# FIELD REPORT (2021)

# Revolving human-elephant conflicts through community-based awareness, educational programs, and training in areas around Murchison Falls National Park in Uganda

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## Summary of the project

In Uganda, African elephants (*Loxodonta africana*) are mainly found in Queen Elizabeth Protected Area, Murchison Falls National Park (MFPA), Kidepo Valley and Kibale National Parks. Although the population of African elephants is increasing in Uganda, threats such as habitat destruction and poaching for ivory and meat are still at a high level. Additionally, there are various cases of elephant crop raiding, which have resulted in human-elephant conflicts (HEC). The local communities scare elephants by using organic repellents or digging ditches, resulting in elephant killings. Due to the need to protect and conserve elephants, our work aimed at resolving HEC around MFPA through; (i) Understanding the elephant relationships with local communities, (ii) Involving local communities in elephant conservation through education programs and training, (iii) Introducing beehive fences in the communities, to act as buffers to peoples' farms (iv) Establishing agroforestry to reduce communities' pressure on the reserved

area. Camera traps were installed to study the habitat, abundance, and biological and social behaviour of elephants within the communities. Interviews, focus group discussions, and key informants were used for understanding the major causes of the HEC in this area.

## 1.0 Background

According to the Uganda Wildlife Authority (UWA) (2017), Uganda is a home to over 5,000 elephants. However, the International Union for Conservation of Nature (IUCN) Red List of Threatened Species (2018), listed the African elephant as vulnerable in the IUCN global red list, and critically endangered in the Uganda national red list (IUCN, 2018). Although the elephant population has been reported to increase in Uganda since the 1980s, there are still high killings of the elephants, especially in the communities around MFPA (https://www.youtube.com/watch?v=Z_Y4c8p1zRg&ab_channel=WildAid), mainly due to the competition for the limited resources. The local communities around MFPA are greatly involved in high levels of HEC that usually cause crop and property damages, economic losses, human injuries, and elephant killings (Parker *et al.*, 2007). The elephant crop raiding is the primary reason for local people's negative attitude towards the elephants. Poaching for ivory also threatens the elephant population in these communities (Chase *et al.*, 2016). In these areas, about 35 and 42% of households are involved in subsistence hunting and commercial hunting, respectively. This has led to opportunistic killings (about 20-40%) of the elephant which further threatens their population (Travers *et al.*, 2016). Additionally, there is increasing habitat degradation for the elephants around MFPA due to increasing human activities like cultivation, livestock keeping, and firewood collection (UWA, 2017). Therefore, ecological habitat restoration and conservation by reducing the negative human impacts on the habitat of the elephant is highly required. The current project was envisaged to be of great importance in mitigating HEC in the communities around MFPA through establishing a bottom-up approach to the conservation of critically endangered elephants. This was done through awareness creation via conservation education programs and training. Community empowerment projects such as apiculture and agroforestry will be established to reduce human pressure on the reserve.

### 2.0 Project results

The project was aimed at reducing HEC in communities around MFPA, and the following results were obtained:

### (a) Meetings with various conservationists

Meetings were held with conservations for a collaborative approach on the conservation and protection of elephants. Coordination meetings with enforcement agencies (Uganda Wildlife Authority and National Environment Management Authority) on prevention, detection and prosecution of illegal wildlife trade conducted, meeting with relevant agencies on harmonizing policies and development plans in elephant habitats conducted, and consultative meetings with the conservation partners to collaborate on elephant conservation program organized and held (Figure 1).

**Figure 1:** Conducting meetings with various stakeholders

### (b) Understanding the elephant relationships with local communities

Data on elephant habitat, abundance, and biological and social behaviour of elephants within communities was collected (Figure 2). Features such as habitat situation where the elephant has been sported; landscape, water conditions, distance from the homestead etc. were noted. The abundance (i.e. males, females, juveniles), biological and social behaviour (i.e. Individual and family unit movements, mating strategies, paternity etc.) of the elephants were evaluated. Photographs of elephant visits to local communities and homesteads, especially farms and water sources were taken (Figure 3). Human encroachments (cut stems, farming activities, human trails) on the reserve were observed and damages caused to farmlands by elephants within the conflict areas were noted.

**Figure 2:** Elephant habitat, abundance, biological and social behaviour data collection

**Figure 3:** Elephants visits to local communities

### (c) Awareness creation via conservation education programs and training

Community awareness raising and training on elephant conservation was conducted. The training and education programs were aimed at changing the communities' attitude toward elephants by informing them about the elephants' importance to the ecosystems. Three communities and five schools were involved in the elephant conservation education programs (Figure 4).


**Figure 4:** Elephant conservation education programs and training for local farmers (A) and school-going children (B)

### (d) Community empowerment projects

Community development projects i.e. apiculture and agroforestry were introduced. Beehives were placed around people's farms as buffers to elephant crop-raiding (Figure 6). Twenty people (affected by elephants) were chosen from each community and each was provided with 10 beehives for the start. Agroforestry involved providing seedlings of fast-growing trees (*Acacia* spp.) to 50 people, aiming at providing firewood to the households, to reduce pressure on the reserved area (Figure 5).

