

## The Rufford Small Grants Foundation

### Final Report

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

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. 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. 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>My name</b>	Solomon Ayele Tadesse
<b>Project title</b>	Potentials and opportunities of community-based wildlife conservation and ecotourism in the Munessa-Shashemene dry afro-montane forest, south-eastern Ethiopia.
<b>RSG reference</b>	Final project report
<b>Reporting period</b>	May 2010 - May 2011
<b>Amount of grant</b>	£6,000
<b>My email address</b>	<a href="mailto:ayesolom@yahoo.com">ayesolom@yahoo.com</a> or <a href="mailto:tadesse@bgu.ac.il">tadesse@bgu.ac.il</a>
<b>Date of this report</b>	July 26, 2011

**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
Build the capacity of local communities through training programs in the joint management of ecotourism, wildlife, and livestock farming.			Yes	Many of the local people in the project area were very interested to participate in the capacity training programme so that it was a challenge to select a few among the many. This is because almost all of the local communities were demanding to be benefited from the training programme.
Apply and test novel approaches based on behavioural indicators to measure the sustainable carrying capacity of the Munessa forest to support wildlife and livestock.		Yes		Due to the intensive human and livestock disturbances in the project area, the Mountain Nyala in Munessa were very shy and vigilant in their behaviours. As a result, the Mountain Nyala were not interested to get acclimatised to the feeding trays. So, carrying out the actual feeding tray experiments in the field was a difficult task as it took extended period of time and additional labour costs.
Investigate the major environmental and anthropogenic factors affecting the habitat quality and foraging ecology of the endangered Mountain Nyala.			Yes	
Develop habitat suitability and behavioural models from the habitat characteristics of Mountain Nyala (indigenous herbivores) and the livestock species (domestic herbivores).			Yes	

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

The feeding roads through the Munessa forest were too muddy to drive a field vehicle after the heavy rains in the rainy season. So, we were obliged to walk on foot several kilometres to accomplish the field work in the rainy season.

Before carrying out the actual field work, we were assuming that the endangered Mountain Nyala in Munessa are mostly active during the daytime. However, due to the intensive human and livestock

disturbances in Munessa (e.g. poaching, illegal tree cutting for fuel wood and commercial purposes, and free-range livestock grazing), the Mountain Nyala have changed their behaviour to become active during the nighttime. As a result, this was a challenge to conduct the day light censusing to estimate the activity densities of free-ranging Mountain Nyala in different habitats. So, we used spotlight as additional technique to conduct the Mountain Nyala censusing during the night time.

Getting reliable population estimates of an elusive species such as the Mountain Nyala, especially in the dense natural forest habitat where the visibility is very poor, is a difficult task through direct counting. To increase the precision level of the population estimates through direct observations, pellet group counts could be an appropriate technique. In this study, having identified the core areas of Mountain Nyala, pellet group counts were carried out along permanent transects to estimate the activity density of Mountain Nyala in the dense natural forest habitat in Munessa. To carry out the pellet group counts, we systematically aligned a circular sample plot with a radius of 5 meters at 100 meters interval along each transect in all core areas of Mountain Nyala.

Hiring a vehicle from private sectors for the field work was found to be damn expensive in Ethiopia. As a result, we formally requested Wondo Genet College of Forestry and Natural Resources in Ethiopia to provide us with a vehicle support. The college was much interested in the project idea so that willingly provided us with the vehicle support for the field work with a reasonable daily payment for the service we earned. So, we would like to acknowledge the college on behalf of the project for the vehicle support provided for the field work.

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

The project produced ecological models using leading behavioural indicators. By doing so, the project developed innovative approaches which assist the local decision makers to introduce and implement comprehensive land use plans that enhance rural development in the Munessa forest. In addition, the management driven research aim of the project provided an immediate partnering of scientists and local communities seeking empowerment and development by integrating ecotourism, wildlife conservation, and traditional livestock farming.

The project produced relevant data through field day discussions, questionnaires, and focused-group discussions administered to local authorities and representative local people residing around the project area. We believe that those field data are relevant to know more about the endangered Mountain Nyala and their habitats which ultimately help to device integrated community-based wildlife management plans and conservation strategies in the project area. So, once we finish the data analysis and write up of the manuscripts, we have a plan to produce scientific articles. Hence, this plays crucial role to improve the knowledge of the scientific communities about the conservation and management of the endemic Mountain Nyala and their habitats in the Munessa-Shashemene forest.

Capacity building through training programme often creates awareness, increases positive attitudes toward the conservation of natural resources and bio-cultural diversity, and possibly creates job opportunities. This is commonly achieved by increasing skills and knowledge of the trainees toward the intended goals. In the case of this project, the training opportunity rendered by this project increased the competence of the local communities toward the conservation and sustainable utilisation of natural resources and cultural heritages in Munessa. Moreover, the Munessa forest is situated very close to the famous tourist destination (i.e. Lake Langano). A number of comfortable

private safari lodges have been built around Lake Langano (e.g. Bishan Gari lodge, Wenney lodge, Sabbana beach resort, etc.). So, developing the project area for wildlife-based tourism and ecotourism is identified to be a promising business. This in turn likely creates job opportunities in the form of local tourist guiding services and souvenir selling activities especially for those individuals who actively involved in the training program.

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

Successful species and habitat conservation and management relies on the support of local people. The connection between ecological knowledge and conservation success has led to a growing sense among ecologists and field practitioners that social factors are often the primary determinants of success. However, in our project area, the local communities had limited experience with scientific knowledge on wildlife ecology, management, and ecotourism. As management driven research, our project required local communities to develop the capacity to understand the concepts, principles, and techniques, and participate in and succeed at community-based ecotourism and wildlife management in Munessa.

