

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	Happiness Anold Moshi
Project Title	Community Sensitization and Mobilization for Conservation of Vulnerable Rukwa Tilapia (<i>Oreochromis rukwaensis</i>) in Tanzania
Application ID	44008-1
Date of this Report	January, 2026

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>To sensitize Lake Rukwa communities through environmental education, raise conservation awareness and mobilize social events towards community participation in the protection of <i>Oreochromis rukwaensis</i> and its ecosystem in Lake Rukwa, Tanzania.</p>				<p>Community sensitization was conducted to highlight the urgency and the importance of protecting and conserving Rukwa Tilapia, which is considered vulnerable to extinction. To this end, a team of experts from Tanzania Fisheries Research Institute (TAFIRI) conducted a three-day workshop for more than 150 community members who dwell along the coast of Lake Rukwa in Muze, Ilanga and Ukia villages, Rukwa. The workshop beneficiaries included fisheries value chain actors (artisanal fishers, processors, and traders), primary and secondary school students, and other local communities.</p> <p>We provided the workshop participants with fliers, t-shirts, posters embossed with The Rufford Foundation logo, and a message aimed to promote sustainable fisheries practices. This approach was necessary in ensuring a sustainable impact beyond the training days.</p> <p>Furthermore, we provided 100 tree seedlings to Mkuyuni and Ulanga Primary school as a way of promoting afforestation. More than 100 pupils actively participated in planting the trees and received targeted environmental education. This activity was designed to raise awareness among young community members about the vulnerability of fisheries resources,</p>

			<p>particularly the vulnerable Rukwa Tilapia and its ecosystem. Additionally, this approach will foster a sense of environmental stewardship and responsibility for conservation.</p>
<p>To improve the development of sustainable resource use practice through training and the establishment of alternative and resilient economic activities for the sake of protecting <i>Oreochromis rukwaensis</i> and its ecosystem</p>			<p>To promote sustainable livelihoods and reduce pressure on fisheries resources 100 community members in Muze, Ilanga and Ukia villages around Lake Rukwa were trained in fish farming. Among the 100 community members who attended the fish farming training; 60 were fisheries stakeholders including fishers, fish processors, fisheries officers and fish traders while 40 were other locals. About 50 community members attended the beekeeping training as alternative income-generating activities. Additionally, 20 modern beehive prototypes were distributed to participants to motivate and encourage their engagement in beekeeping. The training featured testimonials from local experts already benefiting from beekeeping, which served as a practical demonstration of its viability. The participants responded with enthusiasm by asking numerous insightful questions which indicate a sign of community interest and readiness to adopt alternative and resilient economic activities that support the conservation of Rukwa Tilapia (<i>Oreochromis rukwaensis</i>) and its ecosystem.</p>
<p>To assess the current social, economic, political and environmental threats facing <i>Oreochromis rukwaensis</i> and its ecosystem in lake Rukwa, Tanzania.</p>			<p>Assessment of the socio-economic, political and environmental threats facing <i>Oreochromis rukwaensis</i> was conducted through a combination of methods including questionnaire survey with 150 respondents selected randomly around lake Rukwa. Eight key informant interviews were conducted for fisheries officer (1),</p>

			<p>village leaders (3), village elder (1), environmental officer (1), Beach Management Unit (BMU) leader (1) and farmer (1) to understand in depth information about the major threats facing the lake and its vulnerable specie (<i>Oreochromis rukwaensis</i>). Six Focus Group Discussions in three villages (Muze, Ilanga and Ukia), (two from each village) were also conducted to get the clear information about the threats facing <i>Oreochromis rukwaensis</i> and its ecosystem.</p> <p>The assessment revealed a strong dependency on fisheries resources among community members in three villages (Muze, Ilanga and Ukia) with 81.3% of respondents relying on fishing for their livelihoods. Majority of participants were fishers, processors, and traders with modest educational backgrounds and income levels, indicating limited economic diversification. While some openness to alternative livelihoods was noted with 33.7% of all survey respondents (N=150) showed willingness to explore other activities), the overall dependency highlights the urgency of providing sustainable options to reduce pressure on Lake Rukwa's fisheries.</p> <p>The study also revealed that the key environmental and management challenges facing <i>Oreochromis rukwaensis</i> and its ecosystem include overfishing, water quality deterioration due to pollution from agricultural runoff and mining activities, deforestation, and climate change impacts. Social economic and governance issues such as the use of destructive fishing gears, poor compliance with fishing and</p>
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				environmental regulations, few conservation programs and lack of community-based conservation programs further exacerbate the problem. These findings were in-line with those explained during KIs and FGDs. These findings point to the need for integrated conservation strategies that combine regulatory improvements, environmental education, pollution control and active community participation.
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2. Describe the three most important outcomes of your project.

