

Final Project Evaluation Report

Your Details	
Full Name	Peninah Aloo Obudho
Project Title	Promotion of Environmental Conservation through a Botanical Garden and establishment of Environmental Clubs in Nyeri County, Kenya
Application ID	22554-2
Grant Amount	£4,980
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Date of this Report	2/4/2020

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
Completion of a Botanical Garden				The botanical garden is completed and in use.
Establishment of 10 more Environmental Clubs				22 more clubs were established hence over-achievement (total of 61 clubs established).
Construction of two resting sheds in the Botanical Garden				Only one shed was constructed due to the high cost of construction materials.
Training of Environmental Club Patrons				15 patrons, two youth leaders and three community leaders were trained.
Establishment of more collaborations				Collaboration with UNEP, Kenya Forest Service and NEMA achieved.
Sensitization of community on environmental conservation				The entire community around the university and in all the sub-counties in Nyeri County has been sensitised through training of patrons, community leaders and youth leaders.

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

The only unforeseen difficulty was the high cost of materials for construction of the resting shades and tree nursery maintenance. Savings made in other areas were used to cover the additional costs.

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

a). Establishment of Environmental Clubs

A total of 61 environmental clubs have been established in primary schools in Nyeri County. The clubs are the champions of environmental conservation in the County.

b). Establishment of a Botanical Garden

Karatina University is among the few universities in Kenya with a botanical garden. The facility is critical for environmental education and also used as an outdoor laboratory for environmental studies students. The garden is one of the facilities we have used to brand the university as a green university. The university has come out strongly as an environmental conservation institution because of the project activities.

c). Establishment of critical collaborations/Partners.

One of the key collaborators as a result of the project is UNEP. The project team is working on a climate action project with UNEP because of the success of the Rufford project. Other partners are National Environmental Authority (NEMA), Kenya Forest Services and county government, among others.

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

The community leaders were part and parcel of the project. They participated in the establishment of some of the environmental clubs. They were trained on environmental conservation together with the patrons. They have benefitted from the training and invitations to the university during environmental activities. The project planted three degraded areas within Nyeri County in collaboration with the local communities. Through the leaders, the community has been empowered in terms of environmental conservation.

5. Are there any plans to continue this work?

Through partnership with the national and county governments, there are plans to plant more degraded areas in Nyeri and establish more clubs in the remaining 128 primary schools. Negotiations are on-going for support to roll out the project to other counties. One aspect of the project that could be considered for funding by Rufford Foundation is the conservation of some threatened indigenous trees which have been used in phase I and II of the project. These trees including *Prunus africanus*. They are threatened and require concerted efforts to conserve since they are of medicinal importance.

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

The results have been disseminated in the following forum:

- a) Summer school held at Kartina University in collaboration with a university in Germany in October 2018. Our Paper was among the few published in the proceedings.
- b) UN Environmental Assembly Conference in March 2019.
- c) Rufford Small Grant Conference in Zanzibar, February 2020.
- d) Presentation of the results to the university community.
- e) Sharing the success story of the project during international days like International Day of the forests, World Wetland Day, World Environmental Day, among others.

Still to come:

- a) We are working on a paper to be submitted in a refereed journal.
- b) Plans are underway to do a video about the project. We have been videotaping all activities. This video will be shared with schools and other stakeholders.
- c) A newsletter was ready for publication if it were not for the current COVID-19 situation.

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

The grant has been used over a period of 4 years (2016-2020). The first phase received grant in 2015 but the project started in 2016. The actual length of the project should be 2-3 years so there is a delay of one year due to a number of mitigating factors including heavy rains that hindered access to some schools delaying implementation.

8. 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.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Construction of resting shade	300	330	+30	Only one shade was constructed due to high cost of materials
Publicity materials	700	885	+185	Additional cost due to production of calendars which were effective in publicising the project
Purchase of farm equipment	200	190	-10	There was other equipment hence the saving
Subsistence allowance	1810	2100	+190	The over-expenditure was due to additional field work to establish clubs or planting forests
Materials for Botanical Garden	500	605	+105	The over-expenditure is due to high cost of materials
Casual labourers	300	400	+100	The man days went up due to maintenance of the tree nursery
Stakeholder workshop	470	450	-20	Reduced number of participants caused the under-expenditure
Transport	600	540	-60	The university subsidised transport during field work
TOTAL	4880	5500	+620	

Please note that some of the over-expenditures were covered by the University especially transport and materials for Botanical Garden.

