

Final Evaluation Report

Your Details	
Full Name	Mecklina Michael Mbundi
Project Title	Assessing Local Community's Awareness and Perceptions of Invasive Gutenbergia cordifolia Management and its Effects on Insect Visitors around Mwiba Area
Application ID	36514-2
Date of this Report	01st May 2023



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
1. To assess awareness and knowledge of invasive plants				We approached this objective by first conducting educational workshops and training sessions, where community members learned about invasive species and their impacts, and we presented knowledge on the best practices of controlling their spread. These sessions included interactive activities and demonstrations to help reinforce key concepts and engage participants. Later we gave them questionnaire forms with questions focusing on the common invasive species, their origins and impacts, and strategies they use for controlling their spread.
To determine local community attitude towards invasive plant management and its associated effects towards insect visitors				To determine the local community's attitude towards invasive plant management and its associated effects on insect visitors, we first conducted a literature review to gather information on the topic. This involved searching for studies that have already been conducted on the attitudes of local communities towards invasive plant management and the effects on insect visitors. Once we had a good understanding of the existing research, we designed a questionnaire to gather information directly from members of the local community around Mwiba area. This involved asking questions about their awareness of invasive plants species in their area, their attitudes towards management, and their perceptions of the effects of invasive plant management on insect visitors. Finally, we analysed the data collected to identify patterns and trends in the local community's



	attitudes towards invasive plant management and its effects on insect visitors. This involved using statistical analysis techniques to identify correlations between different variables and to determine the significance of any relationships
	observed. Ultimately, the findings of the study could be used to inform future efforts to manage invasive plant species in a way that balances the needs of the local community and the
	protection of insect populations
3. To learn sources of information on invasive plants and insect pollinators	Before conducting this study, we started by reviewing the existing literature on invasive plants and insects as well as the ways the local communities have been informed about them in the past. This helped us to identify the most relevant sources of information to investigate. We designed a questionnaire that would allow us to learn how local community around Mwiba area are currently getting informed about invasive plants and insects. Once the data has been collected, we analysed it to identify patterns and trends in the ways that local communities are getting informed about invasive plants and insects. Based on the analysis of the data, we drew conclusions about the most effective sources of information for informing local communities about invasive plants.

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

a). Improved understanding of local community awareness and perceptions; the study has provided insights into the local community's knowledge and understanding of invasive plant species and their impact on the ecosystem. It may also reveal their perceptions of the effectiveness of plant management strategies and their importance of insect visitors to the ecosystem.

b). Improved conservation of insect visitors; the study has revealed the importance of insect visitors to the ecosystem and how invasive plant management practices can impact their populations. This information can be used to develop conservation strategies that prioritise the protection of insect visitors while managing invasive plant species.



c). Development of sustainable management strategies; the study provided information on the effective and sustainable invasive plant management strategies that consider the local community perceptions and practices. This information can be used to develop management plans that are socially and ecologically sustainable.

- Through this work local communities were educated on the dangers of invasive plant species, especially *G. cordifolia*, and the importance of managing them. This was achieved through various initiatives such as community meetings, training and educational materials.
- As a result of these efforts the community awareness and understanding of the issue of invasive plants and their impact on the ecosystem were significantly increased. Local communities began to appreciate the importance of managing invasive species and their role in preserving the Serengeti biodiversity.
- Furthermore, the programme also had a positive impact on insect visitors which are essential for pollinators and other ecological processes. By managing invasive plants native vegetation was restored creating a more hospitable environment for insects to thrive. This in turn, helps to ensure the continued functioning the ecosystem and the provision of ecosystem services.

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

One of the major challenges faced during this study was the language barrier, as most of the participants spoke mother tongues and some had limited proficiency in Swahili which is the national language for Tanzania. To overcome this challenge, the research team employed the services of a translator who was fluent in both languages. Another challenge was the difficulty in recruiting participants from the local community due to the limited access to some areas surrounding Mwiba. This may have led to a potential bias in the sample, as those who were available and willing to participate may not have been representative of the entire population.

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

The purpose of this study was to determine the local community's awareness and perceptions of invasive plant management and its effects on insect visitors in the Mwiba area. We worked with eight villages in the Mwiba area, which form the Makao Wildlife Management Areas (Makao WMA) and are part of the Serengeti ecosystem. To encourage participation, we provided incentives such as t-shirts, refreshments, *Desmodium* seeds, spraying tanks, at each village, along with the buckets and other equipment, were left at the village executive office for anyone to use even after the training. The local community gained greater understanding and



appreciation of the importance of managing invasive plant species and this has had positive effects on the ecosystem and local communities.

5. Are there any plans to continue this work?

Yes, with full technical support from the Mwiba area we are planning to continue to support and monitor the activities that were started during phase two of this project particularly on growing, harvesting and preparing the *Desmodium* plant leaves extract to control invasive plant species such as *G. cordifolia*. Also, we are planning to continue providing incentives like conservation education to communities around the area.

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

Our findings have been shared and we plan to share more information and findings of our current study through seminars, trainings, publications, conferences and meetings. We had an interesting opportunity to give the feedback of our project to Mwiba area staff and other stakeholders of the project by sharing with them the findings of our study.

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

Another next step is to conduct further community outreach programme on invasive plants and management effect on biodiversity to more villages surrounding Mwiba area as we only covered eight villages which are very close to our study area. This will increase awareness and build capacity on biodiversity protection to more people.

































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, the Rufford logo was used to all of our posters, fliers, brochures, posters, presentations, and t-shirts, this increased the publicly of the foundation. We have also acknowledged the financial support of Rufford foundation in our reports and manuscript publications.

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

Prof. Anna Treydte: as, my immediate supervisor. She assisted us with guidance during the whole period of the project.

Prof. Alex Kisingo: helped me with the guidance in the development of this research he helped in the implementation and the carrying out of this project.

Dr. Issakwisa Ngondya: my co-supervisor in this project. He assisted us with designing the best method in approaching the community during data collection and in training.

Yusuph Wilangali: assisted us in data collection as research assistant.

Mohammed Gorayi: linked us with the community around Mwiba area. He also assisted us with technical matters and logistical issues by ensuring good management and maintenance of research resources.

10. Any other comments?

First and foremost, we are extremely grateful to The Rufford Foundation for funding this project. From the first phase of their assistance, we were able to find the effects of managing invasive *G. cordifolia* on insect visitors in Mwiba area, Tanzania, this assisted us promoting biodiversity conservation particularly of insect pollinators in Tanzania. The information of the previous project that was gathered, analysed and shared allowed us to train local community around Mwiba area. In the second phase, we learned more about what community knows about invasive plants around their areas, what kind of management they use to control spread of invasive plants and what are the impacts of management towards insect visitors and biodiversity in general. We also have learned about what the community is unaware about management of invasive, which need to be addressed in the future studies.