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	Njouonkou Andre Ledoux
Project title	Mushroom cultivation and planting of indigenous trees for nature conservation in Foumban Subdivision (Cameroon)
RSG reference	21169-B
Reporting period	From December 2017 to December 2018
Amount of grant	£9994
Your email address	alnjouonkou@yahoo.fr
Date of this report	23 January 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
Implementation of mushroom cultivation in Foumban sub-division (**Main objective**)				More than 50 persons from 15 villages were trained in mushroom cultivation and a house (unit) dedicated for training, mushroom cultivation and spawn production was created. This unit is equipped with almost all materials needed for mushroom cultivation. Five farmers are now cultivating mushrooms at the family level. But the initiative needs to be sustained by farmers themselves, local national and international associations/organisations and the government.
Contribute to the domestication of some local edible and medicinal species of the genus *Lentinus* using some local agricultural waste as substrate				We tested the production of *Lentinus squarrosulus* and *L. sajor-caju* in rural conditions, from the mycelia in agar media to the fruiting on corn cobs, wood sawdust from carpenter workshops, coffee parchment wastes and rice husks. A Masters thesis was defended on this topic and a scientific article is in preparation.
Multiply and plant seedling of some of important native tree species				As local populations highly preferred activities in mushroom cultivation, this objective was reduced. Thanks to community radios broadcasting in the area, we encouraged locals to plant native trees. Five persons were trained in nursing trees. We created sapling nurseries with nearly 10000 plantlets belonging to six species. Nearly 900

				plantlets have been planted by individuals and some secondary schools. Planting operations will continue from may 2018.

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

During the project, we faced two major difficulties:

1- The socio-political crises in the anglophone part of Cameroon where we are working and where we were supposed to perform most preliminary parts of our project. This crisis is accompanied with one to three ghost-town days/weeks and the suspension or reduction of internet network; these are limiting our movements and communication. To cope with these, we reorganised our timetable to work mostly on normal days also we delocalised some of the said activities in Foumban adopting them in rural conditions. For internet communication we used to travel in areas where the network was available.

2- The change in the mind of locals that were more excited by mushroom cultivation (some even forgetting about the plantation of trees). We revised the budget giving more priority to mushroom cultivation by reducing the quantity of some items and negotiating discounts (see paragraph 8 on the budget).

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

Among the outcomes of our project the following three captured our attention:

1- A mushroom house equipped with all key materials/equipments for mushroom cultivation his put in place. This house serves as a local training and spawn production unit to train local population and supply them with spawn.

2- The local population is now more convinced that the cultivation of some edible mushrooms is a reality and that those species (especially oyster mushroom) are safe and very good for human consumption. Some farmers are now cultivating it at the family scale for their personal use or commercialisation.

3- Locals are aware that they can plant native tree species since they are very important for the manufacture of many things and as medicine. Many trees

have been planted by individuals and schools. Many individuals including joiners, schools and communities are planning to plant those trees in the future.

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

In addition to the training in mushroom cultivation and nursing of seedlings, many persons participated as voluntary in the arrangement of the mushroom house management of tree nurseries and planting of plantlets and collection of additional bottle for spawn production. After the training, one trainer was sent to the field to give technical assistance to those who started the cultivating. Also, these farmers received spawn free of charge.

5. Are there any plans to continue this work?

A diction in the area says that: "when they see you, you should no more hide". We received feedback from many trainees, stakeholders and traditional authorities encouraging us to go forward with the initiative. In fact mushroom cultivation is seen by those who started the production as a hope since it provides them food and income. Some have already received commands from hotels and restaurants. Then, we have to continue with technical assistance and to supply them with good spawns. This will help to increase the production to satisfy at least the local demand. Concerning plantation of native trees, we have to continue to encourage the local community to plant them. From May 2018 we are going to distribute the remaining saplings.

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

A video of the training was realised and is currently diffused by the local television "Canal Mom". This video will be posted on some social network (Facebook, YouTube...) as soon as possible. In addition, we are preparing an article on the cultivation of Lentinus on agricultural waste.

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 grant was used over a period of 12 months even though due to the socio-political contest and seasonal constraints we are going to finalise the tree planting in May 2018 at the beginning of the rainy season. This period was shorter than the predicted but sufficient to implement both activities.

