

## **Project Update: May 2019**

### **INTRODUCTION:**

Kibale National Park, Uganda, is rich in biodiversity with 13 species of primates, a variety of large mammals, birds, and insects. For many years, researchers have helped to conserve the forest by providing jobs to local workers and supporting community projects. However, human-wildlife conflict is still a big problem hindering the success of wildlife conservation. For example, the chimpanzee population continues to suffer from new snare wounds and animals are killed when crop raiding (this is when animals in the park raid the crops in the neighboring communities). Before Conservation to Coexist project, we local field assistants were threatened by fellow community members for our role in wildlife conservation. This is because when crop raiding occurs, farmers suffer great losses to their crops. Since they are not compensated for this loss, they end up blaming field assistants who do research on these animals. They used to say "Your children are crop raiding our farms" or "Your cows are crop raiding our farms!" This dynamic put the local communities in conflict with wildlife and everyone working with wildlife. Due to these problems, our project has been finding suitable ways to solve the problem of crop raiding around Kibale National Park. This project was designed to be Participatory Action Research, which includes both mobilizing the community towards some goal (in this case, reducing crop raiding) and then studying the effectiveness of these methods for reducing the problem. Participatory Action Research empowers people to improve the issues in their community. The second phase of funds from the Rufford Foundation helped us to expand and continued implementation of our strategies to reduce human-wildlife conflict in four communities neighboring Kibale National Park. In this way, Conservation to Coexist project has provided benefits to people living near the park. Crop raiding has significantly been reduced, people have a much better relationship with the Uganda Wildlife Authority, and there is a decrease in the conflict between humans and animals on their land. Additionally, people have reported many other benefits, such as improved health and well-being.

### **LOCATION:**

The project is in Western Region of Uganda in Kabarole District, Fort Portal, Uganda. The first phase of the Rufford Small Grant supported work in four communities bordering Kibale National Park: Isule, Kyamugarra, Kanyansohera, and Nyabinyungu. Isule, Kyamugarra, and Nyabinyungu all had active participants who worked diligently on this Participatory Action Research project and made it a success in their communities. Unfortunately, Kanyansohera did not engage with the different project activities. As this is a Participatory Action Research project, it is not possible to conduct it in a community where the participants are not active, so we stopped working in Kanyansohera during the second phase of the project. However, we were able to expand the strategies being used in Isule and also expand to another neighboring community, Mugusu.

### **PROJECT TEAM AND COLLABORATION:**

This project is run by myself and Busobozi Richard. We have a field assistant, Akugizibwe Ronald, who works with us full-time. We conduct this project in collaboration with local government, Uganda Wildlife Authority, and Makerere University Biological Field Station and with funds from the Rufford Foundation, which has been crucial for implementing our strategies. We as local project managers also gained a great support from our mentor

Professor Krista Milich. Additionally, each participant is an important project team member and collaborator.

### **METHODS:**

We always carry out monthly survey which helps us to understand the current conditions of the project in our three original communities (Kyamugara, Isule, and Nyabinyungu). Also, with the help of the Rufford Small Grant, we were able to expand into a new community, Mugusu. We always visit households from 1100 to 1700, which are the suitable hours when most people are free from work. Prior to starting the project in Mugusu, we administered an initial survey that we can compare to later surveys. These surveys are conducted by our field assistant, Ronald, who we pay a monthly salary to. He uses our project motorbike for moving between the communities, so in addition to his salary, we pay for the fuel and maintenance of the motorbike. We also have expenses for using airtime for calling participants in the community and other members of the project team to coordinate the work, office supplies for keeping records and collecting data, and internet for communication.

Since the beginning of the project, we have distributed 220 beehives to communities of Kyamugarra, Isule, Nyabinyungu, and Mugusu. Some of these beehives were bought with our first Rufford Grant. With the second Rufford Grant, our project was able to give out an additional 120 beehives. These new beehives are higher quality than the previous ones and a higher portion of them have become colonized than the previous beehives. In fact, all of the beehives given to the new community, Mugusu, are already colonized. Due to our facilitation, Nyabinyungu also received 140 beehives from the Uganda Wildlife Authority. These beehives, in addition to a well maintained trench, have greatly reduced the rates of crop raiding by elephants in the participating communities. Despite the fact that we distributed bees to those communities and were able to help get some from UWA, we still need more bee hives to fully cover the area across the swamps. Elephants continue to move to the end of the bee fences to cross into the communities. When there are not enough beehives to cover the full length of the swamp or the full length of the wire that we have hung to place the beehives over the swamp, the elephants can knock into the poles and wire and cause damage to the existing bee fence. This even happened at one place where some of the bee hives then fell into the water and were destroyed. For that reason, it is important to get more bee hives to fully cover the path across the swamp so that elephants cannot cross.

Garlic seeds were given to the new participants in Mugusu. The garlic that is now growing in each participating community greatly improves on the standard of living. People are receiving income from selling their garlic. We also used garlic seeds as bonuses to people maintaining the trench in all the communities. Additionally, we purchased trench maintenance equipment using the second phase of Rufford Grant and distributed them to the participants. These supplies included gum boots (many of the participants were doing trench maintenance barefoot), spades for digging, pangas for cutting away the bushes, and vests to identify our participants, which was requested by UWA to avoid people illegally going into the park.

