

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. 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	Emma Gibbons
Project title	Miamby Fano
RSG reference	11.06.09
Reporting period	2010-2011
Amount of grant	6,000 GBP
Your email address	gibbons.e.l@gmail.com
Date of this report	09 th March 2011

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
Improve the scientific understanding and economic implications of the subsistence turtle fishery			Yes	Achieved through the collection of data and the collaboration with local, national and international organizations, such as IOSEA (Indian Ocean and Southeast Asia Marine Turtle Program, UNEP) to develop a marine turtle network throughout Madagascar
Community participation programs and education development strategies			Yes	Development of outreach programs designed to focus on the importance of the marine turtle and the integral role it plays in the life of the coastal fishing population (<i>Vezo</i>)
Identifying major user groups, develop and disseminate educational material through meetings and workshops			Yes	Formation of fisher, collector and village leader/elder focus groups to discuss the impact of the marine turtle fishery and address issues on how to protect this species from the current intensive exploitation
Conducting community outreach programs increasing stakeholder awareness			Yes	ReefDoctor hosted Turtle Day for the children of the <i>Vezo</i> community with great success. This activity along with the showing of IOSEA's Marine Turtle – Ocean Ambassador film, offered the <i>Vezo</i> a chance to see the turtle from a different perspective
Assess the cultural significance of marine turtles for the indigenous tribe and the consequential harvesting of turtle eggs		Yes		Unfortunately, on investigation of the potential natal beaches it was discovered that human impact had rendered the local nesting population of marine turtles extinct, although the harvest of turtles is suggested not to have changed
Initiate stakeholder participatory management strategies regarding the subsistence turtle fishery and develop institutional integration			Yes	Development of the 'Vezo Pledge' to assist in the protection of marine turtles; this is a huge step for the local people as it demonstrates the acknowledgement by and desire of the local population to take part in the process of addressing this ecologically and culturally important issue

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

Natal beach survey/protection program: On exploration of the suggested natal beaches it was confirmed that the areas utilised by females as rookeries have not been active for the past 2-5 years, site dependant. Project directors presumed this to be a consequence of intensive harvesting of eggs and vulnerable egg-laying females by the 'Vezo', the indigenous human community who inhabit the coastal region. Thus, it is suggested a localised extinction of the nesting population of marine turtles has taken place.

Unfortunately, with no data on the southwest turtle fishery before 2008, we are unable to assess the impact of the loss of these rookeries on the turtle fishery. However, recent data indicate that the loss of the nesting population may have had little affect on yields.

Furthermore, it has been suggested by local fishermen that the harvest of turtle meat has increased due to advances in fishing technology, such as the availability of spear guns and monofilament line. Project officers have also gathered preliminary data suggesting that the preference for turtle meat is increasing as the amount of 'high-quality' protein from the multi-species fisheries declines throughout the lagoon, albeit further research is required.

Despite the unfortunate loss of the local nesting turtle population, evidence suggests this area remains a vitally important feeding ground and migratory route. Management strategies are essential to conserve the marine turtle, and in turn, the heritage of the Vezo people. Miamby Fano facilitates the empowerment of the local Vezo people in confronting these issues and implementing management strategies that are determined by the community of fishermen and the elders of the villages.

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

i. Accessing traditional knowledge to understand and to quantify the significance of the marine turtle to the indigenous Vezo community who inhabit coastal areas throughout the Bay of Ranobe

Focus groups were formed with representatives of the Vezo community: Hazo manga (respected community leader / tribal elder), marine turtle fishers and collectors. The elders of the community were asked to recount the verbal history of the Vezo people of the Bay of Ranobe region and describe: (i) unique relationships the Vezo have with the marine environment, (ii) cultural/spiritual importance of marine turtles, (iii), highlighting the raise in consumption rates of turtle meat on comparison to the Vezo ancestors (iv) changes in the trade of turtle meat; the sale of turtle meat is a relatively new concept and was regarded as taboo to trade within the village or between communities, (v) realistic cultural, legal, and socioeconomic management strategies for marine turtle conservation, (vi) under what conditions ecological, environmental, social and political) is the consumptive use of marine turtles sustainable?

