



## The Rufford 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](mailto:jane@rufford.org).

Thank you for your help.

**Josh Cole, Grants Director**

Grant Recipient Details	
Your name	Peter Musembi
Project title	The tropical intertidal shoreline of Watamu Marine National Park. Awareness, Education and Conservation in ecologically and economically important habitat.
RSG reference	18080-1
Reporting period	October 2015 – September 2016
Amount of grant	£4945
Your email address	peter.musembi@arocha.org
Date of this report	September 2016

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 conduct research and monitoring of the rocky intertidal zone of Watamu Marine National park.			Yes	Research on ecology of the intertidal zone was carried out covering corals of the area, substrate characteristics and monitoring of coral bleaching. Long term monitoring of corals population structure, seagrass distribution and substrate characteristics has been established.
To create awareness and education on the importance of the rocky intertidal zone of Watamu Marine National Park.			Yes	Environmental education outreach was carried out in eight primary school around Watamu Marine National Park with four sessions in each school.
To build the capacity of beach operators and boat operators to sustainably utilise the rocky intertidal zone			Yes	Training was carried out for 40 beach operators and 20 boat operators on basic marine ecology, sustainable use and visitors' interaction. Field activities with the groups were carried out.
To facilitate the continued training and awareness			Yes	Teachers from each school were trained on conducting environmental education and outdoor excursion activities. The teachers were also tested on carrying these activities. A curriculum guideline for marine education for schools was also developed and tested.
To develop and incorporate a management plan into the existing Strategic Adaptive Management (SAM)		Yes		We have had discussion with Kenya Wildlife Service on incorporating the intertidal zone into the Strategic Adaptive Management monitoring. This has been agreed but has not been formally incorporated into SAM. Capacity building for park rangers is still required before it can be fully implemented.

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

High numbers of community group members. The groups working have many members due to budget constraints we were not able to carry out training for all group members. Though we involved their leader in selecting representative for the trainings there was still some difficulties in picking the 60 participants. To solve in future we will emphasise training leaders or those who we think are capable of carrying out the training for their peers.

Timing of the training for the community groups. All the community groups carry out business activities directly or indirect related to tourist activities. Their availability for training and capacity building was therefore dependant on the tourism season. We had to postpone the training workshops to until the tourism season was low and the groups were available.

High expectations by community members for their time compensation. We had committed to facilitation of their meals and transport for the group members. However with tourism low and limited income the community groups expected more as compensation for their time. The limited budget could not allow us to increase the facilitation fee. We however were able to convince them to accept what we offered and they agreed.

Vandalism of some field equipment. We put the temperature loggers in the rockpools but these were vandalised. We have discussed this with Kenya Wildlife Service (KWS) and the community groups carrying activities in the area and now working on a better way to put them back or putting them in different areas with limited human activities.

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

Development and production of curriculum guidelines for marine education that will facilitate environmental education for schools around the Watamu Marine National Park. This manual covered topics relevant around the park and reserve as well as others globally relevant topics.

Development and production of good practice guide and marine life guide for tourists and community guides. This will promote sustainable use of the area and enhance conservation of this zone.

Establishing a monitoring plan for rockpool coral ecology and socio-economic activities that could be incorporated into the existing strategic adaptive management to promote evidence-based management actions.

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

Community groups such as beach operators and boat operators were involved through training and capacity building to enhance their knowledge on marine life and good use practices as well as create awareness on the importance the intertidal zone as well as the marine ecosystem. These groups benefitted through the training and capacity building. They were also involved in some monitoring to learn how science contributes to the conservation of marine life.

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

Yes, we plan to continue to carry out research and conservation activities around Watamu Marine National Park. Through Rufford funding we were able to set up a monitoring plan for the ecological and socio-economic state of the rocky intertidal area. We have also developed and started a training and capacity building programme for the community groups working in the area. There are areas that the government management agency have outlined as appropriate such as training rangers to carry out monitoring and interpretation of the monitoring findings to adapt the management actions as well as integrating the community groups and promoting co-management. The community groups also highlighted that there is still more capacity building required for them. One of the participant wrote back .....*"I learned a lot from my working territory which is the watamu marine park, based tbbc from the mangroves, shores, intertidal, sea grass, corals and the fishes. the watamu marine ecosystem, the dos and dons, how to brief my clients, giving them the right information It is important if all of the beach operators and boat operators would visit that kind of workshop to build up descent working experience for courage and attractive tourism sighting.....PETER AND STANLEY, GUYS HERE NEED THAT KNOWLEDGE and WOULD BE NICE IF WE DO MORE TRAININGS AND AT THE SHORES"* We will seek more funds from Rufford Small grants to focus on these areas that we feel they will enhance the conservation of Watamu Marine National Park and Reserve

