

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	Dr. Rehema Ulimboka
Project Title	Enhancing Conservation of Critically Endangered Pancake Tortoises (<i>Malacochersus tornieri</i>) Through Conservation Education and Community Awareness in northern Tanzania.
Application ID	42171-1
Date of this Report	August 30, 2025

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
To assess potential anthropogenic threats that may affect the conservation of pancake tortoise in the project area.			x	<p>We focused on assessing key anthropogenic activities as planned within the critical habitats for the target species by 5 parallel line transects spaced 250 meters apart, each 500 km long. During the survey, we found the destruction of microhabitats within the rock outcrops due to the removal of tortoises from rocks. Additionally, we saw crevice probing sticks for removing tortoises from rock crevices, which could suggest ongoing illegal collection of the species for the pet trade. Also, if not for illegal trade, this can increase the tortoise's stress. Moreover, visible dung and footprints of livestock were observed, representing livestock grazing in the area.</p> <p>Opportunistically, we found ongoing construction activities of the Intracom fertilizer company 60 meters from critical habitats. This company is now operating, which can increase disturbances to tortoises as more people can visit the area critical for tortoises. This situation makes tortoise populations vulnerable to threats of extinction. Therefore, conservation efforts are crucial, involving increased conservation awareness in the area, including the installation of signposts with conservation</p>

				<p>messages to remind the visitors in the area.</p> <p>Furthermore, we opportunistically found charcoal burning around the critical habitat within the ecosystem as another potential threat to the conservation of this species. This was also revealed by conservation stakeholders as one of the threats to conservation; however, it was not observed within our transects. Therefore, sustainable alternative sources of income are crucial to save the species from extinction.</p> <p>During this survey we saw 3 pancake tortoise in the area surveyed.</p>
To evaluate the perception and awareness of the surrounding communities towards conservation of the study species in the project site.			x	<p>In collaboration with four local research assistants, we successfully surveyed 105 households to evaluate local communities' perceptions and awareness level towards conservation of the pancake tortoise in the target villages (i.e., Vilima Vitatu, Minjingu, Kakoy, and Ngoley) of the study. We found that of the 105 respondents, 11.4% (n=12) had ever seen the species in the area, 53.3% (n=56) said they had heard but never seen it, while others had never heard about it. However, only 30.5% (n=32) of the respondents were willing to support the conservation of target species. These findings highlighted the need for</p>

				increased conservation education and awareness-raising in the area.
To create awareness of the surrounding communities towards conservation of the critically endangered pancake tortoise in the study area.		x		<p>We successfully carried out awareness raising campaigns in four primary schools (i.e., Vilima Vitatu, Minjingu, Ngoley, and Kakoi) and two secondary schools (i.e., Mdori & Nkaiti), involving more 305 students, and 5 teachers (acted as research assistants). In this activity, conservation education was delivered through classroom lesson implementation of period of 80seconds in each class with 85 brochures and 35 posters were printed and distributed to the participants.</p> <p>However, local community members in the study area were reluctant to attend awareness meetings probably due to human-wildlife conflicts (HWC) existing in the study area. HWC has increased negative perceptions towards any kind of wildlife conservation program, which led into poor attendance to any conservation initiatives with no tangible benefits to them. Therefore, we decided to deliver the conservation education to influential community members such as 14 Village environmental committees, 8 village leaders and 11 teachers in the project area. In order to increase attendance of participants in this activity, we plan to integrate conservation awareness during the initiation and training on alternative income generating activities</p>

				which can attract more participants. Moreover, awareness-raising can be provided through community events such as football competitions (inter-school or inter-village) which can attract diverse group of audiences. Additionally, local radio broadcasting will be involved to raise awareness to broader communities of the area.
To conduct feedback meeting.			X	We conducted feedback meetings with key stakeholders as planned to evaluate the project. Manuscript for publication is still prepared.

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

a). Potential anthropogenic threats that may affect the conservation of pancake tortoise in the project area documented. The project team managed to identify and document list of human activities which continue to degrade the natural habitat and thus threatening the population of pancake tortoise in the study area. We identified the area near Intracom Fertilizer industrial which is 60 meters from critical habitats, as an area that needs immediate conservation attention.

b). Local communities' perceptions and awareness level towards Pancake tortoise conservation assessed: We conducted interviews in four selected villages around the project area to gather data on the perception and awareness level of local communities towards Pancake tortoise in the study area.

c). Increased conservation awareness among local communities about Pancake tortoise: We conducted awareness-raising campaigns in four primary and two secondary schools, educating schoolchildren, local leaders and teachers through lectures about the conservation of pancake tortoise and its ecological and economic importance in the study sites. Pre - and post - campaign questionnaires showed increased awareness among students, teachers and local assistants in the study area.

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

One of the unforeseen challenges was local community reluctance to attend in community awareness-raising meetings which could be due to local communities' negative perceptions towards wildlife conservation caused by existing human-wildlife conflicts in the study area. To overcome this, the project engaged schoolchildren and their environmental teachers from four primary and two secondary schools.

Additionally, the project team engaged members of village environmental committees, village leaders and few willing local community members. The educated local members were expected to spread conservation messages to other village members who failed to show up, which will help to spark interest of participating in the future phase.

