Final Evaluation Report

We ask all grant recipients to complete a project evaluation that helps us to gauge the success of your project. This must be sent in **MS Word and not PDF 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 – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

Please DO NOT fill in and submit this form until the project has been completed.

Complete the form in English. Note that the information may be edited before posting on our website.

Please email this report to jane@rufford.org.

Your Details	
Full Name	HOUENON Gbèdomèdji Hurgues Aristide
Project Title	Scaling up conservation action for threatened species in gallery forests of the Monts Kouffé reserve in Benin
Application ID	42050-1
Date of this Report	30th August, 2025

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
i) Identify the major causes of tree felling in the gallery forests of the Monts Kouffé reserve			■	The data were collected from 300 randomly selected informants in ten (10) villages located around the Monts Kouffé reserve. These informants are composed of 253 men and 47 women and are distributed in four (04) ethnic groups (Fon, Lokpa, Nago and Peulh). The individual semi-structured questionnaires were used for each informant. The informants mentioned eleven (11) species prized in the gallery forests of the Monts Kouffé reserve such as: *Detarium senegalense*, *Khaya senegalensis*, *Afzelia africana*, *Pterocarpus erinaceus*, *Terminalia leiocarpa*, *Pseudocedrela kotschyi*, *Prosopis africana*, *Daniellia oliveri*, *Diospyros mespiliformis*, *Isoberlinia doka* and *Isoberlinia tomentosa*. The main favorable characteristics for cutting the stems of these species are: accessibility, durability, resistance and commercial value of the stems of these species. On this list of species prized in the gallery forests of the reserve, four (04) are threatened and in order of priority we can cite: *Detarium senegalense*, *Khaya senegalensis*, *Afzelia africana* and *Pterocarpus erinaceus*.
ii) Assess the density of species			■	The species density was assessed in sixty plots of 0.5 ha (250 m * 20 m)

undergoing intensive felling in relation to levels of habitat degradation				and each plot was established on the basis of the presence of one adult tree of each species. So, an assessment of the density of each of the target priority species revealed the following densities: *Detarium senegalense* (1.25 ± 0.50 trees/ha); *Afzelia africana* (2.71 ± 2.44 trees/ha); *Khaya senegalensis* (5.83 ± 3.61 trees/ha) and *Pterocarpus erinaceus* (12.16 ± 4.76 trees/ha). This imbalance in the density of species in the gallery forests of the Monts Kouffé reserve, particularly with the predominance of trees of *Pterocarpus erinaceus* (species of savannah or woodland) unlike *Detarium senegalense* (species of gallery forest) explains the anthropogenic pressure exerted on the gallery forests thus creating gaps facilitating the installation of savannah trees. Furthermore, the regeneration rate ($N_{dbh < 10\ cm}$ / $N_{dbh \geq 10\ cm}$) for all of these priority species is very low and is as follows: *Detarium senegalense* (0.80); *Afzelia africana* (0.37); *Khaya senegalensis* (0.58) and *Pterocarpus erinaceus* (0.08).
iii) Produce seedlings of each of these species				The seeds of three (03) priority species (*Detarium senegalense*, *Khaya senegalensis* and *Afzelia africana*) were used for the germination design. A fourth priority species (*Pterocarpus erinaceus*) could not be used in the device because the seeds found were not viable. A total of 500 seeds from three species, including 200 *Afzelia africana* seeds, 150 *Detarium senegalense* seeds and 150 *Khaya senegalensis* seeds, were sown on April 20, 2024. Apart from the

				Afzelia africana seeds, which gave a high germination rate, a low germination rate was recorded for *Khaya senegalensis* and *Detarium senegalense*. So, germination rates of 78.75% for *Afzelia africana*, 33% for *Detarium senegalense* and 16.66% for *Khaya senegalensis* were recorded for species with significant differentiation ($p < 0.001$).
iv) Initiate restoration actions followed by awareness-raising campaigns				The awareness-raising and restoration activities involved village chiefs, forest guides, agents of the administrative service for forests ["Direction Générale des Eaux, Forêts et Chasse (DGEFC)"], members of the project and members of the NGO SOS Biodiversity, with c. 25 participants in total. After awareness-raising and training sessions focusing on the consequences of the destruction of gallery forests, the stages of establishing nurseries and producing seedlings, environmental education for children, local communities have also been nurtured on various nature-based solutions in order to sustain livelihoods without destroying forests. Finally, the participants were taken to the forest for the restoration activities of degraded gallery forests.

