

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	Johnson Grayson Mshana
Project title	Conservation Awareness Campaign for the Protection of Critically Endangered Jipe tilapia, <i>Oreochromis jipe</i> and its Habitat in Lake Jipe, Tanzania
RSG reference	12357-1
Reporting period	January 2013 – February 2014
Amount of grant	£ 5900
Your email address	mshanajohn1@suanet.ac.tz
Date of this report	March 2014

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
<p>To conduct baseline survey on the ecological and social economic aspects in the project area, so as to assess the raising awareness and conservation status of the area after the project time.</p>			x	<p>Physicochemical parameters such as water temperature (ranged from 24.19 to 26.8°C), dissolved oxygen (average = 6.15 mg/l), pH (average = 7.8), conductivity (average =1.07 mv) and dissolved solids (average = 611.0 ppm) were determined at the beginning and at the end of the project. Although there was no remarkable difference between the results of parameters measured at the beginning and at the end of the project, these parameters revealed higher level of anthropogenic inputs to the lake. Unsustainable practices in agriculture, livestock keeping, forest clearing as a result of charcoal burning in the catchment areas are accelerating soil erosion and or siltation leading to the decrease in the lake depth and water chemistry. The period of one year/project time was not enough to have significant positive impact on the physicochemical parameters.</p> <p>The number of people in 'Kigonigoni' and 'Jipe' villages was about 1500 and 1800, respectively. In the same villages, the number of fishermen was 650 and 460, respectively. This numbers include both resident and migratory fishers. Although previous data was not available village leaders declared a decreasing number of fishermen as a result of the decline in the catch of fish. Factors' contributing to the decline in the number of fishermen include decline in the abundance of fish species and difficulties in getting to the fishing ground because the shore line of the lake has been covered by water weeds dominated by <i>Typha</i> spp.</p> <p>The survey observed gill nets of smaller mesh size (i.e. below 1 inch) than required by Tanzania Fisheries Regulation 2003 (i.e. 3.0 inches). Other fishing gear include traps (locally made) as well as mosquito nets both of which have great damage to the individual</p>

		<p>Jipe tilapia, other fish species and their habitats. One fisherman respondent interviewed said 'because of the decline in both catch and size of fish, fishing has changed drastically compared to the past as the allowed mesh size of 3 inches does not yield much and in some fishing areas does not yield at all'. Another respondent emphasised that 'since decline in fish have affected the livelihood of local communities, we can not afford to purchase environmentally friendly fishing gears'. Generally, the number of gill nets (of less than 1 inch mesh size) counted at the beginning of the project was estimated at 568 and 730 in Jipe and Kigonigoni villages, respectively. Although the number of illegal fishing gears did not significantly declined after awareness programme, fishermen declared understanding of the threat caused by these gears to the fish habitat. As a result of awareness campaign, fishermen decided to lay down bylaws that will rule out illegal fishing gear to be used in the fishing ground.</p> <p>Apart from fishing, the present survey observed other alternative livelihood activities such as agriculture, livestock keeping and beekeeping. The area is potential for both activities but because residents practice it just by traditional tendency and or/by habit it contributes scantily to the economy of the community. Other activities include charcoal burning and lumbering. Agriculture involves food crops such as maize, rice, millet, various kinds of beans, and cash crops such as sunflower and ground nuts. A majority of the farmers use hand hoe while a few use oxen to plough. On average, the livestock per family is 20 goats, 10 cows, six sheep and six chickens. In the past fishing contributed to 80%, followed by livestock and lastly agriculture, now the livestock keeping leads to contribute to 70% followed by both fishing and agriculture contributing to 30%. However, the overall economic status of the area has fallen by 40% or more compared to over 10 years ago. The villagers agree that the economy can rise again if, other livelihood activities are introduced, the available activities are</p>
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				improved and the lake is restored and managed. After the awareness programme, local communities required improvement of beekeeping and livestock keeping industry as immediate livelihood activity while at the same time called upon various organisations to support best practices in agriculture in the Lake Jipe catchment areas.
To raise conservation awareness and mobilise community participation in lake conservation through awareness trainings to primary and secondary school students, school teachers, and parents living around the Lake			x	<p>Environmental education and awareness were raised to the local communities including parents, primary school children and secondary school students. Environmental education was raised to 108 students from form two and three classes from Jipe Secondary School and 68 students from Ruru Primary School. Poem and art competitions were also conducted in both schools.</p> <p>Three secondary school teachers (two men and one woman) and four primary school teachers (three men and one woman) from Jipe Secondary School and Ruru Primary, respectively, were involved in the environmental education programme during school awareness training. Involvement of the teachers built their capacity about understanding of the environmental problems facing surrounding areas, enhancing their ability in the introduction of in-school programmes for environmental conservation Village Environment Committees (VECs) of Jipe and Kigonigoni villages, which constituted 11 people each were provided with conservation awareness training. Also awareness was provided to 73 fishermen (youth and elders) from Jipe and Kigonigoni villages. Their participation in the education programme not only raised awareness to the environmental threats facing Jipe tilapia and its ecosystem but also increased the level of understanding on the danger that surrounding communities is to face if the trend persists. Awareness campaign was successful because of the community involvement in the programme.</p>
To mobilise and form School Based Environmental Clubs for the conservation of Lake		x		Two school environmental clubs were formed out of four expected. Eighty students from Jipe Secondary School and 44 students from Ruru Primary School became the founders of

