



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	Andrews Agyekumhene
Project title	Working with fishing communities to reduce sea turtle by-catch in gill net fishery along the central coast of Ghana
RSG reference	17563-1
Reporting period	July 2015 – June 2016
Amount of grant	£4992
Your email address	aagyekumhene@gmail.com
Date of this report	26 th July 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
Assess knowledge of fishermen about sea turtles importance, threats and conservation in the area.			X	Interview guides were used to gather information on fishermen's knowledge about sea turtles in the area. Knowledge of fishermen about sea turtles and their importance was found to be low in most of the fishing communities. Fishermen were aware of some of the importance of sea turtles and the threats to sea turtles face in the area. Most fishermen considered sea turtles as 'free' meat. Fishermen were not fully aware of the contribution of sea turtles to their livelihood (improving fish stocks) and the socio-economic development (tourism and revenue generation).
Conduct sea turtle conservation education programmes in 10 fishing communities			X	Video documentaries, talks and radio programmes were conducted for 10 fishing communities. Sea turtle education materials (stickers, posters, brochures and information booklets) were distributed to fishing communities. Importance of sea turtles in the marine ecosystem (improving fish stocks) was highlighted. Knowledge of fishing communities about sea turtles was improved. Increased support for sea turtle conservation in fishing communities.
Conduct sea turtle conservation education programmes in 30 schools		X		Video documentaries, talks, quizzes and debates were organised in 24 schools. Sea turtle education materials (stickers, posters, brochures and primers) were distributed to schools. Wildlife Clubs were formed in schools to sustain interest of school children in sea turtle conservation.

				Some academic programmes by Ghana Education Service coincided with the education programmes hence the reduction in number of education.
Conduct 10 sea turtle conservation education programmes on local radio station			X	<p>Talk shows conducted on Radio Windy Bay 98.3 MHz.</p> <p>Phone-in from local communities to discuss sea turtle issues in their area.</p> <p>Wider community within and outside project area educated.</p> <p>Fishermen mainly concerned about reducing sea turtle entanglement in their fishing nets to reduce damage to nets and economic loss to them.</p>
Assess the rate of sea turtle capture in gill net fishery of the area.			X	<p>15 local gill net fishing boats used to estimate the number of sea turtles captured annually in fishing operations.</p> <p>Safe sea turtle handling and release techniques were also taught to 30 selected fishermen.</p> <p>83 turtles (80 adults and three sub-adults) were captured so far by the 15 boats during the year.</p> <p>Fishermen do not intentionally 'fish' for sea turtle; the capture of turtles in fishing nets is purely accidental.</p> <p>The first option fishermen consider is to sell sea turtles to offset cost of nets damaged by turtles from the entanglement.</p> <p>Fishermen also kill and sell sea turtles to make some money to supplement what they get from the low fish catch as a result of the dwindling fishery.</p>
Purchase and distribute support items to fishermen			X	<p>Fishermen used in sea turtle capture rate assessment were given support items like torchlight, raincoats, one bundle of net, thread and needle for sowing damaged nets.</p> <p>The support items served as incentives and encourage fishermen's participation in the project.</p> <p>Items also prevented fishermen whose net were damaged by turtles from killing or selling turtles.</p>

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

- a) One challenge that arose was with the identification of sea turtles at sea by fishermen. Observers were trained and put on board each boat and given photo IDs of the various species of sea turtles for proper identification at sea. Fishermen with camera phones were encouraged to take many pictures which were used by the PI in identifying the species.
- b) Increase in fuel prices usually is associated with increased prices of items. Fuel prices were increased in Ghana more than twice during the project period and this affected cost of conducting education programmes (fuel purchase) and also printing t-shirts. The support items for fishermen also experienced some increments. PI had to secure the extra money to cover the cost difference.
- c) The demand for education materials, especially the information booklet, was high and made greater impacts. Extra posters, brochures and sea turtle information booklets were thus printed for the communities and schools which increased the original budget. PI secured some money covered the extra cost of printing. Information booklet and brochure had both English and local language (Fante) which made it easier to read and hence preferred by the fishing communities. The booklet and primer also had picture which could be appreciated by fishermen who could not read.

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

- a) The number of sea turtles captured annually by gill net fishers in the area has been estimated for the first time. The 83 turtles captured and released would have ended up as 'free' meat in people's cooking pots but because of the project, they still swim in the ocean playing their ecological roles. This information is crucial to encourage making policies and by-laws that protect sea turtles. The Ministry of Fisheries in the area and the Wildlife Division office has been furnished with this information.
- b) Species of sea turtles that inhabit the area have been documented on an annual scale and the monthly population variation also determined. This will enable the Wildlife Division make evidence-based decision about the conservation of sea turtles. In the face of limited resources (which is usually the case with government institutions in Ghana), the Wildlife Division can now determine which months of the year to focus conservation actions. They can now intensify their community engagements during the month when turtle are captured most.
- c) The knowledge of 20 fishermen in safe handling and releasing captured sea turtles have been built and used to save several sea turtles that would have drowned. This skill will continue to be used by the fishermen and hence will have a long lasting impact, even beyond the duration of this project. The knowledge gained through the education and awareness has also help the fishermen to by themselves want to protect the sea turtles.

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

The participation and involvement of local communities was very key to this project hence local communities were fully involved throughout the project: planning, data collection (fishery capture assessment), and awareness creation.

