

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	Hyppolite Lougbégnon AIGNON
Project Title	Sustainable management and conservation of fungal biodiversity in West Africa using co-creation
Application ID	43711-D
Date of this Report	30.08.2025

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
<p>1. Build a bridge between generations for the maintenance of local knowledge on mushrooms for the benefit of society and conservation</p>				<p>We successfully connected the younger generation with the older generation through fruitful exchanges on wild edible mushrooms. Through structured discussion groups and participatory workshops, young participants gained valuable knowledge on mushroom identification, seasonal trends, and sustainable harvesting practices.</p> <p>This meeting should be regular to facilitate the maintenance of knowledge about mushrooms within local communities. To ensure the sustainability of these gatherings and the sharing of knowledge about edible wild mushrooms, we have established a collaborative and intergenerational structure that brings together young and elderly volunteers who can meet twice a year to exchange local knowledge related to edible wild mushrooms. This group will facilitate the continued involvement of elders and local experts in transmitting their expertise, while promoting practical learning for younger generations. We also plan to create a digital platform for sharing local knowledge about mushrooms. Organizing regular events, such as field trips in June, July, and August, coupled with workshops, will ensure consistent</p>

				<p>follow-up under the guidance of experienced individuals.</p>
<p>2. Promote the sustainable management of WEMs through surveys by identifying and examining species with questionable edibility, to produce a catalogue of safe edible species that will help reduce food insecurity and contribute to the well-being of local communities by preserving lives and avoiding confusion in choosing edible species</p>				<p>We have identified the species commonly known and consumed in the project areas and those whose edibility is doubtful.</p> <p>Surveys were conducted in three villages surrounding each forest: Bagre-Tamou, Dokonde, and Kota-Monongou (Kota gallery forest); Tchapeta, Koussoucoingou, and Kouaba (Koussoucoingou gallery forest); and Bassila, Aledjo, and Manigri (Bassila forest reserve). A total of 270 people were interviewed, 30 people per village. Participants were interviewed individually using fresh and mature samples of WEM (woody organic matter) collected on-site. The edibility of each species was assessed and classified as follows: 0 = inedible, 1 = doubtful, and 2 = edible.</p> <p>Six species, including <i>Boletus pseudoloosii</i>, four species of <i>Amanita</i>, and <i>Inosperma macrocarpum</i>, are consumed locally despite doubts about their edibility. Approximately 65% of participants reported having no knowledge about the edibility or non-edibility of these species. We analyzed the presence or absence of muscarine in these six species, and the results show that these species do not contain muscarine. However, other toxic substances may be present in these species, such as muscimol or ibotenic acid.</p>
<p>3. Train local populations in the cultivation of edible mushrooms.</p>				<p>Local communities were effectively trained in edible mushroom cultivation, focusing on species such as <i>Volvariella volvacea</i> and <i>Pleurotus ostreatus</i>.</p>

			Participants were introduced to practical and inexpensive cultivation techniques using locally available agricultural residues.
Restore degraded fungal habitats using native species such as <i>Berlinia grandiflora</i> and <i>Isobertinia doka</i> .			<p>We placed 3,000 seedlings of <i>Berlinia grandiflora</i> and <i>Isobertinia doka</i> in the nursery. Of the 3,000 seedlings, 2,814 survived in the nursery after six months before being planted. Prior to this, the degraded areas had been identified, and the reforestation process, as well as the concept of securely planting the young seedlings, had been explained to the participants.</p> <p>Through the NGOs Land Environment and Global Life, we have a plan for maintaining the planted trees over a three-year period. As the dry season approaches, the vegetation around each of these saplings will be cleared to prevent wildfires from destroying them. We will also collect survival data on these trees to assess survival rates. This monitoring will allow us to adapt management practices and ensure the success of the restoration of degraded areas.</p> <p>From the establishment of the nursery to its maintenance and the reforestation efforts, local communities have been involved.</p>

