

## The Rufford Foundation

### Final Report

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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](mailto:jane@rufford.org).

Thank you for your help.

**Josh Cole, Grants Director**

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Grant Recipient Details	
Your name	Felemont Kayulayula Banda
Project title	Conservation Effects of Spatial Variations in Land Use Patterns on the Littoral Zone Vegetation of Lake Chilwa Wetland: Case of Typha of Vegetation.
RSG reference	21784-1
Reporting period	June, 2017- June, 2018.
Amount of grant	£5000
Your email address	fbanda@poly.ac.mw
Date of this report	1 <sup>st</sup> October, 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
To produce a land use pattern and livelihood practices portfolio which demonstrates incompatibility and compatibility with the Lake Chilwa littoral zone functioning.				The development of land use pattern and livelihood practices portfolio has partially been achieved. This is because of the delay with data collection. Data related to livelihood practices is seasonal dependent such that there was a delay in the collection of such data since it could only be collected when such activities were in season. This made it difficult to adhere to the planned schedule of activities. Development of the portfolio was thus not fully achieved. However, this will be accomplished outside the project period.
To enhance capacity of the communities surrounding lake Chilwa catchment area in littoral zone management.				This objective has fully been achieved. Selected community members were trained in littoral zone management.
To train communities in identifying livelihood practices which are detrimental to the sustainable functioning of the Lake wetland ecosystem through training workshops.				This objective was only partly achieved as not all the planned workshops were conducted. During data collection weather conditions resulted in more time being spent in the field beyond what was budgeted for. This state of affairs resulted in part of the funds meant for workshops being used for data collection.
To reduce depletion rate of vegetation				At this stage a determination of the success level of this objective cannot be made. It will only be possible to determine whether a reduction in depletion rate of vegetation has occurred after a number of years: 2-5 years or even more.
To improve sustainability in land use patterns and livelihood practices at Lake Chilwa Wetland.				This objective has been partially achieved through training. However, empirical long-term verification in subsequent studies is recommended.

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

The major unforeseen difficulties were to do with weather and the seasonal dependency of some of the planned project activities. This made it impossible to finish the project within the planned time. Such was the case because data collection period for the project had to be extended to ensure that data on various land use pattern was collected. This unforeseen difficulty was sorted by extending the period through which the project ought to have been wound up by 3 months i.e. from June to October. Thus instead of the project being conducted within 12 months, it was conducted in 16 months.

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

The three most important outcomes of the project were that:

(a) Practices which are detrimental to the sustainable utilisation of the littoral zone vegetation were brought to national attention at a Malawi National Adaptation Conference through a paper presentation,

(b) Communities were made to realise that strategies which they are currently using to adapt to climate change are to a large extent maladaptive and thus putting their future resilience in jeopardy due to their present adaptation strategies which are responsible for the rapid depletion of Lake Chilwa environmental resources with littoral vegetation being one of such depleted resources.

(c) Lake Chilwa environmental problems have been shared with various Environmental advocates through three conference presentations. These presentations were made in Windhoek, Namibia, at a Rufford Conference, in Lilongwe, Malawi at a United Nations Development Program (UNDP) organised National Adaptation Conference and in Blantyre, Malawi at a conference organised Wildlife Environmental Society of Malawi (WESM).

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

The project involved communities at several levels. In the first place, part of the data collection included one community member. This community member assisted the project key members in navigating the cultural and geographical terrain of the project area. Secondly, the information which formed the basis of various conference presentations, community training workshops and the paper which is to be published was gathered with the help of local community members.

**5. Are there any plans to continue this work?**

The project led to the discovery of some fishing practices called *madonga* which has attracted little attention from researchers, academics and state authorities. This fishing practice involves closing part of the lake using fence-like embankments. The

materials for making these fences are *Typha* vegetation. The fishermen then leave a small passage within the long fence wherein they place a fish trap. During focus group discussions, community members indicated that, apart from being a cause for rapid depletion of *Typha* vegetation which is used for fencing and indiscriminate catching of fish, the practice is also responsible for lake siltation. However, there has never been an in-depth scientific investigation in terms of its effects on fish levels; impact on *Typha* vegetation and its impact on lake siltation levels. Communities who mentioned this practice do not practice it themselves, rather the practice is commonplace in an area of the same Lake Chilwa wetland but which is outside the area of the present project such that investigators did not have a chance to observe the practice on the ground. It is therefore planned that the next funding application will focus on understanding this potentially detrimental practice to the Lake Chirwa ecosystem, but which is little understood, and without any documentation despite voluminous studies which the Lake Chilwa wetland has attracted since the 1970s (Howard-Williams and Lenton, 1975; Cantrell, 1979; Howard-Williams and Lenton, 1975; Furse, 1979; Mwafongo, 1996).