Disadvantaged local communities living in the adjacent four peasant associations (namely, Argeda-Shaldo, Degaga, Senbero-Rogicha, and Goljota peasant associations) to the project area were selected through formal discussions held with elderly people and local leaders. The communities provided local expertise on the study site, the research species, and the previously disadvantaged communities. Accordingly, the project gave formal training opportunity to the twelve individuals of disadvantaged local communities selected from the previous four peasant associations. The training was given for fifteen consecutive days. We used the local "Afan Oromo" language to deliver the training.

The selected disadvantaged local trainees got theoretical and practical knowledge and skills on the following major themes:

- Foraging theory and behavioural indicators.
- Application of foraging theory and behavioural indicators to wildlife and range management.
- Field visits to the project area and practising data collection techniques on wildlife population censusing, habitat variable measurements, giving-up-density measurements, and bite diameter measurements.
- Environmental, economic, and social benefits of wildlife and ecotourism.
- Assessing and identifying ecotourism potential sites.
- The need for community-based wildlife conservation and ecotourism.
- Involvement of local people in ecotourism for sustainable wildlife management.
- Integrating community-based wildlife conservation, ecotourism, and traditional livestock farming.
- Community-based ecotourism project plan formulation, implementation, monitoring, and evaluation.
- How to provide tour guiding services.
- Assessing the needs and satisfactions of tourists and eco-tourists.
- General discussions on strengths, weakness, opportunities, and threats of community-based wildlife conservation and ecotourism elements.

Through building human capacity, the training assisted the local people to gain both theoretical and practical knowledge and skills which increased their competence for the joint management of wildlife, livestock, income generation, and community-based ecotourism. The project paid daily allowance to the 12 trainees during the 15 days training period. After completing the 15 days training, we hired the local trainees to involve in the data collection activities so that they were paid a reasonable amount of money for their contribution in the field work. The involvement of the local people in the extensive data collection activities also increased the experiences of the local people about wildlife-based research and ecotourism.

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

After completing my PhD studies, I will return to Ethiopia in order to continue this work. At that time, a greater number of local communities and multi-disciplinary professionals will involve in the project plan preparation, implementation, monitoring, and evaluation phases. This helps to enhance integrated natural resources conservation that ultimately promotes rural development at large in Munessa.

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

We plan to share the results of our work with others through presentations and discussions which will be held on formal workshops and seminars, and also through producing posters and scientific publications.

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

The RSG was used for a period of 1 year i.e. from May 2010 through May 2011. So, we are very pleased that the period was fit to the actual length of the project.

**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
Costs for managing the field vehicle	1,493	1,688	195	The increase in the cost of fuel and lubricants from time to time compared with the budgeted amount is believed to be the main reason for such difference
Salaries and per diem	2,925	2,925		
Materials and supplies	1,301	1,435	134	The rapid increase in the cost of materials and supplies with time in Ethiopia compared with the budgeted amount is found to be the main reason for such budgetary deficit

<b>TOTAL</b>	<b>5,719</b>	<b>6,048</b>	<b>329</b>	The additional cost was covered from the contingency budgets and some monetary support obtained from the regional government in Ethiopia
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**9. Looking ahead, what do you feel are the important next steps?**

In wildlife management, attitudes of people are positive or negative responses to a particular species. So, we feel that the followings are some of the important next steps to be done in the project area.

- We believe that continuous follow up is due action in the project area in order to evaluate the attitudinal changes of the local communities toward the conservation of natural resources in general and wildlife (e.g. Mountain Nyala) in particular.
- As things are always in dynamism, we recommend that additional ecological and social studies in Munessa should be future research directions.
- Promoting public awareness about wildlife conservation and ecotourism should be emphasised in Munessa in the future.

**10. Did you use the RSGF logo in any materials produced in relation to this project? Did the RSGF receive any publicity during the course of your work?**

No, we did not. This is because we have not yet produced any materials in relation to this project. However, once we finish the data analysis and write up of the manuscripts, we have the plan to produce scientific articles in relation to this project. To this end, we are very pleased to acknowledge the RSGF for funding our project. Moreover, local communities, local governmental and non-governmental officials and professionals in the project area were well informed about RSGF. So, it is worthwhile to mention that all of them appreciated and were very thankful to RSGF for funding this relevant project which encouraged the local stakeholders to devolve in ecotourism, wildlife conservation, and research through building their capacity and competence.

**11. Any other comments?**

All are ok so that we do not have any other comments at this level.

## Field Pictures



Left: The picture of adult male Mountain Nyala (our study species) taken in the Munessa forest. Right: The picture of local people taken while they were illegally encroaching wood products from the Munessa forest



Left: The picture of natural forest in Munessa. The natural forest provides diversified palatable forages and cover for Mountain Nyala. Right: The picture of a stand of plantation forest (*Cupressus lusitanica*) in Munessa. The plantation forest serves as corridor and cover for Mountain Nyala.



Left: The picture of an open area in the Munessa forest which serves as a typical foraging ground for Mountain Nyala especially in the rainy season. Right: Local people participated in the capacity training program provided by our project. Two of their trainers were also included in this picture. The picture was taken during the field day and focused group discussions held at the edge of young plantation forest in Munessa.



Left: Cardboard filled with food pellets kept in the field which we used to acclimatize the Mountain Nyala for the feeding tray experiments in the Muessa forest. Right: The picture of livestock taken while they were illegally grazing at the edge of the Muessa forest. The local people regularly drive their livestock into the Muessa forest for free-range grazing.