Final Evaluation Report

Your Details	
Full Name	Mounmemi Kpoumie Hubert
Project Title	Inventory of cultural practices and local management strategies contributing to the conservation and sustainable use of the sacred forests of Bayangam, Cameroon
Application ID	40088-1
Date of this Report	10th June 2024

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
Document indigenous practices in sustainable biodiversity management.			■	The household survey on the socio-economic and cultural importance of the sacred forests for the population revealed indigenous practices linked to the cultural values of sacred forests, the factors of their degradation stakes for their conservation in Bayangam council area. The main results are more detailed in the outcome section.
Botanical inventory in the sacred forests.			■	The fieldwork for botanical inventory took place in two big sacred forests of Bandrefam and Batoufam in the Bayangam council area. Analysis of the data collected revealed the species richness of sacred forest, the conservation status of the plant species and the carbon storage potential of the sacred forests.
Development of strategies for the management and valorisation of sacred forests.			■	20 community leaders were identified for sensitisation and trained on indigenous conservation practices that guarantee the sustainability of sacred forests. A stakeholder awareness and training workshop on the conservation of sacred forests and local cultural identity was organised at the Bayangam Council Hall with 25 stakeholders involved (local chiefs, youths, Bayangam council authorities, heads of community associations, representatives of the ministry of

				forestry and wildlife). The results of this workshop were used to develop the conservation strategy for the conservation of sacred forests in Bayangam.

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

a). The first important outcome of the project was the local population survey of socioeconomic and cultural importance that revealed information vital for the development of a strategy for conserving and valorising sacred forests in Bayangam. This information is detailed below.

- The most prevailing importance was that sacred forests are the resting place of the gods, provide protection to the people, a place of sacrifice, where sacred elements of the chiefdom are kept, are for cultural dances, for purification and blessings from the gods, a place to seek peace from the gods, are a place for different cultural rites, and where people collect dead wood to be used as firewood.
- The ethno-medicinal survey of sacred forests revealed a high potential of medicinal plants that the local populations use to treat several illnesses at the local level. A total of 52 medicinal plants were identified, which are used to treat 66 illnesses. Forty-five copies of documents for these medicinal uses were printed and distributed to the community leaders.
- There was a consensus that access to the sacred forests was generally prohibited and that any resource to be mainly for medicinal uses was done through persons authorised by the notables. However, the survey that the main factors of degradation of sacred forests in Bayangam are bushfires, illegal exploitation, and climate change, lack of interest by the youths, urbanisation and encroachment by farms. The survey also revealed that the major conservation stakes for sacred forests in the study area were their delimitation, reforestation of the degraded areas, enforcement of the respect of the tradition and access modalities, and the creation of awareness among youths.

b). The botanical survey of sacred forests in Bayangam revealed very important outcomes.

- Of the total of 83 plant species distributed in 73 genera and 36 families, nine were vulnerable (*Anopyxis klaineana Dacryodes igaganga, Diospyros crassiflora, Prunus Africana, Podocarpus mannii, Polyscias fulva, Garcinia kola, Cordia platythyrsa, Entandrophragma candollei*) and three critically endangered (*Psychotria* sp., *Guibourtia tessmannii, Tectona grandis*) according to the IUCN classification of plants threats.
- The carbon stock assessment of the sacred forest revealed that of the two major sacred forests of Bayangam studied, the Batoufam sacred forest stores up to 1 720,61 CO_2eq with a monetary value of €24 085,51while the sacred forest of Bandrefam stores up to 1 068,51 CO_2eq with a monetary value of €14

955,71. This carbon sequestration potential can be useful in negotiating for carbon compensation, favouring the conservation of sacred forests of Bayangam.
- Lastly, botanical specimens were collected and donated to the national Herbarium of Cameroon to enrich their data base.

c). Regarding the development of strategies for the for the management and valorisation of sacred forests, 20 community leaders were identified, sensitised, and trained on the indigenous knowledge of sacred forest conservation activities. They were encouraged to work with the village chiefs, local council authorities and agents of the ministry of forestry and wildlife to continue the sensitisation of local communities in their different villages. Strategies were proposed for the conservation of sacred forests in Bayangam. Awareness was also created among 25 stakeholders on the conservation of sacred forest. These stakeholders were local authorities, representative of women groups, representative of the Ministry of Forestry and Wildlife, representative of the local council and community youth leaders.

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

The study went on from its start to end hitch free. However, light rains which occurred unexpectedly during the socio-economic survey instead turn to give us very positive results as the survey team members used raincoats and umbrellas. The rains favoured the study as most villagers stayed in their houses and this increased our chances of meeting the targeted population for the survey.

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

- Some members of the local communities were trained and used as survey both for the socio-economic survey and botanical inventory. Hence, their involvement botanical inventory of plants in the sacred forests gives them the possibility of being used by the traditional authorities to manage conservation issues of their sacred forests. All local populations who worked in our survey teams received t-shirts and copies of the document on the medicinal uses of the plants of the locality.
- 20 community leaders were identified, sensitised, and trained on the indigenous knowledge of sacred forest conservation activities. They were encouraged to work with the village chiefs, local council authorities and agents of the ministry of forestry and wildlife to continue the sensitisation of local communities in their different villages.
- Awareness was also created among 25 stakeholders on the conservation of sacred forest.
- The knowledge of the people who were interviewed in the socio-economic survey was also enriched as the general question session served as a small window for sensitisation on the importance of conserving sacred forests.

