The Rufford Foundation
Final Report

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

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. The Final Report must be sent in **word format** and not PDF format or any other 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. 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. Please note that the information may be edited for clarity. 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	Richard Olwa
Project title	Enhancing Recovery of the Population of Critically Endangered Native tilapia Fishes in Lakes Kayanja and Kayugi, Uganda
RSG reference	21847-2
Reporting period	21st April 2017 to 21st April 2018
Amount of grant	£5,000
Your email address	richardolwa@gmail.com
Date of this report	24th April 2018

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
(a) to protect the mapped breeding and nursery areas, and safe havens of critically endangered native tilapia fishes on lakes Kayanja and Kayugi				Fish Conservation Committees (FCCs) and researchers were actively involved in protecting critical habitats (breeding and nursery areas) vital for the survival of threatened native tilapia fishes.
(b) to monitor the population and abundance of these critically endangered fishes in the two lakes				Researchers together with FCCs carried out quarterly fish surveys to monitor population trends and abundance of threatened native tilapia fishes in lakes Kayanja and Kayugi.
(c) to enhance conservation awareness about the conservation status of native tilapia fish and their habitats				Fishermen, pupils, teachers and local communities were engaged in various awareness campaigns to raise their enthusiasm and commitments to conserve threatened fish fauna and their habitats.

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

The following were some of the challenges or hindrance encountered during the course of implementing project activities.

(a) Use of destructed fishing techniques like longlines within breeding and nursery sites of native tilapia fishes were observed, particularly on Lake Kayanja. The FCCs team together with researchers addressed this challenge by conducting robust sensitisation of culprits on the importance of these critical habitats to reviving fish stock. Additionally, they (FCC team and relevant stakeholders) are in advance stage of coming up with sustainable and long term solutions to address this challenge. This may involve stopping the use of long lines fishing techniques on these lakes.

(b) Lack of motorised boat for efficient and effective patrol of these lakes, However the FCC team managed this challenge by using unmotorised boat to undertake patrol activities; though they were taking longer time to respond to unwarranted activities on these lakes. Additionally, wooden boats are not allowed to be used on Lake Kayugi, according to tradition of the people living within and around this

Lake. However, FCCs team managed to overcome this challenge by using fishing rafts made of bamboo reeds to undertake patrol activities on Lake Kayugi. This further slowed down their reaction time to manage unwarranted activities on Lake Kayugi.

(c) Illegal fishing at No Take Zones (NTZs) by some fishermen. This challenge was addressed through sensitisation of culprits on the relevance and benefits of these zones to facilitating fish stock recovery.

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

The following were the key outcomes of the project;

(a) Recovery of the populations of threatened native tilapia fishes observed on both lakes according to the findings gathered during quarterly fish surveys. These findings concurred with reports from fishermen which indicated Singidia tilapia (*Oreochromis esculentus*) being frequently encountered on their daily fish catch from the two lakes. Additionally, other fish species like African catfish caught from these lakes were of good marketable sizes weighing between 0.5 and 2 kg. This has boosted household food requirements and income of fishermen.

(b) The numbers of endangered grey crowned crane at Lake Kayanja catchment areas has substantially increased; this could have been attributed to the reduction in habitats destruction, modification, fragmentation and loss of riparian vegetation.

(c) The cage fish farming of Nile tilapia (*Oreochromis niloticus*) which competes aggressively with native tilapia for food, spawning, and nursery grounds has been stopped on Lake Kayanja, and this has facilitated the recovery of threatened native tilapia fishes in Lake Kayanja.

(d) Commitments and enthusiasm of fishing communities particularly Fish Conservation Committees (FCCs) and public has improved considerably to protect and conserve threatened fish fauna and their habitats. This was witnessed from their active participations in undertaking various activities like awareness creation, daily surveillance of critical habitats of fish and sharing of their local knowledge to better manage these lakes.

(e) The attitudes and behaviors of fishermen changed positively to better manage and protect aquatic fauna and their habitats.

(f) School pupils groomed and trained to become future ambassadors for fisheries conservationists.

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

Local communities namely; fishermen, pupils, teachers and wider public were engaged in implementing various activities to achieve project aims and objectives. Main activities they were involved in included: (a) protecting critical habitats

(breeding and nursery areas) vital for the survival of threatened native tilapia fishes, (b) monitoring population and abundance of critically endangered native tilapia fishes in lakes Kayanja and Kayugi, and (c) awareness creation to raise their enthusiasm and commitments to conserve threatened fish fauna and their habitats. Local communities particularly Fish Conservation Committees (FCCs) gained various conservation skills and knowledge as a result of their direct involvements in implementing all project activities. They (FCCs) acquired new conservation skills and knowledge to undertake appropriate actions to conserve and protect aquatic resources including native tilapia; they depend on as their major source of livelihoods and wellbeing. Additionally fishermen are benefiting from better fish catches thus improving on their household food requirements and income.