a). Increased community awareness and knowledge on conservation of Rukwa Tilapia (*Oreochromis rukwaensis*) through a three-day workshop conducted by experts from TAFIRI, over 150 community members, including fishers, processors, traders, students, and local community members, were sensitized on the urgent need to protect *Oreochromis rukwaensis*, an endemic and endangered fish species declared vulnerable by IUCN 2006. The training improved participants' understanding of the threats facing the species and its ecosystem, while also introducing them to sustainable fisheries practices. Supplementary materials such as posters, fliers and branded t-shirts reinforced the message beyond the workshop, promoting continued learning and visibility within the community.

b). Promotion of alternative livelihood to reduce pressure on fisheries resources, one of the most persistent challenges in managing threats such as illegal and over-fishing is the community's heavy reliance on fisheries as a primary source of income. To address this, the project provided targeted training on fish farming and modern beekeeping initiatives to 150 esteemed community members of Muze, Ukia and Ilanga villages around lake Rukwa -Rukwa region. These sessions not only introduced viable alternative livelihoods but also sparked genuine interest, with participants actively engaging and seeking further guidance. The provision of modern beehive prototypes and exposure to real-life success stories from local practitioners further reinforced the practical value of these alternatives. This shift toward resilience economic activities represents a promising step in reducing overdependence on capture fisheries, and is central to enabling long-term, community-driven conservation of *Oreochromis rukwaensis* and its ecosystem.

c). Improved understanding of local livelihood dynamics and conservation challenges. The study conducted as part of the project provided valuable insights into socio-economic and environmental realities of communities around Lake Rukwa. It was revealed that more than 80% of participants rely directly on fishing for their livelihood, yet more than one third of the fishers are open to exploring alternative economic activities. The assessment also identified key threats to the Rukwa Tilapia ecosystem, such as declining fish stocks, destructive fishing practices,

agricultural runoff, and limited community involvement in conservation. These findings are instrumental in guiding future interventions, as they highlight both the urgent conservation needs and existing opportunities for introducing sustainable, alternative livelihoods in the region.

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

- Higher-than-expected cost of educational materials, we initially planned to produce durable educational materials, especially posters that could serve as long-term reminders of sustainable fisheries practices. However, the cost of producing high-quality materials exceeded our initial estimates. To address this, we revised our approach by using more cost-effective designs and incorporating locally available materials, ensuring that the core message was still effectively delivered without compromising quality or reach.
- Resource constraints for alternative livelihood support initiatives, participants showed remarkable enthusiasm for beekeeping as an alternative livelihood. However, due to budgetary constraints, we were unable to provide individuals with beehives to all interested participants. To manage this, we distributed a total of twenty (20) modern beehive prototypes to selected groups, maximizing the impact and enabling collective learning.

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

The project placed local community involvement at its core, ensuring that the voices, knowledge, and needs of people living around Lake Rukwa, particularly in Muze, Ukia and Ulanga villages were central to both the project planning and implementation phases. Community members participated in multiple ways, including as survey respondents, workshop participants, and contributors to group discussions and key informant interviews. Their inputs were instrumental in identifying the major challenges facing *Oreochromis rukwaensis* and shaping locally relevant conservation and livelihood strategies.

More than 150 community members comprising artisanal fishers, processors, traders, local leaders, and students took part in awareness workshop facilitated by experts from TAFIRI. They received environmental education on the urgent threats to the Rukwa Tilapia and its ecosystem, as well as practical guidance on sustainable resource use. Additionally, 150 community members including fisheries stakeholders and others were trained in alternative livelihood options, including aquaculture and modern beekeeping. This training provided viable economic alternatives that can help reduce pressure on wild fish stocks and foster long-term resource use sustainability. Beneficiaries also received practical tools such as beehive prototypes and educational materials (posters, t-shirts, and flyers), which served as both motivation and reference.

Youth involvement was another important aspect. Through targeted environmental education and tree planting activities involving over 100 primary school students, the

project helped cultivate conservation values at an early stage. Overall, community members gained increased awareness, practical skills, alternative livelihood opportunities, and renewed sense of ownership over local conservation efforts—positioning them as active stewards of their environment and its resources.

5. Are there any plans to continue this work?

Yes, there are plans to build on the foundation laid by this project and ensure long-term impact.

First, Efforts are underway to seek additional funding to support the promotion of alternative and sustainable livelihoods such as fish farming and beekeeping. Expanding these options is essential to reducing overdependence on capture fisheries and enhancing community resilience.