5. Are there any plans to continue this work?

Owing the fact that the situation knowledge of local populations in the villages on the importance sacred forest is very poor among the youths, we intend to continue the sensitisation in this light and support the leadership of local authorities (local chiefs and notables) who are the immediate managers of these forests.

Secondly, we also want to continue with similar studies in the Noun Division of Cameroon with large cultural heritage built around sacred forest to scale up the scientific impact in the conservation of sacred forests and the cultural heritage of the people as a whole. The Noun division represents 52 % of total surface area of the West region of Cameroon. It is also well known for it right cultural and artistic heritage. The Noun division has many large sacred forests and whose potential have not yet been explored. Conservation practices linked to cultural practices could also vary.

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

In the restitution workshop, we invited all stakeholders involved in the management of sacred forest in Bayangam. In this meeting, we discussed the challenges of conserving and valorising the resources of the sacred forests. At the end, we proposed a conservation strategy for sacred forests to local authorities of the villages in Bayangam.

A master's thesis was produced by the intern of the project at the University of Yaounde I.

Lastly, our team is drafting a scientific article that will be published in a peer review journal to value the results of the study and sharing with a wider scientific community.

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

One of the major results was the degradation observed in most some parts of the sacred forest. The possible next steps regarding this result will be the creation of more awareness on the level of degradation of sacred forests in the locality and the implementation of restoration activities.

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?

During the various activities of the project, we used t-shirts with the Rufford Foundation logo and the project's title.

We also printed banderols for the different workshops bearing the Rufford Foundation logo. In all, 45 polo t-shirts and five banderols were produced. Participants were also dressed in the t-shirts carrying the Rufford Foundation logo which they could use to do more publicity in their respective villages.

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

This study was realised with the participation of various team members at two main levels:

1. **Academic and Professional collaborators were composed of**:

Dr. ZAPFACK Louis, Professor at the University of Yaounde I, Cameroon. Head of Botany-Ecology laboratory, Department of Plant Biology, University of Yaounde I. Botany, Ecology and Conservation Expert. louis.zapfack@facsciences-uy1.cm. He was the academic supervisor of the Master's student that was involved in the study.

Dr. MAFFO MAFFO Nicole Liliane, Botanist. She was the assistant academic supervisor to the Master's student that was selected for the study at the University of Yaounde I;

Dr. Jean Michel Onana, Associate Professor, Department of Plant Biology, University of Yaounde I, Cameroon, Ecology and Conservation Expert. Jmonana2002@yahoo.fr. He is also a former and very experienced researcher who worked at the National Herbarium of Cameroon. He confirmed the identification of plant specimens collected during the botanical inventory of the sacred forests of Bayangam;

Dr. Simmy Bezeng, Head of Regional Program for the IUCN Red List and Key Biodiversity Areas - Species Survival Commission/BirdLife South Africa Conservation biology and drivers of biodiversity loss Expert. Email: simmy.bezeng@birdlife.org.za. He provided technical advice to the principal investigator;

Dr. Jean Lagarde BETTI, Associate Professor, Department Plant Biology, University of Douala and Head of the National Herbarium of Cameroon, Forestry and Ethnobotany Expert, Email: lagardebetti@yahoo.fr. He managed the administrative procedures of collaboration with the National Herbarium of Cameroon;

Dr. Eric D Nana, Senior researcher at the National Herbarium of Cameroon, Expert on wildlife conservation, Email: ericnana2000@yahoo.com. He is one of our collaborators at the National Herbarium;

2. **The field team will be composed of**:

Dr. Hubert KPOUMIE MOUNMEMI, Researcher of National Herbarium of Cameroon, Project manager and also member of the field team. Botanist, Ecologist, Forest Auditor and Expert in natural resources management, Email: hubertmounmeikpoumie@yahoo.fr;

Dr. Barthelemy TCHIENGUE, Senior Researcher, Systematic Specialist, National Herbarium of Cameroon. Email: tchienguebarth@gmail.com. He was one of the expert botanist for the botanical inventory of sacred forest in Bayangam;

Dr. Hermann Evariste Taedoumg, Lecturer, Systematic Specialist, Botanist-Forest restoration, Department Plant Biology, University of Yaoundé I. Email: H.TAEDOUMG@cgiar.org. He was one of the expert botanist for the botanical inventory of sacred forest in Bayangam;

Mr. Forbi Preasious Funwi: field team member, Natural resource manager, and socio-economist; pforbi@gmail.com. He headed the socioeconomic survey on the field.

Mrs Tchoupou Votio Mireil Carole: field team member, Botanist and ecologist, and workshop manager. Email: tchoupouvotio@yahoo.fr;

MBAIRE MATINDJE Karl Marx, Master student at the University of Yaounde I who took part in the study. He took part in the field work, drafted and defended his Master's thesis at the University of Yaounde I;

Three council members were provided by the Bayangam Council. They took park in the organising the workshop at the Bayangam council and facilitation of administrative procedures for the field work in the Bayangam council area.

10. Any other comments?

We thank The Rufford Foundation for its generous support of the Bayangam sacred forests. We thank the foundation for the conservation initiatives it supports worldwide.