

Final Evaluation Report

Your Details	
Full Name	Dereje Yazezew Mammo
Project Title	Human Wildlife conflict and Biodiversity conservation in Wof-Washa Natural State Forest, Ethiopia
Application ID	Afework Bekele, afeworksimegn@gmail.com
Grant Amount	£6000
Email Address	deredbu2003@gmail.com
Date of this Report	14 th January 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
To estimate the population size and distribution of Menelik's bushbuck				
To determine causes of human-wildlife conflict and its impact on biodiversity conservation and human livelihoods				
To assess the amount of economic loss due to crop raiding				
To develop a multimetric wildlife-based index of ecological, social and economic integrity tool				

2. Please explain any unforeseen difficulties that arose during the project and how these were tackled.

- The past 2 years were very challenging in Ethiopia. The Covid-19 pandemic imposed much suffering and many setbacks to human beings worldwide. During this time, there was a motto "stay home stay safe" for several months which deprived transportation services to study area and conducting a questionnaire survey. At the moment, transportation to the study area was by horseback and on foot whatever the situation was very challenging. In addition to the pandemic covid-19 (which was a global challenge), there was a mass massacre, displacement, chronic famine to displaced ones, and psychological, social, political, and economic instability in Ethiopia caused by the war in the northern part of the country that lasted for more than a year and devastated many things. In general, the country was under a command post that deprived of movement of people and privacy. During this blockage time, I used to call field guides and travelled to the study area by shortcut walkways selecting a safe corridor. The data was also collected with the assistance of educated local field assistants that have been trained previously.
- Economic inflation was also another burden that knocked on everyone's door. Accordingly, there was the problem of labourer cost increment for field data collection due to a decrease in value of money at the market. This challenge was solved by requesting additional logistics and other support from Debre Berhan University.

3. Briefly describe the three most important outcomes of your project.

- From this project work, I aimed to publish two peer-reviewed papers: 1) Population estimates and distribution of Menelik's bushbuck (*Tragelaphus scriptus meneliki*) using pellet count technique in Wof-Washa Natural State Forest, Ethiopia; and 2) Impact of human-wildlife conflict for sustainable livelihood and biodiversity conservation in Wof Washa Natural State Forest: a case study of Menelik's bushbuck. The papers will be published in high indexed journals like BMC Zoology, Biotropica, or Ecology and Evolution.
- Copies of basic findings will be given to the relevant and concerned stakeholders that work on the human livelihoods and biodiversity conservation such as Ethiopian Wildlife Conservation Authority, donors, and NGOs to implement remedial conservation actions.
- The findings of the study disclose the intensity of conflicts and the attitude and impact of the local communities on the distribution and conservation of Menelik's bushbuck in the study area and reveal the socio-economic and livelihoods of the communities that can be used in designing a community-based conservation action plan. Moreover, local and regional government bodies will use the data to devise feasible compensation scheme for those local communities that have been highly affected by crop raiders and needs indemnity.

4. What do you consider to be the most significant achievement of this work?

5. Briefly describe the involvement of local communities and how they have benefited from the project.

As the project took place focused on local communities and their interaction with wildlife and wildlife's habitat, the communities were key participants in the project as respondents, questionnaire data collectors, field guides, camp attendants, and field assistants. Accordingly, they have benefited economically from the project during the data collection process, especially those of data collectors, field guides, field assistants, and camp attendants. Others have also benefited from renting pack animals like horses and donkeys. They also benefited in knowledge acquisition with regard to data collection that may be used in future research participation. In the meantime, the community members involved in this project have publicised the aim of the project and the mission of The Rufford Foundation.

6. Are there any plans to continue this work?

Yes, I have planned to study the integration of biodiversity conservation with the engagement of local communities in animal husbandry and beekeeping to develop resilient biodiversity conservation in Wof-Washa Natural State Forest.

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

I planned to share the results of the project in three modalities:

- Through publications: two peer-reviewed scientific papers will be published in highly indexed reputable international journals.
- On social media: like Twitter, Facebook, LinkedIn, and others to reach those individuals and organisations working on biodiversity conservation.
- Through workshop and conference presentations as well as sharing of a copy of the report and results to the funding agencies, relevant local, regional, and federal government and non-governmental agencies. In so doing, the study area will get progressive attention from the government and conservation stakeholders who work proactively whereby the conservation of biodiversity of the area substantially improved.

