

## 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>Your name</b>	Guillaume Tenekwetché Sop
<b>Project title</b>	Diversity, utilisation and dynamics of woody species in the Burkina Faso Sahel, with focus on local knowledge.
<b>RSG reference</b>	20.02.08
<b>Reporting period</b>	June 2008 – January 2010
<b>Amount of grant</b>	£5955
<b>Your email address</b>	<a href="mailto:tene_sop@yahoo.fr">tene_sop@yahoo.fr</a>
<b>Date of this report</b>	20 February 2010

**1. Please indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.**

<b>Objective</b>	<b>Not achieved</b>	<b>Partially achieved</b>	<b>Fully achieved</b>	<b>Comments</b>
Assess woody plant diversity and the perception of their dynamics by means of local knowledge			<b>Yes</b>	Based on the predefined questionnaire, we did ethnobotanical interviews with local people in four ethnic groups (Samo, Gourmantché, Mossi and Fulani) of the Sahelian area of Burkina Faso. The number of villages sampled was reduced to 25.
Document the socio-economic importance of the sampled species			<b>Yes</b>	From the interviews with local people, multipurpose woody species were classified into 5 categories (food, construction, medicine, firewood, fodder and handicraft).
Identify frequently used species that are threatened or that have already disappeared			<b>Yes</b>	Discussions with local people allowed us to gather first-hand information on species they considered to have disappeared, to be declining or threatened.
Population structure of some species of socio-economic importance		<b>Yes</b>		In all the ethnic groups where we carried out interviews, there were so many species listed as endangered, that it became unrealistic to study the population structures of these species. We partially recorded the demographic characteristics of 2 woody plants ( <i>Pterocarpus lucens</i> and <i>Anogeissus leiocarpa</i> ). The second phase will allow us to extensively study the population structure of 8 -10 species.
Sensitization against deforestation, bushfires and unsustainable extractive practices (bark extraction, roots sample, etc.)			<b>Yes</b>	Although education campaign is a permanent process, we think we have achieved a good job. In all villages where we worked, after individual interviews, an information-education session was organised with the community leader to share knowledge on the disadvantages of bushfires on the regeneration of woody species and to promote sustainable extractive practices on woody plants.
Germination trials for a few species (material for laboratory and nursery)		<b>Yes</b>		We decided to fully study this during the second phase. But we carried out a pilot trial on <i>Anogeissus leiocarpus</i> and <i>Pterocarpus lucens</i>

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

The ethnobotanical interviews with local people were more difficult than we expected. In several villages, some people that we interviewed were not really enthusiastic. We overcame this difficulty by involving the communities' leaders after having explained the aim of our research.

One of most difficult tasks was to find female candidates for interviews. We initially planned to work on a gender balance basis by interviewing an equal number of males and females. This aimed at exploring if local knowledge of plants is likely to be influenced by gender. Few females discussed spontaneously with us while a very large number were reluctant to respond to our questions without the permission of their husbands. It then became very difficult to continue focusing on a gender balance.

The last problem was logistical. Most of the roads were in a very bad condition even during the dry season. Consequently, we decided to use four-wheel drive vehicles for a longer time than expected.

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

(i) Woody species of social economic importance and their valuation category (food, medicine, forage, wood, construction, and handicraft) are listed in the four ethnic groups that were considered in this study (Fulani, Gourmantché, Mossi and Samo).

(ii) More than 90 % of the recorded species were perceived by the local people as “declining” while a few of them were mentioned as “drastically declining” and /or “seriously threatened” species. In the four assessed ethnic groups, the following woody plants were perceived as seriously threatened: *Securidaca longepedunculata*, *Adansonia digitata*, *Azelia africana*, *Bauhinia rufescens*, *Vitellaria paradoxa*, *Pterocarpus erinaceus*, *Anogeissus leocarpa*, *Boscia senegalensis*, *Bombax costatum*, *Parkia biglobosa*, *Acacia senegal*, *Pterocarpus lucens*, *Pterocarpus erinaceus*, and *Annona senegalensis*.

(iii) The causes of species decline were recorded. According to local people, the reasons of species decline are in priority order: (1) drought; (2) unsuitable land-used practices (bushfires, wood cutting and extension of agricultural lands); (3) population increase; and (4) ageing of tree populations and lack of regeneration

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

Local communities have been involved in the field investigation.

