

## Project Update: November 2023

### 1.0 Introduction

This report highlights major activities carried out from October to November 2023. These activities include extended stakeholder engagement and permit acquisition at the national level, acquisition of field materials, exploration of the forest-farm interphase, inception meeting with community members, baseline survey, and training workshop on beehive fence and human-elephant conflict mitigation.

### 2.0 Extended Stakeholder Engagement and Permit Acquisition at the National Level

After engagement with management of the Digya National Park and beekeeping specialists of the project area in September 2023, I was directed by the park management to acquire a research permit from the national headquarters of the Wildlife Division of the Forestry Commission in Accra. Accordingly, I travelled to Accra in October 2023 to introduce the project to the national office of the Wildlife Division. The national office warmly welcomed the project, emphasised its importance, and officially requested copies of the final project report and any publication from the project. A research permit was finally issued after responding to few questions and paying a fee.

### 3.0 Acquisition of Field Materials

Acquisition of field materials began in September 2023. Currently, all project-related materials such as 50 beehive boxes, high tensile wires, wooden poles, beeswax, etc., have been acquired and transported to the field. The acquisition of the 50 beehive boxes was particularly time-consuming since local carpenters generally had no expertise in designing beehive boxes for beehive fence. For this reason, I had to spend some time to train and supervise one local carpenter to customise conventional beehive boxes for beehive fence (Plate 1). The carpenter acknowledged a positive impact on his expertise. He remarked *"I have made a lot of beehive boxes for some NGOs in the past, but designing beehive boxes to form a fence against elephants is completely new to me. I am really learning something new"*.



Plate 1. Training and supervising a local carpenter to customise beehive boxes for beehive fence. © Ishmael Hashmi.

#### **4.0 Exploration of the Forest-Farm Interphase of the Digya National Park**

The forest-farm interphase was explored in early November 2023 to understand agricultural livelihoods and cropping systems around the park. The exercise was also used to identify some of the entry routes of the elephants to neighbouring farms (Plate 2). Tree cutting for charcoal production was observed to be alarming and threatening biodiversity conservation outside the park. To mitigate the negative impacts of charcoal production and agricultural expansion, management had successfully planted *Tectona grandis* (teak) to serve as a buffer zone to distinctively separate the park from the agricultural landscape.

#### **5.0 Inception Meeting with Community Members**

After studying the human-elephant conflict map of the park, exploring the forest-farm interphase, and deliberating extensively with park officials, the Nsoogyaso fringe community was selected for the project. The selection was based mainly on the community's high vulnerability to crop raiding by elephants.

Unfortunately, several attempts to organise an inception meeting with the community proved futile due to flooded roads. For several weeks, the area was rendered inaccessible. Torrential rains caused the streams and rivers to overflow their banks, thereby flooding and blocking the access roads. The flooding incidence at the Sene West portion of the park was even reported by the media (GhanaWeb) on 20<sup>th</sup> September 2023. Details can be found using the link below:

<https://www.ghanaweb.com/GhanaHomePage/NewsArchive/6-communities-in-Sene-West-cut-off-following-heavy-downpour-1847774>



Plate 2. Exploring the forest-farm interphase with a guard of the Digya National Park. © Ishmael Hashmiu.

The inception meeting was finally organised in early November 2023 after the rains had subsided. The meeting was attended by the Chief and his elders, other opinion leaders of the community, a large number of the youth, and staff of the Digya National Park (Plate 3). The meeting was officially used to communicate the aim and objectives of the

project to the community and the kind of support and collaboration expected from them. Community members reiterated the severity of crop raiding by elephants in the area and expressed their readiness to support the project. The meeting was also used to identify hotspots for human-elephant conflict around the community. Hotspots identified were *Aburokyire* (the cocoa zone), *Nsarie*, and *Osompa*. Community members identified *Aburokyire* as the hottest spot for crop raiding by elephants. It was therefore unanimously agreed that the beehive fence would be installed at *Aburokyire*, specifically at the preferred entry routes of the elephants, while *Nsarie* and *Osompa* serve as control sites.

### **6.0 Socioeconomic Baseline Survey**

In order to obtain baseline data to assess the impact of the project from the socioeconomic perspective, a survey was conducted in November 2023 to assess community member perceptions of elephants and human-elephant conflicts (Plate 4). One hundred and twenty respondents were selected and interviewed using a stratified random sampling technique. The exercise was supported by some officers from the Digya National Park, as well as some teachers from the local basic school.