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

The most important next steps include:

- a) Conservation plan for some of the threatened indigenous trees. Some of these trees have been planted in the botanical garden. However, there is need to work with the community to conserve these trees especially those of medicinal importance like *Prunus africanus* which has been over-exploited. The study should bring out the medicinal importance, role of the tree species in mitigating climate change, etc.
- b) Establishment of clubs in high schools and middle level colleges.
- c) Roll out of the same project to other counties in Kenya.

10. 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 logo was used during the summer school presentation. We produced calendars in 2019 and 2020 and the logo was conspicuously displayed. The project also produced success cards and the logo was used. There is a board at the entrance of the botanical garden with the logo of Rufford Foundation and the university. During presentations in Zanzibar, the logo was used on the slides. The foundation received a lot of publicity especially when the project team attended high level environmental meetings such as the UNEA at UNEP.

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

The Project Coordinator (PC) is **Peninah Aloo-Obudho** (PhD, Fish Ecology). She has published extensively on Ecology and conservation of Kenyan aquatic resources. She has extensive experience working with communities around lakes Victoria, Baringo and Naivasha. She is the Deputy Vice-Chancellor (Academic Affairs) where she is in charge of Academics, Research and Student Affairs. She convinced the University management to set aside about 10 acres of land for the Establishment of a Botanical Garden and Nature Trail. Prof. Aloo-Obudho is an Ecologist with wide experience on environmental issues hence her suitability to undertake the project and lead the team. Others who assisted and provided advice in this project include the following:

Mugo Mware (PhD, Forestry). He has done extensive research on the conservation of forest resources. He will be provided knowledge and advice on tree nursery establishment and re-forestation of degraded land. Dr. Mware is the former Dean, School of Natural Resources and Environmental Studies.

Dr. Mware has wide experience in working on forest ecosystems in Kenya. He has established a close working relationship with the Kenya Forest Services having worked in the Forest Department before joining the University.

Margaret Mwenje (PhD, Counselling Psychology and Sociology). She is an expert on social aspects touching on community. She was born in Nyeri County and understands the community and the environmental challenges thus she was a valuable contact between the team members and the community. She has carried out research on challenges facing communities from different perspectives including environmental conservation. Dr. Mwenje is the former Head of Department of Social Sciences.

Josephat Kagema (PhD, Education) was coopted in the project to handle the environmental education aspects since he has education background

Grey Mausi is an Assistant Lecturer at Karatina University in Natural resources and provided Skills on nursery establishments.

Richard Maturu is a Technician in Department of Natural Resources and provided technical assistances during the project. One Newspaper reporter was coopted in the project team to cover project activities in the dailies.

12. Any other comments?

The implementation of the Rufford Foundation project has benefited me as an individual in terms of career growth. Because of the project, I was appointed as a member of NEMA Board. During my promotion to professor, the project is one of the community activities that gave me additional points. The project led to the branding of the university as a green university and has been recognised by UNEP and other environmental organisations. Karatina University has received a lot of publicity due to the project. The project has brought the university close to the community.



Prof. P. Aloo-Obudho, the Rufford Project Coordinator speaking during the training of Environmental Club Patrons.



Group photo of the training of Patrons, Community and Youth Leaders (Seated in the middle is the DVC-ARSA and Project Coordinator, Prof. P. Aloo-Obudho).



Two of the project team members in the tree nursery transferring seedlings



Project team member, Dr. Mugo Mware demonstrating the establishment of a tree nursery. Looking on is the Project Coordinator, Prof. P. Aloo-Obudho



Environmental Club members planting a tree during the launch of clubs



A walk through the Botanical Garden, on the right is the Project Coordinator Prof. P. Aloo-Obudho, in the middle is Dr. Doris Mutta (Council Member) and on the left is Dr. Mugo Mware



Project team members during the 4th UNEA Conference at UNEP Headquarters in Nairobi. In the middle is the project Coordinator, Prof. P. Aloo-Obudho