

## Final Evaluation Report

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Your Details	
<b>Full Name</b>	Elihuruma Wilson
<b>Project Title</b>	Natural forest regeneration distribution and diversity: Gombe lessons
<b>Application ID</b>	23402-B
<b>Date of this Report</b>	May 26th 2022

**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
Assessment of tree abundance, diversity, and distribution in the Greater Gombe Ecosystem				I managed to perform a vegetation plot survey inside Gombe and five Village Land Forest Reserves that bordered Gombe National Park. I surveyed a total of 60 vegetation plots. In this survey and with the assistance of a local botanist, I identified and recorded all mature and young tree species on each vegetation plot.
Assessment of the current drivers of forest cover change in the Greater Gombe Ecosystem				Here I used a combination of a remote sensing approach and a social-economic survey. I performed land cover changes using satellite images between 2006 and 2021. I used a digital elevation model to derive topographic variables, such as elevation, slope, aspect, heat load index, stream networks, etc. and combine these factors with anthropogenic factors such as fire frequency, population density, conservation knowledge, and dominant economic activities, to assess their relative influence on the variation of forest structure, diversity and forest cover in the Greater Gombe Ecosystem.

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

**a).** I document for the first time the tree composition, abundance, and distribution in the Greater Gombe Ecosystem. This will save as baseline information for future research and monitoring purposes

**b).** I provide critical information on the success of the village land forest reserves in protecting and facilitating forest regrowth in the Greater Gombe Ecosystem. This information will be used by the local government authorities and other stakeholders in facilitating reviewing of village land forest reserves management plans.

c). I determined the relative influence of anthropogenic and environmental factors on the variation of forest structure and forest cover change in the village land forest reserves in the Greater Gombe Ecosystem.

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

Although I had permits to perform research in the village land forest reserves, one of the villages initially did not support my research and refused to support my research. I need a concert by the village government to conduct a survey in each village. I decided to continue to collect data from other villages and later I involved different stakeholders in the region to assist in explaining the importance of the project in that village. They at last agreed and I managed to collect the data, but very late.

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

As part of the project introduction in each village, I performed an awareness meeting(s) for the village government authority. Among the issues we discussed in the meeting was how the information obtained from this project can be beneficial to the village, particularly in promoting the conservation of the village land forest reserve. In doing so, village leaders have improved knowledge and understanding of how village forest reserves can be monitored, researched, and allow livelihood options such as community-based tourism.

Except for the botanist, all my research assistants were village members selected by the village leaders. They learned how to perform vegetation plot surveys by helping in setting out the vegetation plots, measuring the DBH, using GPS etc. Their participation in this project has increased their potential to be involved in different research activities in the region.

Through the information obtained from this project, villages will be able to perform a review of their village land use plans. Information such as the performance of village land forest reserve in promoting persistence and regeneration of forest cover is critical in the land use plan reviewing process. The exciting part is that this project came at the right time. Most of the village land use plans are 20 years old now, and according to local regulations they are supposed to be reviewed.

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

Yes, I am planning to continue with more assessments on the conservation values of this forest, particularly on to what extent these village land forest reserves provide habitat for various animal species.

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

I am planning to share the results of this work in three ways.

- Include as part of my dissertation which will then be a public resource.
- I have identified three potential publications which, I am still working on the manuscripts. Here I am including their titles and once published will send the publications to you to include in the project website page.
  - Distribution of medicinal plants and the importance of local tree resources in the Greater Gombe Ecosystem, Tanzania: Implications for Humans and Chimpanzees.
  - Forest and woodland cover change in the community managed forests in the human-modified landscapes, in the Greater Gombe Ecosystem, Tanzania.
- Pathways of community managed woodland structure, composition, carbon stock, and habitat quality for primate species, in the human modified landscapes, in the Greater Gombe Ecosystem, Tanzania

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

The forest cover in the village land forest reserves is in small patches and currently may not sufficiently support the viable population of large vertebrates such as chimpanzees but they still have other conservation values. The next step will be to document the conservation value of these village forest reserves by assessing the abundance and distribution of small mammals and birds. These vertebrates have small biomass and may survive well in these forest patches. Providing a full account of the conservation value of these forest reserves might help in attracting more funding to protect and promote natural forest regeneration, and hence provide a good habitat for larger vertebrates.

**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?**

Yes, in my PhD preliminary exam presentation. I used the logo in the workshop presentations that I attended. I will certainly use the logo in any conference that I will attend, particularly I am planning to attend the ATBC conference next year to present some of the work I do. I will also use the logo in my PhD defence next year. I will acknowledge the support from your organization in all the publications listed above.

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

<b>Name</b>	<b>Title</b>	<b>Role</b>
Michael Wilson	Assistant Professor	Guiding in project implementation and manuscripts preparation
Jennifer Powers	Professor	Guiding in project implementation and manuscripts preparation
Sody Ndimiligo	Ecologist	Involved in measuring and recording, canopy density, slope, elevation, and aspect.

Yahaya Mohamed	Botanist	Involved in identifying tree species from local names to scientific names
Ashahadu Bitata	Research Assistant	Involved in identifying tree species to local names
Baraka Gilagiza	Research Assistant	Involved in the vegetation plot survey by setting out the vegetation plots and teaching village members who were involved in the project for each village.
Huruma Shao	Research Assistant	Involved in data entry

### 10. Any other comments?

I need to go back to each village and submit a specific project report for each village and have a meeting with them about what I found. I will do this next year when I am done with my PhD studies.

I am still working on the manuscripts for publications. This take long time than expected because they are part of my PhD thesis. Once accepted by the supervisors I will send the final manuscripts to you. Later will send you the publications.



Above: Elihuruma Wilson with Yahaya (Botanist) and other research assistants. Going to camp in one of the villages in the Greater Gombe Ecosystem to perform vegetation plot survey. Below: Elihuruma Wilson and Adam Kohoye (A forest monitor of Bubango village) in one of the Bubango village land forest reserve.





Elihuruma Wilson with Zaburi Hamis (A forest monitor of Chankele village) in one of the streams that leads us to the Chankele village land forest reserve.



Elihuruma Wilson and village leaders of Zashe, during the meeting discussing the the importance of my project in their village.