



Promoting co-existence between humans and primates in the villages around Ntakata forest: supporting local communities to adopt conflict mitigation strategies

Project Implementation Report



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Project Summary

The project, “*Promoting co-existence between humans and primates in the villages around Ntakata Forest: supporting local communities to adopt conflict mitigation strategies,*” effectively addressed the interconnected issues of human–primate conflict, food insecurity, and biodiversity loss around Ntakata Forest through a holistic, community-centred strategy. Over its course, coordinated actions led to significant progress in ecological conservation and the well-being of rural communities. Key actions undertaken during the project included community education programmes, introducing crops resistant to primates, and diversifying income sources to lessen dependence on forest resources. These initiatives aimed to create a positive cycle connecting environmental stewardship with community well-being.

The project accomplished several important outcomes:

- (i) Enhanced community awareness: Conservation campaigns reached a wide audience, boosting understanding of the ecological and economic value of primates and the forest. Community attitudes shifted positively.
- (ii) Reduced bushmeat hunting: Awareness campaigns, improved food security, and alternative income sources resulted in fewer bushmeat hunts and primate killings.
- (iii) Adoption of primate-resistant crops: Farmers in conflict zones observed reduced crop losses after switching to resistant varieties, which helped lessen human-wildlife conflicts and enhanced household food security.
- (iv) Enhanced local stewardship: Community members increasingly participated in activities directed at forest and biodiversity conservation, laying a foundation for sustainable, community-led forest governance.

This integrated approach has demonstrated effectiveness in achieving tangible ecological and social improvements. To sustain and expand these gains, ongoing investment, adaptable management strategies, and enhanced community leadership are essential. Building local capacities and promoting sustainable livelihoods are vital for preserving progress and strengthening resilience. Integrating conservation and development strategies can produce significant outcomes in forest-edge communities. Thus, promoting more sustainable and inclusive conservation models by harmonising environmental goals with human needs can offer valuable insights for ecological and social progress.

1. Project Background

In western Tanzania, particularly in communities near Ntakata Forest, human-primate conflict poses a significant challenge to conservation and local livelihoods. Similar to Hill (2000), reports indicate frequent crop damage caused by primates, especially on farms near forest edges, leading to food shortages and economic difficulties.

During the early phase of our Rufford-funded projects, we observed that most locals had negative views of primates, mainly due to repeated crop-raiding, which fostered resentment and hostility. Some community members responded by killing primates for crop protection or bushmeat, a traditional practice in rural Africa connected to cultural customs and food security (Fa, Peres, & Meeuwig, 2002; Brashares et al., 2011).

In the second phase, we carried out a broad community outreach programme in four villages bordering the forest (i.e., Mgambazi, Ikubulu, Lubalisi, and Lugonesi). Participatory education sessions informed residents about primates' ecological roles, bushmeat health hazards, and the long-term benefits of coexistence (Barrett et al., 2021). We proposed conflict mitigation strategies based on Hockings & Humle (2009), such as cultivating crops that primates do not raid, establishing buffer zones between farms and forests, and promoting alternative protein sources like poultry and goats (Harrison et al., 2015).

This report summarises the implementation of our first Booster Grants, which aimed to promote human-primate coexistence in villages around Ntakata Forest by assisting local communities in adopting the proposed conflict mitigation measures.

1.2. Project Objectives

The primary goal of this project was to promote peaceful coexistence between humans and primates around Ntakata Forest. Specifically, the project aimed to achieve the following objectives;

- (i) To reduce incidences of human-primate conflict through improved land-use practices, raising community awareness on sustainable mitigation strategies
- (ii) To improve local livelihoods as an incentive for conservation-friendly behaviour
- (iii) To shift negative attitudes toward primates by fostering tolerance and demonstrating the value of wildlife conservation.
- (iv) To reduce reliance on bushmeat and contribute to long-term regional primate conservation.

1.3. Project Activities

We carried out the following activities throughout the project to achieve the primary goal.

