

Final Evaluation Report

Your Details	
Full Name	Cornelius Mulili Kyalo
Project Title	Empowering local communities in biodiversity conservation: towards the conservation of threatened African violets (<i>Streptocarpus</i>) at the coastal biodiversity hotspot of Kenya.
Application ID	32140-1
Grant Amount	6000
Email Address	cmulili90@gmail.com
Date of this Report	3/11/2021

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

Objective	Not achieved	Partially achieved	Fully achieved	Comments
<p><i>Objective 1:</i> Public education and awareness on matters of biodiversity conservation</p>				<p>Initially, we trained a total of 15 team members from the local communities who implemented the project activities.</p> <p>Additionally, we managed to train a total of 87 local community members across the three project sites through seminars. The members included women, the youth and men to cover the population grouping.</p> <p>As an achievement, we mobilised the locals and registered a community-based organisation (Mazingira ni Uhai CBO), focusing on awareness campaigns, plant propagation and sustainable livelihoods, among others. The CBO has a starting membership of 33 and envisions to grow as more locals are reached.</p>
<p><i>Objective 2:</i> Establish the current status of African violets including populations sizes and ecological interactions</p>				<p>Cha Simba population was found to be the largest (c. 2000 individuals), followed by Kachororoni (less than 1000 individuals), while Mwarakaya was the smallest (less than 200 individuals).</p> <p>Generally, the populations appeared patchy in nature and habitat degraded and dry.</p> <p>Common threats facing African violets were dry weather, vegetation clearance (fragmented habitats), agricultural expansion and invasive species.</p>
<p><i>Objective 3:</i> Conduct mass propagation trials, both <i>in-situ</i> and <i>ex-situ</i>, for conservation and restoration.</p>				<p>Two propagation methods were tried/investigated - seed propagation and leaf propagation. Both methods proved successful, although the duration varied (leaf propagation took longer to sprout - c. 3 - 5 months). However, due to the limited time, long propagation duration and poor habitat</p>

			<p>conditions for the survival of the plants, we could not transplant them in the wild. Positively, we have a propagation room where we are continually propagating more individuals. In addition, we began propagation of indigenous tree seedlings for habitat restoration (to ensure we improve the habitats before transplanting the African violets).</p>
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2. Please explain any unforeseen difficulties that arose during the project and how these were tackled.

Changing weather patterns - the short rains (March - June) for 2021 did not occur as normal. This affected the transplanting of propagated African violets back into the wild (the individuals could not survive the dry conditions). This was compensated for by concentrating on indoors propagation of more individuals and initiating indigenous tree seedlings propagation (to improve habitat health).

Poor /dangerous terrain - most of the sites in the three populations were inaccessible due to the rocky terrain, with steep gorges and thick vegetation, making it difficult to conduct a comprehensive population census. To cover for this, we conducted another survey during the dry season (when the thickets were passable) and taking photos and using them to assess the number of individuals.

Unavailability of schools for holding awareness seminars - due to the government ban on public gatherings in institutions, we could not access school facilities as planned. However, we solved this by using church halls, and open grounds to ensure adherence to the COVID-19 protocols. Additionally, since we could not involve school pupils, we distributed awareness posters to the school notice boards, and shared the message with teachers who in turn will share with pupils.

3. Briefly describe the three most important outcomes of your project.

a) Understanding the population status (size, conditions, and threats) of African violets - the population sizes of the three populations were assessed (Cha Simba reported the largest and most sustained) and key threats documented (agriculture, charcoal burning and changing climate conditions). This information will be used to design future actions to conserve the African violets and inform stakeholders in the species conservation.

b) Raising community awareness on conservation - we managed to train 87 local community members across the three project sites through seminars. The members included women, the youth and men to cover the population grouping. As a result, we managed to form and register a community-based organisation (Mazingira ni Uhai CBO) that will spearhead biodiversity conservation, sustainable livelihoods and related environmental activities.

c) Practical propagation of African violets understood - after testing two propagation methods, we have understood how to propagate the species in massive numbers. It was clear that leaf propagation is successful but takes longer time than seed propagation. Therefore, this knowledge will be used to expand collections, and massively propagate African violets for use in future population expansion.

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

Local communities from three villages were involved in the field surveys, data collection, invited for awareness seminars and trained on biodiversity conservation. As a result of this project, they greatly benefited through the following.

- a) Received training and information on the importance of their environments, sustainable agriculture, and climate-smart ventures.
- b) We established a community-based organisation (Mazingira ni Uhai CBO) that will coordinate environmental and development matters in the villages.
- c) Some locals were employed as project local guides and team members on short-term, earning some income.
- d) We initiated seedlings propagation, an initiative that will bring income to the locals with time.

5. Are there any plans to continue this work?

Yes, I plan to apply for the next round of grant and achieve the remaining work. During this first project, we identified the need to improve the habitats before population expansions, monitor the recruitment level of African violets and also monitor plant-pollinator interactions. Therefore, we wish to continue this work, eventually ensuring long-term conservation of African violets in the wild.

