

## 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. 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>	Orou G. Gaoue
<b>Project title</b>	Population dynamics of <i>Voacanga africana</i> and implications for its conservation in Benin
<b>RSG reference</b>	05.06.09
<b>Reporting period</b>	December 2009 – July 2011
<b>Amount of grant</b>	£5987
<b>Your email address</b>	<a href="mailto:ogaoue@gmail.com">ogaoue@gmail.com</a>
<b>Date of this report</b>	September 12, 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
Assess local harvest and trade of <i>Voacanga</i>			x	We surveyed populations throughout out Benin and found out that the species is more widespread than we anticipated but populations are often under pressure from land clearing and harvest for firewood and seed. There is a burgeoning trade network for the seed.
Demography and populations dynamics			x	We surveyed populations of <i>Voacanga</i> through out Benin and established permanent plots to document population demographic structure. We found <i>Voacanga</i> in plantations of <i>Acacia</i> and in old fallows. The structure of <i>Voacanga</i> population revealed a dominance of small-sized individuals, mainly re-sprout after fire or cut for firewood. The populations are maintained through vegetative reproduction and density of seed-originated seedling is low and seedlings are missing in many populations. We concluded that if current harvesting intensity (for firewood and seed) is maintained, <i>Voacanga</i> will persist in its habitat.
Report and public awareness			x	We conducted one and one semi-formal discussion with key stakeholders in the Forestry department (at the Division of Forest Monitoring) to inform about the conservation status of <i>Voacanga</i> , in terms of where the populations are and what parts are local people harvesting from them and local people of contact at village level. We also shared the draft of our final report with the Forestry department for in-depth use. We developed a new approach to communicating our results which is detailed in #6

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

The team leader had gone through some health issues and this has delayed the implementation of the project. However, this did not affect the quality of the work and all of our objectives have been met.

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

*Voacanga africana* is widespread in Benin, more than we anticipated and more than it has been reported in existing literature. The species is found in various parts of the country but often in low density (of 1 to 10 individuals scattered) and this makes it difficult to locate when you are not specifically studying the species. Previous studies that reported distribution of the species were based on global vegetation survey.

Density of *V. africana* is very high at places because the species is a strong sprouter. It is harvested for firewood and would re-sprout vigorously after cut yielding in some cases more than 50 new shoots that rarely die.

Similar to a previous species we studied in our first RSG grant, *Rauvolfia vomitoria*, *V. africana* was found in fallows of various ages (young, old) but also in the understory of exotic plantations (of *Acacia auriculiformis*). This emphasizes the role of plantation in preserving biodiversity.

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

*Voacanga* is harvested by local people for firewood and seeds. The seeds are commercialised and there is a burgeoning trade. To study this component of the project, we involved local people as participants so that they get the opportunity to see other populations of *Voacanga* outside of their village and compare its size, health, and use type with those of their village. We believe that this strategy will assist in giving local harvesters a global and spatial view of the conservation status of *Voacanga* and allow them to make informed decision when harvesting. We also discussed with local stakeholders about the effect that recurrent high intensity cut for firewood could have on the persistence of *Voacanga* in their region.

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

Yes, I have involved undergraduate and graduate students in this project, specifically in the data collection and analysis phase. I plan to have students conduct their thesis on this species and write term paper on the threat of human activities on the conservation of wild plants. This project is part of an effort to document the conservation status of useful species in Benin. We now have results for *Voacanga africana* and *Rauvolfia vomitoria* and I plan to submit other project to cover other species in different part of the country.

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

We learned from our first RSG project that one of the main difficulties in translating results and recommendations from scientific studies into management actions is related to the nature of interaction between scientists and managers and also the kind of support and approach that is used to communicate these results. We accordingly modified our approach to interacting with the forestry department in Benin. We spent more time interacting in informal settings, one-on-one and in small group, with officers from the forestry department since the beginning of this project. The goal of this new approach was to inform key decision makers about the ideas of our project, and our plan to provide critical information about similar species in the future. We also wanted to make sure that we do not just share with them a report that needed to be read before they can use it, but to communicate directly to them the main results from this project so that this become their

knowledge which they can call upon during strategy sessions and drafting conservation and management plans for various forests in the country. We also discussed with participants during our fieldwork about how the population is doing and what are the main sources of threat.

**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 December 2009 to July 2011. And the final report was submitted September 2011.

**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
Local transportation	£1650	£1650	£0	NA
Field assistants	£2000	£2000	£0	NA
Equipments	£2037	£2037	£0	NA
Public awareness	£300	£300	£0	NA
<b>Total</b>	<b>£5,987</b>	<b>£5,987</b>	£0	

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

We need to continue monitoring populations of *Voacanga* even though they appeared not to be threatened at the present time from harvesting. Recurrent harvest and fire will certainly deplete the storage of resources from which the species is drawing to re-sprout vigorously and persist in its habitat. We have discussed and suggested to forestry officers in the field how they can monitor populations of *Voacanga*, *Rauvolfia* and other 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?**

We are planning on publishing the results from this study and will clearly acknowledge the financial support from RSGF in the manuscript. We are planning to create a website on the species that we study and will use RSGF logo to mention that these studies were supported by RSGF.