Project title: Community-Based Monitoring and Conservation Education for Sustainable Human-elephant Coexistence around Mikumi National Park.

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Progress report: March to July 2025

Background

Human-elephant conflict (HEC) near Mikumi National Park intensifies as farmland expansion and charcoal production disrupt elephant migratory routes, leading to habitat loss and crop raids, severely impacting small-scale farmers. This project addresses HEC by establishing Elephant Monitoring Groups (EMGs) of 30 trained farmers to track elephant movements, anticipate conflicts, and use digital tools for data sharing. Additionally, 18 teachers will be trained to incorporate HEC topics into school curricula, fostering ecological awareness. A stakeholder workshop will support community-led HEC mitigation strategies. Aligning with Tanzania's HEC strategy, the project aims to promote coexistence, sustainable conservation, and community resilience.

Since March the project has been focused on one of the three goals of the project to enhance farmer capacity to monitor and manage Human-Elephant Conflict(HEC).

Activities implemented

The following activities has been conducted since we received Rufford grant;

1. Establish three Elephant Monitoring Groups (EMGs):

With support from village leaders, the process of forming EMGs was introduced during village meetings. Interested community members were assessed based on clear selection criteria, including: past experience with human-elephant conflict (HEC), knowledge of local wildlife, involvement in related activities, community influence, and demonstrated commitment to conservation. 30 villagers were selected (12 women and 18 men) across three villages. While the original target aimed for 50% female representation, strong effort was made to ensure inclusivity, and women now make up 40% of the groups.

Figure 1&2: Some of the participants from Doma and Maharaka village after being recruited

ii. Training of EMGs

The 30 EMG members participated in training sessions that covered:

- **Ecological knowledge;** seasonal changes, environmental variables, and land-use impacts on elephants.
- **Technology skills:** use of camera traps, smartphones, and applications such as WhatsApp and KoboCollect.
- **Field techniques:** capturing photos, recording GPS coordinates, and documenting elephant activities.

Figure 3: Project member David Robert demonstrating the use of smartphone in elephant monitoring

Training attendance was very strong: 93% of participants (28 members) attended more than 90% of the sessions, while 2 members attended 50% due to personal circumstances. Pre-training assessments indicated that most participants already had some experience with elephant encounters and behavior, but had limited knowledge of elephant movement patterns, timing, and the use of technology for monitoring and reporting.

To address these gaps, the training manual was revised to strengthen content on elephant movement patterns, timing, technology applications (smartphones, GPS, WhatsApp, KoboCollect), and reporting skills.

iii. Development and Implementation of Monitoring Plans

Following the training, EMGs worked with project facilitators to design monitoring plans. Each group:

- Developed observation schedules and task-sharing arrangements.
- Identified priority sites for monitoring.
- Began using camera traps, smartphones, WhatsApp, and KoboCollect to capture and share data on elephant presence, location, and activities.
- Established WhatsApp groups for real-time communication and data sharing.


Figure 3&4: Some of the participants from Doma and Mkata village during data collection

Currently, EMGs are actively collecting and sharing elephant monitoring data through WhatsApp and KoboCollect. Project facilitators conduct biweekly field visits to provide technical support, check data quality, and ensure that monitoring protocols are followed.

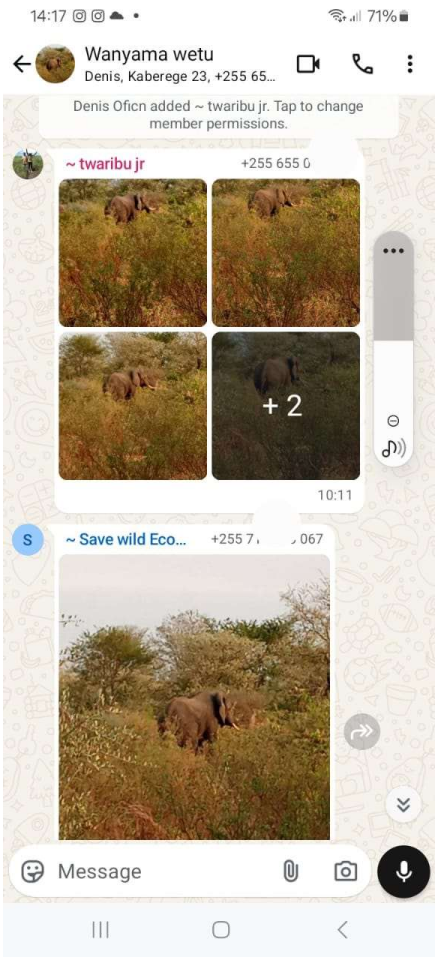

Figure 5: Whatsap group in a mobile view EMGs to share their data

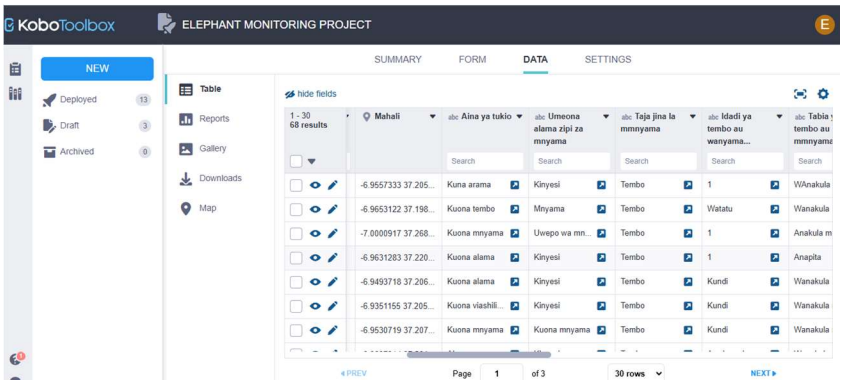

Figure 6: Kobotoolbox platform showing data collected by EMGs

Figure 7: Some of the observations captured by EMGs during monitoring (From left: Destroyed sunflower crops, Elephant dungs, Elephant footprint, Elephant herd)

Next steps of the project

i. Ongoing Elephant Monitoring

EMGs will continue regular monitoring of elephants using camera traps,smartphones, WhatsApp, and KoboCollect. Data on elephant presence, movement, and activities will be shared in real-time, with monthly project team visits to provide technical support, ensure data quality, and strengthen reporting.

ii. Teacher Workshop and Support

A two-day workshop will train 18 primary school teachers to integrate human-elephant conflict (HEC) topics into the Tanzanian curriculum across subjects such as Science, History, Geography, Mathematics, and Language. Teachers will use inquiry-based learning to create lesson plans that promote collaboration, problem-solving, and presentations. The project team will conduct monthly school visits to support implementation, with progress measured through follow-up forms and student assessments.

iii. Stakeholder Workshop

A stakeholder workshop will gather 25 participants, including community leaders, teachers, EMG representatives, and officials from TAWIRI, TAWA, and district authorities. Discussions will focus on HEC mitigation strategies such as beehive fences, sesame farming, and sustainable land practices. The main outcome will be a jointly developed community action plan to guide local conservation initiatives.