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.

Thank you for your help.

Josh Cole, Grants Director

Grant Recipient Details	
Your name	Farris Okou
Project title	Involving local community into the combat of land degradation and the mitigation of its negative impacts on Atacora Mountain in Benin (West Africa)
RSG reference	20157-1
Reporting period	March 2017 - March 2018
Amount of grant	£5000
Your email address	farrisokou@gmail.com
Date of this report	17 March 2018

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
Map the status and severity of land degradation and identify high-priority areas for urgent land degradation management:				Remote sensing and GIS analysis of Landsat imagery for the years 2001 and 2016 provide data and map of landscape composition for each year. GIS analysis on vegetation change, land use type, vegetation cover, slope and type of soil provide data and map about vegetation change (between 2001 and 2016), erosion risk and hotspots of land degradation. On the map of hotspots of land degradation, the priority intervention zones represent 8.5% of the Atacora department's surface area. The municipalities of Kobli, Bokoumbe, Kerou, Materi and Pehonko account for more than 10% of their surface area (18.5%, 14%, 12.6%, 11.5% and 10.1% respectively) of the priority intervention areas. The priority of intervention for these municipalities should be integrated into the various policies and programmes to combat land degradation.
Evaluate local knowledge on land degradation and practices implemented to mitigate land degradation and to conserve biodiversity				Land degradation is perceived as deforestation, erosion, declining fertility, species decline, silting up and the emergence of invasive species. Farmers and herders felt that land degradation had a negative impact on their activities, while stone-cutters said that land degradation favoured their activities.

				Three main causes were cited by more than half of the respondents: runoff, slope and soil types. Farmers mainly use techniques to mitigate land degradation such as crop rotation, crops at the bottom of the slope, use of chemical fertilisers, and home gardens. Livestock farmers, on the other hand, move livestock and small ruminants or feed them with agricultural and cooking residues. Little or underutilised management practices such as anti-erosive mounds, stone strings, plant belt, mulching, organic fertilizer, orthogonal ploughing and tree planting should be widely popularised.
Raise awareness in local communities on negative impacts of land degradation and on ecological underutilized practices to successfully mitigate its impact and to conserve biodiversity				Practical manual and factsheets were used during training workshops and meetings with farmers, local communities, associations, NGOs and locals. The outputs of the workshops, field observations and fieldwork, helped to develop and implement several sensitisations on negative impacts of land degradation and ecological underutilised practices to combat land degradation and mitigate its negative effects. However, I am still doing the lobbying based on the results to facilitate the inclusion of these indigenous soil restoration practices in laws, decision making on soil conservation strategies and policies in Benin.

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

Due to farming activities, it was challenging to conduct the interviews on local perception on land degradation. This has affected the scheduling of meetings with local communities. The meetings were then conducted very early in the morning or later into the afternoon in order to adapt to their availability.

Due to the reason of farming activities and the difficulty of access due to bad quality roads, the workshops, field observations and fieldworks were conducted

during dry season (corresponding to low agricultural season). This facilitated the organisation of meetings and made it possible to respect the established programme.

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

1. The mapping of the status, severity and hotspots of land degradation give an overview of the location and the importance of the degraded areas and give an overview of high-priority areas for urgent land degradation management.
2. We have identified several coping strategies implemented by local population. These strategies include high-potential practices for the conservation and restoration of the land. These practices should be promoted on a larger scale to greater adoption by local populations.
3. We increased awareness of 500 farmers through fieldwork, training workshops and meetings

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

Local communities were involved in the project activities in several ways.

First of all, we learn from them about land degradation, their perception and the coping strategies that they implemented.

They participate to field observations and fieldwork and share the knowledge and experiences acquired during restitution workshops.

They have been trained on ecological underutilised practices to combat land degradation using anti-erosive mounds, stone strings, plant belt, mulching and orthogonal ploughing.

Finally, local communities attended awareness campaigns in great numbers.

5. Are there any plans to continue this work?

While investigating the coping strategies implemented by local population against land degradation, we found that almost half of the respondents cited home gardens. Local populations said that home gardens provide small amount of fresh plants for daily consumption and medicinal purposes. According to them, home gardens help combat negative effects of land degradation by ensuring food security and by contributing to the income of the households. However, little is known about the contribution of home gardens to conservation of biodiversity especially, threatened species and crop wild relatives. Thus, it would be interesting to investigate the role of home gardens into the conservation of biodiversity (mainly threatened species and crop wild relatives) and identify the socio-economic factors determining home garden ownership. The different results will be used to conduct targeted and effective awareness campaigns toward local communities in order to sustain the land conservation and management.