The trench maintenance days and other community meetings provide a good opportunity for participants to interact with officials from the Uganda Wildlife Authority.

This has improved the relationship and helped to build communication between the two groups. We have found that people feel more positively about the UWA. Similarly, UWA also reports positive changes with their interactions with the community and decreased amounts of illegal activities in the park.

We are still struggling with the issue of tea. In the second phase of our Rufford Small Grant, we requested money for watering devices for the tea, but so far, we have been unable to get tea seedlings for the participants. We hope to do this portion of the project next. We reallocated the funds for the watering equipment to beekeeping supplies, as these were very needed.

**BUDGET:**

Item	GBP
Operating Costs	751
Bonus for Trench Maintenance	487
Equipment	1160
Garlic	143
Beehives	2459
<b>TOTAL</b>	<b>5000</b>

**BUDGET JUSTIFICATION:**

The operating costs for the project included internet (64,500 Ugandan Shillings), airtime for calling (150,000 Ugandan Shillings), scanning and printing datasheets (476,000 Ugandan Shillings), hosting meetings (63,500 Ugandan Shillings), paying the field assistant salary (1,919,500 Ugandan Shillings), transportation for materials (307,000 Ugandan Shillings), and maintenance (557,000 Ugandan Shillings) and fuel (128,400 Ugandan Shillings) for the motorbike. For trench maintenance bonuses, we distributed extra garlic seeds for those who were active (2,374,600 Ugandan Shillings). We paid for some watering cans, as well as beekeeping equipment and trench maintenance equipment for a total of 5,659,500 Ugandan Shillings. We also distributed garlic to new participants at 700,000 Ugandan Shillings and distributed 12,000,000 Ugandan Shillings worth of beehives. Based on the amount that was received from Rufford in Ugandan Shillings, we were basing the exchange rate at 4880 Ugandan Shillings per Great British Pound.

**CHALLENGES:**

The project has been a great success at reducing crop raiding. The participants are generally very happy, but there are always improvements that could be made. One challenge that we have is that the new community where we are working does not have a trench. That means that a trench maintenance program cannot be implemented until the trench is dug, which is very expensive and time-intensive. Because there is no trench, elephants can cross into Mugusu and one of our original communities, Nyabingyungu, which neighbors Mugusu. Additionally, there are swampy areas that still do not have bee fences. All of the communities could benefit from additional beehives, but in particular, there is a large swamp between our current community of Kyamugarra and a neighboring community, Rurama. This is a popular route for elephants to cross, so we would like to create a beehive fence across the Dura papyrus swamp that runs between

these two communities. We also hope to expand the project to Rurama in the future. Even in the communities with beehives, there are not enough to completely prevent elephants from crossing. Because of this lack of enough bee hives to cover all wetlands that are acting as a path for elephants, people sometimes have to chase elephants back into the forest through areas that have bee fences and they end up destroying the bee fence. And because some people are jealous that the beehives are placed in other areas, but not near their area, they specifically chase the elephants towards the bee fences.

Additional materials are still needed for trench maintenance and beekeeping, as well. We hope to purchase new bee suits that are stronger than the current ones so that people do not get stung when transporting the beehives to the wire and when working at the apiary. Additionally, gum boots and digging equipment can get worn out during regular trench maintenance, so we hope to buy more of these supplies in the future.

The tea has also been a challenge because of weather and delays in government programs that are supposed to provide tea seedlings. After the failure of the first round of tea, we strategized ways to deal with climate change for the next round of planting. Unfortunately, the government program that was supposed to distribute new tea seedlings failed to do so. We have now realized that we will need to purchase tea seedlings if we want to pursue this strategy.

Continuing to provide bonuses for trench maintenance will be very important for helping with the challenge of lack of participation from some community members. Everyone benefits from having the trench maintained, but only some people participate in the work to maintain it. We hope to continue working to improve the involvement of everyone in trench maintenance in the future.

Finally, we face some challenges with the garlic. We hope to continue to expand the project all around the park so that everyone has access to growing garlic and does not feel the need to steal garlic from our participants, which is currently a problem. Additionally, we have been very busy with all of these strategies and have not had time to find a proper market for the garlic. As we continue to grow the project, we have been able to serve as the market for buying back the garlic, but to make a sustainable project, we need to find a permanent market that all of our participants can sell into.

## **CONCLUSIONS:**

Before our project, crop raiding was a great threat to conservation initiatives. People who used to suffer from crop raiding were not happy with wildlife conservation and were not supporting protecting animals like elephants and chimpanzees. According to our results we got from the initial survey. But based on results we are getting from monthly surveys, there is a significant reduction in crop raiding, a great improvement on the relationship with the Uganda Wildlife Authority officials and people neighboring the park, and many perceived benefits of the project (such as improved health for local community members). We hope to expand our project to other neighboring communities like Rurama so that it can be easier to create bee fences on the swamp between Kyamugarra and Rurama.