

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

Thank you for your help.

**Josh Cole, Grants Director**

Grant Recipient Details	
<b>Your name</b>	Mahima Jaini
<b>Project title</b>	Linking conservation and livelihoods in Lakshadweep's tuna fishery: community-based monitoring of baitfish populations along a gradient of fishing pressure
<b>RSG reference</b>	11055-1
<b>Reporting period</b>	January 2012 - May 2014
<b>Amount of grant</b>	£5980
<b>Your email address</b>	jainimahima@gmail.com
<b>Date of this report</b>	May 31 <sup>st</sup> 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
Social Assessment of live-bait pole and line tuna fishery			Semi-structured interviews of fishers in our study islands	Documented fisher perspectives regarding fishery resources, challenges and developments. Obtained first hand information on trends, traditional ecological knowledge, resource use and management.
Ecological Assessment of baitfish populations along a gradient of fishing pressure		Fishery dependent baitfish population surveys are underway via the catch monitoring programme.	Fishery independent baitfish population surveys complete.	We proposed to assess baitfish populations across three islands with varying levels of fishing pressure via fishery dependent (catch monitoring) and independent (underwater visual surveys) methods. We have accomplished two seasons (November 2012-April 2013 and October 2013-May 2014) of in-water baitfish sampling in four islands, whereas the catch monitoring effort was only launched in January 2014 and thus is still ongoing. Currently, we are analysing the data generated over the past 2 years in relation to other environmental and anthropogenic metrics.
Establishment of a community-based catch monitoring programme		Community-based catch monitoring programme started in January of 2014		Long term community-based catch monitoring programme was initiated in January of 2014, after over a year of developing the monitoring protocol with the local community. We plan to continue this work over the years to come.

Dynamics of the live-bait pole and line tuna fishery	Baitfish – tuna efficiency study not undertaken	Atoll-wise management strategies documented for 4 islands		Baitfish – tuna efficiency study to be undertaken using the data produced by the community-based catch monitoring programme. Atoll wise management strategies surveyed via interviews with fishers and fishery managers.
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**2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).**

Lakshadweep islanders mostly speak Malayalam, a tongue that I am unfamiliar with. Initially, we struggled with finding local translators to help with interviews. Finally, after some failed trials we realised that to best convey the message we require an interpreter who not only has a good grasp on the language but also understands well the concepts associated with fisheries and community-based fish catch monitoring. So for the second season, we brought over Malayalam speaking interns with background in conservation to assist with interviews and the community base catch-monitoring programme.

Our community-based catch monitoring effort was off to a slow start due to the language barrier but we also struggled with interest generation and maintenance. Only a few of the fishers realised the value in maintaining detailed long-term catch data. We hope that this years’ results in conjunction with some form of an incentives programme will help increase our success with this intervention.

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

The outcomes of this project have social, ecological and developmental implications.

1. This project provides baseline ecological data for Lakshadweep baitfish populations. It is the first to establish baitfish densities on reef and lagoon regions in a meticulous manner. It provides inter-island and seasonal patterns of baitfish abundance that can be used to better understand population dynamics in relation to fishing pressure.

2. Our interviews and community engagements have provided valuable insight into the close-knit Lakshadweep live-bait pole and line tuna fishery and is the first to document local perspectives regarding marine resources. We now know more about Lakshadweep catch and effort trends, role of the fisheries department, fisher concerns, export and development issues, all that can help inform sustainable fisheries development in these remote island systems.

3. The final and most important outcome of this project was the establishment of the community-based catch monitoring programme. Fisher folk were involved in the design, implementation and execution of this programme. A long term catch monitoring programme like this could greatly help the fishery by providing information on resource use, challenges and developments while engaging resource users in monitoring and management.

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

Through our interviews and community-based catch-monitoring programme we were able to regularly engage community members in dialogues pertaining to their resources. One of the main objectives of our surveys was to provide fishers a platform to communicate their issues with the fisheries department officials. Through our reports and presentation we hope to highlight their perspectives to the right audiences. Additionally, our community-based catch monitoring work helps build capacity by involving fishers in the scientific process of designing, collecting and interpreting the self-monitored catch data. Through our programme we hope to build a conservation culture among resource users and managers in order to facilitate a paradigm shift from one of exploitation to that of sustainable utilisation.