Jipe ecosystem			<p>Jipe Environmental Club and Ruru Environmental Club, respectively. Both of these clubs have been registered by the MALI HAI CLUB OF TANZANIA**. Following training workshop, awareness campaign and formation of ECO CLUBS, there is now an on-going programme of tree planting in both schools by the Environmental Club members as it was emphasised that in the presence of Malihai clubs, the area must be green.</p> <p>**MALIHAI CLUB OF TANZANIA is a Governmental Organisation under the Wildlife Division of the Ministry of Natural Resources and Tourism that register, supervise and coordinate the activities of environmental clubs in Tanzania.</p>
To organise and conduct a field trip for environmental journalists to Lake Jipe		x	<p>Environmental journalists from IPP MEDIA (NIPASHE NEWSPAPER, RADIO ONE and ITV) and RADIO SAUTI YA INJILI MOSHI Tanzania visited the area at the beginning and at the end of the project. Threats facing the lake and Jipe tilapia and surrounding community was publicized by these media to a wider audience. RADIO SAUTI YA INJILI through the program known as 'MAZINGIRA YETU' (i.e. OUR ENVIRONMENT) provided airtime of 30 minutes per week for three weeks consecutively, airing the same.</p> <p>Through environmental journalist trip, the project received comments and suggestions to solution of the problem from more than 157 people. For instance, Mr. Moleli from Manyara region said 'there is a need for more effort to conserve Lake Jipe ecosystem and find long term solutions to the existing threats otherwise the surrounding community will turn into ENVIRONMENTAL REFUGEES within their country'. Also Mr. Mmari from Moshi Town said 'the environmental problems of Lake Jipe and decline in the fishery has a long history back in 1990s; however we should have more effort to conserve it since the social economic status of the surrounding community and nearby cities and town like MOSHI, MWANGA, NJIA PANDA, HIMO and ARUSHA has been greatly affected by the decline in the fishery of the lake—we do not have fish no more, the price has increased,</p>

				our children never get fish, we used to eat fish'
To produce educational and promotional materials including a documentary film and posters for the conservation of Jipe tilapia and its habitat			×	Twenty posters on the threat facing Jipe tilapia and its ecosystem in Lake Jipe were produced and distributed in schools, village and district offices. With technical support from Malihai clubs of Tanzania the project DOCUMENTARY which includes activities such as awareness campaign to the VEC, fishermen, students and teachers were documented and presented to students and villagers. Also threats facing Jipe tilapia and ecosystem were included in the documentary. One copy of the documentary was provided to each school, village, fishermen leaders, VEC leaders, district office and in each participating media.

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

Project time plan did not match with school time table. The project involved primary and secondary schools both of which have different time table. As the project planned to have a field work in February, April, May, July, September and November - December 2013, it was found difficult because some of the months fall in either examination or during holiday. Thus, instead of conducting our last field work in November 2013 (which was the examination time) - December 2013 (holiday) we decided to conduct it at the end January 2014 which led to the delay of project completion and final report writing.

Few residents were against project activities, probably because the project was raising awareness against unlawful activities which they were participating, including use of prohibited fishing gear, charcoal burning and trading activities and conducting agricultural activities at the lake shore. Some residents wanted, and actually forced payment for participation in the project activities. However, the project continued as planned due to large number of mobilised people becoming positive to the project activities.

