

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	Joseph Tuyishimire
Project title	Stopping Poaching Activities in Nyungwe Forest National Park (NNP): Biodiversity Conservation and Human-Wildlife Conflicts
RSG reference	16728
Reporting period	5 Months
Amount of grant	£5000
Your email address	tuyishimirejoseph@gmail.com
Date of this report	25/10/2015

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
<p>Comparison between socio-economic situation of ex-poachers before and after stopping poaching activities in NNP</p>				<p>Socio-economic data collection sites were mapped (Figure 1 in appendices).</p> <p>After poaching activities,</p> <ul style="list-style-type: none"> • livestock increased from 33% to 68% of the surveyed households: pig, cow, goat and sheep being the mostly owned animals • Bank account increased from 21% to 55%. The culture of saving in the study area was encouraged by Saving and Credit Cooperatives (SACCO) that were introduced by the government at sector level • Before, poaching was the main source of income at 55%; agriculture was the second with 37% while other sources of income (livestock, business and other informal jobs) consisted of only 8%. But after poaching was prohibited, none of the respondents is still relying on poaching as a source of income, but agriculture became the major activity (79%), followed by informal jobs (7%), livestock (6%), mining (5%) and beekeeping (3.5%). <ul style="list-style-type: none"> ❖ These are not the only indicators and others like housing quality, health insurance ownership, access to electricity and assets (phone, radio, and TV) ownership could help to increase the quality of the results in future studies. ❖ The level of education of the heads of families of whom 44% attended primary school, a large proportion (56%) did not attend school at all and none of them attended the high school, could have a big influence on the search, diversification and management of income although this influence could not be easily assessed.

			❖ The large number of people (varying between 2 and 13) per household also is another threat to internal revenue allocation in the surveyed families
Causes of poaching in NNP			The main causes of poaching consisted of poverty (44%) and ignorance about the importance of the park (35%). The fact that 12% of people did not join agriculture, livestock and beekeeping cooperatives could be at the same time the result of ignorance and the cause of poverty. Other causes consisted of bad habit (7%), resistance to change (3%), and search for meat (3%).
Methods of poaching in NNP			Methods of poaching consisted of snares (iron and traditional cords, and holes) which were used by 86% of the poachers, dogs (12.5%) and traditional weapons like lances and bows (2.5%).
Information about target animals			The most targeted animals were of two categories: <ol style="list-style-type: none"> 1. Large mammals which were poached for both sale and subsistence purposes: <ul style="list-style-type: none"> • duiker (<i>Cephalophus sylvicultor</i>) which was target by 57% of the poachers; • wild boar (<i>Sus</i> sp.) targeted by 23%. 2. Small mammals poached for subsistence purpose: <ul style="list-style-type: none"> • porcupine (10%); • giant rat (7%). <p>Other animals including monkeys and wild cats were targeted by only 3% of the poachers.</p>
Map current poaching cases in NNP			Two maps of the current poaching cases were produced and are on appendices of this report: <ol style="list-style-type: none"> 1. Using the collected dataset (Figure 2). 2. Using Ranger Based Monitoring (RBM) dataset provided by Rwanda Development Board (RDB) which is in charge of national parks management (Figure 3).
Spatial relationship between the location of ex-poachers and poaching cases in NNP			With an estimated maximum of 80 km and a minimum of 2 km, the mean distance from households to poaching sites was 20 km as it was found through interviews. However, for the surveyed sites, the distance from household to poaching sites varied between 0.5 km and 4 km with a mean of 1.7 km and a standard deviation

				of 0.75 km (Figures 4 & 5). The travel distance was influenced by both the purpose of poaching (sale, subsistence or both) and most of people who used to travel long distance were poaching for both reasons.
--	--	--	--	--

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

The project did not run the way it was planned and we met the following unforeseen difficulties:

- The fieldwork inside the forest was not easy and took more than the expected time.
- During the fieldwork, there were bush fires and most of times park guards were busy with firefighting activities.
- The fieldwork for socio-economic data was carried in remote areas with bad roads that it could take longer than it was expected.
- Poaching is illegal in Rwanda and for that reason it required a long time to get familiar with ex- and current poachers. Poachers could not talk about themselves at present although the identified poaching signs proved that poaching activities are still going on in NNP.