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

a) Catalogue of safe edible species

We present a list of 43 wild species to the local population. On this list, the most widely recognized by local communities are *Lentinus squarrosulus*, *Cantharellus*

congolensis, *Lactarius saponaceus* and *Cantharellus solidus*. These species appear to be the most familiar to communities, which reflects their ecological, cultural, and dietary importance in the region. Furthermore, certain species, such as *Boletus pseudoloosii* and *Amanita* spp. are consumed locally, but due to a lack of evidence and data, these species are classified as of questionable edibility.

b) connection of the generation on wild edible mushrooms

Three focus group discussions on wild edible mushrooms (WEMs) were successfully conducted in the villages of Kota-Monongou, Koussoucoingou, and Bassila. A total of 60 participants were mobilized, including 45 young people aged 18 to 30 and 15 elders aged 50 to 90. This inter-generational exchange created a dynamic platform for mutual learning and knowledge sharing. The activity aimed to bridge the gap between traditional ecological knowledge and the perspectives of the younger generation. Through co-creation, participants shared their experiences, cultural practices, and local knowledge related to mushroom identification, seasonal availability, uses, and threats to their habitats. Elders played a key role in transmitting indigenous knowledge, while youth contributed new ideas and enthusiasm for sustainable solutions.

c) Training of local populations in the cultivation of edible mushrooms

In the villages of Kota-Monongou, Koussoucoingou, and Bassila, located near the Kota gallery forest, the Koussoucoingou gallery forest, and the Bassila forest reserve, respectively, 15 individuals per village were selected from women's groups and young edible wild mushroom pickers for this training. The mushroom cultivation training focused on two edible mushroom species: *Volvariella volvacea* and *Pleurotus ostreatus*. Locally available agricultural waste, such as rice residues, sorghum stalks, and corn cobs, was used. Participants trained in cultivation techniques were encouraged to adopt mushroom production as a complementary livelihood activity. The knowledge acquired by the local populations regarding edibility was assessed using a questionnaire administered to 45 participants, 15 people from each area surrounding the forests. This survey allowed for the evaluation of their understanding of key topics such as the transmission of knowledge about edible mushrooms, the role of mushrooms in conservation efforts, and local myths and culture.

d) Degraded habitat reforestation

A nursery of 3,000 *Berlinia grandiflora* and *Isoberlinia doka* seedlings was established as part of the reforestation project. The plants were carefully maintained for six months before being transplanted to the field. Prior to planting, degraded areas were identified, and participants were trained on the reforestation process and the principles of safe seedling handling and planting. After six months of nursery care, 2,814 seedlings survived and were ready for planting, reflecting a strong survival rate and good nursery management practices. The reforestation phase focused on restoring degraded zones through the active participation of local communities. Awareness sessions emphasized the importance of forest restoration and sustainable management. Planting activities were carried out collectively, reinforcing

community ownership of the project. Post-planting maintenance and monitoring are being coordinated by the NGOs Land Environment and Global Life. A three-year follow-up plan has been developed to ensure the growth and survival of the planted trees. As the dry season approaches, vegetation surrounding each sapling will be cleared to reduce the risk of wildfires. Regular data collection will track tree survival and provide insights into factors affecting growth. This continuous monitoring will help adjust management strategies and ensure long-term project success. Thus, from nursery establishment to field planting and maintenance, local communities remain fully engaged, gaining both environmental awareness and practical skills. The project thus combines ecological restoration with community empowerment, contributing to the sustainable rehabilitation of degraded forest ecosystems.

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

During the project, some unforeseen challenges arose. First, a number of nursery seedlings did not survive due to climate stress. To address this, we quickly replaced these affected seedlings to ensure the continuity of reforestation activities and achieve the set ecological objectives. Furthermore, some participants, especially those from remote villages, encountered difficulties in reaching the training due to lack of transportation. To ensure their full participation and promote inclusion, we set up a transportation system by renting vehicles, which allowed all those invited to participate in and benefit from the activities.