- (i) We identified farmers whose farms are prone to crop feeding or damage by primates around Ntakata forest
- (ii) We initiated collaboration with the identified farmers and provided extra training on human-primate conflict mitigation approaches and actions

- (iii) We educated the farmers on the importance and need to establish buffer zones between the Ntakata forest and their farms
- (iv) We provided material and practical support to the farmers to grow primates' unpalatable crops
- (v) We identified people who mainly hunt and utilize primates as a source of protein (i.e., hunters/poachers)
- (vi) We assisted the identified hunters/poachers to start poultry farming as well as goat rearing
- (vii) We established a long-term monitoring and evaluation system to track the progress of human-primate coexistence initiatives and the status of primate hunting/poaching for food

2. Methods

2.1. Project Site

We conducted this project in the villages of Mgambazi, Ikubulu, Lubalisi, and Lugonesi in western Tanzania. These villages border Ntakata Forest, an ecologically significant area that forms part of the Albertine Rift montane forest and Central Zambesian Miombo woodland ecoregions. Despite its rich biodiversity, Ntakata Forest is located on general village land, which has the lowest protection status in Tanzania. The forest serves as a vital ecological corridor linking Mahale Mountains National Park with nearby Forest Reserves.

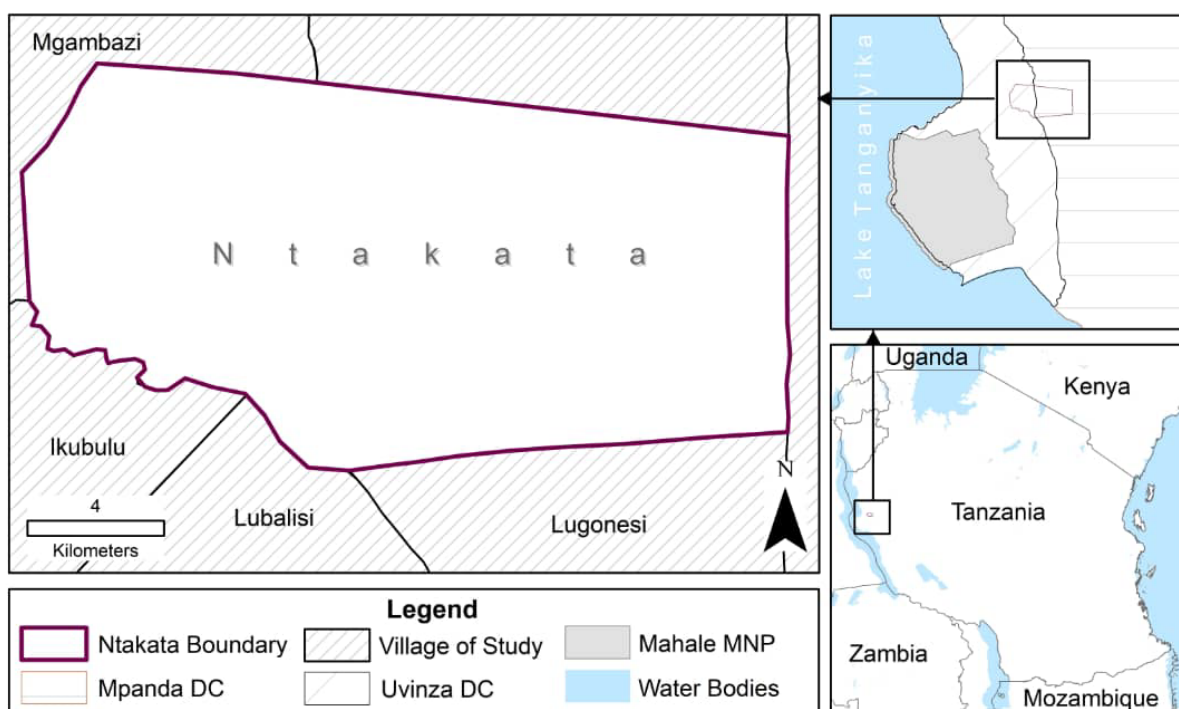


Figure 1: Map of the Ntakata region illustrating the villages surveyed as part of the project

Ntakata consists of woodlands, bamboo thickets, riverine forests, swamps, and grasslands on hilly terrain. Its main trees, *Brachystegia* and *Julbernardia*, provide essential habitat and food for endangered primates like chimpanzees and other threatened species such as ashly red

colobus monkeys, baboons, vervet monkeys, African wild dogs, elephants, leopards, and various birds and butterflies. The area's biodiversity and proximity to farming communities make it a crucial site for conservation efforts to reduce human-wildlife conflicts.