The results of this project are based on information given by local people. Without a tight interaction with local communities nothing would have been achieved. Most people really understand the goal of the project and really contributed to it achievement. In all the villages explored, two field assistants were recruited (and paid on a daily basis) to facilitate contact with the local people.

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

Yes, of course!

This project was just a first stage. The next phase is to study the population structures of some key species that have been mentioned by local people as endangered. The aim is to validate the perception of local community on species dynamics. Local knowledge and population structure have shown to be relevant tools to assess population dynamics in many areas of the world.

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

Scientific publications are planned. Two papers are already underway:

- 1 - "Comparative study on the valuation of woody species in four ethnic groups of the Sahelian zone of Burkina Faso" - in preparation and is intended to be submitted to *Biodiversity and Conservation*.
- 2 - "Population dynamics of four woody species in different ethnic domains in the Sahelian area of Burkina Faso" - submitted to *Forest Ecology and Management*.

NGO and conservation administrations in the area covered by the project will be also informed on the outcomes of the project.

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

The grant was used from June 2008 to January 2010. We had to repeat interviews in many villages in October 2009 because the September 2009 floods in Burkina Faso destroyed part of equipment and the recorded information.

## 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
<b>I-Equipment</b>				
Field equipment - laptop, digital camera paper, pens, printer, etc.	1150	1325	-175	Equipment material was more expensive as budgeted. We received less money (in euro) than expected because the Pound lost value.
<b>II- Allocations for local team /Accommodation</b>				
	960	1168	-208	The difference is due to the fact that more people were needed than expected (consultants, field assistants and guides). Accommodation in guest houses during field trip also generated the gap.
<b>III- Transport and Fuel</b>				
Car hire	750	1250	-500	We needed the car (e.g. more fuel) for more days than expected.
Purchase of a motorbike	600	580	+20	General inflation is also to be incriminated.
Repair charges for motorbike	0	60	-60	

Fuel	430	575	-145	
<b>IV – Other activities</b>				
Germination trials (material for laboratory and nursery)	825	100	+725	We started some germination trials but could not complete them because we readjusted our general plan to put priority on ethnobotanical interviews.
Education campaign	590	418	+76	
Report back workshop	300	0	+300	We cancelled the report back workshop in order to finance other unforeseen activities. A formal report-back workshop is scheduled for later, when all the phases of the project are completed.
<b>V-Air tickets</b>				
Transport of the applicant from Hamburg to Ouagadougou	0	0	0	As specified in my application, the air tickets were supported by me in order to allow that much money as possible is injected by the project.
<b>VI-Miscellaneous</b>				
Presents for traditional authorities and dignities	200	190	+10	
<b>VII- Unforeseen</b>				
Hospital costs and medicine for a guide after an accident.	150	286	-286	One of our guides was seriously injured in Sept. 2009 in a Motorbike accident during the field trip. We had to cover all the charges induced by his hospitalisation. I was also injured, but my travel insurance in Germany endorsed the charges.
Excess luggage	0	50	-50	I had to transport some project equipment from Hamburg, and this generate excess luggage that was paid by the project
Book (Ethnobotany: A Methods Manual)	0	30	+30	We found this book relevant for the project and we purchased it. It was very helpful.
	<b>£5955</b>	<b>£6032</b>	<b>£ -77</b>	

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

I wrote in my application that a second phase is planned. I think it is absolutely important to study the population structure of few species that have been mentioned as declining or threatened by local people during ethnobotanical interviews. Using the method of size class distribution (SCD) (Condit et al. 1998), I am planning to study the population dynamics of up to 10 important species in order to determine if their dynamics are similar to the trend perceived by local communities during the ethnobotanical interviews.

Germination experiments with the seeds of threatened species are also foreseen. Restoration experiments on degraded sites are also to be achieved using some of the endangered species.

**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. For our presentations during conferences and congresses, we used the RSGF logo to indicate the funding institution. For poster presented during scientific meetings, the RSGF logo has been used and will still be used for all talks and information materials based on the results of this project.

**11. Any other comments?**

I must confess that the project as planned was a bit pretentious. Beside the wideness of the study area we realised in the field that the amount of work to be done was underestimated. We then decided to redefine the priorities and the budget accordingly. At the end of the day, I am happy with the work we did although I would have like my budget to be more equilibrated. For sure, we have learned a lot from this project, and I am convinced that the second phase, if attributed, will be more fluent. The purchased equipment will be used for the second phase.