Secondly, we plan to publish the research findings in peer-reviewed journals and policy briefs. These publications will not only inform the scientific and policy communities but also help guide decision-making on sustainable fisheries management in Lake Rukwa and similar ecosystems.

Thirdly, with additional funds, we also aim to work closely with local fishers and other stakeholders to identify and map key breeding grounds and eventually support the establishment of community-managed conserved areas. This bottom-up approach is intended to foster ownership and ensure compliance with conservation goals.

Finally, the project intends to further promote afforestation activities by engaging more schools and community institutions. This will help restore degraded habitats and reinforce environmental stewardship among younger generations and the broader community.

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

The preliminary result of this work has been shared with local government authorities (Village council and ward councils), and other plans are there to share the full report with higher governing bodies such as the district and regional authorities. The final report will also be shared with an international audience by way of publications such as journals and conference papers.

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

Looking ahead, several critical steps are necessary to build the momentum of this project and address the threats facing *Oreochromis rukwaensis* and its ecosystem sustainably and inclusively.

- Scale up alternative livelihood initiatives, given the community's heavy reliance on fishing and their positive reception toward fish farming and beekeeping, it is vital to expand support for these alternatives. This includes providing start-up kits, technical follow-up, and access to markets to ensure these ventures are viable and impactful in reducing pressure on fish stocks.
- Supporting community-based conservation structures, efforts should be made to engage communities in identifying and mapping critical fishing breeding

areas to establish locally managed conservation zones. This would enhance compliance, ownership, and long-term protection and vital habitats.

- Strengthen environmental education and awareness, ongoing community sensitization especially among youth and fisheries value chain actors should continue. Educational programs must focus not only on biodiversity conservation but also on practical behaviour change, such as proper gear use, pollution control, and overall ecosystem protection.
- Policy engagement and knowledge sharing, the research findings should be transformed into policy briefs and shared with relevant government departments, NGOs, and conservation bodies. This will support evidence-based decision-making and attract collaboration for future interventions.
- Promotion of ecosystem restoration activities, hence reinforcing afforestation efforts, especially in deforested buffer zones around Lake Rukwa, is essential. This will reduce sedimentation and improve overall ecosystem health, supporting both biodiversity and livelihoods.

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 Foundation logo was used in all materials designed and produced for this project, including t-shirts, fliers, beehives, and posters.

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

List of Team Members and their Roles in the Project

Sn	Name	Position	Role
1	Happiness A. Moshi	Researcher	Principal Investigator and she was the overall in-charge of the day-to-day research project activities.
2	Yona W. Mwakiluma	Research Assistant	He assisted in Formulating survey questions and works in the design of project socio-economic data collection and interviews.
3	Julius M. Assam	Principal Fisheries Officer	Assisted in the design and preparation of project materials, provided training on aquaculture, and participated in data collection and overall execution of the project activities.
4	Theresia F. Temba	Research Assistant	She was responsible in conducting theoretical and practical classes concerning fish farming, provision of education on fishpond maintenance and quality control.
5	Lovette S. Mwansasu	Senior	She assisted in data collection and

		Technician	overall execution of the project activities
6	Hilda Raphael Mudu	Rukwa Fisheries Officer	She took part in conducting surveys, mapping potential areas in Lake Rukwa for conservation education and introduced project team members to local government authorities.

10. Any other comments?

We are deeply encouraged by the positive outcomes of this project and the level of engagement shown by the local communities around Lake Rukwa. Through open dialogue, practical training, and shared learning, we have taken meaningful steps toward promoting the sustainable use of fisheries resources and protecting *Oreochromis rukwaensis* and its fragile ecosystem. The willingness of community members to embrace alternative livelihoods like fish farming and beekeeping gives us hope that long-term change is not only possible but within reach.

We would like to sincerely thank to **The Rufford Foundation** for their generous support in making this project a reality. My heartfelt appreciation also goes to all the research participants around Lake Rukwa including fishers, processors, traders, local leaders, students, and others who contributed their time, experiences, and insights. Their voices and openness shaped the direction and depth of this work. We appreciate the guidance from Prof. Steven Loiselle and Ms. Jestina Ntaguda to make every project activity possible and meaningful.

Looking ahead, I believe that addressing environmental challenges of this nature cannot be achieved by one actor alone. It requires strong collaboration among local communities, government institutions, NGOs, and civil society organizations. I remain committed to fostering these partnerships and continuing this vital work together for the benefit of both people and nature.

ANNEX – Financial Report
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