

### The Rufford Small Grants Foundation Final Report

Congratulations on the completion of your project that was supported by The Rufford 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	Mahima Jaini				
Project title	Linking conservation and livelihoods in Lakshadweep's fisheries: Long-term monitoring of the live-bait pole and line tuna fishery				
RSG reference	16151-2				
Reporting period	October 2014 – November 2015				
Amount of grant	£5000				
Your email address	jainimahima@gmail.com				
Date of this report	January 14 <sup>th</sup> , 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	Partially achieved	Fully achieved	Comments
	achieved			
Long-term monitoring of baitfish populations			Maintained baitfish population time series for lagoon sites in Minicoy, and lagoon and reef sites in Kavaratti. Conducted preliminary baitfish surveys in remote island of Suheli.	This past year's surveys contributed to our understanding of spatial and temporal changes in Lakshadweep's baitfish populations, stressing the need for maintaining long- term data sets. The results are being shared with fishers and managers.
Scaling-up the community- based catch monitoring programme		Programme strengthened in Agatti, Kadmat and Kavaratti and expanded to include the island of Minicoy. Visit to the island of Suheli helped us understand how to include temporary and remote fishing locations in our monitoring programme.		We invested in building our community relations while expanding the programme. Community interactions enabled us to share results, underlying principles and regularly assess the programme. Unfortunately, we were unable to conduct data verification exercises, or incentivise the program via local media channels. Reasons for this have been mentioned under question 2.
Exploring the potential for a sustainable seafood certification for the Lakshadweep pole and line tuna fishery		Conducted a commodity chain analysis for the Lakshadweep pole and line fishery to understand products, markets and agencies involved. Gathered preliminary data on local perspectives regarding certification.		This objective requires a thorough assessment of market chains and fisher perspectives on all islands but our work was restricted to the islands of Agatti, Kadmat, Kavaratti and Minicoy. We are continuing discussions and maintaining a relationship with the International Pole and Line Foundation, and a formal collaboration is yet to be realised.



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

Data retrieval became a major challenge in our community-based catch monitoring programme, particularly in instances where fishermen frequently go on extended month-long fishing trips using remote islands as camping bases to process fish. Better means of communication are required to aid the data retrieval process especially if it is to occur on a monthly rather than seasonal basis. Inclusion of more boats and individuals in the programme also made it difficult for the field researcher to network with the fisherfolk. We are exploring cost-effective, automated modes of data entry and retrieval.

Since our researchers were all female, we were unable to conduct onboard data verification. As a conservative Islamic community, the Lakshadweep society, particularly its fisherfolk are averse from allowing women onboard active fishing vessels, especially for extended periods of time. Shore-based data verification is possible and will be tested in the future.

Underestimation of our outreach budget has unfortunately restricted us from making multimedia products. Print and design costs for our outreach calendars were rather high. However, ample footage has been collected over the course of the study and can be put towards developing short films or documentaries when funds for such work are available.

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

The three most important outcomes of this project include:

- 1. A growing detailed time series on the live-bait pole and line tuna fishery, including ecological parameters regarding baitfish resources and boat-wise community generated records of fishery dynamics including spatial and temporal data on fish catch, size, effort, baitfish harvest and FAD use.
- 2. Involvement of fishermen in regular and detailed fisheries monitoring that is not only helping fill information gaps but is also creating a platform for communication between and amongst the fishing community, managers and scientists. The project is allowing for frequent information exchange between ground realities and decision-makers. It has also helped identify traditional management and monitoring practices of Minicoy that can be employed to improve various aspects of Lakshadweep's pole and line fishery.
- **3.** Increased awareness and visibility of India's most sustainable fishery through our outreach and communication efforts. Incorporation of fisheries recommendations based on our work in Integrated Island Management Plans for Lakshadweep. Positive interactions with government officials have lead to the involvement of NGOs like Dakshin Foundation, NCF (Nature Conservation Foundation), and WWF India in policy-making forums. Additionally our growing relationship with Maldivian research institutes and the International Pole and Line foundation are helping pave a better future for the Lakshadweep fishery.



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

Through our project, we have been able to involve local communities in both our researcher-led and community-based efforts. We have distributed over 59 catch monitoring notebooks in our four study islands, involving many more community members, fishers, families and youth. By opening channels of communication, we are able to link the fishing community to the fisheries managers and vice versa, and our outreach efforts have increased awareness regarding the threats faced by the Lakshadweep Islands and its pole and line tuna fishery. The data that is generated by the fishers themselves is helping provide an in depth understanding of issues, enabling them to design effective bottom-up solutions.

