

## Final Evaluation Report

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Your Details	
<b>Full Name</b>	Million Abushi Tiko
<b>Project Title</b>	Ecological and anthropogenic factors influencing the status and distribution of critically endangered hooded vulture, <u>Necrosyrtes monachus</u> in south-west Ethiopia.
<b>Application ID</b>	37255-1
<b>Date of this Report</b>	30 <sup>th</sup> -August-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
To estimate the size of the hooded vulture population in the study area				The population of hooded vulture was well counted and estimates. Factors related to the population size were identified.
To map the distribution and show movement patterns of hooded vultures in the study area.				The distribution of hooded vulture in sites was mapped. The seasonal movement patterns were not yet addressed because we left out limiting GPS transmitters. Instead, we were used seasonal distribution using ground points of species confirmations.
To locate a breeding colony of hooded vultures in the study area.				In the counts, juveniles could be seen quite frequently, that was greatly predicting the sites as breeding ground, but no nest and sign has been confirmed in study period.
To raise general public knowledge about the importance of hooded vulture conservation in the study area.				Awareness was created through onsite training. The local community exhibited a will to do with all about vultures.

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

- a. The estimated population size and significant ecological and anthropogenic elements have been discovered in south-west urban region; this will be recognised in the conservation of the hooded vultures, which will inspire raptor researchers in Ethiopia.
- b. Mapped hooded vulture seasonal distribution pattern in study area that will exhaust managers efforts to implement area conservation.
- c. Raised general public awareness about species conservation that will help the species be accepted as useful, then engaged the community to conserve it on their own.

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

- a. Lack of sponsors for the GPS transmitters to track movement patterns; we solved the issues caused by the lack of GPS transmitters using seasonal distribution surveys to ground GPS points, then GIS software for verified GPS points.
- b. Difficulties in accessing expected breeding sites. During the counts, juveniles were seen quite frequently. Personnel from the local community revealed there could be breeding grounds for hooded vultures here and there, but there was no confirmation. We tried our hardest, but we couldn't see any signs or grounds. The primary cause might be that hooded vulture species conceal their nests.
- c. The cost of per diem and transportation, which was higher than what was proposed, presented another difficulty. We overcame the difficulty by altering the cost of other suggested material items to compensate for per diem and transportation, keeping the material grant from other sponsors.
- d. It was also difficult to get information from locals and abattoir workers repeatedly because they were thoughtful about payment at all times. We succeeded in extending the agreement by providing details regarding the payment limits and main goals of the project.

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

We were given three local guides to assist with the project, one at each of our locations (cities). During the socioeconomic and vulture conservation data collection period, abattoir and dumpsite workers provided information on the importance and threats to vulture conservation through their participation. Our local guides gained experience in vulture identification and surveying. They were aware of the significance of taking part in conservation and upcoming vulture projects. These guides also had a thorough understanding of the vultures' essential qualities, describing them as "the natural workers of spotlessness". The day labourers interviewed at the sites had a better understanding of hooded and other vulture uses than before the project.

Upon onsite attentiveness, the tractor driver (13 years' experience on the spot) from Jimma Landfill recommended that the project was very important to locals and would be best if it continued to train locals to aid in the conservation of these species in this area. He was ambitious if it would be paid as much as human beings for vultures' onsite work, and that was a great idea we admire in valuing vulture conservation from locals.

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

Yes, although we saw hooded vulture juveniles in every location in counts of hooded vultures, which are critically endangered, more work is required to conduct an in-depth investigation into the hooded vulture specie breeding sites and seasonal movement patterns. The need to understand the value of vulture species conservation was identified, along with the need for additional training and long-term awareness towards vulture and vulture conservation benefits. We realised that local communities serve as the foundation for the initial data needed to carry out follow-up investigations for the vulture projects. In order to promote inclusive vulture conservation against identified threats, we therefore need to relaunch the project concerning breeding sites and seasonal movement patterns, along with local community awareness and benefits. We will continue to fund the project through available NGOs and charities that are dedicated to conservation, like the Rufford Foundation.

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

In reputable scientific journals, we will disseminate the project's findings to the scientific community. The findings will also be discussed with conservation partners at accessible seminars, conferences, and workshops. I will use additional social media platforms as well. The progress plan will be displayed on The Rufford Foundation website.

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

There will be two things to do in the next few steps.

- Further searching for breeding sites and presenting the seasonal movement patterns of the hooded vulture.
- Increasing the local community's awareness through training and community education.

**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?**

I have not used the Rufford Foundation logo for project updates before, and I am going to use it in all materials that I publish regarding this project.

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

**Million Abushi Tiko (PhD candidate) (I);** His main role was working on the entire project (head, project). He carried out the main data collection and organizing. The data analysis and interpretation for writing up were also his mandatory roles.

**Dr. Tadesse (PhD, researcher, and ecologist);** He was the project's main supervisor. His main role was revising and commenting on all parts of the project. He supervised

fieldwork on the field. He will also follow data analysis and writing up and take part in publication processes.

**Dr. Evan R. Buechley (PhD, researcher):** Dr. Buechley was a project official co-advisor. His role was framing all aspects of the project (project methodology design, data analysis, writing up, and having a role in publication processes).

**Dr. Anagaw (PhD, researcher, wildlife ecologist, and molecular biologist);** His main role was co-advising. He participated in field work, supervision, and advice.

**Gutama Godana (MSc in GIS and RS, Lecturer):** His main role in this project was collecting socio-economic data and data analysis.

**Nimona Mekonnin (MSc in GIS and RS, Lecturer):** His role was collecting the onsite data as an assistant researcher.

**Gemechis Teshite (MSc in Biology):** His role was collecting the onsite data as an assistant researcher.

#### 10. Any other comments?

The Rufford Foundation made a great contribution to my work. I appreciated it all the time. As a comment, let the grant also be extended to the unceasing conservation work that we propose to do in the near future. Thank you!



Million Abushi observing vultures at Jimma city landfill and Bonga University main campus. © Gemechis Teshite.



Perching adult hooded vulture at Jimma Landfill and walking at Agaro town Abattoir. © Million Abushi.



Juveniles at Jimma University dumpsites near student Cafeterias. © Million Abushi.



Human-vulture interfaces. © Million Abushi.