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

The most important outcomes of this project are:

- i. **Identification of causes of poaching:** These causes of poaching consisted mainly of poverty and ignorance. The two reasons could be tackled through support to cooperatives (beekeeping, agriculture and livestock) and education in order to raise awareness about NNP importance.
- ii. **Poachers’ participation in the protection of NNP:** involvement of ex- and current poachers in NNP protection which mainly consisted of sharing information about some illegal activities in the park, fighting wildfire, mobilisation of people for park protection activities and temporal jobs offered by the park. This willingness to cooperate is a channel that could be exploited by the park managers especially during education and awareness raising processes.
- iii. **Poachers and ex-poachers expectation from NNP:** Most of ex-poachers were relying on agriculture and livestock and were therefore expecting park revenue sharing through job creation and support to agriculture and livestock. Most of them emphasised on livestock which is at the same time the source of manure and meat. They also encouraged investment in education through training to cooperatives (beekeeping, agriculture, handicraft and livestock) in order to raise awareness about NNP and to increase generated income. Education of children at school age could be the best way to block the transmission of poaching techniques and habit from

parents to children. The output of research will be relied upon to respond to ex- and current poachers' expectations which is the best way for sustainable management of protected areas.

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

The benefit local people from this project consist of three aspects which are listed below by their order of importance:

- **Advocacy:** The findings of this study will be presented to the park managers and other stakeholders who can act in a way or another to contribute to the welfare of ex- and current poachers.
- **Friendly climate between ex/current poachers and actors of conservation:** Most of ex-/current poachers feel frustrated and shy when they meet a person who is not familiar in their place. Most of time, they do not communicate fearing that they will be punished by the law. This is an obstacle to sensitisation and could put a barrier between poachers and park managers which could result in social, economic and environmental losses on both sides. During our study, we got familiar with ex-/current poachers and they could communicate in a relatively friendly climate without any fear of law.
- **Small income:** The people that were hired on field were happy with the small payment so that they suggested if big project are undertaken within the area, it could be a solution to poverty through job creation.

5. Are there any plans to continue this work?

Yes, I would like to continue with this work through three aspects:

1. *Short term support to cooperatives and job creation*
 - a. Analysis of threats and opportunities to the major sources of income around NNP: agriculture, livestock, beekeeping and handicrafts.
 - b. Support to cooperatives (agriculture, livestock, beekeeping and handicrafts) through technical training to their members.
2. *Education*

Education about NNP importance and Conservation: This knowledge will be transmitted to identified primary and secondary school teachers and pupils. This will be a big step in awareness raising and will help to block the transmission of poaching techniques from parent to children and within 5-10 years, poaching activities will be no longer found in NNP.
3. *Long term support to cooperatives and job creation:*

This will be a big project through which all people will have an opportunity to increase their income on whatever source they are relying upon. Through cooperatives, farmers will receive improved seeds; people without livestock will

receive some domestic animals; beekeepers and people relying on handcraft will receive modern equipment. They will all be trained in project management and connected with local and international markets so that after few years they will no longer rely on products from the park and aids.

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

The results of this study will be disseminated through four channels:

- a. Report and Presentations to the NNP Managers: After every study in the park, every researcher is obliged to give a report showing findings and highlighting recommendations to RDB which is in charge of national parks management. The report is followed by stakeholders meeting where the researcher presents the findings.
- b. National and international conferences on biodiversity conservation where presentations and papers will help to communicate the results.
- c. Scientific paper which will be submitted in a peer reviewed journal.
- d. Case study when I am teaching biodiversity conservation.

