The Rufford Small Grants Foundation

Final Report

Congratulations on the completion of your project that was supported by The Rufford Small Grants Foundation.

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. 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. Please be as honest as you can in answering the questions – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

Please complete the form in English and be as clear and concise as you can. We will ask for further information if required. If you have any other materials produced by the project, particularly a few relevant photographs, please send these to us separately.

Please submit your final report to jane@rufford.org.

Thank you for your help.

Josh Cole Grants Director

Grant Recipient Details	
Your name	Christine Dranzoa
Project title	Landscape Restoration through Reforestation and River De-silting for Nature Conservation in Northern Uganda
RSG reference	13766-1
Reporting period	August 2013 to January 2015
Amount of grant	£6,000
Your email address	cdranzoa@yahoo.com
Date of this report	15th January, 2015

1. Please 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
Restore degraded landscapes and ecosystems through promotion and conservation of suitable endangered tree species with focus on *Khaya* sp., *Cacia* sp., *Albizia* sp. and other indigenous tree species		✓		Afforestation and reforestation done as planned. Four tree species were planted on the Muni landscape that was formerly degraded. The species include *Swietenia mahogany*, *Aloe* sp, *Chlorophora excelsa*, *Grevillea* sp., and *Eucalyptus* sp. Not fully achieved. However, over 400 seedlings planted
Address socio-economic issues in landscape management, natural resource conservation and agriculture through development of behavioural change strategies			✓	A socio-economic survey was conducted to examine issues of landscape management, natural resource conservation and agricultural practices in the Muni Hill landscape. Subsequently, strategies aimed at encouraging behavioural change towards better landscape management, natural resources conservation, and best management practices in agriculture were identified
Determine the influence of restored landscape and ecosystem on water quality and on the composition and abundance of biodiversity in the Muni landscape.		✓		Baseline data on water quality, and composition and abundance of biodiversity in the Muni Hill landscape was collected prior to afforestation and reforestation. Data to determine the influence of the restored landscape on abiotic and biotic parameters is yet to be collected because of the slow nature of growth of the trees. These data will be collected at a later date when the trees are older and have fully established

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

The long dry spells often experienced in northern Uganda made it difficult for the tree seedlings to establish quickly even though the seedlings were planted during the rainy season. This problem was addressed through manual irrigation using watering cans, albeit expensively.

Due to the tight budget, the project relied on community involvement to carry out most fieldwork activities with the guidance of technical support from the project team. This led to some delays during project implementation since certain fieldwork activities, such as pitting and seedling transplanting, were done at times that were suitable to community involvement.

Most of the local community members who took part in the project demanded for fast-growing tree species that are not indigenous to the area. Fortunately, their demands were accommodated by the project.

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

First outcome: <u>*Afforestation/Reforestation done*</u>

Seedlings of four tree species, namely *Swietenia mahogani*, *Milicia excelsa/Chlorophora excelsa*, *Grevillea* sp., and *Eucalyptus* sp., were planted in the Muni landscape during *Phase I* of the project. Seedlings were planted in pits measuring approximately 1.5 ft. (diameter) by 2 ft. (depth) were dug and filled with topsoil. Pit spacing was 6 m apart, which is the recommended spacing by the National Forest Authority in Uganda. The seedlings and the numbers planted are shown in the table below.

Tree species planted during *Phase I* of reforestation/afforestation of the Muni Hill landscape

SN	Tree species	Number planted
1	*Swietenia mahogani*	50
2	*Milicia excelsa/Chlorophora excelsa*	100
3	*Grevillea* sp.	50
4	*Eucalyptus* sp.	200

To date, the seedlings have established and are growing well. Seedling planting was accomplished in collaboration with the Rotary Club of Arua (affiliate of Rotary Club International), National Forest Authority, Arua District Forest Office, Arua District Environment Office, and the Muni Hill landscape community.

An additional 2,500 seedlings of *Pines grandis* and *Mangifera indica* have been acquired and will be planted during the forthcoming rainy season.

*Second outcome: *<u>*Natural resources conservation by the Muni Hill landscape community practised*</u>

Natural resources conservation practices such as ridge cultivation, tree planting, and wetland conservation, are now being practised in the project area due in part to activities that were initiated during the project. The area along River Asa that is adjacent to the project area has been zoned into wetland, agricultural land, and afforestation/reforestation.

The wetland has been left undisturbed to act as a natural water reservoir. The agricultural land is under cultivation by the community, but using best management practices for sustainable agricultural production. Approximately 40-50% of the area under afforestation/reforestation has been planted with tree seedlings as proposed in the project document. This is expected to continue once the rains resume in April 2015.

Third outcome: <u>*Baseline information on biodiversity of the landscape collected and analysed*</u>

Baseline data on biodiversity in the Muni Hill landscape including fauna species, avifauna diversity, and flora diversity was captured in the project. These data are very important in determining whether the afforestation/reforestation influenced abiotic and biotic diversity on the restored landscape, when additional data are collected at a later date.

