

## The Rufford Foundation

### Final Report

---

Congratulations on the completion of your project that was supported by The Rufford Foundation.

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. The Final Report must be sent in **word format** and not PDF format or any other 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. Please be as honest as you can in answering the questions – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

Please complete the form in English and be as clear and concise as you can. Please note that the information may be edited for clarity. We will ask for further information if required. If you have any other materials produced by the project, particularly a few relevant photographs, please send these to us separately.

Please submit your final report to [jane@rufford.org](mailto:jane@rufford.org).

Thank you for your help.

**Josh Cole, Grants Director**

---

Grant Recipient Details	
<b>Your name</b>	Angelamercy Baltazary
<b>Project title</b>	Vigilance and Grass Regrowth Under Wild and Domestic Herbivore Use In Ngorongoro, Tanzania
<b>RSG reference</b>	23688-1
<b>Reporting period</b>	Final report
<b>Amount of grant</b>	4,882GBP
<b>Your email address</b>	baltazarya@nm-aist.ac.tz
<b>Date of this report</b>	24/7/2019

**1. Please 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 whether wildlife is less vigilant when grazing together with or in the vicinity of livestock				One paper published
2.To identify under which grazing frequency livestock can enhance vegetation quantity in Ngorongoro rangelands				Manuscript in preparation
3.To assess the spatio-temporal grazing regime of herded livestock groups in Ngorongoro rangeland				Manuscript in preparation

**2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).**

As a woman to deal with Maasai was very difficult even if I had a translator. I had to learn some Maasai words in order to convince them to listen to me. Finally, I managed to cope and they gave me cooperation.

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

- a) We provide baseline data of the sound Livestock Grazing Management Plan (LGMP). The report will be submitted for further consideration to make an informed decision on how to use livestock to improve forage production in Ngorongoro for both livestock and wildlife.
- b) Conflicts over the shared grazing land reduced by contributing to sustainable use of rangelands through livestock Grazing Management Plan.
- c) Awareness raised among pastoralists on the importance of their livestock for ecosystem wellbeing.

**4. Briefly describe the involvement of local communities and how they have benefitted from the project (if relevant).**

The study involved local people from the initial stage to last stage. Participatory Rural Appraisal (PRA) was used to identify locations of different grazing intensity through resource mapping jointly with the Maasai pastoralists. Mapping was done in the presence of pastoralists and different types and locations of grazing areas used

were located in two areas of different grazing pressure (high and low grazing pressure, according to Maasai pastoralists guided by a facilitator). Also the area where direct observations were conducted was on collaborations with Maasai. Therefore, through PRA and joint vegetation surveys with the pastoralist community, recommendations were made to pastoralists directly.

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

Yes, I will continue with this work on the gap seen during the study but also will continue with it during PhD project.

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

- Forthcoming conference for Tanzania Wildlife Research Institute (TAWIRI) in December 2019 in Tanzania, where various stakeholders will take part.
- Publications in international peer reviewed scientific journals
- Share with stakeholders in form of report

**7. Timescale: Over what period was The Rufford Foundation grant used? How does this compare to the anticipated or actual length of the project?**

Research fund was used in 10 months different to the real period of 1 year. I anticipated to finish field data collection within six months but due to difficulties and logistical challenges encountered during field data collection Project activities are still supported by the Nelson Mandela's Centre of Excellence (CREATES) in Food and Nutrition Security.

**8. Budget: Please 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.**

Item	Budgeted Amount	Actual Amount	Difference	Comments
Organizing outreach program with pastoralists and secondary school students on conservation activities	109	2800	+5355	No of days increased
Living expense in the field	19	1760	+1741	Inflation during tourism high peak
Transport to and from Ngorongoro Conservation Area	29	80	+51	Inflation during tourism high peak

Key informants and PRA materials to use	292	685	+393	No of days increased because it was difficult to meet with pastoralists due to their herding strategies of shifting from one area to another
Moving cages materials( chicken wire, metal stick)	142	750	+608	Inflation during tourism high peak
Field equipment(GPS, Rangefinder, binocular)	500	500		As budgeted
Car hiring during studying vigilance behavior (3 months)	3900	3519	-381	As budgeted
<b>TOTAL</b>	<b>4991</b>	<b>9594</b>	<b>+4603</b>	

Local exchange rate was 1£ = 3000.65 TSH

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

After knowing on how the livestock grazing influence the foraging behaviour of wild herbivores and grass regrowth, the next planning activities is on how livestock grazing influence grass biomass on the same plots and to measure on how soil properties has effect on grass regrowth. Therefore, I am planning to request for further financial support from the Rufford Foundation grants to assist me finish my planned research activities.

1. Assessment on influence of livestock grazing on grass biomass.
2. To test an efficient of soil properties on grass regrowth.

### 10. Did you use The Rufford Foundation logo in any materials produced in relation to this project? Did The Rufford Foundation receive any publicity during the course of your work?

Yes, in graduate seminar presentations (public lecture at university campus and reports produced during the course of the project. Rufford Foundation has been acknowledged in the thesis I submitted and paper published. I will further use the logo for any other presentation in relation to my study.

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

#### **Anna Treydte – (Main Supervisor)**

She is a Senior Lecturer in the School of Life Sciences and Bioengineering at the Nelson Mandela African Institute of Science and Technology (NM-AIST). She is the overall supervisor making sure the all study objectives are achieved. She is an Agro-Ecology expert, also she visited field during data collection.

#### **Eivin Røskaff – (Co –supervisor )**

He is a professor in evolutionary biology at the Department of Biology at Norwegian University of Science Norwegian (NTNU). He is still a supervisor on animal behaviour part and analysis

**Jacob Judah – (Field Assistant)**

He is a guide from Ngorongoro Conservation Area and he was a field assistant and translator during data collection.

**Juma Mkwizu – (Driver)**

**12. Any other comments?**

I realised that a 1-year period was not adequate to fulfil the project activities in the frame of my work. Possibly, an extension can be considered based on the beneficiary suggestions. I am very grateful to the Rufford Foundation for the financial support. I am thankful to my employer, Tanzania Wildlife Management Authority (TAWA) for granting me a study leave for MSc studies. Additionally, I am thankful to the Tanzania Wildlife Research Institute and Ngorongoro Conservation Area Authority for permit to carry out the study.