

## 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**

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Grant Recipient Details	
<b>Your name</b>	Luca Budello
<b>Project title</b>	Development of a community-led coral reef management programme in the Koh Sdach archipelago, Cambodia
<b>RSG reference</b>	10677-1
<b>Reporting period</b>	March 2012 – March 2013
<b>Amount of grant</b>	£6,000
<b>Your email address</b>	<a href="mailto:tangaroaluka@gmail.com">tangaroaluka@gmail.com</a>
<b>Date of this report</b>	25.03.2013

**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
To assess and map the baseline coral reef ecosystem diversity and function			4	Data is still in a raw format and analysis will be completed by mid-April 2013. The initial baseline dataset comprises 12 sites across the whole archipelago. A team of researchers trained by Shallow Waters surveyed the archipelago for invertebrates, vertebrates and substrate (including coral cover) by using an enhanced Reef Check approach.
To identify the biotic and abiotic factors that are likely to influence coral reef health	4			There was not enough time or finances available for establishing a protocol, and acquire the instruments, leading to the collection of data to meet this goal. It is possible that during the second round of a RSG we could budget for the acquisition of sediment traps, water quality kits and permanent underwater data loggers to establish abiotic influence on coral reef health. Concurrently, an in-depth study of the effect of algal grazers and larval recruitment may be established to assess biotic influence on community structure. Other proposed projects may also include anthropogenic influence due to overfishing and discarded nets on the reef.
To finalise the ecological / physical measurements to be monitored during stage two of the Project		4		Ecological indicators to be monitored for the next three years have been finalised and permanent transects placed in 12 locations across the archipelago. Physical measurement have not been finalised due to the reason stated in the point above.
To map and prioritise areas for reef management protection, or Intervention			4	As part of the CFO establishment, a community-based map was finalised in order to establish boundaries for management activities under the control of the CFO committee. During the process of map creation, certain areas of particular interest were picked up as potential sites for future intervention, including the establishment of seasonal

				closure for fishing and research purposes.
To propose management actions to local, regional and national stakeholders.			4	The report is yet to be finalised but it is likely to outline a number of proposed management actions and interventions. These may include: The establishment of a crab bank; the zoning of the CFO for multi-stakeholder use; the increase in patrolling and reporting of infractions; the establishment of fishing permits. The report should be ready by the end of April 2013.
To promote awareness and education regarding the factors affecting the sustainable use of coral reefs		4		We have developed an environmental education programme coupled with English classes aimed at local students. A complete social marketing campaign would now be required to target the adults and wider community. The older students have shown an interest and an understanding of the problems affecting the sustainable use of natural resources and themselves highlighted the importance of education as the primary tool for changing people behaviour.
To provide the infrastructure for long-term collection of robust biological and physical data.			4	We have developed a fully functional research outpost, including a lab for studying biological samples. We have established a diving centre and placed permanent transects in 12 islands across the archipelago. We are ready to roll out a full scale monitoring plan, funding permitting.
To train locals on survey methodology and data capturing	4			As it was pointed out during the application process, no wage meant local did not follow through their commitment to participate in the programme. Also, this required a large amount of time and effort as English is very limited amongst members of the community. A budget to perform training may be included on the next application.
To facilitate the process for the creation of a Group of Founders who can organise the election for the Community Fishery			4	Our original aim was to initiate talks with the community and local officials to establish whether there was scope for conservation action. Once in Koh Sdach we moved this goal forward to create a Group of Founders in order to formally establish a CFO. The involvement and

<p>Organisation's committee.</p>				<p>enthusiasm of the community was so strong that we exceeded our goals by electing the CFO committee and finalising all the documentation required for the establishment of this local institution. This process has required a lot of time, effort and finances to be completed in this short period of time. Thus, some other expected outcomes suffered.</p>
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**2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).**

There were a number of unforeseen difficulties tackled throughout the duration of this project:

1. Monsoon pattern and strength in the Koh Sdach archipelago is very different from the islands in the south. If diving was possible in Koh Rong only 35 miles south, this was not the case in Koh sdach, which islands are much more exposed to wave action. Thus, data collection was suspended between June and October 2012.
2. Compressor broke down in November and this caused an enormous amount of time and money to replace it. However, we managed to keep the programme going by filling tanks from a diving centre based on the mainland.

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

1. The most important outcome of all has been the creation of a Community Fishery Organisation (CFO). This process has brought together and empowered the local community to take responsibility of the management of natural resources in the Koh Sdach archipelago
2. We have collected a full dataset on coral reef distribution, abundance and diversity to be monitored for changes in years to come.
3. We have been recognised by local, regional and national officials, including NGOs and universities, as a competent project partner to work in collaboration with for issues related to coastal natural resource management, eco-tourism development, livelihood diversification and capacity building.