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

Overall	Activity	Anticipated time	Real time	Comments
Data collection		2 months	3 months	Delay of 1 month
	Socio-economic data to get information about socio-economic situation before and after stopping poaching activities	1 month	1.5 months	-Most of the surveyed areas were far from the paved road and nothing could be done at departure and return days. -It took between 1 and 2 days to get familiar with the survey people.
	Data about poaching cases, methods of poaching and target animals to get information about poaching activities	1 month	1.5 months	-Field not easily accessible. -Sometimes we were delayed with the park guards who were busy with firefighting.
Data entry, analysis and report compilation		1 month	1.5 months	Delay of 15 days
	Data entry	10 days	10 days	As expected
	Data analysis	15 days	15 days	As expected
	Report compilation	30 days	30 days	Due to the delay in previous steps, the final report is

				conflicting with other duties from my institution and we have to work on them simultaneously.
--	--	--	--	---

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
Research design	1000*	1000	0	This was in-kind contribution
Socio-economic data collection	1500	1700	200	The daily costs were minimised because we realised that the duration of the study will be longer than expected, however we had to add extra £200.
Animal poaching data collection	1500	1600	100	The daily costs were minimised because we realised that the duration of the study will be longer than expected, however we had to add extra £100.
Transport for field	3000	3300	300	The work took longer than expected. Fortunately, the cost per car was also lower than expected.
Data analysis	1000	1000	0	This was in-kind contribution.
Total	8000	8600	600	We had to add extra £600 to finalize the project.

*1£=1122 FRW (<http://www.bnr.rw/index.php?id=204>, consulted on October 21st 2015)

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

The important and next steps of this project are three as highlighted on point 5:

1. Short term support to cooperatives and job creation
 - a. Analysis of threats and opportunities to the major sources of income around NNP: agriculture, livestock, beekeeping and handicrafts.
 - b. Support to cooperatives (agriculture, livestock, beekeeping and handicrafts) through technical trainings to their members.

2. Education

Education about NNP importance and Conservation: This knowledge will be transmitted to identified primary and secondary school teachers and pupils. This will be a big step in awareness raising and will help to block the transmission of poaching techniques from parent to children and within 5-10 years, poaching activities will be no longer found in NNP.

3. Long term support to cooperatives and job creation:

This will be a big project through which, all people will have an opportunity to increase their income on whatever source they are relying upon. Through cooperatives, farmers will receive improved seed and fertilisers; people without livestock will receive some domestic animals; beekeepers and people relying on handicrafts will receive modern equipment. They will all be trained in project management and connected with local and international markets so that after few years they will become economically auto sufficient.

For next steps, we plan to write a project which could support the two first points (short-term support to cooperatives and job creation, and education) which will be then followed by a long-term project (long-term support to cooperatives and job creation) that will touch all aspects of ex-poacher's life so that they could become economically autonomous.

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?

Yes, the Rufford Foundation logo was on all documents we used especially questionnaires that were used during field data collection. We mentioned that the research was carried under the sponsorship of RSGF and many people were interested in the foundation so that they are willing to apply.

11. Any other comments?

We liked the way Rufford Foundation provides research grants without any additional criteria except the quality of the research proposal, the competencies of the researcher and the trust that is expressed through different recommendation letters. The way the grant is made available directly from the donor to the project coordinator without any intermediate channels is a strong point because it helps to avoid or minimise delays in project implementation.