Another challenge was difficulties of sighting Pancake tortoise in the project site, particularly in the Vilima Vitatu hills we surveyed. This challenge was tackled by involving local village tour guide, which helped us to observe the target species successfully.

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

Local communities were fully involved in the project's activities. They participated in the habitat surveys, for instance, local members of the Vilima Vitatu village natural resources committee and a local guide, participated in the habitat survey in the Vilima Vitatu hills. The local guide and members of the village natural resource committees acquired skills and knowledge on the important habitats for pancake tortoise conservation in their local environment. Also, the local guides benefitted from an allowance based on their participation in the field work. Also, local enumerators were hired to assist with conducting interviews during household surveys in the study sites. This helped the local enumerators develop their skills and also provided them with allowances based on the number of days participated in household surveys. Lastly, local communities were involved through education and awareness raising activities. In this activity schoolchildren and some local community members who participated raised their knowledge and awareness regarding pancake tortoise during meetings and education lectures. Moreover, teachers and some community members who assisted in awareness raising activities benefitted from an allowance.

5. Are there any plans to continue this work?

Yes. I plan to continue this work as follows:

The project team plans to extend awareness campaigns to more villages surrounding Vilima Vitatu hills. Expanding outreach efforts will help educate communities bordering Vilima Vitatu hills, fostering a stronger local conservation network and increasing public support for protecting pancake tortoise and their habitats.

Additionally, we plan to continue with the research on monitoring the population trend and its habitats. This will provide essential data to inform conservation strategies and track effectiveness of conservation interventions. Furthermore, we plan to continue this work on introducing the alternative income generation activities so as to diversify the community's income and reduce the pressure on pancake tortoise and habitat degradation.

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

We plan to share the findings of our work through the following channels:

-Publications: One manuscript is being prepared and it will be submitted for publication in a peer-reviewed academic journals.

-Report: Copies of the compiled final report will be submitted to various stakeholders such as Tanzania Wildlife Management Authority (TAWA) of the Ministry of Natural

Resources and Tourism and local government authority in the project area (i.e., Babati District Council).

-Conference: We will present our research findings at Tanzania Wildlife Research Institute (TAWIRI) Scientific Conference to be held in December 2025 in Arusha, Tanzania.

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

1) **Strengthening community engagement:** There is a need to increase conservation education activities to the local communities living adjacent to Vilima Vitatu hills which host pancake tortoise but were not covered by this project. The results of this project indicated that most of the local community members were unaware of the conservation status of this endemic species, but the evidence shows that their awareness was enhanced after conservation education. Instalment of signposts with conservation messages would also help to remind the visitors of Vilima Vitatu hills on the importance of conserving Pancake tortoise and their habitats in the area.

2) **Introducing alternative livelihood activity:** Next conservation projects should also consider the impacts on local livelihoods. In collaboration with the local government (i.e., Babati District Council) and community members, we aim to start piloting alternative and environmentally friendly activities like beekeeping that can serve as alternative income sources for local communities. This approach is vital to reducing reliance on natural resources, particularly in Vilima Vitatu hills. In our surveys, we observed that communities surrounding Vilima Vitatu hills depend heavily on the natural resources for their livelihoods. By providing sustainable alternatives, we hope to mitigate the pressures on these critical habitats while enhancing the socioeconomic well-being of local residents.

3) **Pancake tortoise population monitoring:** Establish regular field surveys to monitor the population of pancake tortoise and their habitats.

4) **Restoration of the degraded habitat:** This can be achieved through reforestation as well as enhancement of the habitat to increase its capacity to preserve the current population of pancake tortoise in the study area.

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 several materials produced during the project like community outreach materials such as posters. Also, the logo was included in all presentation slides used during meetings. The project team plans to do the same thing when presenting the findings at the Tanzania Wildlife Research Institute (TAWIRI) Scientific conservation conference in Arusha to be held from 3rd – 5th December 2025, Tanzania. Furthermore, we will make sure that the Foundation is acknowledged in our manuscript prepared for publication in a peer-reviewed journal.

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

- Dr. Rehema Ulimboka – Project leader
- Dr. Moses Titus Kyando- project supervisor
- Mr. Abraham Innocent Eustace - Research Assistant
- Mr. Joseph Laizer - local coordinator from the Babati district (facilitating other enumerators during data collection)
- Mr. Laurean Lembulesi -Research Assistant
- Mr. Joseph Saitabu – Research Assistant
- Mr. Dotto Gambay – Research Assistant
- Ms. Atuganile Mwasasonga – Research Assistant (Teacher) involved in conservation education.
- Ms. Irene Mollel – Research Assistant (Teacher) involved in conservation education
- Ms. Ester Kimaro -Research Assistant (Teacher) involved in conservation education
- Mr. Joseph Malle – Research Assistant (Teacher) involved in awareness raising
- Mr. Jimson James- Research Assistant (Teacher) involved in awareness raising and/or conservation education.

10. Any other comments?

We are very thankful to The Rufford Foundation for funding this project. In addition to supporting the conservation of Pancake tortoise and its habitats in Vilima Vitatu hills in the Babati district of northern Tanzania, the foundation has helped us promote the work of biodiversity conservation and management in Tanzania. The data and experience we have obtained are immensely respected and vital for future project activities. This project is very important, as it helped us identify gaps that need to be addressed in the following project activities.

ANNEX – Financial Report
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