landscapes"

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

The result of the project will be shared through an open journal where we have already published a paper on winter sleep sites of golden langur and is available online. We will present our findings during Global Primate Conference and Animal Behaviour. We intend to present our results during annual national research conference in Bhutan and to the students at College of Natural Resources, Ugyen Wangchuck Institute for Conservation and Environmental Research (UWICER), Sherubtse college and faculty of UWICER during Friday Seminar series.

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

Due to the Covid-19 pandemic, only a few project activities got deferred by few weeks. A major chunk of the fund was used during 2nd and 3rd quarter of project as these two quarters coincided with lean season, where the local people are comfortable to participate in project activities without hampering their farming activities.

8. Budget: 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. It is important that you retain the management accounts and all paid invoices relating to the project for at least 2 years as these may be required for inspection at our discretion.

Item	Budgeted Amount	Actual Amount	Difference	Comments
MISCELLANEOUS COST: Communication, printings	200	200		
LOGISTIC: Food, fuel and travel	609	450	-159	Researcher used temporary shed to save the fund for equipment
WORKSHOP COST: Charts, pencil, markers	300	300		
SUBSISTENCE PAYMENT: Participation fees and Per Diem	4250	4225	-25	
RESEARCH EQUIPMENT: Vortex Viper HD 20-60x85 Spotting Scope, COOLPIX P1000 Digital Camera with tripod, Reconyx camera trap, and Samsung Tablets	3651	4666	+574	Digital camera has been crucial to take evidence photograph of golden langur and its habitats, so we purchased two additional cameras
CONSUMABLE ITEMS: Batteries and memory card for camera traps	300	426	+126	The price inflation due to the pandemic
RESPONSIVENESS SUPPLIES: Outdoor signages and installation fees	690	690		
TOTAL	**10000**	**10957**	**+957**	**£1=BTN 94 (Including £850 co-funding)**

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

Molecular analysis to determine the phylogenetic relationships and morphometric affinities between golden langur and hybrid langur (sub species) to understand people's views of golden langur; similarity of perception model and dislike of hybrid langurs transferred to golden langur.

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

Yes! I have used logo in my PowerPoint slides presented during global primate conference, thesis defence for public as well as committee members, poster presentation in an animal conference. I will continue to use it at the time of result dissemination and other publication. Some audiences expressed their interests and inquired about criteria, which we explained in detail, while other expressed their gratitude to the foundation for funding such important conservation work.

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

Dr Lori K. Sheeran- Academic supervisor and technical advisor

Dr. Kathleen Barlow- Anthropologist

Dr. Tim Eungland- Statistics

Dr. Jennifer Liptonn- Spatial analyst

Mr. Ratan Giri- Data Collector/Field Coordinator

Mr. Namgay Dorji- Data Collector

Mr. Rado Rinchen- Data Collector

Ms. Namgay Pem Dorji- Data Manager

12. Any other comments?

The project motivated us to start citizen science-based conservation research on golden langur ensuring broad coverage, sustainability of the interventions.