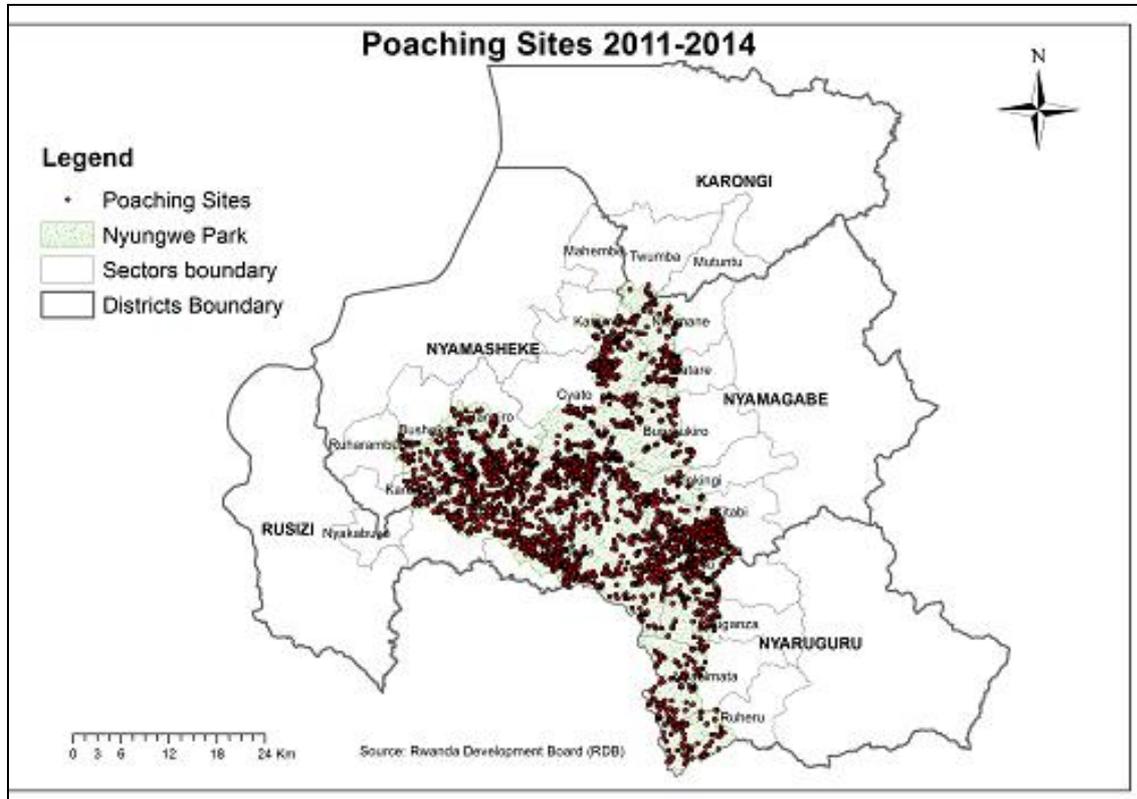


Figure 3. Poaching Sites from Ranger Based Monitoring Data by RDB (2011-2014)

