

## Project Update: November 2021

### Recap

In the previous update, we reported on the implementation of various project activities. Briefly, the update covered: (i) an assessment of the local communities' willingness to take on beekeeping and tree planting as sustainable livelihood options, (ii) identification of people engaging in traditional beekeeping activities, (iii) educating traditional beekeepers on the benefit of working in groups and supporting them to form theirs, (iv) supporting the members of Okoa Mazingira Beekeeping Group with the group registration process, (v) assessment of perceptions and attitudes of traditional beekeepers towards forest conservation, (vi) workshops and meetings conducted to share key findings of the previous field-based study and solicitation of community participation to instill project acceptance and ownership at early stages within the community, (vii) collaboration with beekeeping experts to design and train traditional beekeepers on key aspects of beekeeping, (viii) facilitating members of the Okoa Mazingira Beekeeping Group to hang up 50 Tanzanian Top Bar Beehives in the forest, and (ix) an instant report on the bees occupancy in beehives after being hung in the forest.

### Update on monitoring and evaluation

The main activity left unperformed was monitoring and evaluation of the progress and success of the project. During monitoring and evaluation, we assessed the project performance, project outputs, project outcomes, challenges, and opportunities for the project. We assessed project outcomes based on the contribution of beekeeping to the livelihood of the people and the restoration of chimpanzee habitats.

#### 1. Project performance

In general, the project performance was good. Within a month of hanging up beehives in the forest, all 50 beehives were stocked by bees. The group members with the beekeeping expert kept on visiting and inspecting the beehives in the forest. The beekeeping group members had datasheets for which they had to collect data every time they performed beehive inspection. The sheet targeted to collect information on the status of the beehives and observed threats to the forest management e.g., fire outbreaks in the area of the project, activities of agriculture, presence of cattle, logging, and any other human threats.





**Figure 1:** Various images indicating the progress and the success of the project

## 2. Project outputs

From January to November 2021, the Okoa Mazingira Beekeeping Group had two harvesting seasons. The first harvesting season was in May 2021 and the second was in late October 2021. On average in each harvesting season, the harvest was from 38 beehives out of 50. Even though all the beehives were being stocked by bees at some times, ant invasion into beehives and fire which normally start from far areas occasionally led the bees to flee from some of the beehives before harvesting time. On average the beekeeping group harvested a total of 300 l of honey per season. That, from January to November the group harvested 600 l of honey. The total income generated from the harvested honey was \$ 1,564. About \$1,000 was used by the group members to purchase 20 beehives and added them to the 50 beehives that the project provided them at the inception stage. The other income (\$564) was saved into the group's saving account.

## 3. Project outcome

The beekeeping project has contributed positively to the livelihood of the people and the restoration of chimpanzee habitats. The project has instilled beekeeping knowledge in the MUE adjacent communities. In turn, beekeeping has contributed to household income a situation that has discouraged environmental degradation in chimpanzee habitats. Human threats to the forest have declined significantly in the area where the project is conducted. The group members do monitor the project progress and visit the project area frequently. This has discouraged illegal anthropogenic activities in the area. No report of logging, farming, livestock grazing, and the debarking of trees to make local beehives in the area of the project.





**Figure 2:** Images showing some of the outputs of the project (e.g., income (cash) generated after selling honey, 13 drums each with 20 liters of honey extracted from honeycombs)



**Figure 3:** Some of the members of the Okoa Mazingira Beekeeping Group posing with the already extracted honey (in drums).

#### **4. Challenges and opportunities**

##### **❖ Challenges**

##### Invasion of ants into the beehives

Few beehives were invaded with ants leading the bees to flee from beehives. Although most species of ant are harmless, some species are nasty. Some ants do feed on bee

colonies, a situation that can in some cases cause colonies of honeybees to flee the hives. This is what happened in a few beehives under the project at Busongola village.

#### Fire outbreaks

Since Tongwe Forest Reserves covers a big area and that is bordered on many villages, controlling fire at only one location (i.e., village) may not bring positive results to the ecosystem. Sometimes fire starts in areas far from the project area and does extend up to the area under the project. Therefore, to be in a safe state, the project needs to be extended to all villages directly bordering Tongwe Forest Reserves (see figure 5).

#### Lack of a honey house

A honey house is a place where honey is extracted from honeycombs. It is a clean space where beekeepers process their honey. Honey houses can also be used for activities that occur away from the apiary such as rendering beeswax, handling pollen and propolis, and for assembling, repairing, and storing equipment.

Processing honey outdoors is very challenging because bees and other insects are very much attracted by the scent of honey. This can result in the visitation of various swarms of bees and other insects a situation that is not conducive to extracting and packaging honey cleanly. Also, the swarm of bees can cause trouble by stinging the beekeepers extracting honey when outdoors.



**Figure 4:** Due to lack of a honey house, the Okoa Mazingira Beekeeping Group members had to use mosquito nets to prevent bees from stinging them as swarm of bees were within their workplace.