5. Are there any plans to continue this work?

Yes, we plan to continue with this work to: (a) protect and monitor recovery of the populations of threatened native tilapia fishes in lakes Kayanja and Kayugi, (b) foster awareness about the conservation status of threatened fish species and their habitats among youth, fishermen and other stakeholders, and (c) support and work with Fish Conservation Committees (FCCs) to conserve and protect critical fish habitats and safe havens of native tilapia fishes mapped on lakes Kayanja and Kayugi.

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

The results of this work were shared with others through: (a) delivery of presentations at relevant events, e.g., local community meetings, landing site talks, conferences and workshops and (b) distribution of educational materials like charts and posters to school children, teachers, fishermen and local community leaders. Additionally, project results will also be shared with conservation practitioners, policy and decision makers and developers alike via social media like LinkedIn, twitters as print downloadable reports and presentations**.**

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

Project activities were implemented within the 12 months period as originally planned (April 2017 to April 2018). All the major expected conservation outputs and outcomes were achieved within the planned project tenure.

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	Actual Amount	Difference	Comments
Facilitation of two Researchers for 12 months	720	720		
Hire of Vehicle for 12 months	1200	1200		
Purchase of Fuel for Vehicle for 12 months	950	1030	-80	Extra £80 was from the funds for purchase of fuel for electro fisher.
Hire of Fishing Equipment for 4 months	230	230		
Hire of boat and Coxswains for of 4 months	120	120		
Purchase of fuel for electric fisher for 4 months	80	0	80	Electric fisher was not used during fish surveys
Refreshment participants during awareness campaigns and surveys for 6 months	240	240		
Refreshment for FCCs team during daily surveillance for 12 months	192	230	-38	Extra £ 38 was from the 5% contingency
Purchase of stationary and printing of educational materials	350	350		
Dissemination of project results	680	680		
Contingency (5%) to cater for withdrawal charges, transportation to the bank and internet data	38	200	38	
Total	**£5000**	**£5000**	**£ 00**	

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

Basing on the outputs and outcomes realised from this project, important next steps include:

a) Develop and implement community-based strategic recovery plan for threatened native tilapia fishes in lakes Kayanja and Kayugi.
b) Protection and monitoring recovery of critically endangered native tilapia fishes in lakes Kayanja and Kayugi
c) Continue to support and work with Fish Conservation Committees (FCCs) to conserve and protect critical habitats and safe havens of threatened native tilapia fishes on lakes Kayanja and Kayugi

d) Continue to create awareness about the conservation status of threatened fish species and their habitats among youth, fishermen and relevant stakeholders.
e) Replicating similar projects on other satellite lakes of the Victoria and Kyoga lake basins to hedge the risk of extinction of native tilapia in wild.

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

The Rufford Foundation logo was used in the presentations delivered to research technicians, teachers, pupils, fishermen and local communities, showing them that The Rufford Foundation provided financial support for this project. The logo was also used in educational materials like posters and charts used for awareness creation. Additionally, logo will be used in the articles/ journals to be written about this project for publication

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

(a) **Fish Conservation Committees (FCCs)**: They played a role in conserving and protecting targeted fish species and their habitats, conservation awareness campaigns. They also shared their local knowledge with project team to improve on the project implementation techniques to achieve expected outputs and outcomes.
(b) **Youth**: They played key roles in awareness creation by drawing the attention of people on activities being carried out by them during the awareness campaign, thus leading to success of the campaign.
(c) **Local government leaders:** District leaders, county and sub-county leaders, parish and village leaders offered necessary support to ensure successful implementation of project activities within their areas of jurisdictions. Additionally Government representatives like fisheries officers shared their experiences with project implementation team on how best to conserve and protect the established spawning and nursery grounds and safe havens on lakes Kayanja and Kayugi.
(d) **Training facilitators:** Professionals with extensive experience in fish conservation awareness creation, ecology of targeted fish species and their habitat played a big role in training fish conservation committees, youth and other stakeholders about the need to conserve and protect fish species and their habitats.
(e) **Technical project advisors**: These were experienced professionals from National Fisheries Resources Research Institute (NaFIRRI) and Makerere University with extensive knowledge on targeted fish species, they reviewed educational materials for awareness campaigns and training, shared their experiences with project team to improve on project implementation techniques to achieve the expected outputs and outcomes.

12. Any other comments?

On behalf of my colleagues and my own behalf, I wish to thank The Rufford Foundation for providing the necessary financial support for this project. We are very pleased to work with The Rufford Foundation and eager to continue working with the foundation on other future projects. We thank fishing communities, teachers, pupils, government representatives, and technical staff from National Fisheries Resources Research Institute for their support and active participation in implementing the activities of this project to achieve the realised outcomes. Thanks to the Director of National Fisheries Resources Research Institute for the technical guidance and support he offered to throughout the project tenure.