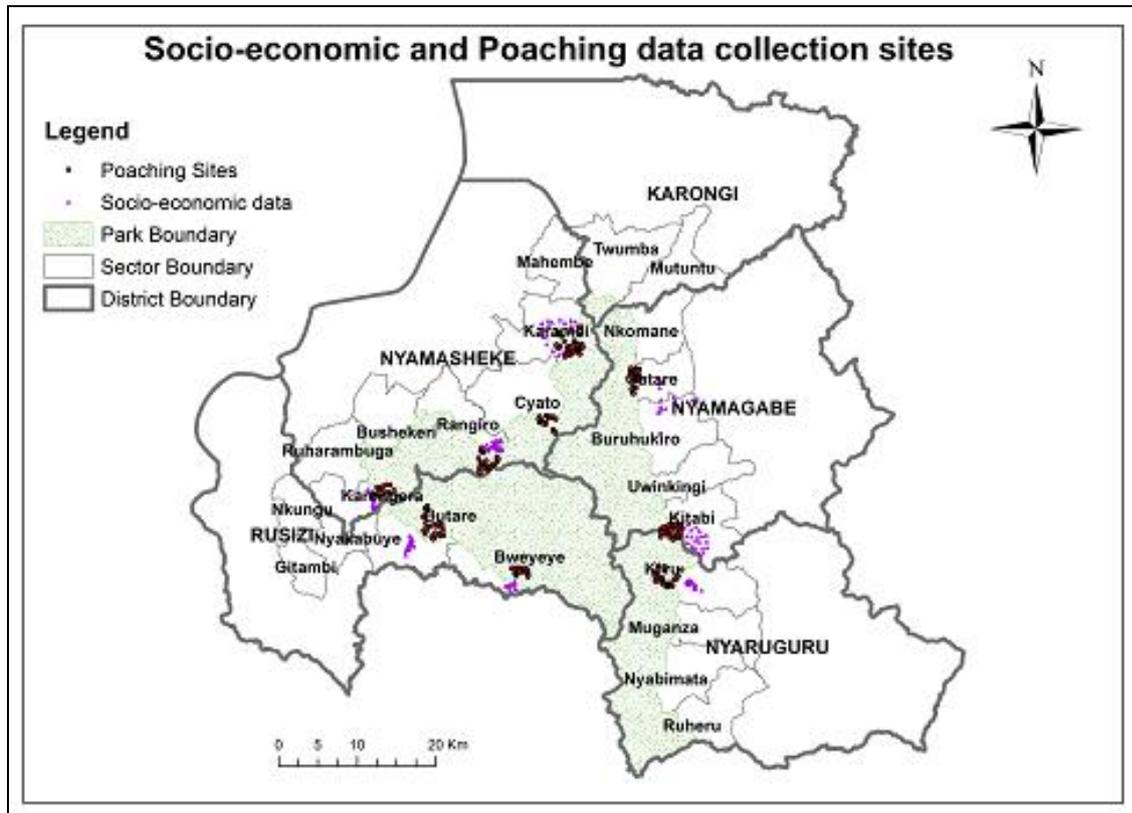


Figure 4. Socio-economic data vs poaching data collection sites

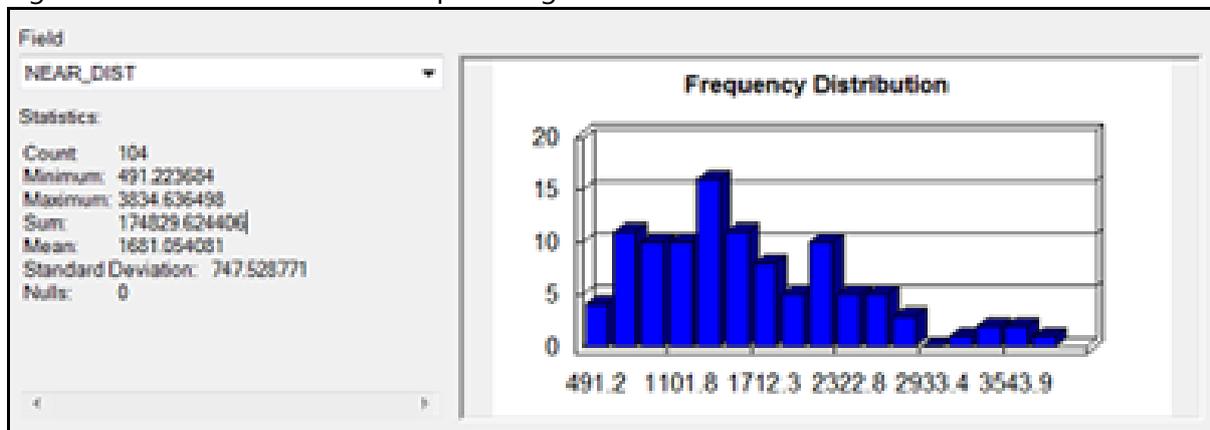


Figure 5. Statistics of distance between household and poaching sites. The survey showed that most of people were poaching at a distance varying between 0.5 km and 3 km. Other people could go beyond as found during the interview. However, the result of the survey could also be influence by the fact that we were not able to go above 4 km inside the forest.