

Final Evaluation Report

Your Details	
Full Name	Fadeyi Olyvia Gwladys
Project Title	Diversity, conservation status and promotion of the genus <i>Cantharellus</i> in Benin (West Africa)
Application ID	30193-1
Grant Amount	£5,994
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Date of this Report	September 17, 2021

1. 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
Determine the diversity of chanterelles (genus <i>Cantharellus</i>) and the different uses made by them by the local population and threats on their habitat in Benin through inventories and ethno mycological surveys				Systematic sampling of chanterelle fructifications and ethno-mycological surveys were done in the five target forests as planned in the project. This helped us to list nine species including a probable new species for science. Also, this helped us to identify four threats on their habitat and the uses made by them. So, we can say that this objective has been fully achieved.
Identify potential distribution of chanterelles, their preferential habitat in Benin and the likely symbiotic partners				Using species distribution models, the potential distribution of chanterelles has been determined in Benin. Gallery forests have been identified as preferential habitat of these species and <i>Berlinia grandiflora</i> and <i>Isobertinia doka</i> as likely symbiotic partners. So, we can say that this objective has been fully achieved.
Reforest degraded sites into likely symbiotic partners of chanterelles and sensitize the local population on the achievement of the project and chanterelles conservation.				For 3000 pots initially planned, 2511 plants were produced due to parasitic attacks. For 450 persons expected for awareness and sensitisation, 202 were present due to COVID 19 pandemic. So, we can say that this objective has been partially achieved.

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

The first difficulty is encountered during ethno-mycological surveys and sensitisation activities due to COVID 19 pandemic. Social distancing has been a great difficulty for these activities. We just respect social distancing and provide mask to respondents

The second one is encountered during plants production in nursery:

- (1) Difficulty related to obtaining seeds of likely symbiotic partners of chanterelles trees (*Berlinia grandiflora* and *Isobertinia doka*).

To tackle this difficulty, we had to wait for the fruiting of the target partners trees and harvest seeds.

(2) Difficulty related to parasitic attacks.

We had eliminated the plants who are attacked to keep safe the rest in the nursery.

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

- 1) Inventories and ethno-mycological surveys allowed us to identify nine chanterelle species in Benin including a probable new species for science. All these species are edible according to local population.
- 2) Excepting *Cantharellus addaiensis*, all these species are found in gallery forests. The species distribution model indicates some potential suitable sites that are never investigated in Benin which can be habitats for chanterelles. These habitats are threatened by anthropogenic activities such as agriculture, charcoal production, grazing, logging/selective cutting of symbiotic partner trees.
- 3) This project improved our knowledge and those of local population on the conservation status of chanterelle species and the need of conservation of these species in Benin.

4. Briefly describe the involvement of local communities and how they have benefited from the project.

The local communities of the target forests have really involved in achieving of the objectives of this project despite COVID 19 difficulties. Chief's villages have helped us by mobilising people for ethno mycological surveys and sensitisation activities.

In terms of benefit, this project provides skills in production of local trees species. This project provides also a full list of edible chanterelles to local people who depend on non-timber forest products including wild edible mushrooms.

5. Are there any plans to continue this work?

Yes, the next step of this project will concern the new predicted habitat of chanterelles. This is necessary to know the occupancy area of chanterelles in Benin in order to plan their conservation. In the same idea, we plan to examine the mycorrhizas connected to *Berlinia grandiflora* roots in order to confirm its partnership with chanterelle species and to promote its use in reforestation plan of gallery forests to save chanterelles.

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

We plan to share the results of our project through symposia: symposium of the University of Parakou, Symposium of the University of Abomey-Calavi, symposium of

the University of Kara (Togo), and mini symposium of the research unit of tropical mycology and plant soil fungi interaction (MyTIPS).

A scientific article is being written for publication in the scientific journal.

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

June 2020 to July 2021

We were not able to finish on time due to COVID 19 Pandemic and we needed 2 months to finalise the project.

8. Budget: 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. It is important that you retain the management accounts and all paid invoices relating to the project for at least 2 years as these may be required for inspection at our discretion.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Canon EOS M5	516	516		
Gas (Butane) for specimens drying	30	30		
Reforestation	810	678	-132	2511 plants were reforested instead of 3000 planned
Nursery maintenance	709	829	+120	For additional month of nursery maintenance
Loam fillings in bags	40	40		
Bags of tree nursery (biodegradable)	49	49		
Food for data collectors	1179	1179		
Accommodation	197	197		
Picture box printing	490	490		
Poster printing	131	131		
Training and workshop coffee break	354	354		
Local travel by bus (Parakou to all sites)	262	297	+35	Local travel by bus coast has been increased due to COVID 19 Pandemic
Fuel and maintenance of motorbikes	361	408	+47	Fuel coast has been increased due to COVID 19 Pandemic
Motorbike rental	236	236		

Internet (research and mail)	236	236		
Office supply and informatics automation (ink, external storage device, Rams, chemical material and microscope slides for microscopic studies)	394	413	+19	Due to the purchase of face mask
Total	5994	6083	+89	

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

Investigate the new predicted habitat to document diversity and ethno mycological knowledge, analyse mycorrhizas connected to *Berlinia grandiflora* roots in order to confirm its partnership with chanterelle species, produce inoculums of chanterelles to improve the in-situ conservation of these species and restoration of gallery forests. Molecular analysis of the new species.

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

Yes, we used the Rufford logo on all promotional material (posters leaflets) of this project.

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

Ramdan Dramani: field work (inventory and ethno mycological study), Data analysis, Sensitization.

Francine Olodo: field work (inventory and ethno mycological study), Sensitization

Basile G. Hounwanou: field work (inventory and ethno mycological study), Sensitization

Tabé Affoussatou ethno mycological study, taxonomical study

Apollon Hegbe field work (inventory and ethno mycological study)

Ganiou Radji: Sensitization

Berince Roméo Housouvo: establishment and maintenance of nurseries, Reforestation

Lavoisier Kpatchavi: establishment and maintenance of nurseries, Reforestation

12. Any other comments?

We are very grateful to The Rufford Foundation for supporting this project.