2.2. Activities Conducted

2.2.1 Identification of farms susceptible to primate crop damage

The project team identified farms that are most vulnerable to crop damage caused by primates. Working with village chairpersons and forest monitors, the team conducted field surveys and direct observations to assess the extent of primate intrusions. The surveys showed that farms closest to the forest edge experienced the most significant crop damage. The team documented the owners of these farms for further engagement in upcoming project activities.



Figure 2: Farms located near Ntakata Forest that were heavily affected by primate raiding during field observations (left shows a banana farm, and right shows a maize farm)

2.2.2 Collaboration and training of farmers affected

Following identification, the project collaborated with the affected farmers through group discussions and practical training sessions. The ward agricultural extension officer led these sessions, focusing on cultivating crops that primates typically avoid. These crops included ginger, taro, cassava, yams, cotton, peppers, tea, and sisal. The training highlighted the benefits of reduced crop loss and increased income, as all selected crops have high local and regional market potential.



Figure 3: Discussions with some of the affected farmers to initiate collaborations and later practical training sessions.

2.2.3 Education on establishing buffer zones

The project informed farmers about the importance of establishing buffer zones between their farms and the Ntakata Forest. These buffer zones are strips of land surrounding forest boundaries that serve as physical barriers, helping to reduce primate encroachment into agricultural land. Training sessions offered practical advice on designing and implementing these buffer zones effectively.

2.2.4 Provision of material and practical support for unpalatable crops

To support the transition to primate-resistant agriculture, the project distributed seeds and seedlings of selected unpalatable crops to participating farmers. Ginger, Taro, Cassava, Onions, Chilli peppers, Garlic, and Turmeric comprised most of the distribution, while only a few farmers considered Tobacco on a smaller scale. The agricultural extension officer provided ongoing technical assistance throughout the planting process. These crops help prevent primate interference and offer significant income-generating opportunities due to their high market demand.



Figure 4: One of the crops presently cultivated that remains unraided by primates. Although primates may occasionally consume some cassava, the cassava cultivated in the vicinity of Ntakata is not typically subject to their feeding. They may need to acquire the skill to do so if they start consuming it.



Figure 5: Though tobacco was not introduced as a cash crop to capitalize on, some farmers have found it to be one of the cash crops that can perform well. It is not consumed by primates and indeed generates good income for households.

2.2.5 Identification of primate hunters

Alongside agricultural interventions, the project identified individuals hunting primates for food or traditional reasons. The team located and carefully approached these individuals using key informant interviews and support from village elders and community leaders. Educational outreach then followed, emphasising the ecological impacts of hunting, health hazards linked to primate meat, and the benefits of using alternative protein sources.

2.2.6 Support for transition to poultry and goat farming

To support the transition from primate hunting, the project supplied each identified hunter with four goats (three females, one male) and four chickens (three females, one male). The recipients also received training in basic animal husbandry, including feeding, shelter construction, and disease management. This intervention aimed to improve household food security and decrease reliance on bushmeat by providing sustainable, domestic protein sources.

2.2.7 Establishment of monitoring and evaluation system

The project established a long-term monitoring and evaluation system to assess the effectiveness of human-primate coexistence strategies. Regular field visits allowed the team to track buffer zone status, evaluate the success of unpalatable crop cultivation, and observe changes in community behaviour regarding primate hunting and conservation. This system ensures the ongoing adaptation and improvement of project strategies based on empirical evidence and community feedback.

