

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	Sahir Advani
Project title	Conserving grouper species and sustaining the grouper fishery of the Andaman Islands
RSG reference	12645-1
Reporting period	January 2013 – April 2015
Amount of grant	£ 5425
Your email address	advani.sahir@gmail.com
Date of this report	21 April 2015

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
Generate information on status of grouper fishery				Interviews with fishing communities closest to major markets were conducted. Interviews have generated information about the origins and history of the fishery, key grouper species targeted, historical and current fishing grounds, and the marketing of groupers.
Arrive at a basic population assessment through in-water surveys				An in-water survey of grouper abundances at important historical fishing grounds up to a depth of 20m was possible. Current fishing grounds extend to deeper depths, and thus were out of the range of access of regular scuba diving equipment.
Understand market related mechanisms				Interviews with fishers and middlemen have provided an understanding of the trend in prices, market linkages, and the commodity chain through which groupers are marketed from these islands. This aspect is being explored further through a PhD project at the University of British Columbia.

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

The project initially proposed to conduct in-water surveys of grouper populations at fishing grounds across the length of the Andaman Islands. Due to the non-availability of a portable compressor, these surveys were constrained to nearby and historically important fishing grounds. Collaborating on field expeditions with other researchers also helped reduce boat and manpower hire costs.

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

The grouper fishery in the Andaman Islands began 15 years ago, largely as a result of technological and infrastructure development and access to export markets. Prior to the start of the fishery, groupers were considered low value species and were often treated as trash fish. The names used by local fishers for targeted species suggest that they have been derived from trade names – these include *dollar* or red coral trout (aka Red CT) [*Plectropomus leopardus*] and *tiger* [brown marbled grouper, *Epinephelus fuscoguttatus*]. This project has generated an understanding of how strongly the export market controls the grouper fishery of the Andamans, and this information can be used in further management and conservation interventions.

The peak season for the fishery occurs in January and February, not as a result of better catches but as a result of prices peaking. Conversations with fishers and exporters indicate that this peak closely corresponds to Chinese New Year, clearly demonstrating the influence of external market pressures on the reef ecosystems of the Andaman Islands. Trends in prices from fishers' log books for the last few years also support this fact. Analyses of Fisheries Department export statistics for the last 10 years describe a steady increase in export volumes with peaks around this period. The January-February period is thus important for fisher's livelihoods, and regulating the fishery during this time will have to be carefully considered.

Most fishers have noted declines of fish stocks including groupers in the last decade. Some attribute this decline to increasing numbers of fishers on the reefs, while others state that the decline began after the December 2004 tsunami. They also note that the number of boats, and correspondingly fishers, increased after the tsunami as a result of an influx of tsunami aid. This is an important outcome of the study, as it indicates that fish stocks, including groupers, are declining in waters of the Andaman Islands. What is encouraging is that fishers acknowledge this decline, and in turn may be willing to accept some conservation interventions if they ensure their continued livelihoods. We have shared our findings with local fishing communities through a series of meetings. Through these meetings fishers have suggested drawbacks to data collection as well as potential factors to include in the monitoring process. This approach has strengthened the appeal for catch monitoring amongst local fishing communities.

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

Local communities have been an important part of this project, with close interactions occurring between the project team and fishing communities on a daily basis. They have also willingly shared their catch logbooks, which are extremely useful to this study. A few individuals from the local fishing community have also been hired by the project as field assistants. These individuals while helping with translations and liaising with the fishing communities, are also being sensitised about the significant role that groupers play in marine ecosystems and the vulnerability to fishing pressure. As mentioned previously, meetings with local fishing communities were conducted to seek feedback and gauge enthusiasm about catch-monitoring systems. While it is still too early to effectively assess a community's willingness to monitor catches, their awareness of the benefits of such programmes has certainly increased.

5. Are there any plans to continue this work?

The primary objectives of this project were to assess the grouper fishery of the Andaman Islands and sustain it through the employment of sustainable management practices. While the former has been achieved through this project, I plan to continue working towards the latter objective through my PhD research at the University of British Columbia. My research proposes to better understand the pressure placed by external markets on local fisheries and assess the ongoing shifts in perceptions of resources. I plan to conduct participatory workshops with local communities to understand their perceived values for marine resources, and then counter these notions with information about the conservation benefits of sustaining grouper (and other fish) populations through better fishing practices.

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

The results of our work have been shared with the fishing communities, middlemen, and the local Fisheries Department. Some of the initial findings of the project were presented at a conference on small-scale fisheries in Hyderabad, India in December 2013. In June 2015, I plan to present additional findings at a conference in Amsterdam. I am also in the process of writing a manuscript on some of the market related data.

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

The project initially had a proposed fieldwork time of 14 months. This period was sufficient to develop an effective understanding of the grouper fishery in the Andaman Islands, in terms of the socio-economic aspects, ecological outcomes, and market dynamics. Towards the end of the 14 months we were able to initiate a discussion about catch monitoring with local fishing communities, but were unable to see this through. With the support of the RSGF we were able to use the remainder of the funds to continue developing a catch monitoring programme for a period of another six months, concluding in March 2015.

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
Flights to the Andaman Islands	450	957	-507	The difference in amount was due to the extension of the duration of the project and some additional trips
Local travel (Motorcycle and Boat Hire)	2035	426	1609	The remaining amount was diverted towards flight expenses and dive equipment purchase and operating costs
Food	990	536	454	The difference was diverted towards paying additional field assistant's salaries.
Field Assistant Salary	715	1194	-479	With the 6-month extension we had to hire another field assistant
Dive Equipment	680	873	-193	Operating costs were higher than expected due to the dependence on a local dive centre to fill our tanks
GPS	180	188	-8	
Contingency	104	10	94	
Administrative Fee	271	271	0	
TOTAL	5425	4454	971	Local exchange rate: 1 GBP = 87.54 INR

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

Since the grouper fishery of the Andaman Islands is export oriented, the next important steps involve understanding the economic and cultural drivers of these fisheries. Tracking the commodity chain should provide insights into the market forces that affect the sustainability of the grouper

fishery. Understanding fishers and consumer's perceptions and values of grouper stocks will also help draft policy recommendation to sustain these 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, the RSGF logo has been and will continue to be used in conference presentations and reports. The RSGF has also been acknowledged in contributed manuscripts.

11. Any other comments?

We would like to thank the RSGF for being so accommodating with our requests to extend the duration of the project.