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

- Conservation awareness campaigns to students in one primary and secondary school, and parents and formation of ENVIRONMENTAL CLUBS in Ruru Primary and Jipe Secondary school students and establishment of tree nursery and tree planting programme in participating schools contributes to the long term capacity building to the community in the conservation of the lake ecosystem. Awareness campaign to fishermen and VEC members has increased the appreciation of the relationship with, and dependency on, the natural resources, to bring changes in attitude and behaviour. Establishment of ECO CLUBS and tree planting in the lake riparian schools has increased the spirit of club members to plant trees in their residents thus expected to mobilise other community members to do the same.
- Media coverage trips for environmental journalists initiated by this project have resulted in further conservation efforts by the government. This is because journalist reports on the

threats to the lake have led to a discussion in the June-July 2013 Tanzania Parliament Meeting; whereas parliamentary members emphasised the need to have national and international effort toward conservation of Lake Jipe. Through journalists' trips to the Lake, the real situation 'in the field' has been portrayed and has increased public attention to the problem facing Lake Jipe community and ecosystem. Media coverage through IPP MEDIA and RADIO SAUTI YA INJILI has motivated people involved in conservation since through media, their effort has been recognised and also reaches out to the general public who are keen to know more about conservation. Also through journalists, many people and organisations who were not aware of Lake Jipe environmental problems have realised the extent of the environmental degradation and social economic impacts. Also through MEDIA trips to the lake, the project received a number of conservationists from different organisations and countries who are willing to provide support toward conservation of the lake and allied organisms.

- Production of documentary film and video for the project has assisted in the dissemination of information to the schools, district leaders, public and hence the catalyst for creating and/or raising public awareness. Project documentaries and video have been made available to the local public television and radio channels hence project activities to be disseminated to a larger audience.

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

Local communities were involved in awareness training campaigns for fishers, youth and VEC members. Also students from the surrounding primary and secondary schools were involved in awareness campaigns and tree planting in schools. Local communities have benefitted through knowledge and building the capacity of the children at school level toward environmental conservation. Also tree planting in schools by environmental club members has commenced, hence increasing the spirit of the community members to plant trees at home areas.

5. Are there any plans to continue this work?

Yes. There are plans to continue with this work. For example; we are planning to do the following activities in the project area:

- Strengthen the existing environmental clubs and establish new ones in other schools and for the youth and parents so as to increase the number of clubs involved in environmental awareness at catchment level.
- Mobilize formation and strengthening of Beach Management Units in all villages surrounding the lake so as to increase community participation in undertaking responsibilities with regard to Tanzania Fisheries Regulation.
- Establishment of tree nurseries in all schools surrounding Lake Jipe and mobilise students and local residents to plant trees in the forest degraded areas.
- To build the capacity and mobilize local community to adopt environmental friendly bio gas technology for domestic purposes so that they can reduce cutting of trees for charcoal burning.
- To train local communities on best agriculture and livestock practices through the use of improved techniques so as to reduce soil erosion and siltation.

- To mobilise communities involvement in environmentally friendly alternative livelihood activities such as beekeeping and improved local chicken keeping.

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

The preliminary results of this work were shared by other conservanists and RUFFORD grant recipients' conference held in Mombasa Kenya in October 2013. The final report will be distributed to the local community, district, national and international organizations such as WWF. Also ONE manuscript is under preparation and will be submitted to the conservation journal for publication. In addition the results of this project through documentary film have been distributed to the local media.

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

The RSG used 13 months. There is a deviation of one month as compared to the predicted time of 12 month.

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
Purchase of teaching aids for awareness campaign programme	1,260	900	360	The difference was used in the survey work which was not in our final draft proposal but finally done as per reviewers comments
To conduct media trips for environmental journalists to Lake Jipe	500	700	200	The cost for car hiring and purchase of fuel was higher than estimated thus leading to the observed difference
Production of documentary series	1500	1300	200	The differences arose because of the support given by MALI HAI CLUB OF TANZANIA during documentary production
Transport cost	1100	1500	400	The difference was caused by increased the price for car hiring and fuel in the course of field period.
Accommodation and substance allowance	1540	1600	60	The difference was a result of the increased number of working days in the field which was caused by the objective of survey work which demanded more working days in the field
TOTAL	5900	6000.00		

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

Mobilise formation of new environmental clubs in schools, formation beach management units, awareness campaign in the villages not reached by the project, mobilising community to use environmental friendly bio gas and mobilise local residents to participate in improved but environmentally friendly alternative activities such as beekeeping and local chicken keeping.

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?

Yes. I have used RSG logo in the POSTER and CERTEFICATES for the winner of the poem and art competition.

Yes. The RSG received a copy of publicity as photos during field work and awardees certificates for poem and art competition in schools.

11. Any other comments?

Lake Jipe is surrounded by many villages including Mountainous villages which are the ones causing great threats to the lake. Therefore, for the positive impacts to be seen clearly it is worth to extend the project into other villages (especially hilly villages) surrounding the lake. Also, because the project time was very short (1 year) tangible outcomes could not clearly be realised unless the project time is extended. To the large extent, activities at the level of this project were accomplished successfully. However, the need to expand the activities that were done in this phase to other areas which were not reached is high. Also, the need for initiating other activities after the understanding of the communities on the importance of conservation is important, at least to grant the mobilised members of the society with alternative activities which are both environmentally friendly and economically sound.