

## Final Evaluation Report

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Your Details	
Full Name	Grace Uwingeneye
Project Title	Human Wildlife Conflict Mitigation: A Sustainable Solution for Local People and Baboons Around Nyungwe National Park, Rwanda.
Application ID	ID: 26312-1
Grant Amount	£5,000
Email Address	graceuwingeneye@gmail.com
Date of this Report	07/01/20

**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 grow selected unpalatable crop plant species to olive baboons ( <i>Papio Anubis</i> ) but economically important in people's farmlands found in the NNP proximity				The seed nurseries of selected crop species were established and managed in three gardens located in Kitabi and Uwinkingi sector bordered the NNP. The seed nurseries were made up of onions, carrots, beetroots, garlic, chilis, anion poillon (wild onion), garlic and spinach. Seedlings were planted in 3 plots found in Kitabi &Uwinkingi sectors, one was inside the IPRC Kitabi former KCCM, and the remaining two were in the people's farmlands closely to NNP. Carrots, Beetroots both anions type and spinach grew fast while ginger grew slowly in the area. Chills did not adapt to the climate condition because the elevation is too high for them. Carrots, Beetroots both anions type and ginger were recorded to yield high productivity towards local community and also promoted the conservation in this area.
Purchase and distribute equipment to assess how these crop plant species cope with soil conditions in the region				Equipments were bought and we collaborated with an expert agronomist to help identify crop plant species that are suitable to grow in the area. Beetroots were suitable for the soil quality as well as the climate condition while Chillies did not adapt to climate condition. Anions, Celery, ginger, Spinach &Garlic were also favoured by both soil and climate conditions but we found out that baboons could come in one of our gardens to feed on those species, at Uwinkingi we

				<p>harvested them having been unconsumed by the olive baboon. However, baboons came once and ate all carrots and never came back again.</p> <p>We have introduced lemon, which is a hundred percent not edible to baboons, but it takes time for yield, it will however still be a part of project.</p>
Check if the selected crop plant species are eaten by olive baboons ( <i>Papio Anubis</i> ).				<p>We found that almost of beetroots (100%) were not eaten by baboons. Carrots were found to be edible by baboons because, they came in our gardens and ate all them. They tasted beetroots and left them without completely eating them. They also harvested onions and garlies without eating them and left out spinach not affected/not attacked.</p>

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

One of the challenges we faced during transplanting the seedlings was the growth delay in some plant species. We anticipated that both selected crop plant species had the same average growth time, unfortunately since they were different, they also took different time to be ready for transplanting phase. So, we waited for them till they were ready. This did not affect any changes in our project outcomes, it only changed the expected time for planting and harvesting seasons before the project implementation. Another challenge is that the baboons did not have access to one of our three gardens located in IPRS –KITABI. This was mainly due to the fact that the IPRS –KITABI authorities claimed the presence of baboons inside their complex resulted into breaking roofs as well as bothering the people in their restaurants. They hired security guards to prevent baboons from entering inside the IPRS –KITABI compound. Our project results were not affected by this challenge because, all baboons that were supposed to access our gardens in the IPRS –KITABI went in the remaining gardens which were outside the IPRS –KITABI compound and they gave us a better indication of whether or not our selected crop plant species were being consumed by baboons. We made arrangement with the IPRS Kitabi to allow access of baboons in our garden for a couple of weeks, it is during that time they attacked all the carrots and tasted the beetroots.

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

One of the most important things to mention is that our project has met the expected outcomes. This is because; Beetroots, ginger, garlic, celery, Spinaches (Epinary) and lemon introduced were figured out by our project to be unpalatable crop plants to olive baboons in this area. This is a very important thing to fight against baboons and human conflicts around NNP. This shows how our project contributes to human wildlife mitigation measures. Once we continue growing those crop plant species in people's farmlands where we are certain that baboons come and crop-raid the cultivations, it will contribute a lot to reducing the conflict between baboons the people who live near NNP border.

**The second highly important** results appreciated by the local communities during this project is that, the crop plant species yielded very high productivity which can improve their livelihoods. As mentioned by some of the sector authorities proximal to the NNP, there is a high malnutrition. After involving those grass root communities in our project, they revealed that the project helped them a lot in improving their life standards as well as minimizing the conflicts between them and baboons. They said that, baboons will no longer come back to raid on their cultivation when the project is implemented continuously. So, this is a strong measure to improve the baboons' conservation by minimizing/stopping their crop-raiding activities.

