

Final Project Evaluation

Your Details	
Full Name	SINSIN Corine Bitossessi Laurenda
Project Title	Eco physiological test and vulnerability assessment of mangroves to inform their restoration in Benin
Application ID	25539-1
Grant Amount	£4,997
Email Address	corinesinsin@gmail.com
Date of this Report	04 Mai 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
1) Eco physiological test				The nursery experiments were successfully conducted within the planned time. It yielded a manuscript submitted to African Journal of Ecology on 30 March 2019 and accepted on 19 April 2021.
2) Train nurseries and local population on propagation and restoration of mangroves.				Due to the COVID-19 outbreak, this objective could not be achieved within the planned time as it needed to gather people to train on suitable and sustainable techniques for the nursery and site transplantation on mangroves propagules/seedlings. Finally, training has been organised in October 2020 at three sites with respect to recommendations of our governments on measure to limit propagation of the virus. Photos and videos of the training are attached.
3) Restoration of 10 ha of mangroves.				Overall, we have restored 7 ha of mangroves - 1 ha at Aguégué (Ramsar site 1018), 2 ha at Bopa (Ramsar site 1017), and 4 ha at Ouidah (Ramsar site 1017).

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

The COVID-19 outbreak has impacted timely implementation of activities. In fact, as part of measures to tackle the virus outbreak, the government has restricted movements and all activities that require gathering of people. It was then difficult to proceed activities of objectives 2 and 3. After several trials, we finally got the authorisation to implement those activities and started them only in October 2020. Overall, there were no major unforeseen difficulties during the project. The project team will continue to work with the communities to complete restoration of remaining 3 ha at Togbin.

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

1. Our experiments have proved that propagules of mangrove species can emerge under low or moderate salinities, but at salinity beyond 17 PSU, emergence is difficult.
2. Raising propagules in nursery before sit transplantation is a best cost-effective method for sustainable restoration of mangrove ecosystems.
3. Stakeholders are updated on best practices for the nursery and site transplantation of mangroves propagules/seedlings to ensure success of restoration activities.

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

Selected community members were trained and are directly involved in the restoration activities. Most vulnerable sites to benefit from restoration were selected together with them. They are happily involved in the monitoring of restored sites as to reduce risks of failure due to anthropogenic disturbances.

5. Are there any plans to continue this work?

Yes, our team will continue to work with the local communities in our quest to ensure success of restoration activities and sustainable management of mangroves. As part of our priority, our team has developed an association of mangroves' nurserymen. We will then continue working with them and work to get funding as to support their activities in order to promote restoration of degraded habitats of mangroves.

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

The work has yielded a manuscript published in African Journal of Ecology. Additionally, technical files have been written and shared with NGOs in charge of mangrove management in Benin. Workshops have also been organised at the university. That workshop has gathered NGOs members, students working on mangrove subjects, and representatives of the forestry department.

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

The fund from the RSG was used from October 2018 to October 2020. The funds helped the project team to carry out essential activities but over the anticipated length of 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
Stationery	771	780	+9	
Subsistence for local team	833	1000	+167	
Equipment	1698	1500	-198	
Travel costs (DSA, maintenance, and fuel for vehicle)	1,695	1,717	+22	
Total	4,997	4,997		

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

As an important next step, the project will:

- i. Continue to provide regular training and support for nursery of mangrove species.
- ii. Provide support to stakeholders in order to guarantee success of mangroves restoration.
- iii. Work with communities on the improvement of nursery and transplantation of other mangrove species.
- iv. Continue the awareness activities.

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, the RSG logo was used on all awareness materials, namely t-shirts, billboards and technical reports. Our team continuously mentioned RF to key stakeholders during our field work and other organisation's meetings.

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

Myself (**Corine Bitossessi Laurenda Sinsin**) was involved in all activities, from the conception, implementation, and monitoring of all the activities.

One superior technician (**Plotin Agonvonon**) was in charge of monitoring and recording data from the controlled experiment.

The second superior technician (**Renaud Sinsin**) stayed within communities and participate to the experiment with them.

Stakeholders included:

- Opinion leader (**Adouni Didier**) who facilitated the integration of project team to the rest of the community in order to improve collaboration
- Administrative leaders (**Gbedoyi Richard**) mainly oriented team towards appropriate community members
- Women association: participated in nursery and restoration activities
- Fishermen: participated in nursery and restoration activities
- Children: will participated in nursery and restoration activities
- School teachers: helped in gathering students to be part of nursery and restoration activities
- Student: were part of in nursery and restoration activities

12. Any other comments?

Our mangrove restoration team is most grateful to The Rufford Foundation for its financial support to ensure the restoration and sustainability of our mangrove ecosystems in Benin. We will appreciate further collaboration in this regard.