*(i) Agroforestry*

**Figure 5:** Establishing *Acacia* spp nursery bed for providing seeding to communities around Murchison Falls National Park in Uganda

*(ii) Apiculture/beehive distribution*


**Figure 6:** Construction of beehives (A), and distribution of beehives to farmers (B)

**3.0 Outputs of the project**

*Output 1: Human-Elephant Conflicts mitigated*

This was achieved through; a) People's perception and tolerance to elephant conservation and HEC assessed, b) The social implications of HEC and its impact on the conservation of elephants understood, c) The use of apiculture to prevent elephant crop-raiding introduced, d) People's livelihoods improved through apiculture, e) Community attitudes and tolerance for elephants known, f) Community negative attitudes towards elephants changed, g) Community education manuals and resources developed.

*Output 2: Elephant population abundance and distribution across local communities studied*

This was achieved through; a) Spatial and temporal distribution and abundance of elephants across local communities understood, b) Impact of developmental activities on elephant population, its migratory routes and corridors assessed, c) Home range and habitat requirements of the elephants evaluated.

*Output 3: Coordination and cooperation with various stakeholders enhanced*

This was achieved through; a) Coordination meetings with enforcement agencies (UWA, NEMA) on prevention, detection and prosecution of illegal wildlife trade conducted, b) Meeting with relevant agencies on harmonizing policies and development plans in elephant habitats conducted, c) Consultative meetings with the conservation partners to collaborate on elephant conservation program organized and held.

*Output 4: Information on elephant conservation/protection disseminated*

This was achieved through; a) A world elephant day in the elephant range fields to create awareness of elephant conservation observed, b) A policy brief on HEC and the use of apiculture in elephant conservation written c) A field report on the success of the interventions produced, d) A manuscript on the impact of developmental activities on elephant population, its migratory routes and corridors, and elephant population abundance and distribution across local communities published (Table 1).

**Table 1: Manuscripts, reports, or policy briefs that resulted from the Jana Robeyst Trust Fund**

| S/N | | Journal or Organization | Type | Status |
|---|---|---|---|---|
| **1** | The abundance, biological, and social behaviour of elephants in communities around Murchison Falls National Park in Uganda | Global Ecology and conservation | Manuscript | Submitted |
| **2** | Human-elephant conflicts and people's perspectives on elephants around Murchison Falls National Park in Uganda | Global Ecology and conservation | Manuscript | Submitted |
| **3** | Participatory elephant conservation through education/training to local communities around Murchison Falls National Park in Uganda | -Uganda Wildlife Authority<br>- Agriculture, Environment and Livelihoods (AGRILIV) | Report | To be submitted |
| **4** | Apiculture: an approach to conserve elephants and improve community livelihoods | -Uganda Wildlife Authority<br>-Makerere University | Policy Brief | To be submitted |

**4.0 Conclusion and lessons learnt**

1. A Safe System approach, where the safety of people and their assets, and the safety of elephants are ensured is a key in elephant conservation.
2. A participatory approach, where all concerned stakeholders should be involved in the conservation action.
3. A need to advocate for insurance schemes for the damaged property and life lost.
4. Periodic elephant population surveys to monitor elephant population abundance and distribution across local communities are relevant.

**References**


**Chase, M. J., Schlossberg, S., Griffin, C. R., Bouché, P. J., Djene, S. W., Elkan, P. W., Ferreira, S., Grossman, F., Kohi, E. M., and Landen, K. (2016). Continent-wide survey reveals massive decline in African savannah elephants. *PeerJ, 4*, e2354.**

**IUCN. (2018). Red list of Threatened Species in Uganda, Version 2018-1. List.org, downloaded on 20th Feburay 2018.**

**Parker, G. E., Osborn, F. V., Hoare, R. E., and Niskanen, L. S. ( 2007). Human-Elephant Conflict Mitigation A Training Course for Community-Based Approaches in Africa Participant's Manual. Assessment.**

**Travers, H., Roe, D., Plumptre, A., Baker, J., Rwetsiba, A., and Milner-Gulland, E. (2016). Nature's stewards: how local buy-in can help tackle wildlife crime in Uganda. *IIED Briefing Paper-International Institute for Environment and Development*(17354).**

**Uganda Wildlife Authority (UWA). (2017). Murchison Falls National Park. Karuma Wildlife Reserve, Bugungu Wildlife Reserve Community-Based Wildlife Crime Prevention. Action Plan (2017-2023) Available at https://pubs.iied.org/sites/default/files/pdfs/migrate/G04161.pdf.**

**UWA. (2017). Murchison Falls National Park. Karuma Wildlife Reserve, Bugungu Wildlife Reserve Community-Based Wildlife Crime Prevention. Action Plan (2017-2023) Available at https://pubs.iied.org/sites/default/files/pdfs/migrate/G04161.pdf. .**