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

Over the period we have been sharing stories of our work in our social media platforms such as Facebook and blogs as well as newsletters and magazines. We have regularly reported our progress to Kenya Wildlife Service (KWS). We submitted an abstract for the coming scientific meeting Reef Conservation UK in London on coral species assemblage in the intertidal zone and have secured money for travel to make a presentation. We are now preparing a manuscript on the coral species assemblage and threats in this area for journal publication. We will also prepare a full report and share with all our stakeholders and a formal recommendation documents for Kenya Wildlife Service and the community groups.

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

The project was carried through 12 months as stipulated in the initial proposal. There was slightly change of schedules because of change in school curriculum but this was adequately compensated and all activities completed on time.

**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
Research equipment (underwater papers, transect tapes, quadrats)	450	420	30	Shared equipment and costs from other projects
Temperature/light loggers	600	600	0	N/A
Safety Equipment (rock pooling boots, gloves, equipment bag)	200	200	0	N/A
Dive lights and UV lights for night rock pooling, rechargeable battery	260	250	10	Discount on shipping costs
Garmin etrex 30 GPS unit	180	185	-5	Inflation of cost price
South Pacific Reef Plants Littler and Littler	200	100	100	Contribution of cost by another project.
Marine Plants of Tanzania, Oliveira Eurico, Osterlund Katrin and Mtolera Matern	15	15	0	N/A
Ecological Models and Data in R, Benjamin m Bolker	45	45	0	N/A
A Handbook of Statistical Analyses using R Torsten Hothorn and Brian S Everitt	40	40	0	N/A
Statistics for Ecologists Using R and Excel, Data Collection, Exploration, Analysis and Presentation Mark Gardener	30	30	0	N/A

Transport to the research sites	300	300	0	N/A
Publishing a curriculum guideline for Marine education	100	120	-20	Inflation costs of printing and publishing
Producing a marine education manual for coastal schools	100	100	0	N/A
Producing a good practices guide for tourists and community guides	100	100	0	N/A
Teachers training workshops	550	580	-30	High costs of accommodation and meals for the teachers
Education outreach to community groups	850	860	-10	Inflated costs of supplies such as stationary
School outreach	720	760	-40	Inflation costs of fuel for transport
Equipment and Education training materials (portable projector, flip charts)	350	400	-50	Unavailability of projector purchase locally hence additional cost shipment
Hiring venues for teachers training and community groups	200	250	-40	Inflated costs of venues
Communication and bank charges	400	400	0	N/A
<b>TOTAL</b>	5690	<b>5845</b>	-155	

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

We will base the next steps from our findings from this project. We will work on a collaborative monitoring plan between KWS rangers, community groups and A Rocha Kenya. This will enhance an evidenced-based adaptive management of the rocky intertidal zone in Watamu Marine National park and Reserve. We will also do more detailed study on the reproduction and connectivity of the *Anomastrea irregularis* sub-populations.

## 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, RSGF logo was used in all publications and presentations made to schools and community groups. The curriculum guidelines for schools, good practice guide and species guides bare the RSGF logo. Certificates issued to teachers and community



groups have the RSGF. RSGF was publicised through social media posts, blogs and newsletters and periodic reports to stakeholders and partners.

#### **11. Any other comments?**

Rufford Small grant has provided a fantastic platform for addressing the conservation of the intertidal rocky shoreline of Watamu Marine National Park addressing research, education, awareness and capacity building. The project was applauded greatly by Kenya Wildlife Service (KWS) and they committed to provide any necessary support for the continuation of the project to build the capacity of the community groups. The community groups also were enthusiastic about the project and they were committed to fully participate. We are committed to continue with the project to cover the whole protected area.