

Final Evaluation Report

Your Details	
Full Name	François Wenemi Kagambega
Project Title	Development and Implementation of Awareness Tools for the Conservation of <i>Zanthoxylum zanthoxyloides</i> , a Threatened Medicinal and Economic Plant in Burkina Faso
Application ID	33792-B
Grant Amount	9998 £
Email Address	wenemifrancois@yahoo.fr
Date of this Report	February 15 th , 2022

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
Prospecting and identification of key sites for conservation practices				Field investigations have been carried out in two provinces located in the western part of Burkina Faso (Hoûet and KénéDougou), more precisely in the villages of Baré near Bobo Dioulasso and that of Tin near Orodara.
Education campaign and implementation of conservation practices				<p>We held conservation workshops and training sessions at the regional direction of the National Research Institute of Sciences (Bobo Dioulasso). The purpose of the workshops was to build the capacity of local population and students in the protection of <i>Zanthoxylum zanthoxyloides</i> and threatened plant species. The training workshops dealt with pertinent plants conservation issues including conservation strategies for endangered woody species with focus on <i>Zanthoxylum zanthoxyloides</i>. Through PowerPoint presentations, group discussions, demonstrations and video documentaries all the 20 participants were introduced to various ways to engage their peers and community members. The participants were introduced to various ways for sustainable use of natural vegetation in their location.</p> <p>We are also identified in each village, appropriate sites for the implementation of vegetation enclosure practices and Farmer Managed Natural Regeneration (FMNR). Prior to the last activity, we have done a floristic inventory and dendrometric measurements in the chosen sites</p>
Collection of Seeds and harvesting of cuttings				After the prospecting, we have conducted the collection of trees

				seeds and the harvesting of cuttings.
Seed germination and cuttings tests				Germination trials were conducted at the Laboratory of Tree Seeds Centre of Ouagadougou (project partner)
Setting up of the nurseries and planting operation				The nurseries were setting at Tree Seeds Centre of Bobo Dioulasso. A total of 3000 seedlings were produced for the planting operation the villages of Baré and Tin.
Lessons learned and reporting				The planting operation and conservation practices like vegetation enclosure and FMNR are still under monitoring

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

With the experience gathered during the previous grants, we efficiently got round some minor technical and communication problems that arose in the implementation of the project.

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

- Awareness-raising on the conservation of *Zanthoxylum zanthoxyloides* is promoted within local communities and stakeholders through education campaign and training.
- The conservation of the species in the selected sites is achieved through the practices of farmer managed natural regeneration and vegetation enclosure.
- Domestication of *Zanthoxylum zanthoxyloides* plants in the cultivation plots is carried out in the two planting sites at two locations.

4. What do you consider to be the most significant achievement of this work?

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

Local populations from Baré and Tin, were involved in data collection. To achieve this result, we had discussions with communities' leaders in order to explain the objective of our work and its importance for local communities and resource conservation. The local communities were involved in the following ways:

- The awareness campaign and training on seedling production in nursery and plantation was done with the representative persons of each site and local stakeholders. During the plantation the previously trained persons were used as technicians in order to make in practice what they learnt during the

awareness campaign. The representative persons of each site really understand the goal of the project and really contributed to its achievement. The representative persons of each village acquired knowledge on tree planting, farmer managed natural regeneration and vegetation enclosure practices.

- Tree planting involved the local communities, who acquired knowledge and skills on tree planting, and the expected benefits of reforestation and afforestation.
- Maintenance of the planted trees, including watering/irrigation, slashing, and creating fire hazards for protection, was the role of local communities. This was to ensure ownership of the project among the communities and encourage active participation of the communities.

6. Are there any plans to continue this work?

We are planning to apply for second booster grant that will focus on interviews of local people to obtain information on conservation success factors, impact on human livelihoods and ecosystems/conservation aspects. The results related to the analysis of these interviews will allow us to evaluate and improve our educational materials for future actions. A combination of participatory rural appraisal, household interview and observational methods will be used to document knowledges on the conservation of *Zanthoxylum zanthoxyloides*.

We are also planned to continue this work focused on the use of a participatory mapping approach to assess the medicinal vegetation dynamics and the driving factors where satellite images show an increasing biomass production.

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

From this study, we produce a master thesis on seed germination process of *Zanthoxylum zanthoxyloides* as affected by different pre-treatments. We are also planning to publish the results in local and international journals in order to make the results available to the scientific community as well as to decisions makers and land-users. All the steps involved in the cultivation of *Zanthoxylum zanthoxyloides* will be properly documented and used to prepare a handbook. This product will be uploaded to Rufford website.

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

The Rufford Foundation grant was used from February 2021 to January 2022. Everything was done as planned.