6. How do you plan to share the results of your work with others?

Having worked in collaboration with the local leaders, the information was shared with the authorities to enhance better understanding on sustainable management of our forest fragments. Further, members of the established CBO were tasked with being environmental ambassadors in their villages. Again, we have shared the results with our partners (Dryland Biodiversity Consultants and Nature Kenya) who have published in their social media pages for public consumption. Additionally, I plan to present the work in a Nature Kenya workshop series (monthly presentations on biodiversity) that seeks to raise community awareness. Finally, although we wished to publish the work in a peer review journal, the results are inconclusive and will be combined with results from phase two for solid reporting.

7. Timescale: Over what period was the grant used? How does this compare to the anticipated or actual length of the project?

The grant was used according to the anticipated timeline (between 7th Oct 2020 - 8th Oct 2021). There was no significant change of timeline during the project implementation.

8. Budget: Provide a breakdown of budgeted versus actual expenditure and the reasons for any differences. All figures should be in £ sterling, indicating the local exchange rate used. It is important that you retain the management accounts and all paid invoices relating to the project for at least 2 years as these may be required for inspection at our discretion.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Project permits	100	100		The amount was fully used as projected.
Inception meetings	80	80		The amount was fully used as projected.
Meals and training material during team formation	120	120		The amount was fully used as projected.
Daily Subsistence Allowance for project experts (Meals, accommodation, other basic needs)	300	300		The amount was fully used as projected.
Daily subsistence allowance for the project team	1650	1650		The amount was fully used as projected.
Transport	1200	1200		The amount was fully used as projected.
Tools (Camera & GPS hiring)	240	240		The amount was fully used as projected.
3 internet modems	120	120		The amount was fully used as projected.
Mobile airtime/bundles	120	120		The amount was fully used as projected.
Stationary	25	20	-5	There was an offer at the stationary shop.
Printing costs	30	30		The amount was fully used as projected.
Data analysis	80		-80	No expert was paid to perform data analysis as projected.
Setting up of propagation center	755	755		The amount was fully used as projected.

3 Seminars facilitation (venue, projection, etc.)	240	240		The amount was fully used as projected.
Branded T-shirts	300	300		The amount was fully used as projected.
Posters/banner	200	100	-100	Since school pupils were not directly involved, the posters were reduced, leading to reduction on expenditures. The 100 was channeled to overhead costs.
Other field tools (secateurs, machete, sample bags)	120	120		The amount was fully used as projected.
Article production	220		-220	Since the data is inconclusive, the funds were not used here. Alternatively, the funds were used to for overhead costs.
Miscellaneous	100		-100	The funds were channeled towards overhead costs.
SUB-TOTAL	6000	5495	-550	
Overhead costs		550	+550	10% of the total project budget was paid to Nature Kenya as overhead costs.
Total costs	6000	6045	+45	The exchange rate during funds receipt was £1= 133.2 Kes.

9. Looking ahead, what do you feel are the important next steps?

In as much as the completed project contributes greatly to the conservation of African violets in Kenya, more actions are urgently required to ensure continuity and future survival of the species. Importantly, the following steps need to be factored.

a) The African violet habitats need to be restored according to species requirements, through tree planting, site protection and threat reduction.

b) Since we observed that most juveniles die after germination, there is urgent need to monitor the recruitment vs survival/maturity rates to devise a saving mechanism to reduce juvenile mortality.

c) Due to reduced pollinators in the sites, there is need to monitor the plant-pollinator interactions to inform design of pollinator conservation that will ensure African violets continue reproducing.

d) After achieving a breakthrough in the propagation trials, there is need to massively propagate the species/ populations in partnership with the locals, to expand the populations. This calls for establishment of rescue gardens and more community outreach.

10. 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 used in data collection forms, publicity material (t-shirts, banners, posters) during awareness seminars, and regularly mentioned during the training seminars as a way of acknowledging the foundation for the financial support.

11. Please provide a full list of all the members of your team and briefly what was their role in the project.

Dr. Cornelius Mulili Kyalo (the project Principal Investigator) - the overall coordinator for the project activities, permit acquisition, materials preparation, project management, community training, leading field investigations, report writing, among other duties.

Dr. Itambo Malombe - a senior research scientists from the National Museums of Kenya. He played key role in designing the project, permit acquisition, training team members, and designing propagation processes.

Mr. James - Played a key role in community mobilization, training on indigenous tree propagation techniques, introduction of nature-based ventures.

Mr. Kalume Nasoro - a local Chief, played a role in creating a community rapport, ensured security of the project team, coordinated the formation of Mazingira ni Uhai CBO.

Mr. Chilumo Mwangambo - a village elder, a project team member, played a role in mobilizing the locals, training other local members, hosting tree propagation initiative, organizing for seminar venues.

Mrs. Agnes Bongo - a project team member, data entry into field sheets, field survey guide, and mobilized local members into seminars (especially women).

Ms. Margaret Mpenzwe - a youth leader, project team member, a trainer on biodiversity conservation, played key role in mobilizing the youth, data collection, team leader, and involved in propagation of the African violets.

12. Any other comments?

On behalf of the entire project team, I would like to thank The Rufford Foundation for their great financial support towards the conservation of African violets. Indeed, the Conservation of African violets is an extensive project that has begun through this

funding. Through this project, we were able to discover the extent of African violet habitat, understand the dire need the species is in, reach the local communities and practically tested different propagation techniques. We believe we are now well informed to take the project to the next level and expand our actions. We would be glad to extent our partnership with The Rufford Foundation and eventually exhibit sustainable results worth the work.