The focus group concluded that it is necessary to return to the ways of the community's ancestors and that there is a need to protect species such as the marine turtle that are integral to the cultural heritage, and thus, the survival of the Vezo way of life.

ii. Implementation of participatory management strategies for the marine turtle in the Bay of Ranobe in order to protect this culturally critical and endangered species

The thirteen coastal villages of the Bay of Ranobe have mutually agreed to limit the intensive harvesting of marine turtles. This will be accomplished by the implementation of a minimum size catch. Additionally, a closed season in December, January and February (assumed breeding season for turtles nesting in and around Madagascar's waters) has been proposed, thereby reducing the capture of pregnant females.

The progress made throughout the course of this project in agreeing upon, and implementing, management measures to mitigate the damage of the marine turtle fishery culminated into the "Vezo Pledge".

The *Vezo Pledge* – a verbal and written agreement to conserve the coastal environment and marine turtles:

iii. The identification of Vezo community elders who are prepared to facilitate and lead in the development of informal participatory management strategies, approach communities with these ideas, and assist in their implementation

Project workers have identified willing and committed Vezo elders that are prepared to lead this project throughout the Bay of Ranobe communities. Working with the elders facilitates communications in the villages and gives the project greater influence in the wider Vezo community. These community leaders have also expressed a wish to implement a closed season for the marine turtle that coincides with the turtle-nesting season in this region, in order to protect any reproductively active females.

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

Written agreement (translated from Vezo)

We the people of village pledge to conserve and protect the heritage and knowledge of the Vezo people by the conservation of the marine environment, which is important to our ancestors.

We the people of village pledge to participate in the conservation and protection of marine turtles so that our children's children know what it is to be Vezo, and can grow up with the knowledge of our ancestors and become Vezo.

Verbal agreement (translated from Vezo)

Protection is needed for individuals that have not reached sexual maturity and had a chance to breed and thus contribute to the population. Each turtle fisher is asked to agree to not catch marine turtles under 70cm and each collector is asked to agree to not to sell turtle meat taken from individuals under 70cm.

Feedback from the communities has definitively indicated an increased awareness amongst the communities of the dire situation of the marine turtle. Moreover, communication between members of the community, in regards to this once taboo subject, and between the community and ReefDoctor researchers has improved dramatically.

In providing the necessary biological information, gained through research, to the turtle fishermen, then allowing them to develop and implement their own management strategies, friction and conflict with/within the communities has been largely avoided. Allowing the elders, and other stakeholders, to steer the direction of the project has empowered the Vezo community and resulted in a highly dedicated community-lead team that have eagerly participated in the present project.

5. Are there any plans to continue this work?

ReefDoctor recognises the necessity for continual monitoring of the turtle fishery, which is vital in assessing the health of the greater migrant, marine turtle population. ReefDoctor also recognises that if the continuation of the Vezo tradition of consuming marine turtle meat is to persist, management strategies need to be implemented to protect the internationally-recognised and endangered marine turtle species, utilising the waters off the Southwest coast of Madagascar. In addition, ReefDoctor provides fundamental support for the hazo manga (elders), fishers and collectors whose allegiance is essential for the success of this program.

Research conducted through the Miamby Fano project has contributed to the nascent Madagascar turtle network comprised of local, national and international organisations devoted to the continued survival of this key marine species. This network is vital in providing the Malagasy government with access to a continuous and reliable biological and socioeconomic database.

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

Locally: Turtle outreach program provides a great opportunity for the Vezo people of the Ranobe region to learn about turtles in their natural habitat. The program offers Vezo people the opportunity to watch footage of hatchlings and marine turtle mating rituals and to introduce them to the concept of turtle conservation programs operating in other areas of the Western Indian Ocean. Turtle officers distribute information on the cryptic life cycle of the marine turtle, describing the turtles' journeys throughout the world's oceans, which increases local awareness of the species and provides perspective in revealing how their range extends far beyond the Bay of Ranobe.

Nationally: In July 2010 ReefDoctor was invited to present its data at a tortoise and marine turtle discussion in Toliara hosted by WWF and the French Alliance. The response to the presentation was excellent. In addition, the Miamby Fano project was invited to represent the Vezo community of the Bay of Ranobe at the ***National Marine turtle conference (February 2011)***. This, the first marine turtle conference in Madagascar was attended by international experts, national government representatives and turtle research NGO's. One of the issues that dominated the assembly was the assessment of traditional user rights for the Vezo community, and implementing formal and enforceable management strategies that take into account Madagascar's long history of subsistence turtle exploitation and associated cultural traditions. Miamby Fano's contribution to this discussion has, hopefully, given the government a chance to reassess this extremely important issue and resolve some of the underlying concerns regarding traditional user rites for the Vezo community.

