Second Project Update

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Targeted Interventions for Human- Elephant Conflict in Lake Jipe

Period: Months 5 to 8

Our team laid the groundwork during the first four months, and the project has made great progress towards its goals since then. During this time, the emphasis has been on increasing community engagement, strengthening the implementation of citizen science projects, and extending climate-adaptive agriculture methods. Below is a detailed update on the key achievements and activities undertaken from Month 5 to Month 8.

Strengthening Citizen Science for Human-Elephant Coexistence

The citizen science program has undergone significant transformation, with a focus on empowering the Jipe community to take an active role in monitoring and mitigating human-elephant interactions. We have made quantifiable strides in increasing capacity, utilising technology, and encouraging community ownership of conservation initiatives during the last four months.

Empowering Community Members:

Through this program, ten community members, including five women, have been trained in advanced data collection methods using SW-Maps to monitor elephant movements and incidents of crop raiding, equipping participants with essential skills while fostering a strong sense of leadership and shared responsibility within the community.

Innovative Technology for Data Collection:

Through our collaboration with National Museums of Kenya (NMK) we have streamlined data collection on fish landings, recording about 200 data entries, that provide critical insights into fish exploitation trends. As a result of the partnership, we have enhanced accuracy and efficiency of the data we collect.

Community-Led Elephant Identification:

Through community-led monitoring efforts, we have identified and catalogued 22 elephants, including 13 bulls and 9 females. This milestone has significantly improved the community's ability to predict and mitigate human-elephant conflicts by understanding individual elephant behaviour and movement patterns.

Developing Early Warning Systems:

We have created a database to help test different deterrence strategies and to direct the creation of early warning systems for crop-raid instances. These systems will be piloted in the coming months with the aim to provide timely alerts to farmers, reducing crop losses and fostering a more harmonious coexistence between humans and elephants.

We have shifted from learning by observation to active community participation, with tangible outcomes contributing to conflict mitigation and long-term conservation goals. We are laying the groundwork for sustainable human-elephant coexistence in the Lake Jipe ecosystem by building the capacity of the people of Lake Jipe.

We are now using the elephant distribution data collected to develop early warning systems for crop-raiding incidents and to test various deterrent methods. These systems, set to be piloted in the coming months, aim to give farmers timely alerts, helping them protect their crops and promoting peaceful coexistence between people and elephants. Our approach has evolved from simply observing to active

community engagement, I have received elephants' footage from random community members. The collaboration is already delivering practical solutions that reduce human-wildlife conflict and support long-term conservation efforts.

Expansion of Climate-Adaptive Agriculture

The success of the first permaculture Garden at Jipe Primary School has sparked a wave of enthusiasm and inspired the establishment and adoption of two models within the community, drip irrigation system and sprinkler irrigation, a change from flooding irrigation. The gardens are a transformative space designed to address multiple challenges while fostering resilience and sustainability, they aim to promote food security by cultivating drought-resistant crops such as sunflower, sorghum, cowpeas, and indigenous vegetables. The crops we propagate are well-suited to the region's climate and provide a reliable source of nutrition for the community, especially during periods of scarcity.

In addition, these gardens serve as effective elephant deterrents. We incorporate chili and citrus buffer zones; these plants have shown promising results in reducing crop raids as per research. This strategy minimizes human-elephant conflicts, creating a safer environment for farmers and wildlife while increasing the potential for fruit production in the Jipe ecosystem. Gardens are a hub facilitating learning and empowerment to build better stewards of the land, farmers and learners alike have received training on sustainable land management practices, equipping them to better adapt to the dynamic climatic conditions. Regular workshops held at the gardens provide a platform for sharing best practices, fostering collaboration, and building a community of practice around climate-resilient farming. These gardens are symbols of hope and progress that integrate food security, conflict mitigation, and community education, to build a more sustainable and harmonious future for the Jipe community.

Sustainable Fisheries Management

Our partnership with the National Museums of Kenya and the Samaki Working Group has yielded significant progress in fisheries management: Fish exploitation records have been consistently maintained at three Kachero landing sites, where over forty thousand kilos of fish harvests have been recorded.

Awareness campaigns on the conservation of the endemic endangered Jipe Tilapia have reached over 70 community members, fostering a sense of stewardship for the lake's biodiversity. This was further advanced through a televised section on Kenya Broadcasting Corporation here. The information we have gathered will help us understand changes in fish populations and guide better fishing practices. Beach Management Unit comprising of local fisherfolk has been reinstituted to ensure fishermen follow sustainable rules, like using the right net sizes and observing seasonal fishing bans to protect fish during breeding.

Conservation Education and Awareness

Two additional workshops were conducted, these workshops focused on elephant behaviour, climate change adaptation, and sustainable resource management. School outreach programs launched in two primary schools, engaging over 150 students in interactive learning sessions on wildlife conservation and ecosystem health. Community elephant champions trained in Month 4 have taken on leadership roles, organizing local awareness drives and conflict mitigation efforts.

Alternative Livelihoods

A community workshop the drafting of the proposed alternative livelihood opportunities to be explored, highlighting key attractions such as birdwatching, boat rides, and cultural experiences. This initiative is expected to generate additional income for the community while promoting conservation awareness.

Species Monitoring & Evaluation

Our M&E framework has been strengthened through:

i. Baseline data collection on key indicators, including fish population trends, elephant movement patterns, and community perceptions of human-elephant coexistence.

ii. Quarterly review meetings with stakeholders to assess progress, identify challenges, and adapt strategies as needed.

iii. Integration of the PRISM toolkit to track the impact of interventions and ensure alignment with the project's theory of change.

Challenges and Adaptive Measures

- Despite our great success, several issues have threatened to derail us. Prolonged droughts and delayed rains have affected the growth of crops in the permaculture garden, this has necessitated the installation of additional water supply systems.

- Limited resources have required creative solutions, partnerships with government agencies as the Y-Map project, to scale up other sustainable livelihood strategies by providing seeds.

In response, we have jointly co-created participatory adaptive management techniques that utilise community feedback and stakeholder input to refine strategies and ensure the project remains on track.

Conclusions

Between November and February, we have made steady progress in advancing the objectives of the project, deepening community engagement, scaling up citizen science initiatives, and expanding climate-adaptive agriculture and sustainable livelihoods, we are progressively fostering a more harmonious relationship between the Jipe community and elephants. These efforts are improving livelihoods and contributing to the long-term conservation of Lake Jipe's unique ecosystem. We are excited about the momentum gained and look forward to the next phase of implementation, where we will focus on consolidating gains, scaling up successful interventions, and strengthening partnerships for greater impact.

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