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

Local communities played a central role throughout the project, actively participating in surveys, focus groups, training, and reforestation. Elders and youth collaborated to document traditional knowledge on Wild Edible Mushrooms (WEMs), sharing their knowledge on identification, seasonal availability, and conservation techniques. This inter-generational exchange not only preserved valuable cultural knowledge but also enabled younger generations to engage in conservation efforts. More than 45 people, including women and youth, received hands-on training in mushroom cultivation using locally available agricultural waste, providing them with skills to diversify their income sources. The establishment of nurseries and tree planting strengthened the involvement of local communities, fostering a sense of environmental stewardship. Communities have benefited from the training and are therefore able to develop new means of livelihood other than agriculture.

5. Are there any plans to continue this work?

Yes, our plan to continue the work will be based on the following points:

- a). Mapping traditional harvesting areas to facilitate the identification of forests and wetlands where WEM grows, transmitted orally by elders;
- b). Documenting local knowledge on criteria for identifying safe mushrooms, often transmitted through observation and practice;
- c). Creating a knowledge summary sheet on suitable harvesting periods for the most well-known species;
- d). Documenting traditional WEM drying, preservation, and cooking practices to facilitate sustainable fungal resource management;

- e). Strengthening local networks for sharing traditional ecological knowledge and involving schools in awareness-raising activities to more systematically involve young people and
- f). Proposing policy advocacy to integrate the conservation of wild edible mushrooms into broader community development and forest management plans.

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

The project results were disseminated through multiple channels to reach diverse audiences. At the community level, debriefing sessions were held in participating villages to present key findings, promote local contributions, and strengthen knowledge sharing. At the national and regional levels, the results were shared with environmental NGOs, academic institutions, and forestry departments and by local conference on biodiversity. We will also combine our data with existing data to publish a conservation article on wild mushrooms in a peer-reviewed journal that will be accessible to all.

We plan to publish our data on iNaturalist to ensure open access and greater visibility of the biodiversity information collected as part of the project. This platform will facilitate data sharing with researchers, conservationists, and the general public. However, we are working on some species that are new to science, and these species will not be published directly on iNaturalist. In addition, key findings and updates will continue to be shared on my social media channels to engage local communities and raise public awareness of conservation activities. This approach promotes transparency, collaboration, and greater participation in monitoring and protecting local biodiversity.

In addition to sharing data on iNaturalist and social media, we also disseminate our WEM results through several other channels. At the local and national levels, the results are shared with community members and local authorities during meetings and awareness-raising sessions to encourage participation in restoration and monitoring activities. At the international level, a summary presenting the main findings has been submitted to the World Biodiversity Forum (WBF) to be held in June 2026, so the results will be presented at this forum, and recommendations will be received to improve future conservation actions on WEMs.

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

The next steps will be to consolidate and expand on the achievements. This will include finalizing and disseminating knowledge summary sheets and traditional practice guides for the safe and sustainable use of wild edible mushrooms (WEM). Mapping wild edible mushroom harvesting areas to promote sustainable and rational management of accessible fungal resources. Establishing local knowledge-sharing networks on wild edible mushrooms to attract the attention of decision-makers to facilitate the integration of mushrooms into local conservation actions for non-timber forest products.

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 Foundation logo was used on all materials produced during the project. This strategy raised awareness of the Foundation among participants, and we encouraged other curators to take an interest in the Rufford Foundation.

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

- **Dr. Hyppolite AIGNON:** Project planning, coordination, and activity monitoring
- **SESSOU Rosmonde:** Coordination of survey data collection activities
- **TAMOU Omar:** Coordination of laboratory activities
- **Mr. Benoît AHIGNON:** Coordination of data analysis and interpretation of results
- **Mr. Franck ERIOLA:** Coordination of exchange and awareness meetings
- **Dr. Yuguang FAN:** Performance of molecular analyses.

10. Any other comments?

We sincerely thank the Rufford Foundation for its support. We look forward to continuing this work.

ANNEX – Financial Report
[Intentionally removed]