2. Describe the three most important outcomes of your project.

a) A total of eleven (11) gallery forest trees from the Monts Kouffé reserve were cited by local communities as supporting livelihoods.

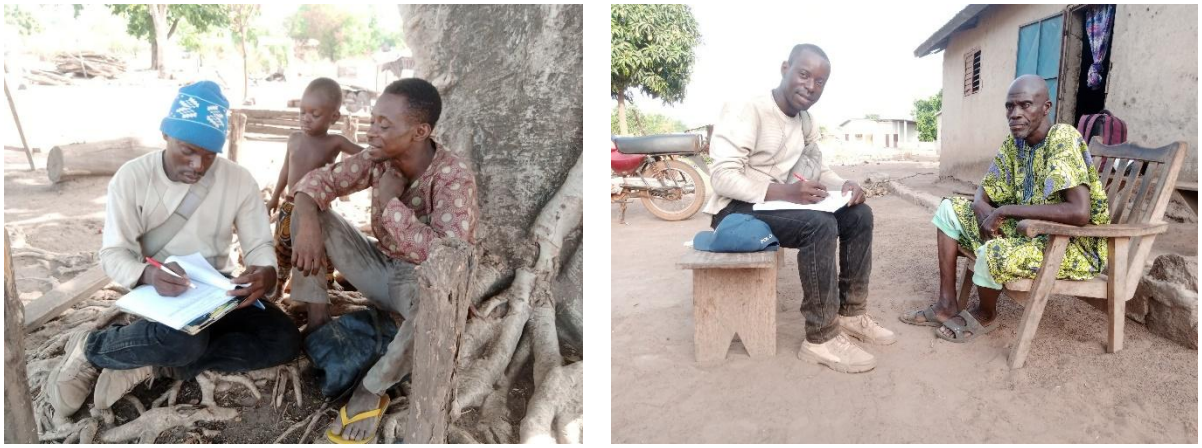

Plate 1: Semi-structured individual interviews with selected informants

b) The densities of priority trees have been determined for urgent conservation actions. In addition, the different forms of anthropogenic pressure have been identified.

Plate 2: Measurements of $dbh_{1.30m}$ and some trees of *Pterocarpus erinaceus* and *Terminalia leiocarpa*, found cut during data collection.

c) The local communities (children, men and women) were trained on environmental education, the stages of seedling production, and restoration activities. A total of 150 plants of the three species were planted in the degraded forest during the project, with the help of twelve local participants.


INTENSIFICATION DES ACTIONS DE CONSERVATION DES ESPECES MENACEES DANS LES FORETS GALERIES DE LA RESERVE FORESTIERE DES MONTS KOUFFE (BENIN)
SCALING UP CONSERVATION ACTION FOR THREATENED SPECIES IN GALLERY FORESTS OF THE MONTS KOUFFE RESERVE IN BENIN

3. Explain any unforeseen difficulties that arose during the project and how these were tackled.

This project was planned over 11 months and should finish in October 2024. Indeed, of the four (04) project objectives, three were completed within the 11-month timeframe. However, given the flood or overflow of a stream from the Ouémé River in August 2024, the accessibility to local communities and gallery forests of the Monts Kouffé reserve for the realization of the fourth objective regarding awareness sessions and restoration activities could not be carried out during July-August 2025.