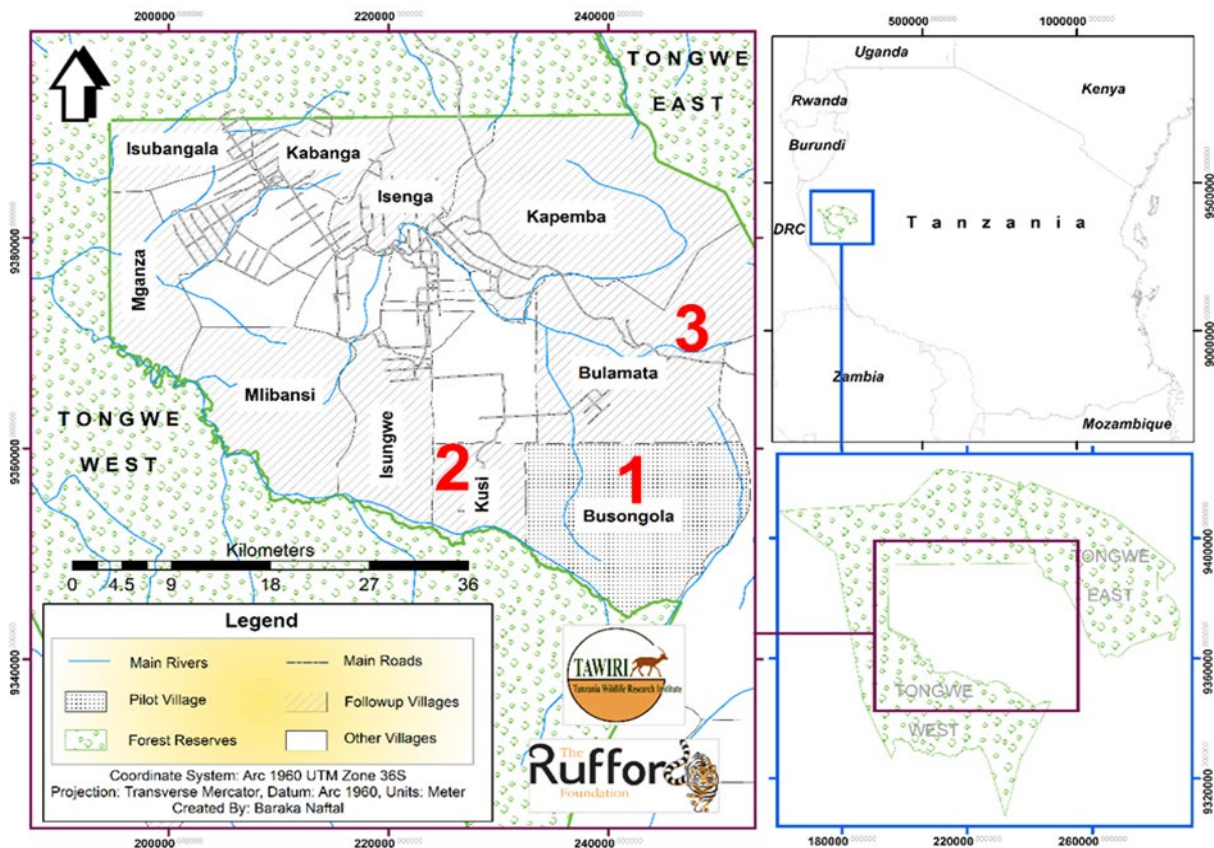
#### Inadequate beekeeping protective gears

No one enjoys being stung by bees while working with them. The Okoa Mazingira Beekeeping Group had inadequate protective gears for all the group members. Concerning this, that is why they opted to harvest honey during the nighttime when the bees were very calm. In the future, the group requires proper fitting suits for every member, veil, and gloves that will ensure their safety while working with bees.

#### The need to educate beekeepers

Education on the management of beehives during different seasons is still needed to the group members. Also, education on how to develop marketing plan for the bee products

is still a challenge to the beekeeping group. In future, the group members will have to be trained on how to produce, process, and market the bee products for a wider range of a high-quality bee product for the purpose of increasing income.



**Figure 5:** A map showing villages potential for scaling up the project. For the next step, immediate start is planned to Ikusi (labelled 2) and Bulamata (labelled 3). Village labelled 1 (Busongola) has already covered.

### ❖ Opportunities

The outputs and outcomes of the project are very promising. Many people have been positively attracted to the beekeeping project after having observed the Okoa Beekeeping Group succeed. The government authorities are happy with the results of the project specifically to promote forest conservation while contributing to local communities' livelihoods. It is undeniable that beekeeping has been used as a strategy for nature conservation and poverty alleviation. The contribution of beekeeping in promoting the world's sustainable development goals (SDGs) through food security (pollination services) and nature conservation is also positive. Sustainable beekeeping does not deplete natural resources nor require the local communities to abandon their villages that are contiguous to biosphere reserves. Beekeeping serves as an opportunity for the rural communities to stay connected to the biosphere reserves and improve their standard of living. Therefore, the beekeeping project in Busongola village promotes nature conservation while contributing to the attainment of SDGs (i.e., improved livelihoods through food security and poverty alleviation). That, there is a need to expand the project area to cover all villages surrounding the Tongwe Forest Reserves (see figure 5) to attain positive results at a bigger picture of the ecosystem.