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.

At the moment we received the grant the rate of change was 1£ = 763.70 fcfa. This rate of change that was positive compared to the predicted rate (1£ = 730 fcfa). This give us and exceeding amount of 462 £ that in addition to support of some local elites was used to buy a mill to break down corn combs that is one of the best substrate for mushroom cultivation.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Intercity transportation	900	900	0	
Local transportation	900	750	150	As mentioned in paragraph 2, this difference was used to complete the rehabilitation of the new mushroom house
Didactic material for training in mushroom cultivation	600	400	200	As mentioned in paragraph 2, this difference was used to complete the rehabilitation of the new mushroom house
Housing staff members living out of Foumban	1000	1000	0	
2 inoculation boxes	500	250	250	Only 01 inoculation box was made and the difference used for the rehabilitation of the new mushroom house
Agar and laboratory chemicals and materials	500	500	0	
Rehabilitation of mushroom farm	650	2222	-1572	Deduction from other items and support of some local elites
Refreshment of local population after field work and trainings	1750	1250	500	Difference was used to complete the rehabilitation of the new mushroom house
Incentives for staff residing in Foumban	900	900	0	
03 casks and base spawn	203	136	67	Only 02 casks were bought; and the difference used for the

				rehabilitation of the new mushroom house
250 glass bottles for spawn production	103	103	0	
01 scale	41	41	0	
Other small materials for mushroom cultivation	103	103	0	
Alcohol and ingredients for spawn and mushroom production	75	50	25	Difference was used for the rehabilitation of the new mushroom house
Work materials and input to nurse indigenous tree saplings	616	500	116	
02 Pressure cookers	479	240	239	One Pressure cooker was bought; and the difference used for the rehabilitation of the new mushroom house
Per diem of technicians from MUTAREC	350	350	0	
20 kg biodegradable plastic bags	274	274	0	
Planting and follow up of saplings	500	400	100	
Communication	200	200		
Unforeseen (acquisition of a mill to breakdown corn combs and other substrates)	0	860	-860	Exceeding amount due to positive rate of exchange when the grant was received and support from some local elites
Total	**11144**	**11429**	**-285**	**Support from some local elites**

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

As some farmers start the production and we observed that the demand/market is considerable, we have to:

- Reinforce the capacity of new local mushroom growers, train other growers.
- Help local mushroom growers to organize themselves in associations or network.
- Reinforce our capacity in the production of spawn.
- Test the productivity on other substrates and explore other methods in order to adapt them to the local conditions.

- Look for other financial support.

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

The Rufford Foundation logo is used in the video of mushroom cultivation and there it is mentioned that the trainings were sponsored by the Rufford Foundation. Also, the mention "Donated by Rufford foundation for nature conservation" and the Rufford logo will be painted on all permanent materiel acquired during the project.

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

Name	**Function**	**Role**
Njouonkou André-Ledoux	Lecturer	General coordinator
Ndianji Moïse	Clerk (recorder) at the court of Foumban	General Secretary Accounting officer
Maxime Ousman Lawson	Biology and mathematics teacher and communicator	Coordination of tree planting activities and communication
Manga Roger	Forest officer	Trainer in nursing of trees
Nkwenty Elias	Mushroom grower in Bamenda	Main Trainer in mushroom cultivation
Nchare Pokassa Idriss	Master Student in Botany	Assistant Trainer in mushroom cultivation and laboratory works (experimentation of cultivation of wild mushroom species)
Fonka David	Young farmer promoter	Public relation and maintenance of nurseries and mushroom house
Ngamchera Madeleine	Retired teacher / farmer	Responsible of buying

12. Any other comments?

This pilot project shows how the training in mushroom cultivation was an important need for local farmers and also reveals that the demand for cultivated mushrooms is far more important than expected in Foumban subdivision. Then it is interesting to continue with emphasis on the production of quality spawn that remains a big challenge for Cameroon.

Top to bottom: Breaking down of corn combs mill acquired thanks to the Project; Building renewed with on apartment dedicate to mushroom cultivation and training; Collection of saplings of wild plants from the nursing for field plantation; Bank of spawn in production; A couple of new mushroom growers with an advisor of ACEFA (a potential organization that could support their activities).