**The last but not least achievement** was revealing specific crop plants which are suitable to grow in our study, they cannot be eaten by the baboons and have economic importance towards the local communities. These crop plants are resistant to the climate conditions in this area and have positive impacts to promote sustainable development.

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

The local communities have been involved in the project implementation; they contributed a lot in decision making such as the selection of crop plant species which can be suitable for growing in the area. The local people also helped us as they hired in different activities such as nursery preparation, fields/farmland preparation as well as in seedling cultivation. In addition, the local people were engaged in harvesting our crops and most importantly, they appreciated the contribution of this project to minimize the issue of crop-raiding by baboons in this area. And up to now they are eager to continue helping us in the next project implementation. They also revealed that when we continue planting those crops, it will have a great impact to improve their standards of living such as fighting against malnutrition justified by their local leaders and also promoting the conservation of wildlife including baboons.

## 5. Are there any plans to continue this work?

So far, I am planning to continue growing those crop plant species in the area and wish my research will not be limited in two sectors. Baboons are distributed everywhere in NNP especially at its edges, so, I will disseminate this knowledge in all people who live within park proximity facing a problem of crop-raiding by baboons. This is potentially important to promote the conservation of our related animal baboons and also will decrease the human wildlife conflicts as we found that those species are not edible to baboons. I wish to expand my research knowledge and apply it to other remaining wild animals which are known to damage the people's cultivation. This will have a great positive impact in promoting environmental sustainability where both humans and wildlife animals will be in harmony. We are also suggesting getting the permission from the government authorities and build the conservation in around the NNP. The market will be the center for all harvested crops from our gardens and will have a great impact to improve the people's livelihoods around the NNP.

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

Based on successful achievement of my project, I need to share my project result information through the publication so that everyone who is concerned to biodiversity conservation will be informed on how our project is being successfully.

This is innovation in Rwanda which can help to handle the problem of human wildlife conflict resulting in effective animals' conservation and also the local communities indirectly benefiting from the baboon's conservation initiative. In addition, this is to fulfil the biodiversity data mobilization project in our country. I will do a presentation in a workshop about our project to the stakeholders and other expert in conservation including lecturers and other conservationists.

I am also planning to look for funds which will help me to build the conservation markets and create the cooperative for local communities who will continue helping us in the further project implementation. This will become a big and broad project because we are planning to work with the local community and also the hotels who's their activities are based in the NNP proximity. And many people will have a great understanding on the means of promoting wildlife conservation. I am sure that once the support is ready the local communities will be aware of planting and selling plant crops which are unpalatable to baboons and also economically beneficial to their lives.

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

The grant was used over the twelve months and also the project was supposed to be implemented and finished in one year. All expenses were covered by the money grant. So, there was not any problems that arose from grants and project

implementation. But we are still waiting for the final products so that we will organize presentations with all stakeholders and conservationists.

**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
Field laptop		£436	+£436	We are over planned budget because the good quality of laptop was expensive more than the one expected.
Transportation (by Car and Motor)	£300	£389	+£89	Transportation was a big issue especially going to Uwinkingi sector & others. mine and for my field assistant every month.
Food and accommodation on field	£139	£116	-£23	
Fuel cost for car and food allowance to visit farmers in three sectors (1 trip/month for 3 months)	£631		-£631	
Field Assistance/renting house	£233	£350	-£117	During our research I changed field assistant, the second one was expensive than expected amount due to his transportation included.
Field assistance payment	£606	£606		This was the price for 12months
Printing data sheets	£48	£33	-£15	We printed less copies than expected ones.
Fertilizers	£340	£340		
Presentation room and Food costs for lunch	£174		-£174	

Nyamagabe district with (40 persons)				
Local Leaders /RDB Allowance, food and transportations	£175	£175		
RDB research application fee	£5	£5		
Raincoats	£437	£145	-£292	We are below planned; we found few field assistants need them.
Clipboards	£30		-£30	
Umbrella	£72	£72		
Thermos	£72	£110	+£38	The price on the market was over the planned budget
Wage for local assistants	£612	£612		
Backpacks	£59	£34	-£25	The prices on the market was cheaper than planned ones.
Meeting room and Food costs	£117	£117		
Transport costs for 40 persons coming to Kitabi for workshop	£388		-£388	
Purchasing seedlings, vegetables and lemon plus their nursing and transportation	£124	£233	+£109	The price on the market increased a bit.
Renting properties for gardens, Farming and equipment	£438	£505	+£67	Renting property was the expensive ones compare with the expected ones.
1 Telephone for field assistance to take pictures		£82	+£82	This was not planned in the budget, but it was needed because one camera was not enough for research updates
The planned budget for buying seeds to be given the local community		£640	+£640	We will buy more lemon, beetroots, spinach, garlic, ginger and onions to be grown by local farmers and organize a seminar presentation at the CoEB or RDB

and COEB Seminar Presentation				which will be a big achievement of the project.
<b>Total</b>	<b>5000</b>	<b>5000</b>		

