

Final Project Evaluation Report

Your Details	
Full Name	Daniel Niyonsaba
Project Title	Perceptions of local communities about the cause of the extinction of elephants in Nyungwe National Park (NNP), Rwanda
Application ID	23756-1
Grant Amount	£5,000
Email Address	dannsaba@gmail.com
Date of this Report	29/11/2018

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
To identify reasons which caused the local extinction of elephants from Nyungwe				The results of the survey indicated that the major reasons that caused the extinction of elephants in Nyungwe were poaching for tusks/ivory trade (57.7%) and for bushmeat (20.6%).
To assess the perceptions of the local community about the park and its biodiversity today.				While negative perceptions of the park and its biodiversity may affect conservation efforts, the communities residing in the vicinity of the park are interested in its continued protection due to its importance not only for biodiversity conservation but also for their livelihoods. They gave examples of how they are benefiting a lot from the park (eg. the revenue sharing scheme, employment opportunities, and ecosystems services).
To Suggest factors to be considered if and when elephants will be reintroduced to Nyungwe.				Different factors to be considered if and when elephants will be reintroduced to Nyungwe National Park include: habitat consideration, ecological requirement for elephants, security, human-wildlife conflict issues addressed, logistics, staff/experts trained in elephant monitoring and financial considerations. These suggestions came from this research and once they are put into consideration, they will facilitate reintroduction of elephants to Nyungwe National Park.

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

The unforeseen difficulties encountered during data collection among local community included heavy rain which caused landslides in some places. This made it hard to access some locations and interrupted some of our interviews with the local communities. In addition to this, some bush fires occurred in the park during surveys, which compelled us to suspend some of our planned activities.

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

The major outcome of my project is generating information on the reasons that caused the local extinction of elephants within Nyungwe National Park (poaching for tusks/ivory trade and for bushmeat). Addressing these causes will be key in the successful reintroduction and establishment of elephants in Nyungwe National Park. The project also gathered information on the former locations and areas where elephants were distributed in Nyungwe National Park. This information will be very useful in assessing vegetation types and ecological factors to be considered before reintroducing elephants in their habitats within Nyungwe National Park, a prerequisite for elephant re-introduction planning and implementation.

Another important outcome from the project is the unveiling of other different factors to be considered if and when elephants are to be reintroduced in Nyungwe National Park. These factors include:

Security concerns. Currently, poaching for the existing wild animals (e.g. duikers and bush pigs) is still an issue of concern in Nyungwe National Park. Therefore, it is important to take into account the security of elephants when they are reintroduced, so that they are safe from poaching. Another issue is global elephant poaching due to increased demand for tusks/ivory. Since Nyungwe National Park extends to the poorly protected Kibira National Park in Burundi, this can attract poachers from there and put the lives of the reintroduced elephants in danger. So, there is a need to put in place strong protective measures as well as strengthening trans-boundary conservation collaboration between Rwanda and Burundi to ensure their safety.

Human-wildlife conflict: Nyungwe National park is surrounded by communities and there is human traffic inside of the park due to tourism activities and a public road that traverses through the forest that is used by many buses and trucks carrying passengers and goods. Human traffic and management measures need to be put in place before reintroducing them in order to reduce or avoid problems which can be caused by elephants to the local community, tourist and public road users.

Logistical, financial, and expert staff consideration: Wildlife translocation activities are very expensive because they require a budget for transport, expertise and different tools and equipment in order to implement translocation activities. As such, there is need of taking into account the raised issues for successful reintroduction.

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

Some community members around Nyungwe National Park participated at all levels during the implementation of this project. For example, during data collection, local community members participated in this project through the interviews that provided information on the reasons that caused the extinction of elephants in Nyungwe National Park. We focused on community members that stayed in the vicinity of the park who may have information on their (elephants) existence and extinction within the forest. These included people who carried out research when elephants were in Nyungwe, people who worked in Nyungwe when elephants were there, and former poachers.

Other local community members that participated in the project include: Porters, cooks, and others who facilitated in opening up of trails due to the nature of the forest. These community members mostly benefited from this project by acquiring salaries for their efforts and time spent in the research project activities.

5. Are there any plans to continue this work?

Even though this work has generated information on the reasons that caused the local extinction of elephants in NNP and how they were distributed within the park, there is little information on the vegetation patterns in areas that used to be elephant habitat yet these areas would serve as food sources and shelter for elephants if they are to be reintroduced. Therefore, I intend to continue this work and I will put much emphasis on assessing the vegetation types in the former elephant habitats within Nyungwe National Park as knowledge on this will be a prerequisite for elephant re-introduction.

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

During the implementation phase, I shared the partial results of my work with the park management. In addition to this, I intend to share my results with my colleagues that will attend the Rufford Conference in Nairobi on the 2nd December 2018. Finally, my results will also be presented in the conservation conference organised by Rwanda Development Board conservation department that attracts research conducted in Rwanda's protected areas.

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

As it was initially planned, the grant was used for a period of 11 months (January-November, 2018). During this period, all planned activities had been done from January to this time of reporting.