Plate 3. Inception meeting with the Nsoogyaso community and staff of the Digya National Park. © Ishmael Hashmiu.



Plate 4. Interviewing an elderly farmer on human-elephant conflict at Nsogyaso. © Ishmael Hashmiu.

### **7.0 Training Workshop on Beehive Fence and Human-Elephant Conflict Mitigation**

A training workshop was organised in the later part of November 2023 to educate community members on beehive fence as a solution to human-elephant conflict. Key topics covered included the causes of human-elephant conflict, using sustainable intensification to mitigate agricultural expansion into the habitat of elephants, and key benefits of elephants to mankind. Other key topics discussed were anti-crop raiding measures that can be adopted at the farm level, description and efficacy of the beehive fence, beehive and beehive fence maintenance, strategies for quality honey production, honey branding and marketing, as well as ecological concerns on beekeeping and their mitigation measures. The presentation began by introducing participants to The Rufford Foundation and acknowledging the financial support received from the foundation (Plate 5), which attracted a big applause.

The workshop was attended by 109 community members, which comprised of 75 men and 34 women. The workshop was very interactive (Plate 6 and 7). Community members were given ample opportunity to comment and ask pertinent questions. Interestingly, some participants were of the view that elephants are not afraid of honeybees. They maintained that elephants of the area are known for extracting honey from trees even in the presence of honeybees. For that matter, they questioned whether the beehive fence could effectively be used to deter elephants from their farms. In response, success stories (videos and photos) on beehive fence as a solution to elephant raids in India, Kenya, and Liberia were presented. In addition, it was clarified that honeybees from beehive fences, because of their large number, tend to attack the sensitive spots of the elephant such as the eyes, mouth, and nose. On the other hand, some argued that if honeybees can sting people to death, they can as well beat the hell out of an elephant.



Plate 5. Introducing participants to The Rufford Foundation. © Ishmael Hashmiu.



Figure 6. Educating community members on beehive fence and human-elephant conflict mitigation. © Ishmael Hashmiu.



Plate 7. Interactive session with community members. © Ishmael Hashmiu

Six participants were randomly selected after the workshop to quickly assess the impact of the training on community members' perceptions of elephants. They were asked whether elephants were beneficial to mankind. Five out of the six participants, i.e., 83.33% indicated that elephants were beneficial to mankind. Thus, only one participant (16.67%) held the perception that elephants were not beneficial. Interestingly, three of the five participants (60%) attributed their positive responses directly to knowledge gained from the workshop. They echoed the importance of elephants in ecotourism, and in seed dispersal (through their dung) for forest regeneration and climate change mitigation as taught during the workshop.

At the concluding part of the workshop, an open forum was organised to agree on timelines for carrying out outstanding project activities. Specific responsibilities expected from the community for the stewardship and sustainability of the project were also detailed out. The Range Supervisor of the park also used the platform to urge community members to make the project historic, and also view elephants and other wildlife as friends and not enemies.

### **8.0 Conclusion and the Way Forward**

The project has been very participatory. A bottom-up approach that actively involves community members and park officials in decision making has been adopted. Consequently, community members and management of the Digya National Park have shown keen interest in the project and have been quite supportive.

Below are key activities that have been scheduled for December 2023:

- The community has decided to dedicate Tuesday, 5<sup>th</sup> December 2023 as a communal labour day to voluntarily weed, dig holes, and set poles to mark the beginning of the construction of a beehive fence at *Aburokyire*. Afterwards,

another date would be agreed with the community for practical training on the installation of the beehive boxes on the fence. As part of the training, a local beekeeping specialist would be invited to provide hands-on training on beekeeping, beehive maintenance, and quality honey production.

- The community leadership has been tasked to select interested, dedicated and experienced community members to collaboratively manage the project and ensure its sustainability on behalf of the community. It has been agreed that the selected individuals would form a group called *Nsogyaso Beehive Fence Stewards*. The group would be guided to appoint executives. In order for every member of the community to benefit from the project, it has also been agreed that the stewardship group would sign a benefit sharing agreement with the community leadership. The benefit sharing agreement is expected to allocate an agreed percentage of income from honey for community development.