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

We plan to continue the community-based catch monitoring work as a long-term project. Currently, we have only run the community based catch monitoring programme for 6 months. We hope to do another intensive season of the same and in the mean time devise ways in which this programme can be independent of external expertise and funding. By keeping the fisher community closely involved in resource monitoring we hope to not only increase their knowledge base but also empower them with tools for decision-making. This detailed catch monitoring has the potential to provide the community with a wealth of information regarding the social, ecological, economical, cultural and developmental aspects of their best-practice tuna fishery the live-bait pole and line fishery. Our community intervention is timely given the declines in baitfish and tuna populations and subsequent transitions to reef fishing. We hope to scale up this work in the coming season and continue it for the years to come as a long-term monitoring project.

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

Up till now we have regularly shared the results and progress of this work with the RSGF and government departments; namely; the fisheries, environment and forests, and science and technology department. Parts of this work have also been shared through conferences in small-scale fisheries and Rufford events. In the near future, we plan to produce a couple of peer-reviewed publications regarding this work to share the results with the broader scientific community. Results will also be shared with the Lakshadweep fishing community through presentations and outreach material in the vernacular at the beginning of the next field season.

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

January 6<sup>th</sup> 2012 grant awarded. February 9<sup>th</sup> 2012 funds received. Project initiated June 2012. Project completed May 2014.

We had anticipated conducting the project over the course of a year and a half but the work ended up taking 2 years to complete. We had a 6 month delay in starting the project as the personnel in charge were occupied with other work / projects. Between June 2012 and May 2014 we were able to spread our socio-ecological surveys over two field seasons thereby greatly increasing our

temporal coverage. The community work was slow going and it took us over a year to get familiar with the social systems before setting off on the task of initiating a community based catch-monitoring program.

**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.**

In addition to the RSGF funds this work was also supported by Dakshin Foundation's core funds. Dakshin Foundation provided funding support for personnel salary, office overheads, trustee travel expenses and the print of the catch-monitoring notebooks.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Travel: Round trip Air fare between the mainland & Islands	1720	1547	173	Air, boat and train travel between Bangalore and Lakshadweep. Initial savings due to temporary inactivity of flights connecting the islands to the mainland.
Travel: Boat hire and local travel	1800	1364	436	Expenses at times shared with sister projects.
Boarding and Lodging	1350	2115	-765	Exceeded as the actual duration of the project was 8 months longer than proposed.
Field Assistant Wages	585	0	585	No field assistant was hired for the course of the project. Boat assistants and dive buddies were paid as part of the boat hire charges listed under travel.
Dive Gear	425	620	-195	Exceed the budget with tank fills.
Contingency	100	163	-63	Two years of DAN Asia Pacific Insurance and membership.
Miscellaneous	0	173	-173	Wire fees, ATM fees, Internet, Printing, Phone and voice recorder expenses.
<b>Total</b>	<b>5980</b>	<b>5981</b>	<b>-1</b>	

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

Our immediate next steps involve a thorough analysis of the data generated, along with the preparation of publications, outreach material and departmental reports. Next field season, starting in September 2014, we plan to continue and expand the catch monitoring programme. This summer, we will be working on refining the catch monitoring protocol and devising incentives to help increase participation.



**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?**

The RSGF logo has been used in talks and presentations that have come out of this work, including a poster at the Rufford Small Grants India meeting in November of 2013. We plan to acknowledge RSGF's support in this project in all future publications, presentations and outreach materials.

**11. Any other comments?**

I want to thank the RSGF committee for their patience with this project. We over-estimated the pace at which social projects can be executed. Extension of the project due to the slow pace of the social elements of the study enabled us to collect more data on the ecological aspects and we thank Ruffords support and patience through the entire process.