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

We plan to continue the long-term fisheries monitoring programmes and also initiate new research projects to fill emerging information gaps. In the next few months, we will be seeking programme level funding to expand our field staff network. We are planning the execution of additional research questions regarding live-bait resources, FAD use and traditional management systems via participatory approaches. We are also looking at evolving the community-based catch monitoring programmes into more automated methods to increase user frequency and efficiency. We hope to incentivise the programme with government recognition, and data and information sharing. Platforms for communicating Potential Fishing Zones, weather warnings, government policies, schemes and subsides are being planned to increase information sharing and support for small-scale fishermen. While developing our community-based project, we also plan to strengthen our relations with other NGOs, government departments and citizens working in this space and interested in the sustainable growth of Lakshadweep fisheries.

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

We have been frequently sharing our results with the local community and government officials via small outputs and reports. As of January 2015, we have been making informational calendars that help deliver information regarding Lakshadweep, its pole and line tuna fishery, and the community-based catch monitoring programme. Community-level outputs are generated in local languages to increase local accessibility. Reports submitted to Rufford are available online. Electronic copies of most of our materials are posted on our website. Currently we are developing a 2016 calendar, popular press articles and social media content to increase the visibility of our work and the issues affecting this sustainable fishery.

## 7. Timescale: Over what period was The Rufford Foundation grant used? How does this compare to the anticipated or actual length of the project?

We had proposed a 12 month project starting in September to include an entire fishing season (mid-September to mid-May). We received the Rufford grant on November 28<sup>th</sup> 2014, but work had already begun in October. The grant was used for research between October 2014 and November 2015, thus including a full fishing season and additional time for data processing, output generation and returning results to the community.



## 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
Travel	1330	1142.7	187.3	Saved on travel expenses by using ships instead of flights.
Boarding and Lodging	915	924.6	-9.6	Used for field station rent, lodge stay, food and supplies.
Outreach	395	493.7	-98.7	Print and design costs were higher than estimated leaving no funds for production of documentaries or short film. Footage was collected on personal cameras and can be put towards multimedia development in the future.
Personnel	1560	1545.8	14.2	Hire of research assistants and 5% of budget charged as overheads by our partner, the Madras Crocodile Bank and Trust.
Underwater Research	750	777.0	-27.0	Underwater surveys in Kavaratti and pilot survey trip to Suheli Island.
Contingency	50	116.2	-66.2	Postage of outreach material (calendars) to the islands.
Total	5000	5000	0	

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

Based on our past 3 years of work in the Lakshadweep islands (RSG 11055-1 and RSG 16151-2), we feel it is important to not only continue the long-term monitoring programme but also to conduct smaller scale research projects that help further understand the dynamics of this fishery and ways in which it can be sustainably developed. Our immediate next step is to bring the past 3 years of data and information into mainstream scientific literature, to not only increase the visibility of the project but also to increase the validity of the results. For the long-term monitoring programme, our current challenge lies in developing cost effective, user-friendly programmes that eliminate observer bias. We are looking into automated data entry and communication systems to increase the efficiency of information exchange between resource users, scientists and managers. Additional areas that require research focus to prove the sustainability of this fishery include the harvest of spawning baitfish and the use of FADs (Fish Aggregating Devices). Our work has also shown exemplary community-based efforts in managing local resources in the island of Minicoy and focused study is required to understand these processes and the feasibility of bringing them to the rest of the archipelago.

### 10. Did you use The Rufford Foundation logo in any materials produced in relation to this project? Did the RSGF receive any publicity during the course of your work?

The Rufford Foundation logo was used in the outputs we generated during this project including the 2015 calendar, 2016 calendar and community-based catch monitoring outputs. We distributed 1000



copies of the 2015 calendar amongst Lakshadweep Islanders and a few were shared with national and international agencies working in the field of marine conservation or fisheries. Approximately 200 community-based catch outputs were shared with Lakshadweep islanders in November of 2015. We plan to print 1300 copies of the 2016 calendar in collaboration with other partner organisations. These outputs can be viewed on our website (www.dakshin.org).

#### 11. Any other comments?

Dakshin Foundation conducted this project in collaboration with the Madras Crocodile Bank and Trust. And we thank you for your support and patience.