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

The results of the work have already been shared through three conference presentations as outlined in section 3 i.e. in Windhoek, Namibia, at a Rufford Conference, in Lilongwe, Malawi at a United Nations Development Program (UNDP) organised National Adaptation Conference and in Blantyre, Malawi at a conference organised by Wildlife Environmental Society of Malawi (WESM). An abstract was also submitted to the 55<sup>th</sup> Annual Meeting of the Association for Tropical Biology and Conservation held from July 1-5, 2018 in Kutching, Malaysia. The abstract was accepted, although it was not presented at the Conference because Worldwide Fund (WWF) which was due to fund the presentation was unable to provide funding. It is therefore planned that the abstract will be submitted to some other conference for possible presentation subject to availability of funding. In addition, manuscript is being developed for publication in a peer-reviewed conservation journal as a way of sharing the results with an international audience.

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

The project was planned to run for 12 months (June 1, 2017-June 30, 2018). However, due to the seasonal nature of some livelihood activities in the project area, the project exceeded by 3 months. Instead of winding up and submitting the report on June 30, 2018, the report was submitted on 1 October, 2018 resulting into a 3-month extension.

**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
Stationery	300	300	0	Used as per budget
Hand Held Garmin GPSMAP 64st TOPO	245	310	-65	The amount exceeded that which was budgeted for because we had to hire additional Hand Held GPS equipment. This amount was taken from the amount allocated for monitoring and evaluation and my employer also supplemented.
Transport	821	900	-79	Utilised part of the money meant for monitoring and evaluation. My employer also subsidised some of the trips.
Data Collection Tools	572	650	-78	My employer subsidised by allowing me to use one of their cars due to the shortfall.
Training of Data Collectors	286	286	0	This amount used as per the budget
Data Collection	1688	1800	-112	The shortfall was from out of pocket.
Report Writing	270	270	0	This amount was utilised as per the budget.
Monitoring and Evaluation	718	574	144	The excess amount was utilised for data collection activities (GPS Hiring and Transport) which required additional amount.
Media Promotion	100	100	0	This amount was utilised as per the budget.
Total Exchange rate: 1GBP =MK734.	5000	5190	-190	The project a shortfall of 190 which was supplemented from other sources as stated above.

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

The results of this project work have brought a number of environmental challenges in the Lake Chilwa wetland region to bear. Going forward, the next project will focus on the fishing practice called *madonga* which was identified during this project's

work. From the results of this project, the *madonga* fishing practice has the potential to accelerate the depletion of *Typha* vegetation, lake bed siltation and indiscriminate catching of fish. In this regard, it is prudent for the next conservation project to centre on investigating this practice owing to its potential detrimental and irreversible environmental effects on the Lake Chilwa wetland ecosystem.

**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?**

In all the materials which were produced from this project, Rufford Foundation logo was used. For example, in the two conference presentations which I made at National Adaptation Symposium which was organised by UNDP and Environmental Affairs Department of Malawi Government, the Rufford Foundation logo was used. In addition, I made a presentation at the Wildlife Society of Malawi where the logo was used and Rufford work was further given publicity. There is further acknowledgement of the Rufford funding in the conference proceedings paper which was sent for possible publication by the National Adaptation Conference proceedings.

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

The following people were involved in the project:

**Thandizo Malaidza**, her role was that of a data collection supervisor, **Sylvia Kasiya** performed data entry, **Thompson Sumani** performed cartographic work and geospatial analysis while **Kennedy Chirwa** was the driver and **John Phiri** (local community member) in Lake Chirwa. The initial members who were meant to be part of the key project personnel were committed with other projects such that it was impossible for them participate in this project

**12. Any other comments?**

The project was an eye opener as it led to the discovery of potentially detrimental practices to the conservation of Lake Chilwa Wetland such as *Madonga* practices. It is therefore highly recommended that, significant attention be placed on understanding this practice through further studies because of its potential irreversible effects.



Left: Some community members who were engaged in Focus Group Discussion. The Shelters behind are built using Typha vegetation. Right: The picture shows a mosquito net being repaired in readiness for fishing. This is one of the livelihoods practices which are responsible for fish depletion and Typha depletion because fishing is carried out in the littoral zone.



Left: Rice farm in a zone where Typha vegetation has been cleared. Right: One of the respondents illustrating the *madonga* practice by drawing on the ground.



The researcher carrying a Rufford branded bag during fieldwork standing in the littoral zone of Lake Chilwa where water is receding.