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
Research permit	100	100	0	
Field Equipment cost.	550	550	0	This amount was used to hire the following research equipment: tents, cooking wares, digital camera, batteries and GPS
Research design:	500	300	200	GIS expert was hired for helping in designing transects using Arc GIS software as well as producing maps used during this research. £200 which saved from research design was used to cover transport costs which raised as it was planned.
Field exploration	400	250	150	The £150 saved from the field exploration was added to opening transect which became harder than it was expected.
Transport to the field	2000	2250	250	£200 which saved from research design and £50 saved from reporting were used to cover the cost of transport which raised later than it was expected due to different factors which include bad roads and rainfall during data collection from local community.
Opening transects	300	450	150	During survey in the forest, we experienced thick forest which required extra field staff and cost for facilitating access to the locations within study sites. For covering this cost, we used £150 saved from field exploration.
Field assistants	400	400	0	
Porters	200	300	100	Due to topographic conditions and forest structure, we hired extra field staff for facilitating research activities. This has resulted in increase of budget which covered by the £100 that

				saved from Data Analysis.
Food allowance for rangers	200	240	40	The cost saved from publication was used to cover this extra cost spent on Allowances for rangers which is higher than it was planned.
Data analysis	100	0	100	The amount of £100 that saved from Data analysis was used to cover the extra cost for porters which raised later that it was expected.
Research reporting	50	0	50	In kind contribution
Publication	200	0	200	Publication will be done after reporting period. Therefore, this amount was used to cover the accommodation cost and extra cost for rangers allowances.
Accommodation	0	160	160	Due to large area covered during data collection among local community, we have used accommodation for facilitating research activities in which we spent the £160, the amount saved from Publication.
Additional costs				Due to extra cost on budgeted amount, the saved the amount of £700 from some items was added on the transport, porters, field assistants, opening transects and accommodation which required extra cost.

Note: 1GBP = 1,100 Rwandan Franc

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

If funded by Rufford Foundation, I am planning to assess the vegetation types in the former elephant habitats within Nyungwe National Park, a prerequisite and important next step for elephant re-introduction. These habitats had been documented from this work as it was funded by Rufford Foundation and this is very important because it will help park managers and other stakeholders to know plants species composition, abundance and distribution within the studied sites and identify suitable location or site with similar ecological conditions where they may get elephants once they may need to introduce them.

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 used The Rufford Foundation logo in all materials produced in relation to this project and the Foundation received publicities during the course of my work.

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

Team members

Daniel Niyonsaba: researcher

Jean Richard Hakiruwemera: He did his studies in wildlife and aquatic resources management from University of Rwanda, College of agriculture, Animal science and Veterinary medicine. He was helpful during this research as field assistant.

Jules Cesar Dushimimana: A Community warden in Nyungwe National Park has contributed in a lot in identifying key persons who provided information on existence of elephants.

Ezekiel Turikunkiko: Law enforcement warden in Nyungwe National Park contributed in organizing and providing park rangers and trackers who assisted survey activities as well as protecting team.

Innocent Ndikubwimana: A research and monitoring warden in Nyungwe National Park. Is experienced park staff in biodiversity conservation and his role in this research was very important because we worked closely each other as one who is in charge of research activities in Nyungwe's National Park. His commitment in information sharing, suggestion and technical advice was valuable.

Prof. Beth Kaplin. As supervisor, he contributed a lot in technical assistance as she has enough experience in conducting and supervising similar research activities both academic and field, as professor. Her contribution was very important.

Karayini: A former elephant poacher and contributed a lot in field exploration and opening up transects as well as helping us to choose suitable sites for camping during survey into the park. For this hard work, we can forget **Fidel** and **Donath** who also contributed to opening up the path during this survey.

Simon Munyabahire: Is working in Nyungwe National Park over 25 years. Apart from providing information about elephants in Nyungwe, he was among park rangers who were keeping security of our team.

Munyanziza: Is a park ranger in Nyungwe National Park and was in charge of our security during survey in the park.

In addition to these people, we had other people whom we recognize their role in successful of this research project as porters include **Nshimiye** who were among porters and a cook for the team as well as **Kanyarugo**. Their contribution won't be forgotten.

12. Any other comments?

We appreciated so much an important role played by the Rufford Foundation through funding this project because results from this project will enable managers of Nyungwe National Park to organise and put in place appropriate measures for protecting and conserving Nyungwe's biodiversity, particularly threatened species, so that they may not become extinct like elephants.

Additionally, the outcome from this project will help also protected area managers and decision makers in their future conservation plans, to know the kind of protection and conservation needs for elephants once it may be necessary to reintroduce them in Nyungwe National Park, and factors to consider before reintroducing them.

The further support for this project is needed for other prerequisites and important studies for elephant re-introduction. This is very important because elephants are key stone species due to their role in seed dispersal, germination and maintaining food web-link and the forest ecosystem.

Reintroduction of elephants in Nyungwe, can also contribute a lot in strengthening their conservation efforts, increasing their population as well as increasing the profile of Nyungwe's biodiversity like before. We hope, the Rufford Foundation efforts in biodiversity conservation will continue bringing about positive changes in saving threatened species for better future of people and planet.



Caught poachers with rangers.