Final Project Evaluation Report

Your Details	
Full Name	Mushagalusa Batumike Rodrigue
Project Title	Forest use by local communities and its implication for conservation: the case of Lomami national park in DRC
Application ID	24728-1
Grant Amount	£ 5000
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Date of this Report	April, 2019

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
Determine which forest benefits (ecosystem services) are preferred by local communities			✓	I determined which benefits they prioritise: bushmeat.
Determine which animal products are used by local communities and for which purpose			✓	I determined which species of wildlife are preferred for household consumption and which ones for income generation, and also which ones are traded in Kindy market.
Determine which plant products are used by local communities and for which purpose		✓		I determined which plants are used in the villages, and which medicinal plants are traded in Kindu city, using local names, but some species have not been identified as some samples collected are sterile and difficult to identify
Determine differences in use and valuation between ethnic groups.			✓	I determined them, investigating six ethnic groups.
Identify potential management interventions and discuss them with local communities and park managers			✓	I noted the ones identified by communities and my ideas after the first field trip; wrote them in a report and share them back with communities and park managers in the second field trip.
Write a non-academic report and a publication.			✓	Non-academic report written and distributed already, publication under review.

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

I faced three major unforeseen difficulties. The first one was the terrible state of the roads around Lomami NP. It was challenging and expensive to find a motorbike driver willing to take me (and my assistant) through some of these roads, which are completely unpassable when it rains. This complicated my work.

The second difficulty was that the bushmeat market in Kindu is closed during the 3 months of summer, which meant that I had to collect data on this objective during my second field campaign (so I could not share my findings on this objective with communities in the non-academic report I made).

The third challenge was that there is no database of local names in most languages spoken in the area, and most ethnic groups use a completely different name for the same tree species. As several plant samples collected had no flowers or fruits (typical in rainforests), they could not be easily identified and some have not been identified yet. After I finish my work I will leave all samples collected with local names written at the Herbarium of Lwiro, so that future students do not face this problem.

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

- An understanding of forest use and valuation by local communities around Lomami NP, in terms of ecosystem services, bushmeat species and useful trees. This will help design the future management plan of the buffer zone of this park, identifying i) products (animal, plant) whose extraction could be regulated; ii) products whose extraction should be limited and iii) alternative livelihood strategies which could be promoted.
- An understanding of bushmeat and medicinal plant trade in Kindu city, the major city around this park. This will also help design the management plan of this park.
- Two scientific publications and a non-academic report in French, the later has been shared with local communities and park managers, to start the dialogue needed for a better co-design of the management plan of this park.

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

Local communities were a key player in this project. I collected data on their perceptions of forest and wildlife use and change over time, but also on potential management interventions. Our discussions helped them reflect on the changes occurred and the future they wanted for themselves. I raised their awareness of the limitations of funding and human capacity of park managers, interests of other ethnic groups, and the need to find an understanding with each stakeholder group. We also discussed insights from ongoing interventions in Kahuzi-Biega National Park and Itombwe Nature Reserve (two other protected areas in DRC where I did research before) so they also got ideas from the projects taking place there. In my second field trip, I shared my research findings with them, which they really appreciated as few researchers ever go back to communities to share their findings. This work funded by RF helped create this ground for future dialogue, which is very important.

5. Are there any plans to continue this work?

There is an urgent need to continue this work, and I plan to do so. Now that we have started a dialogue between communities, managers and researchers, we should use this momentum to create a management plan for the buffer zone of this park, one which considers both biodiversity conservation but also the living conditions of the populations that depend on this biodiversity. I am developing a proposal for a 2nd Rufford Small Grant. If this is unsuccessful, I might consider other small grants.

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

I produced a non-academic report (in French) which I already shared back with the communities studied, and park managers. I have prepared two scientific publications, one on bush meat and another one on forest ecosystem services and important trees. Both of them are in review at the moment. I will also prepare one on medicinal plant trade in Kindu if I get enough funds to finish plant identification. I will present my results at the Student Conference on Conservation Science in Cambridge (2020), if a bursary for attendance is granted to me (I applied in 2019 but did not get a bursary and could not go). I have also given a presentation at my University, I showed other students my work and I hope I inspired them.

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

May 2018-April 2019, 12 months, as planned.

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
Printing reports to share	40	45	+5	
GPS	330	325	-5	
Camera	200	200		
Village chief assistance (24 villages at £10) and vendor of medicinal plant and bush meat (60 vendor at £5 per vendor)	360	540	+180	Following the reviewers' advice, we completed our study with a market survey in Kindu, which increased the costs of our survey.

Local transport with field assistant by motorbike	740	830	+90	Road condition was terrible, and we had to offer more money than anticipated to rent two motorbikes to take me and my assistant to the villages (each motorbike 415$).
Field translator (6 people, £ 10 per day for 3 days each)	270	180	-90	We reduced the number of ethnic groups studied (from 36 villages to 24) as reviewers suggested doing a market survey.
Food for 74 days (£ 10 per day)	740	740		
Hostel 74 days (£ 25 per day)	1850	1850		
Airport tax twice	50	50		
Flight Bukavu-Kivu (return), two times	420	480	+60	The flight was slightly more expensive due to the date we wanted to fly.
TOTAL	**£ 5000**	**£ 5240**	**+£ 240**	**I paid the difference myself.**

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

In terms of biodiversity, more information is needed on population numbers of wildlife and tree species mentioned in the study, to confirm the perceptions of decline of certain species mentioned by local communities. One option could be to use camera traps (for wildlife) and vegetation plots (for trees). With regard to forest management, local communities are keen to be more involved in the design of conservation and livelihood development activities. We created an opportunity for dialogue between stakeholder groups, and this should be used to co-design appropriate interventions which help ensure the sustainable use of resources in the park buffer zone.

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?

I acknowledged RF in any publication and presentation I made, including the non-academic reports I distributed to local communities and project managers, and the two scientific publications I prepared. I also regularly share information on activities from RF with my fellow colleagues at the university.

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

Team Leader: **Rodrigue Mushagalusa Batumike**.

The field assistant: **Placide Kinyama Masudi**.

The supervisor: **Dr Gerard Imani**, lecturer and researcher at the Department of Biology of the

Université Officielle de Bukavu (UOB). He helped data analysis and publication writing, and he helped me link with park managers, as he has worked in Lomami before.

12. Any other comments?

This grant has been of key importance to develop my scientific and project management skills, but also it has significantly contributed to inform management interventions in the buffer zone of Lomami National Park (NP). It allowed for the first comprehensive study on forest use by local communities around Lomami NP, in terms of services, specific wildlife and plant products.
Many thanks RF!