Internationally: Coverage of the National Marine Turtle Conference, in February 2011, by international news agencies facilitated the global distribution of turtle conservation efforts in Madagascar. In particular, the work of the Miamby Fano project is currently published on the IOSEA-Marine Turtle and ReefDoctor websites.

In addition, ReefDoctor has contributed to a paper published in the peer-reviewed journal, *Animal Conservation* (Humber F., Godley B. J., Ramahery V., Broderick A. C. (2010) Using community

members to assess artisanal fisheries: the marine turtle fishery in Madagascar. Animal Conservation, 1-11.).

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

The project spanned 14 months and was slightly delayed due to political instability in Madagascar.

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.

Exchange rate at the time summation; 2800 MGA to one £sterling

Item	Budgeted Amount	Actual Amount	Difference	Comments
Local Transport for socio-economic advisor (disseminating and collecting information)	429	429	0	Transport to the different communities and meetings throughout the Ranobe region and in the capital Toliara
Compensation for loss of work hours for Vezo fishermen; time allocated to <i>Fivoriana</i> (local meeting)	271	743	-472	Frequency of meetings had to be increased to address fishermen's concerns, and then to include the <i>Hazo manga</i> or the respected elders of the village. 40 000 MGA or £14.29 per meeting with 4 meetings in each of the 13 villages.
Dissemination of information by the local media, as large percentage of Vezo fishermen are illiterate	150	24	+126	It was decided that this form of mass dissemination of information was unnecessary, as focus groups were able to perform this task family-by-family. A small amount of funds were spent on town criers to announce meetings.
Printing of education material for primary schools and village kids club	107	107		Used for dissemination of information for local schools and increasing knowledge and awareness of marine turtles
Phone credit for the local socioeconomic advisor and local village presidents	214	214	0	The local transport or bush taxis are unreliable and if information is needed to be passed on from village to village phone calls are reliable and relatively inexpensive
Internet credit for contact with external advisors	214	321	-107	6 months @ £107.16 pay as you go system (unreliable) 6 months @ £214.28 Unlimited access system
Generator fuel to run computers; to be able to input and analyse data	621	621	0	
Generator oil	13	13	0	
Wages for local socioeconomic officer; disseminate	1136	1,607	-471	To hire an experienced university graduate to live and work in this area ReefDoctor had

information, coordinate fishers and collectors				to increase the salary making the offer competitive
Wages for local Vezo turtle fishery surveyors	1564	1564	0	To collect biological information on the turtle fishery
Assessor; gauging local utilization and profundity of traditional practice	1114	514	+600	Villages elders and respected members of the community were commissioned to carryout this research over a period of 24 weeks
Finders fee for local Vezo villager on conformation of an undisturbed turtle nest	179	0	+179	Unfortunately natal beaches have been under high anthropogenic pressure and local extinctions are suspected
Turtle nest guardian; protection against human raiders	179	0	+179	Unfortunately natal beaches have been under high anthropogenic pressure and local extinctions are suspected
Total	6192	6158	+34	

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

ReefDoctor would like to continue the marine turtle project with a heavy emphasis on the network of community leaders, marine turtle fishers and collectors this project has established in the Bay of Ranobe. The focus groups have highlighted possible management routes and ways to develop these management ideas that involve the entire community, continually striving to be a community lead project.

Research has highlighted some issues ReefDoctor would like to investigate further, including:

Prey Switching: Increasing vulnerability to natural hazards associated with global climate change combined with exponential human population growth, have increased migration to coastal areas, which are considered to offer greater food security. Incessant coastal migration increases pressure on the near shore marine environment that is already under high environmental and anthropogenic stressors. Subsequent increases in fishing effort, regarded by many as unsustainable, may result in a decline in fish stocks, and potentially the collapse of the near shore marine fishery.

Declining catch from the finfish fisheries creates a market for alternative sources of protein; anecdotal evidence from village elders indicated that a recent (within a lifetime) change in the attitude towards and techniques associated with the marine turtle fishery has occurred. Specifically, the intensity of harvesting and availability in village markets has dramatically increased. Thus, it is hypothesised that as a result of the reduction in high-quality protein from the finfish fisheries, the Vezo are turning to turtle meat as an alternative. This hypothesis can be assessed using a study of taste preferences to gauge the demand on turtle meat and changes in consumption throughout the coastal communities.

11. Any other comments?

The project staff would like to thank Rufford Small Grants Foundation for their generous support of this conservation project.