

## The Rufford Foundation

### Final Report

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Congratulations on the completion of your project that was supported by The Rufford Foundation.

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. The Final Report must be sent in **word format** and not PDF format or any other 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. Please be as honest as you can in answering the questions – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

Please complete the form in English and be as clear and concise as you can. Please note that the information may be edited for clarity. We will ask for further information if required. If you have any other materials produced by the project, particularly a few relevant photographs, please send these to us separately.

Please submit your final report to [jane@rufford.org](mailto:jane@rufford.org).

Thank you for your help.

**Josh Cole, Grants Director**

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#### Grant Recipient Details

<b>Your name</b>	Charles Kivasu Maingi
<b>Project title</b>	Minimizing utilization of forest resources to enhance conservation of Tana River Mangabey ( <i>Cercocebus galeritus</i> ), Tana River County, Kenya.
<b>RSG reference</b>	26840-1
<b>Reporting period</b>	February 2019 - February 2020
<b>Amount of grant</b>	£4,886
<b>Your email address</b>	maingikivasu@gmail.com
<b>Date of this report</b>	9 <sup>th</sup> March 2020

1. Please 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
Objective 1: Conduct a pre-visit to the project site and create a data collection tool				<p>During the pre-visit, we tested the questionnaires and prepared the ground for data collection by notifying the local administration within the project area who were in support of the project. Also, in this objective we managed to train five research assistants who helped in data collection.</p> <p>As an achievement to this objective we managed to observe the collection of <i>Hyphaene compressa</i> nuts to be used as charcoal in the nearby towns. This was common after banning of charcoal burning in the country.</p>
Objective 2: Collect data on forest use and draft recommendations for sustainable forest use to conserve the habitat for the endangered non-human primates.				<p>We collected 170 filled questionnaire forms from the five villages in the project. In the questionnaires we managed to record the plant species which are used by the local community and also used by the Tana river mangabeys. In the collected data we found that the palm trees (<i>Phoenix reclinata</i>, <i>Hyphaene compressa</i> and <i>Borassus aethiopum</i>) make up one of the most utilised by the local community to make mats, house thatching and wine tapping. Also, trees such as <i>Polysphaeria multiflora</i> and <i>Lecaniodiscus fraxinifoliosus</i> were among the top plant species used as poles for construction of houses, goat dens and firewood. The data is analysed, and we are in the process of developing a manuscript to be published in 2020.</p>
Objective 3: Disseminate the results to relevant agencies through publishing the results.				<p>Together with the team we managed to organise conservation education talks in the neighbouring schools as well as the local community and shared the results. Five primary schools</p>

				<p>in Vukoni, Maroni, Wenje, Bahati, Hara, Baxano and Baomo were taken through forest resource use activities in the forest and their possible impact to the conservation of the Tana river mangabey. The participants were also taken through the possible ways of minimising the rampant harvesting of forest resources.</p>
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**2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).**

During the rainy season in November and December 2019 and early January 2020, the area was inaccessible due to the flooding and impassable roads which made it hard to hold community meetings. This was solved by moving the meetings to end of January and start of February 2020 where, together with the team, we held two successful meetings in Ndera area to cover Kitere and Baomo while the other was in Gwano to cover Maroni, Wenje and Vukoni villages. In addition, we conducted conservation education talks in nine primary schools within the project area.

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

One of the most important outcomes of the project was the successful administration of questionnaire forms and collection of 170 of them from all the five villages within the project area (Vukoni 50, Wenje 30, Maroni 30, Baomo 30 and Kitere 30). The willingness of the community to share information with the project implementers without any objection.

The project was able to collect information on Tana river mangabey's plant food species which are utilised by the community. A list of plant shared by the two (Tana river mangabey and the local people) was developed which will be published and shared with The Rufford Foundation.

Some of the recommendation captured by the questionnaire forms are:

1. The respondents suggested establishment of alternative sources of income to reduce over-reliance on forest resources such as beekeeping reducing the harvesting of *Phoenix reclinata* leaves for mat making as a source of income.
2. Re-planting the trees which are fed on by the Tana river mangabey and other non-human primates in the degraded areas of the forest as well as reduce the cutting of trees fed on by the primates.
3. Advocating for conserving the forests and educating the local community on the need to protect the forest as a habitat to the primates and the benefits the people derive from them.

One of the objective of the project was to conduct community sensitisation meetings, in this we held nine schools education talks and two community meetings

with representatives from all the villages where we shared the outcomes of the project as well as other projects we have being conducting in the project area.

**4. Briefly describe the involvement of local communities and how they have benefitted from the project (if relevant).**

During the implementation of the project the community members were involved in data collection and in the translation of the data collection questions into the local dialect.