3. Preliminary Outcomes and Impact

The project has already begun delivering measurable and meaningful conservation outcomes. It has significantly increased community awareness and understanding of strategies to reduce human-primate conflicts. The project team provided training and material support to seventeen farmers, helping them grow crops resistant to primates. These crops have proven resilient against wildlife intrusion and are economically viable in local markets. Early feedback from participating farmers indicates a notable decline in crop losses and growing enthusiasm for expanding the cultivation of these species. The four individuals previously involved in primate hunting have all successfully shifted to alternative livelihoods such as poultry and goat farming. These former hunters have demonstrated a greater appreciation for conservation efforts and are willing to serve as community ambassadors for sustainable practices. The project has also helped foster a positive change in community attitudes towards primates. Many residents now show increased tolerance for primate presence and support for coexistence-based conservation approaches. This cultural shift is vital for achieving sustainable conservation outcomes. Furthermore, establishing a long-term monitoring and evaluation system has encouraged adaptive learning and ensured project interventions remain relevant and practical. Overall, the project has advanced essential goals in primate conservation, improved local livelihoods, and laid a solid foundation for sustainable human–wildlife coexistence.

Table 1: Summary of key preliminary outcomes

Outcome Category	Key Figures/Findings
Farmers trained and supported	17 farmers
Types of crops cultivated	Ginger, Taro, Cassava, Onions, Chilli peppers, Garlic, Turmeric, Tobacco
Reported rare primate visitation in the farms and crop loss reduction	Not quantified, but reported qualitatively by farmers
Individuals identified as primate hunters	4 individuals
Hunters transitioned to alternative livelihoods	4 individuals (100%)
Community attitude shift	Increased tolerance and support for coexistence
Monitoring system established	Yes – ongoing tracking and adaptation implemented

4. Implementation Challenges

Despite the progress made, the project faced several challenges during implementation. Some farmers and hunters initially resisted adopting new practices due to deep-rooted cultural traditions and scepticism about the effectiveness of the proposed interventions. Encouraging

individuals to shift from bushmeat hunting to domestic animal husbandry required ongoing engagement, relationship-building, and trust-building.

Resource constraints also limited the project's reach. Although demand for seeds, livestock, and training exceeded expectations, the available resources could only support a restricted number of beneficiaries. Moreover, the remote and ecologically complex terrain surrounding the Ntakata Forest presented logistical challenges. Transportation and follow-up visits required more time and effort than initially anticipated, complicating the delivery of support and monitoring activities.

5. Opportunities and next plans

5.1. Build on existing successes while addressing ongoing challenges.

The project team aims to build on current successes and tackle remaining challenges by expanding outreach and education efforts, especially targeting youth and women, key groups that can significantly influence long-term conservation results. Increasing community involvement will boost local ownership and promote a stronger culture of coexistence. Securing more resources is crucial to support more farmers and former hunters. Providing additional livestock and agricultural inputs will enable more beneficiaries to adopt sustainable livelihoods and increase the project's overall impact. Investing in local capacity-building remains a priority; strengthening village-level monitoring teams will empower communities to lead in data collection, conflict resolution, and sustainability planning. Strengthening collaborations with local government and conservation stakeholders will help integrate the project into broader landscape-level conservation strategies for lasting impact.

5.2. Begin the beekeeping project within the local community

Beekeeping offers a practical and sustainable livelihood for communities around Ntakata Forest. In a previous Rufford-funded project, community members expressed interest in beekeeping as an alternative income source. Beekeeping provides several conservation and development advantages: it does not require land clearing, helps forest conservation by protecting native plants, and earns income from honey and other bee products.

Unlike agriculture or livestock, beekeeping is less prone to wildlife conflicts and suits forest-edge ecosystems well. It also enables marginalised groups, such as women and youth, to engage in production and marketing. Given these benefits and community enthusiasm, starting a timely beekeeping initiative supports goals like biodiversity preservation, reducing bushmeat dependence, and enhancing rural livelihoods. Launching a dedicated project promoting sustainable beekeeping is a logical next step.

6. References

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