8. Timescale: Over what period was the grant used? How does this compare to the anticipated or actual length of the project?

The time duration: February 2020 to July 2021. Percentage from the total project period: It is 100% of the project duration.

9. Budget: Provide a breakdown of budgeted versus actual expenditure and the reasons for any differences. All figures should be in £ sterling, indicating the local exchange rate used. It is important that you retain the management accounts and all paid invoices relating to the project for at least 2 years as these may be required for inspection at our discretion.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Transportation costs				
Local travel cost	350	350		
Transport fee for Car rent and fuel to the study area	702	702		
Costs for services related to field work				
Per diem for field assistant and key informants	610	610		
Per diem for local field guide	480	480		
Per diem, Food and accommodation for researcher	1950	1950		
Stationery items and Expendable supplies and services				
Stationery items	200	200		
Herbarium size plant press sets	120	120		
Batteries for torch and GPS	140	140		
Portable Power Bank	300	300		

Remote sensing and GIS tools	310	310		
Mountain Hardware Scrambler 35L Backpack	160	160		
Rocky® 16" Prolight Snake Boots	129	129		
Hypsometer, for measuring the heights of trees	121	121		
Range finder, to measure the distance of the animal from the observer	178	178		
Data storage device/Hard disk drive	75	75		
All-Terrain First Aid Kit	175	175		
Total	6000	6000		Exchange rate during obtaining the fund: £1=41.6575

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

The current situation and biodiversity degradation in Ethiopia depict that conservation efforts need to be given special attention more than ever before. Therefore, the next steps to be accomplished are finalising the publication works of my previously completed and current project works along with investigating community-based conservation activities for the welfare of wildlife species in Wof Washa Natural State Forest. Through my evaluation, the situation shows how much I need to be in hurry to finalize all publication works, be it Omo River guereza project findings or this project finding that is deemed to be published solely by myself or in collaboration with other project participants. My publication work (Population size and habitat preference of the Omo River guereza (*Colobus guereza guereza*) in a multi habitat matrix in the central highlands of Ethiopia-published in Primates) and completion of fieldwork for this project in the time of pandemic COVID-19 and political unrest (war in Ethiopia) sparks invincibility to gear and shape my efforts for further commitment.

11. 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?

Although I did not use the logo for this project previously, I will use the Rufford Foundation logo in all of the materials that I disseminate in relation to this project.

The Rufford Foundation receives publicity in two main pillars. Firstly, I have been publicising The Rufford Foundation through my interactions with local people, government officials, and academic colleagues in Ethiopia and abroad before and during this project work. Secondly, The Rufford Foundation has been publicised through seminars, conferences, and publications that I disseminated from both my previous project and this one.

12. Please provide a full list of all the members of your team and briefly what was their role in the project.

Addisu Mekonnen, PhD, Centre for Ecological and Evolutionary Synthesis (CEES), Department of Biosciences, University of Oslo, Norway, Principal organizer of Ethiopian Primate Research and Conservation group. He diligently works with data analysis and in revising draft papers in both previous and current projects to publish and disseminate the project findings.

Tilahun Getachew, GIS and Remote sensing expert, Amhara Regional Agricultural Research Institute (ARARI). He played a role in developing GIS-related data.

13. Any other comments?

In this era of uncertainty and challenging times due to natural disasters and political instability in every corner globally, aspiring progressive increment in problem-solving research outputs and benchmarking best practices are very crucial to untie these aforementioned bottlenecks. The role that The Rufford Foundation played to fill the gap of financial constraints and scaling up proactive research efforts focusing on wildlife conservation deserves utmost appreciation. Therefore, publishing results as fast as possible is so good to bring meaningful changes in biodiversity conservation and improve the livelihoods of society.

Moreover, publishing our project findings is crucial to acknowledge conservation-lead funders (The Rufford Foundation) and to make ease of dissemination of the project findings to the wider international scientific communities in order to trigger wildlife conservation.