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

The local communities were fully involved in all stages of the implementation of the current project. Indeed, ethnobotanical surveys were carried out within local communities. Thus, translators/interlocutors, field guides, motorcycles and all other field equipment were solicited financially from the local communities. The seeds used for germination were collected by local communities. Local communities benefited from various trainings on nature-based solutions and participated in awareness sessions and restoration activities. A monitoring system has been put in place to monitor the full growth of the planted seedlings. A plant monitoring committee, composed of a few members of local communities and forestry assistants, has been set up to ensure this.

5. Are there any plans to continue this work?

Yes. This work is only a diagnostic phase. Indeed, it is a preliminary step that allowed to make an inventory of the gallery forests of the Monts Kouffé reserve. Thus given the degraded state of the gallery forests, this work must continue in order to ensure the conservation of plant genetic resources of the Monts Kouffé reserve.

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

The preliminary results of this work have been shared on my facebook page (https://www.facebook.com/hurgues.houenon) and the facebook page (https://www.facebook.com/sos.biodiversity) of the NGO SOS Biodiversity, associated with the awareness and restoration activities within the framework of the current project. In addition, a more detailed report as well as a technical sheet on the stages of production of seedlings are being drafted and will be distributed in the NGOs and village associations riparian to the reserve of Monts Kouffé. Furthermore, a scientific manuscript is being drafted and will be published in an ecological journal with open access. Finally, the coordinates of the collected trees will be scheduled for publication on the Global Biodiversity Information Facility (GBIF) portal.

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

Moving forward, the next steps in this research include:

- Dissemination of the final report of the conservation and restoration action plan for gallery forest species and the engagement of forest managers, local NGOs and natural resource management institutions, local decision-makers, local associations in discussions regarding the stages of their implementation.
- Propose and develop policies and recommendations that can be adopted to effectively regulate the deforestation and degradation of trees in the gallery forests of the Monts Kouffé reserve.
- Act as a focal point for any participatory action involving stakeholders for a successful action plan.
- Initiate and advocate for alternative livelihood plans for those who will be affected by the conservation or participatory restoration plan.
- Pursue public education/enlightenment and participatory restorations for positive responsiveness.
- Monitor the demography of the reserve's gallery forest trees through field surveys.

8. 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 Rufford logo was used in all presentations and communication materials (powerpoint, tee-shirt, tarp, etc.) during project dissemination activities. I also thank the support of the Rufford Foundation in the ongoing manuscript.

9. Provide a full list of all the members of your team and their role in the project.

HOUENON Gbèdomèdji Hurgues Aristide, PhD in Botany and Plant Ecology, project leader, I participated in the data collection, data entry, data processing and writing of reports and scientific articles. I was also involved in the communication and awareness sessions of the project results for local communities.
FANDY Hélène, MSc in Botany and Plant Ecology, she participated in ethnobotanical data collection, data entry and awareness sessions.
AKOUETE Pathmos, MSc in natural resources management, He participated in the collection of ethnobotanical and ecological data

KOUHINKPO Ergor, MSc in natural resources management, He participated in the collection of ethnobotanical and ecological data.
NONVIDE Gildas, MSc in Botany and Plant Ecology. He participated in ecological data collection.
KOMBETTO N'Tcha, MSc in Applied Plant Biology, He participated in the installation of the germination device and the monitoring of seedlings
KAKPO Sunday Berlioz, expert in forest ecology and biodiversity conservation, president of the NGO SOS Biodiversity, his expertise in biodiversity conservation, has been of great use for awareness-raising activities involving local communities in the restoration of degraded forests.

Many other stakeholders (land use managers, local NGOs and natural resources management institutions, local decision makers, local associations, young, etc.) were also part of the implementation team of the project

10. Any other comments?

We are very grateful to the foundation and its donors for helping us contribute in our way to the conservation of the natural resources in this era of increasing threats. Without continuous funding and trust from The Rufford Foundation, we would have not been able to make this happen.


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Projet (ID: 42050- 1) Financé par The Rufford Foundation
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ANNEX – Financial Report

[Intentionally deleted]