The local communities were involved in the assessment of the annual sea turtle capture rates in gill nets. Ten communities and 20 local schools within the project area were educated and this has led to an improvement in their knowledge about sea turtles. Local communities fully appreciate the benefits of sea turtles and are now voluntarily protecting the species. Local communities involved in the project are also part of disseminating issues of sea turtle conservation to other similar communities along the coast. This has been an effective tool in getting sea turtle conservation accepted by the new communities since it comes from their fellow fishermen. With the good relationship that has been established now with this project in the communities, the PI hopes to develop sea turtle ecotourism potentials in the area to create employment (tour guides) and revenue to the local community.

5. Are there any plans to continue this work?

Yes, the PI hopes to continue this project. During the education programmes, 10 communities and 24 schools were visited. The number of schools is less than the set target. Also there are more school that were not targeted in this project but need to be educated also.

To make long-term impacts, each community and school should have been visited more than once to address any question that might have come up when the education team left. Subsequent visits were also required deepen the knowledge imparted and also strengthen support and interest. This could not be done under this project due to limited resources and time.

Through the project, new areas were identified as kill sites for sea turtles. These sites were reported by the fishermen who were trained and used in the project. The PI hopes to extend conservation education to these new communities and also form sea turtle protection volunteer groups in the communities.

As a recommendation by some opinion leaders in the communities visited, having a community-level by-law will help protect the sea turtles. The PI therefore hopes to continue seeking funds to encourage this activity within the fishing communities.

The PI hopes to seek support to develop ecotourism potential in the area in future to bring some added benefits to local communities. This is a long-term goal.



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

The fishermen are already sharing the results of this project. Due to the fact that most fishermen migrate a lot in search of fish, the knowledge and skills from the training is spreading quickly. This is what led to the identification of a sea turtle kill site in another community where the education effort did not reach yet.

Local communities within the project area have already been briefed about the findings of the project in workshop.

The PI gave a seminar about the project at the Department of Fisheries and Aquatic Science, University of Cape Coast so most students and lecturers in the department are now aware of the project and its impacts.

The PI will attend the 37th Annual Symposium on Sea Turtle Biology and Conservation at Las Vegas, USA in April 2017 to present the finding of the project.

The PI has already worked hard in getting extracts of the project findings across to relevant stakeholders such as the Fisheries Commission in Winneba and the Fishermen Association of the area.

He has also shared with the general public on social media (local radio station) findings from the project, which highlighted the threats that sea turtles face in fishing operations.

The PI hopes to continue and gather additional data to be able to get a paper published out of this important project.

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

The project lasted for 12 months as in the original plan.

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
Printing of 100 interview guides	-	-	-	Contribution from Other sources
Printing and Laminating pictures of sea turtle species for education and identification by fishermen at sea.	-	-	-	Contribution from Other sources
Stationery (field note book and pencils) for data collection by observers.	-	-	-	Contribution from Other sources
Rent of pick up vehicle for 34 days education program	1000	1000	-	
Fuel to convey team and PA systems for education programme	100	296	196	Additional cost is dues to increase in fuel prices during the project period. Also for some few communities initial trips were needed to fix dates for actual education
Cost of airtime for 10 radio programme	282	282	-	
Education materials for schools and communities (400 brochures 400 posters)	790	1000	210	Additional cost is due to high demand for which resulted in printing extra copies of materials
Developing and Printing 200 sea turtle Information manuals	986	1315	329	High demand for sea turtle information booklet resulted in printing more copies.
100 sea turtle t-shirts for fishermen and observers.	476	531	55	Difference in cost was as a result of increase in prices of service which is usually the case with increased fuel prices.

Rent of venue for a 1-day training workshop for fishermen	-	-	-	Contribution from Other sources
Cost of training manuals for 30 observers from 15 boats	180	180	-	
Refreshment for 30 observers during training workshop	450	450	-	
30 field note books for data collection on sea turtle captured in fishing nets	150	150	-	
30 pieces of flexible tape measures for measuring carapace length and width of captured sea turtles	-	-	-	Contribution from Other sources
Ziploc bags for keeping data collection materials from getting wet at sea	-	-	-	Contribution from Other sources
30 torch lights for fishing boats	126	126	-	
80 pieces of locally manufactured rain coat	452	452	-	
15 packs of thread for fishermen to mend broken nets	-	-	-	Contribution from Other sources
30 needles for fishermen to mend broken nets	-	-	-	Contribution from Other sources
TOTAL	4,992	5782	790	

Budget Notes: Amounts stated under "Budgeted Amount" against each activity are only RSGF amounts and does not include other cost (PI contribution) for that activity. Amounts states under "Difference" are the total extra cost incurred on the activity.



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

The project should be replicated in nearby fishing communities. This is important for the total protection of the species. Since sea turtles migrate over longer area, protecting them in one community when the nearby community harms them will not yield much impact. Also, it was realised that some community members sent turtles captured turtles to nearby communities where the project did not reach for fear of being chastised/reported in the project communities. The project therefore needs to be extended to other communities.

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, the PI gave a seminar about the project at the Department of Fisheries and Aquatic Science, University of Cape Coast, about the project. The Rufford Foundation logo was used on the PowerPoint to acknowledge the funding sources. RSGF was mentioned as a funding source of the project during all community and school engagements as well as radio presentations.

11. Any other comments?

The project has made great impact in improving knowledge in fishing communities which is reflected in some behavioural change in some fishermen. Funding from RSGF has been very helpful in making this impact. However, since attitudinal change takes some time to occur, the community and school engagements need to continue to enable the fishing communities better appreciate the impacts of the project.

The project needs to engage the local communities further and if possible support them with supplementary income-generating livelihoods to further strengthen their support for sea turtle conservation since most of them kill and sell sea turtles out of low incomes and poverty.