The following fauna and flora species were found in the baseline data:

a) Seventy two species of birds were identified in the Muni landscape, representing 6.9 % of the total bird species of Uganda (1,050 species). Three species of fish were identified in River Asa. Thirty bird species where found to be unique to the Muni landscape. Attributes assigned to these unique bird species were related to their habitat preferences, their distribution within Uganda and East Africa, and their status quo in Uganda in terms of being endemic, endangered or threatened species. Twelve of the unique bird species fall under restricted distribution to only the West Nile region and the Albertine Rift Valley. These included blue headed coucal, vitelline masked weaver, African quail finch, green headed sunbird, brown twinspot, African blue flycatcher, black cap, sooty chat, vinnaceous dove, little weaver, semi-collared flycatcher, and bar breasted firefinch. Other fauna included reptiles, mongooses, and five species of insects.

b) Thirty-eight indigenous flora species were recorded in the Muni Hill landscape. Of these, 24 were positively identified.

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

The local communities were involved in the following ways:

a) Tree planting involved the local communities, who acquired knowledge and skills on tree planting, and the expected benefits of reforestation and afforestation.

b) 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. For maintenance the local communities received monetary benefits for their efforts.

c) A section of River Asa in the project area was cleared and widened to provide access to the water. This has enabled the local communities to have more open access to the water for themselves and their animals.

d) Corporate institutions, including Rotary Club International, Barclays Bank of Uganda Limited, and others, have taken interest in collaborating with Muni University in planting trees in and around the project area.

5. Are there any plans to continue this work?

There are plans to continue this work. First, an assessment of the impacts of the restored ecosystem on the biodiversity of the Muni Hill landscape will be made. This will be done as the trees establish to a suitable size.

Second, the area under afforestation along the banks of River Asa will be expanded and widened to include additional sections of the river upstream and downstream from the project area.

Third, community sensitisation will be a continual process which will continue over time.

Fourth, there are plans to establish an aquaculture site adjacent to the project area, which will serve as a training and fish raring facility for the University and the community.

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

Reports and data from the project will be shared with representatives of all the partners that were involved in the project (Rotary club of Arua, Arua District Environment Office, Arua District Forest Office, National Forestry Authority, representatives of the local communities, and the Muni University community).

In addition, the findings will be used to develop policy documents that will contribute to inform decision-making processes when conducting a similar project in other areas.

Also, peer-reviewed publications will be made and shared with the larger scientific audience.

Radio talk shows will also be used as these have a wide coverage among the communities in the area.

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

The expected project duration was 12 months. However, the RSG was used for 18 months. This is slightly longer than the anticipated project length. Three reasons are responsible for this.

First, before project implementation could begin, consultations were necessary with the local district leaders and representatives of the local communities. This was necessary to arrive at agreements on how the project could be implemented with minimum interference from the locals. This led to delays in starting the project.

Second, the project relied on community involvement which, to some degree, meant carrying out certain activities during periods which were suitable for the community. The further caused delays to project implementation.

Third, tree seedlings were planted only during the rainy season to enable the seedlings establish roots. This also delayed the project.

8. Budget: Please 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.

Item	Budgeted Amount (GBP)	Actual Amount (GBP)	Difference (GBP)	Comments
Awareness creation (AC)	500	500	0	
Field work (FW)	1500	592	908	Field work activities, e.g. field maintenance, re-filling, etc. still ongoing since the trees are still young. Hence, the difference.

Training Workshops (TW)	375	200	175	Difference is due to staggering of the training workshops. This is an ongoing process, which takes into account the different stages of tree growth, and subsequently tailored training sessions.
Travels	750	692	58	
Research (RES)	875	1,062	-187	The difference is due to under budget estimation.
Research equipment (RE)	500	113	387	To avoid purchase of similar tools, only essential equipment was purchased. Other required equipment was borrowed from similar a similar project.
Reports and publication (R&P)	250	250	0	
Monitoring and Evaluation (M&E)	500	500	0	
Institution costs (IC)	525	525	0	
In-kind contribution (IKC)	225	225	0	
TOTAL	**6,000**	**4,659**	**1,341**	**This balance is proposed for radio talk shows, additional afforestation of 2,500 seedlings and maintenance, and publications.**

The local exchange used for currency conversation is **1 £ sterling = UShs. 4,000.**

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

The next important step is an assessment of the impacts of restored habitats especially reforestation and afforestation of the Muni Hill landscape on the biodiversity of the landscape. Furthermore, the area for restoration along the River Asa needs to be expanded so that the benefits of a restored landscape are experienced at a larger scale.

10.   Did you use the RSGF logo in any materials produced in relation to this project? Did the RSGF receive any publicity during the course of your work?

The RSGF logo was used on material produced for internal consumption within the university community. However, the RSGF received full publicity on official documents produced for purposes of visibility during the course of the project.