9. 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. 1£ = 759.57300 XOF or F CFA (07/02/2021)

Item	Budgeted Amount	Actual Amount	Difference	Comments
I Allocations for local team /Accommodation				
Prospecting and project setup (3 working days for 3 persons, 25000 F CFA/days; workshop)	308	349	+41	Prospecting and project setup were conducted as planned with a little more finance because we spend one more working day.
Floristic inventory and dendrometric measurements (5 working days for 2 persons, 25000 F CFA/days)	342	342		Floristic inventory and dendrometric measurements were completely conducted as planned.
Education campaign and training (6 working days for 3 persons, 25000 F CFA/days)	615	615		Education campaign and training were completely conducted as planned.
Implementation of farmer managed natural regeneration (3 locations / site, 200000 FCFA / site)	820	826	+6	Implementation of farmer managed natural regeneration were completely conducted as planned.
Implementation of vegetation enclosure practices (3 locations / site, 300000 FCFA / site)	1230	1184	-46	Implementation of vegetation enclosure practices were completely conducted as planned.
Collection of Seeds and harvesting of cuttings (3 working days for 3 persons, 25000 F CFA/days)	308	570	+262	We spend more time than expected for seeds collection and harvesting of cuttings because of the sites was so far.
Setting up of nurseries and planting operation (5 working days for 3 persons, 25000 F CFA/days)	513	513		Setting up of nurseries and planting operation were completely conducted as planned.
"Site monitoring, analyses and interviews with local people (15 working days, 1 PhD and 1 Maters students, 15000/ days)"	615	421	-194	We spend less time as expected because the activities are still ongoing. Field work activities, e.g., field maintenance, site monitoring, are still ongoing.

II Transport and Fuel				
Fuel and motor oil (5 travels, 120000 F CFA / travel)	820	882	+62	More fuel was needed than expected
Repair charges for car (5 travels, 50000F CFA / travel)	342	295	-47	Less repair charge than expected
III- Materials for conservation works (incl. Transport, material)				
Materials for seed germination and cuttings tests	410	561	+151	The materials coast was more expensive than expected as for "Bac germoir 4-V0103-216"
Charges for manual workers	410	551	+141	More manual workers were needed than expected in order to plant trees. We combine the three activities to reduce the different charge.
Seedling's production (seedling bags, watering)	820	526	-294	
Planting operation (plantation holes)	410	338	-72	
IV- Educational activities (materials) and workshops				
Flyers, posters, media outreach for educational activities	205	205		Radio transmissions for educational activities were less expensive than we planned. Catering, Flyers, posters, renting of projection material and chairs coast were almost the same as planned
Radio transmissions for educational activities	164	134	-30	
Catering for workshops and training	396	396		
Renting chairs, etc for workshops and training	273	275	2	
Management fee	998	998		This amount is about 10% of the total
Total	9998	9981	-18	This little balance will be used for on-going site monitoring and the last activity

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

As earlier mentioned, the next steps will include the dissemination of the knowledge gained from this study such as policy brief for local government agencies and the production of scientific publications and a handbook on cultivation of *Zanthoxylum zanthoxyloides*.

11. 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 RF logo on posters and for Power Point presentations.

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

Dr. Francois Wenemi Kagambega (Researcher at INERA in the Department of Environment and Forest). Main applicant and coordinator of the project, expertise in land restoration, West African flora and vegetation.

Dr Lassina SANOU (Researcher at National Tree Seed Center of Ouagadougou), Forester and expert in Tree seeds collection and non-sexual propagation of plants.

Mr Sompro SANOU (Village Development Advisor (CVD) of the village of Barré) Contact person in of the village of Barré for local farmers' organisation.

Mr Adama Coulibaly (Village Development Advisor (CVD) of the village of Tin) Contact person in of the village of Tin for local farmers' organisation.

Prof. Adjima Thiombiano (University Joseph Ki-Zerbo of Ouagadougou / University Thomas Sankara). President of University Thomas Sankara, Expert of flora and vegetation of Burkina Faso (e.g., lead author of the 'Catalogue des plantes vasculaires du Burkina Faso'), consultant to the Ministry of Environment and NGOs; He was involved in the previous funded Rufford grants.

Dr. Marco Schmidt (Senckenberg Research Institute Frankfurt / Palmengarten) Curator of the West African Vegetation Database and the West African Data and Metadata Repository, expert on West African flora; He was involved in the previous funded Rufford grants.

Prof. Louis Sawadogo (Researcher at INERA in the Department of Environment and Forest). Director of ANVAR (National Agency for the Promotion of Research Results) and expert in forest management and silvo-pastoralism; He was involved in the previous funded Rufford grants.

Mr. Emile Gandema, journalist/communication specialist in Burkina Faso, expertise in communication for the education campaign. He was also involved in the previous funded Rufford grants.

Mr. Issa Pakodé, Forester and former Regional Director of the Ministry of Environment. He was involved for planting activities.

13. Any other comments?

We thank the RF for this second grant that has allow us to collect large quantity of data for biodiversity conservation and rural development across the sub-Saharan area of Burkina Faso.