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

One manuscript is currently being prepared for submission on leading conservation journal in order to share the findings with both scientist and conservationist community. A detailed report has been elaborated in the form of a practical manual and will be shared with land use managers, local NGOs and natural resources management institutions, local decision makers and local associations. We will continue the dissemination of the practical manual and factsheets on the cartography of hotspots of land degradation and underutilised practices to combat land degradation and mitigate its negative effects. We are still doing the lobbying in order to facilitate the inclusion of these indigenous underutilised practices to combat land degradation and mitigate its negative effects in laws, decision making on soil conservation strategies and policies in Benin.

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

The RSG was used from March 2017 to March 2018 (12 months). The actual length of the project was the same as anticipated period.

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
Questionnaire sheets and field guide	£100	£100	0	

Fact sheets Posters Practical manuals	£350	£160	+£190	We reduce the number of fact sheets, posters and practical manuals in order to compensate the rise of the price of the fuel. (£0.1×500) (£10×1) (£0.2×500)
Internet	£100	£100	£0	
Radio and public crier communication	£250	£240	+£10	We negotiated a reduction of price for radio and public crier (£12 x 20)
Phone communication	£150	£100	+£50	We reduced the price of phone communication (£10 x 10 villages)
Travel to sites	£1400	£1750	-£350	There was an unexpected rise of the price of the fuel. I made 3,500km during travel to sites (£0.5×3,500km)
Research assistance and local workers	£500	£500	£0	
Hiring room for training workshops	£250	£250	£0	
Transport per diem for participants	£600	£720	-£120	Fuel price increased during the implementation of the project. (£6 x 10 x 12)
Foods	£300	£300	£0	
Education awareness, sensitization and lobbying	£1000	£1000		
TOTAL	**£5000**	**£5220**	**-£220**	**The lobbying process is ongoing despite the fact that there is no money left. We will continue into the framework of a new project, the lobbying activities in addition to the printing and dissemination of practical manual.**

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

The main important next step will be to investigate the role of home gardens into the conservation of biodiversity (mainly threatened species and crop wild relatives) and identify the socio-economic factors determining home garden ownership. During the current project we found that local population implement homes gardens as coping strategies against land degradation specially to ensure food security. But little is known about the contribution of this practice to conservation of biodiversity. The gap of knowledge must be filled as well as raising awareness of local population

on the importance of home gardens into the conservation of biodiversity.

Moreover, I will continue lobbying activities to facilitate the inclusion of certain indigenous soil restoration practices in laws, decision making on soil conservation strategies and policies in Benin.

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

RF logo is used on all materials designed for awareness campaigns. During field observations, fieldwork and workshops, participants were informed that the project is funded by Rufford Foundation. This financial support will also be acknowledged in the scientific manuscripts that will be published to share the findings of the project.

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

Sylvie Godonou: Miss Godonou is an expert on elaboration of fact sheets and posters at the national Institution of Agriculture in Benin. She has also many contacts with politicians, ministries, land use departments and institutions in charge of environmental policies. She helped to elaborate and distribute all the materials produced.

Padonou Elie: Mr. Padonou is PhD, expert in natural resource management especially in ecology, management and strategies to combat bowé (highly degraded land, which is the result of ferricrete exposure due to soil surface erosion, related to non-adapted land use and/or climatic dryness). He helped for the implementation of field observations and fieldwork with local population.

Justin Natta: Mr Natta is a PhD in geographer, expert in land use planning. He worked till 2014 as departmental director of environment in Atacora department. He helped us to implement the collection of ground truth points and the meeting with local and regional policy makers and local communities in the department.

Others: Politicians, technicians in ministries, land use departments, institutions in charge of environmental policies; local NGOs, local training institutions, local decision makers, local associations and local communities was associated to attend the goals especially for dissemination of our results and lobbying.

12. Any other comments?

We would like to thank The Rufford Foundation on behalf of our team for giving us an opportunity and capacity to implement this project.

Moreover, we intend to apply for the second Rufford Small Grant in order to investigate the role of home gardens into the conservation of biodiversity (mainly threatened species and crop wild relatives) and identify the socio-economic factors determining home garden ownership.