**5. Are there any plans to continue this work?**

Yes, plans are there to continue with the monitoring of the community's utilisation of the forest resource as the need keep on changing with this era of climate change and demand for natural resources. I plan to monitor if the forest utilisation changes with time from seasons to seasons.

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

The results of this work, I intend to publish them at the African Journal of Ecology for the scientific community (draft manuscript in process). Also, I have drafted an article which I will share with the East Africa Wildlife Society for the *Swara* magazine (will be shared with The Rufford Foundation once published).

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

The grant was used from February 2019 to February 2020. The project was implemented in 1 year. The actual length of the project followed the schedule in the proposal of the project.

**8. Budget: Please 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.**

Item	Budgeted Amount	Actual Amount	Difference	Comments
Project pre-visit	1042	1042		The amount was used fully to support the activities outlined in the proposal.
Personnel	611	611		This amount
Stationery	301	301		
Transport	1749	1749		
Field Equipment	878	878		The amount was used to buy the stated equipment such as

				the camera, GPs gadget and tent which came in handy during the implementation period
Communication	76	76		This amount was fully used during data collection and organizing the meetings.
Dissemination of results	153	153		
Miscellaneous cost	76	76		This amount was used to supplement on the items as well to cater for car maintenance.
Total (in £)	4,886	4,886		The budget exchange rate conversion used is: 1 GBP be equivalent 131 Kenya shillings.

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

The next steps will be to continue community education, organise habitat restoration drives and conduct vegetation survey in the forest fragments neighbouring the community to understand the rate, frequency and the intensity of forest extraction. I plan to conduct trials of planting *Phoenix reclinata* within the community area in order to assess if it can reduce over-reliance of the forests especially this plant food.

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

During the implementation period, The Rufford Foundation Logo was used in the poster and brochure used in the sensitisation meeting and talks. Also, the presentations done for the schools the logo was used as part of acknowledging the support we received from the foundation.

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

**Charles Kivasu Maingi** (Institute of Primate Research – National Museums of Kenya)- Principal investigator. Designing plans for the project, interview, field survey, data analysis, writing report.

**Dr Stanislaus M. Kivai** – From Conservation Biology Department, Institute of Primate Research of National Museums of Kenya. He was the project technical adviser and helped in the implementation of the project.

**June Mutinda** - She is a Master's Student from Chuka University attached to the Conservation Biology Department –Institute of primate Research –National Museums of Kenya. She participated as a research assistant during data collection from the community.

**Zainab Faisal** - She is a Master's Student from University of Nairobi attached to the Conservation Biology Department –Institute of primate Research –National Museums

of Kenya. She participated as a research assistant during data collection from the community.

**Said Rhova** - He is a local research assistant from Maroni, Makere and Kipendi villages and participated in the project as a research assistant and local guide

**Komora Said** - He is a local research assistant from Baomo village and participated in the project as a research assistant and local guide

**Naomi Abio** - She is a local research assistant from Wenje village and participated in the project as a research assistant and local guide within the village

**Mohammed Abeid** - He is a local research assistant from Vukoni village and participated in the project as a research assistant and local guide.

**Habini Omari** - She is a local research assistant from Kitere village and participated in the project as a research assistant and local guide.

## 12. Any other comments?

On behalf of the project team, I would like to thank The Rufford Foundation for funding the project. The grant has been useful in the accomplishment of the project results and it has shown that a lot can be achieved even with relatively small budget.

Also, would like to that the foundation in assisting young researchers to develop their conservation career by facilitating to be leaders of the projects.



Left: A male endangered Tana River Mangabey (*Cercocebus galeritus*) in Mchelelo forest. Right: Tana river and local people using one of the boats (Mdau) from *Ficus sycamorous* tree as they fish along the river.



Left: wine tapping on *Hyphaene compressa* tree which is one of the important plant food of the Tana River Mangabey (*Cercocebus galeritus*), Right: *Hyphaene compressa* nuts collected and packed ready for transportation. The dried pulp from the nuts is fed on by the Tana River mangabey during the dry season when food is scarce



Left: The Principal Investigator on one of the *Hyphaene compressa* nuts from the forest. Right: The PI with one of the respondents during data collection in Kitere village. Note the palm leaves used in roofing houses in the background of the right.



Left: The PI with some of the assistants after data collection in Vukoni village. Right: The PI and Dr. Kivai (IPR) and some of the local assistants discussing the questionnaire document to translate it to local dialect especially the tree species.



The PI conducting conservation education talks in schools neighbouring the project area.



Left: A goat shed constructed with tree poles from the nearby forest. Right: The PI holding some of the *Phoenix reclinata* harvested leaves for mat making left to dry.