Final Evaluation Report

We ask all grant recipients to complete a project evaluation that helps us to gauge the success of your project. This must be sent in MS Word and not PDF format. We understand that projects often do not follow the predicted course but knowledge of your experiences is valuable to us and others who may be undertaking similar work – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

Please DO NOT fill in and submit this form until the project has been completed.

Complete the form in English. Note that the information may be edited before posting on our website.

Please email this report to jane@rufford.org.

Your Details	
Full Name	Leticia Lutambi
Project Title	Tanzanian Critically Endangered Aloes (TaCEA): Conservation, Education, and Population Distribution Assessment
Application ID	46245-1
Date of this Report	15th October 2025

1. Indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.

Objective	Not achieve	Partially achieve	Fully achieve	Comments
To assess population size and distribution of *Aloe dorotheae* and *Aloe flexilifolia*			✓	A field survey was conducted across 11 distinct sites in Handeni District, where a total of 244 individuals of *Aloe dorotheae* and 56 individuals of *Aloe flexilifolia* were recorded. The population assessment was completed, and manuscript is currently under development.
To build capacity among local communities to engage in TaCEA conservation efforts, and establishment of community-led initiatives			✓	Capacity building was successfully conducted among the local communities. Three workshops and seven training sessions or community meetings were conducted across seven (7) villages, involving 123 local residents—76 from five villages in Handeni, and 47 from other areas. We collaborated with two local NGOs and village government leaders. Community-led initiatives are already underway, including awareness meetings and stakeholder engagement, while additional activities, such

				as training and capacity-building programs, are planned to further strengthen community involvement.
To enhance community understanding of the threats facing TaCEA and their engagement in conservation efforts			✓	Several villages were visited, and local communities were educated about conservation, the threats facing TaCEA, and the corresponding mitigation measures. Fourteen (14) awareness campaigns were conducted, reaching approximately 203 people. Additionally, fourteen village meetings were held across seven villages. Pre- and post-campaign surveys to evaluate knowledge improvement revealed that nearly all participants (approximately 100%) were unfamiliar with the presence of these specific aloe species in their villages. However, they demonstrated general knowledge of aloe plants and their traditional medicinal uses. This lack of species-specific awareness poses a challenge for conservation efforts. We developed educational materials, including 7 illustrated posters, 5 brochures, and 3 information leaflets. These materials focused on the identification, ecological importance, and conservation of the target aloe species.

To identify and understanding of human activities threatening TaCEA			✓	Human activities threatening the survival of TaCEA were identified, and appropriate mitigation measures were proposed. We conducted a total of 75 interviews with participants from seven villages. Respondents included village leaders, NGO workers, and local community members. The threats we recorded include agricultural expansion, deforestation and charcoal production, overharvesting for medicinal use, mining activities, climate change, urbanization, and livestock grazing. The proposed mitigation measures focus on promoting sustainable land-use practices and reducing pressure on natural habitats through community engagement and alternative livelihoods. Key actions include strengthening land-use planning, supporting agroforestry and climate-smart agriculture, enhancing community forest management, and introducing alternative energy sources to reduce charcoal dependence. Additional measures involve promoting sustainable harvesting and

				cultivation of medicinal plants, improving regulation of mining activities, restoring degraded areas, and implementing controlled grazing systems. Together, these strategies aim to safeguard biodiversity, enhance ecosystem resilience, and support communities in adopting environmentally sustainable practices.
To establish of nurseries that support the propagation and restoration of TaCEA, and increased availability of TaCEA seedlings for restoration efforts		✓		Collected seedlings are planted in plastic trays and pots under shade to acclimatize before transplantation to the botanical garden. A total of 26 seedlings of A. dorotheae and 18 seedlings of *A. flexilifolia* were recorded. Although researchers have studied germination and seedling biology for some Aloe species, I found no published study reporting a reliable survival rate for seedlings of A. dorotheae or A. flexilifolia under either wild or cultivated conditions. Transplanting is expected to begin in January 2026, when the rainy season starts. This objective has only been partially achieved due to limited time and funding, which constrained the scope of activities and prevented full implementation of all planned

				components.

2. Describe the three most important outcomes of your project.

i. Under the TaCEA project, the current status, population trends, and habitat conditions of *Aloe dorotheae* and *Aloe flexilifolia* were comprehensively assessed and documented. The assessment provided vital baseline data on their distribution, population size, and the threats affecting their survival.

ii. Through the TaCEA project, knowledge and awareness among stakeholders and local communities have significantly increased regarding the negative impacts of human activities on *Aloe dorotheae* and *Aloe flexilifolia*. The project also enhanced understanding of effective conservation and management measures to mitigate these threats and promote the sustainable protection of these endemic species.

iii. As part of the TaCEA project, a predictive distribution map for *Aloe dorotheae* and *Aloe flexilifolia* was developed using spatial and ecological data. This map serves as an essential tool for identifying potential habitats, guiding conservation planning, and prioritizing areas for protection and restoration.

3. Explain any unforeseen difficulties that arose during the project and how these were tackled.

During the TaCEA project, a significant challenge was accessing some habitats within the reserve due to the dense, mountainous terrain. To address this, alternative routes were utilized, allowing observations from accessible points to assess habitat conditions as well as the population and distribution of TaCEA species. Periods of heavy rainfall also occasionally delayed field activities; however, the postponed surveys were successfully carried out on subsequent days to ensure completion of the planned work.

