

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.

Thank you for your help.

Josh Cole, Grants Director

Grant Recipient Details	
Your name	Karl Wurster
Project title	Does Management Matter?: Assessing the Effects of Charcoal Production and Management on Woodland Regeneration in Senegal
RSG reference	RSG 38.10.07
Reporting period	January 2008 – May 2008
Amount of grant	£4102
Your email address	kwurster@umd.edu
Date of this report	Nov 22, 2008

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) Assessing the sensitivity of satellite technology to detect changes in forest cover in charcoal production zones			X	
2) Determining the regional and local effects of charcoal production on forest regeneration rates and biomass			X	
3) Assessing the effect of varying management strategies on a sustainable charcoal harvest			X	

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

Before arriving in Senegal both of my proposed field staff informed me they would not be available to assist full-time with the research. Both of the proposed members of the field team assisted me in quickly finding qualified replacements for them before the actual fieldwork began in the beginning of February 2008.

Transportation to and from more remote study sites was difficult. To solve this problem a 4x4 vehicle had to be rented on a couple of occasions to allow us to access villages and forests far off the main road and away from local transportation. To access villages near to main roads a local driver was hired to drop us off and pick us up from these locations.

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

The three main results of this project are: 1) the better understanding of regeneration and species composition; 2) sharing of results with local management projects; and 3) recording of local knowledge and practices related to charcoal production.

Based on this research it is concluded that regeneration of tree species is occurring in the Tambacounda region at a slow rate and in only a handful of species. Trees commonly used for charcoal (Family Combretaceae) are regenerating well and are re-harvested after approximately 6 to 7 years. Other tree species are not regenerating nearly as well. In many cases, larger, slower growing trees (i.e. Sterculiaceae and Bombacaceae) lack seedlings or saplings.

Based on the surveys of local charcoal producers, frequent fire activity, heavy grazing pressure and the over-harvesting of mature adults trees are the most probable causes for the lack of regeneration of these large tree species. In spite of land management strategies aimed at limiting the access and impact of the local population to the forest, many people are dependent on it for income through the collection of timber and production of charcoal. They recognize that the forest is becoming less diverse and are very interested in new ideas that could help reverse this trend.

These results are being communicated with local and international forest management agencies. The results have been well received and are being used to inform new forest management practices in the region.

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

People in each village were very excited to assist with this research project. In total, over 35 individuals from 11 local communities assisted in the age validation of historical charcoal production sites, tree species identification, and provided a local explanation of ecology and land use practices surrounding the harvesting of trees for charcoal production. Local participants hope that this information will help inform management agencies on how to best manage the forests in the Tambacounda region.

Housing (usually a small hut) and food was provided to us by the village chief in each of the 11 villages visited. To alleviate the extra cost of visitors, we provided each family with monetary compensation and also brought extra produce to the village.

5. Are there any plans to continue this work?

Yes, I would like to revisit plots in 3 and 6 years to re-assess growth rates and discuss how new forest management policies and programs have altered local forest ecology.

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

The results from this project are currently being written up as results part of PhD dissertation and will be later published in a relevant ecological journal. In Dec 2008, a portion of the field results were presented to over 50 NASA scientists. In February 2009, the results of this field work will be presented to numerous individuals at the US Agency for International Development. This is a very important presentation as much of the management of the forests in the study region are managed by a USAID funded project called Wula Nafaa.

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 from January to June 2008. The original plan was January to June. The timeline was accurate. Field work was collected over 4 months. I spent 3 weeks before and after the field work for preparation and pack-up.

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
Field assistant salaries + per diem	£2660	£1843.21	£816.79	Salaries were less than budgeted as Dr Manga and Mr Boiro were not available to assist with data collection in the field. Dr Manga and Mr Boiro

				served as consultants before and after the data collection. Mr Bakari Leigh and Mr David Boubane were hired to assist with field work. Mr Leigh was recommended by Mr Boiro and Mr Boubane was recommended by colleagues of Dr Manga at the University of Cheikh Anta Diop, Dakar.
Transportation	£400	£722.86	£-322.86	Transportation costs exceeded the original budget because villages randomly selected for data collection were very remote and required the renting of a vehicle to access.
Lodging	£392	£786.14	£-394.14	Lodging exceeded expected cost due to a higher hotel daily rate than anticipated.
Equipment	£250	£381.40	£-131.40	Additional costs for equipment were due to the purchase of pre-paid phone cards for field assistants and photocopying expenses.
Local payments	£400	£405.22	£-5.22	Local payments were approximately as expected.
TOTAL	£4102.00	£4138.82	£-36.82	

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

The important next steps are to finish the papers based on this research and communicate the results to both the scientific community and the forest managers in the field. The USAID funded project focusing on charcoal extraction in this region has been renewed for an additional five years and the results and lessons-learned from this field work will serve as valuable data in how to manage the forest environment.

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?

Yes, logo was on presentations given at NASA conference in Pasadena, CA USA.

11. Any other comments?

I would like to sincerely thank The Rufford Small Grants Foundation for their generous support. I would also like to thank my field assistants Bakary Leigh and David Boubane for their dedication and hard work in some difficult working environments.