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

Based on my experience during this project, the way forward for me is to continue cultivating those crop plant species not only in study areas but also in other sectors that surround NNP which are vulnerable to the problem of crop-raiding by baboons. I want also to expand my project and apply it to other wild animals that crop-raid people's cultivation. In order to promote biodiversity conservation through minimizing or stopping the human wildlife conflicts, I will be looking out for more funds so that I will find out the unpalatable crop plant species to other wild animals than baboons. I will also continue involving the local communities in my projects as they play a crucial role in the projects implementation and in the process become aware of biodiversity conservation practices.

#### 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?

The Rufford foundation logo was used in project reporting and other materials such as requesting permits to work with the local communities as well as other project stakeholders. Up to now, Rufford Foundation did not yet receive my publication project but however, I wish to publish my projects outcomes so that, Rufford foundation will be aware of how my project is contributing a lot in biodiversity conservation.

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

Names	Role during project implementation
Grace Uwingeneye	Project director
Elie Musabyimana	Agronomist and Advisor for the project
Pierre Ntihemuka	Chef Park Warden and Advisor for our project
Protais Niyigaba	Working in wildlife Conservation Association (WCS) and Advisor for the Project.
Richard Nasasira	Principle of IPRS- Kitabi /Former KCCEM, the owner of our garden located in his property and Advisor of the project.
Celestin Nshimiyimana	The owner of the property of one garden located at Kitabi sector behind the Eco-Center and field assistance as a farmer.

Mariya Niyonsaba	The owner of the property of the third garden located at Uwinkingi Sector and field assistance as a farmer.
Fidele Ndayisenga	Field assistance as a farmer for our garden located at IPRS -Kitabi/Former KCCEM.
Francoise Sikobizahora	KITABI ANICO (Animateur de conservation) in charge of marketing and motivator to the local farmers to grow non -palatable crops for baboons.
Jeremy Nirungiyimana	Agronomist at Kitabi sector and Advisor of our Project.
Eliezcel Nyandwi	Kitabi Sector executive and advisor of the project
Eduard Nzeyimana	Uwinkingi ANICO who was in charge of marketing and motivator to the local farmers to grow non-palatable crops for baboons.
Joselyne Barakagwira	Field assistance in charge of monitoring and supervising on the project implementation, payment and assisting the field farmers.
Prof. Beth. A. Kaplin	Project Supervisor
Non-Identified Local Farmers	Who were in charge of farming during nursing, transplanting and harvesting the product, we couldn't identify them because they were temporally changed.

## 12. Any other comments?

Our heartfelt appreciation goes to Rufford foundation for their willingness to support the biodiversity conservation projects including this human wildlife conflicts mitigation project. The project objectives were successfully achieved. So far, the crop species which can contribute to potential increase of baboons' conservation through minimizing the human wildlife conflict caused by crop-raiding are known. Their growing conditions have been identified and were found to cope with the climate conditions in this area surrounding the NNP. In addition, the project outcomes revealed that those crop plant species are unpalatable to baboons and economically important to the local communities.

The people appreciated this project and we will continue raising awareness regarding to promoting wildlife conservation by looking on the alternative solutions which can handle the crop-raiding conflict between human and wildlife. We cannot forget to express our gratitude to the project including the local communities who were with us during the whole period of project implementation. Our objective is to expand this project to the other remaining sectors touching NNP and also continue working with the local communities. Our wish is to have a stronger collaboration with Rufford foundation so that we can achieve more and have great impact to minimize or completely stop the human and baboons conflict caused by crop-raiding activities. We wish also to conduct the similar projects or even regarding to other wildlife species found in NNP or broadly to other parks in Rwanda where the crop-raiding is still an issue. We strongly anticipate that it will contribute a lot in biodiversity conservation.