4. Describe the involvement of local communities and how they have benefited from the project.

The TaCEA project actively involved local communities in various stages of its implementation, recognizing them as key stakeholders in the conservation of *Aloe dorotheae*, *Aloe flexilifolia*, and other endemic species. Community members participated in field surveys, habitat monitoring, and data

collection. A total of 123 local residents participated in the field surveys and data collection, including 76 from five villages in Handeni and 47 other local community members. They gained hands-on experience in ecological assessment and conservation practices. They were also engaged in awareness and education campaigns, where they learned about the importance of conserving endemic species, the threats posed by human activities and invasive species, and practical mitigation measures. Through this involvement, local communities have gained both knowledge and practical skills that enhance their capacity to manage and protect their natural resources sustainably. The project has created opportunities for income-generating activities aligned with conservation, such as seed collection, nursery establishment, and eco-tourism initiatives, fostering a sense of ownership and stewardship over local biodiversity. Eco-tourism initiatives included

- Establishing small visitor centres or information kiosks where tourists learn about endangered species, local ecosystems, and ongoing conservation efforts. These centres can also generate income through entry fees or donations.
- Families offer accommodation or cultural experiences (traditional dances, local food preparation, storytelling). This creates alternative income that reduces reliance on activities like illegal logging, hunting, or overharvesting.
- Women's and youth groups can produce eco-friendly crafts (woven baskets, carvings, beadwork) linked to conservation themes. The income supports household livelihoods and strengthens positive attitudes toward conservation.
- Additionally, by participating in decision-making and conservation planning, community members have strengthened their voice in managing protected areas and natural habitats. Overall, the TaCEA project has promoted environmental education, improved livelihoods, and built long-term community capacity, ensuring that conservation efforts are both socially inclusive and ecologically sustainable.

5. Are there any plans to continue this work?

Yes, there are plans to continue the work initiated under the TaCEA project. Future activities will focus on expanding habitat monitoring, strengthening conservation measures for *Aloe dorotheae* and *Aloe flexilifolia*, and increasing community engagement in sustainable resource management.

Efforts will include regular population assessments, habitat restoration, and control of threats such as human disturbance. Capacity-building programs for local communities and stakeholders will continue, ensuring knowledge transfer and active participation in conservation. Additionally, predictive mapping and research outcomes will guide targeted interventions, helping to secure the long-term survival of these endemic species while promoting ecosystem resilience.

6. **How do you plan to share the results of your work with others?**
I intend to publish two articles in reputable peer-reviewed journals based on the findings of this project. Additionally, I plan to disseminate the project's data and insights through various online platforms, including blogs, X, Instagram, Facebook, and LinkedIn, to reach a broader audience and promote awareness of the conservation outcomes.

At the end of the study, we will produce a comprehensive report summarizing our key findings, identified threats, and evidence-based recommendations. This report will be shared with relevant stakeholders, conservation practitioners, local authorities, and community partners to support informed decision-making and guide future conservation actions.

7. **Looking ahead, what do you feel are the important next steps?**
Looking ahead, the important next steps include strengthening long-term monitoring of *Aloe dorotheae* and *Aloe flexilifolia* populations to track changes in distribution and habitat condition. Expanding community engagement and capacity-building initiatives will be crucial to ensure continued local stewardship and participation in conservation activities. Implementing targeted habitat restoration and management interventions, including controlling human disturbances and invasive species, is also essential. Additionally, disseminating research findings through publications, policy briefs, and outreach platforms will support evidence-based decision-making and wider awareness. Finally, integrating predictive mapping and data-driven strategies will guide future conservation planning and prioritization.

8. Did you use the Rufford Foundation logo in any materials produced in relation to this project? Did the Foundation receive any publicity during the course of your work?

The Rufford Foundation logo was prominently featured and acknowledged in all meetings and communications, and for publicity, we distributed t-shirts displaying the foundation's logo.

9. Provide a full list of all the members of your team and their roles in the project.

Team members	
Mr. Lusekelo Silabi (MUST)	Trained local communities on plant conservation, particularly focusing on TaCEA. In addition, he conducted field surveys, and actively participated in implementing project activities and monitoring the progress of TaCEA nurseries
Ms. Musa Munga	He conducted field surveys to estimate the population and map the distribution of TaCEA.
Mr. Frank Mwasomola	He conducted training sessions to build the capacity of local stakeholders to protect TaCEA
Ms. Nancy F Joseph	Developed educational materials and programs to inform local communities about conservation practices.

10. Any other comments?

We are deeply grateful to the Rufford Foundation for providing the financial support that made this project possible. Their funding has been instrumental in enabling fieldwork, community engagement, and conservation activities, and has allowed us to achieve our objectives in assessing and protecting *Aloe dorotheae* and *Aloe flexilifolia*. The foundation's support has not only facilitated critical research but has also helped build local capacity, raise awareness among communities, and promote sustainable conservation practices. We sincerely appreciate the Rufford Foundation's commitment to biodiversity conservation and their trust in our work.

ANNEX – Financial Report

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