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

Since our arrival in Koh Sdach, local community members have increasingly become involved in the process leading to the creation of the CFO. The creation of this institution is instrumental for the establishment of a Locally Managed Marine Area and for the assumption or responsibility of participating members in the management of local natural resources.

Of particular importance was the involvement of community and regional government officials including the village chief, the commune (county) chief and the district governor, as well as the Fishery Administration. Their involvement made the organisation of community meetings, workshops and the CFO committee election fairly straightforward.

We have held seven official meetings/workshops with the community. The first one was also the opening of the project and saw over 50 community leaders participating. During the second, workshop local community members selected a Group of Founders who took responsibility for organising the election of the CFO's committee. Workshops three, four, five and six were dedicated to advising the Group of Founders in developing the elections, writing the CFO application, debating conservation actions and mapping the local natural resources (particularly coral reefs). The seventh meeting was organised as public forum and nearly 200 people from the community turned up to listen to local officials and the committee's candidates discuss the importance of managing natural resources for sustainable development. Elections were also held the same day and out of 21 candidates, nine local members (including all three female candidates) were elected into the committee. The last meeting was organised with the newly elected committee to provide guidance on the finalisation of the management plan and community mapping leading to the creation of CFO boundaries.

The main benefit accrued by the community as a whole is a sense of empowerment for realising community aspirations. Practically, the workshops have been used as a forum for raising common issues and initiating a process of ecological understanding. The newly elected committee now represents a focal point for fishermen and others to raise issues and seek answers. The youngest members of the community had also the chance to showcase their knowledge on issues related to coral reef management while improving their English in weekly English classes by Shallow Waters' staff and volunteers.

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

Yes, we have formulated a project plan to be rolled out over the next 4 years. The plan includes both monitoring of the socio-ecological systems via focused research programmes and conservation intervention via training and capacity building. However, the follow up on the project is dependent on securing further funding. The broad plan is as follows:

- To collect baseline data on socio-economics including fish/invertebrates catch/landing and access to market.
- To continue monitoring socio-ecological systems.
- To train local members in survey methodology and data capturing.
- To train the committee members in community-based financial management and the development of market-based solutions to conservation (i.e. crab bank).
- To train the committee on natural resource management (i.e. zoning, development of seasonal closure, monitoring infractions, issue fishing permits, etc.).
- To develop a programme for exploring livelihood diversification (i.e. ecotourism).
- To create a waste management programme.
- To implement a social marketing and environmental education programme in order to educate the wider community and influence peoples perceptions about key issues such as pollution, sustainability and livelihood diversification.
- To train the community in community-based patrolling. To be developed in collaboration with local law enforcement.

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

A report for the Fishery Administration is under way and due for completion by the end of April 2013. Furthermore, we will be writing one paper for the *Cambodian Journal of Natural History* in

collaboration with a local student and one paper for an international Journal, such as *Coral Reef, Coastal Management or Marine Ecology Progress Series*.

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

We requested the funding for 1 year in order to develop our pilot project. With the exception of data analysis and writing the report for the Fishery Administration, which will be completed by the end of April, the pilot project was completed within the expected timeframe.

**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
Roundtrip to Cambodia	£3,450	£3,600	£150	Tickets were slightly more expensive than originally thought
Maintenance allowance	£2,600	£2,600	-	
Diving allowance	£2,200	£2,200	-	
Non-diving allowance	£600	£3,000	£2,400	Transportation has been very expensive and many trips were required to sort out permits, networking and organise meetings with in country partners in order to allow the creation of the CFO within the scope of the pilot project. This was not accounted for.
Non-Diving Equipment	£1,600	£1,600	-	
Diving Equipment	£1,850	£4,000	£2,150	We required extra equipment such as diving torches and we had to buy a new compressor due to our original one failing permanently.
Personnel	£2,300	£6,300	£4,000	Competent personnel were hard to come by and required more funding than expected. This was paid for by sales generated by the volunteer programme
Workshops	£2,000	£2,800	£800	We added few extra workshops, as required by the project
<b>Total</b>	<b>£16,600</b>	<b>£26,100</b>	<b>£9,500</b>	<b>Exchange rate £1 = \$1.5</b>

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

1. To develop a training programme leading to the empowerment of the newly established CFO committee to take action on managing natural resource.
2. To deliver a fully structured environmental education programme for the younger members of the community and a social marketing campaign for the wider community leading to increasing environmental awareness and behavioural change.

3. To monitor illegal fishing practices in order to develop a programme for their reduction.
4. To monitor socio-ecological indicators to assess effectiveness of the conservation action on both the community and the natural resources they depend upon.

**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 logo was used on all banners prepared for the community meetings/workshops and also displayed on our website and Shallow Waters marketing materials such as the Expedition Manuals. We will also acknowledge RSGF in all our future reporting and publications.

**11. Any other comments?**

The entire project has been a great challenge and a great source of knowledge for all those involved. We feel like we have merely scratched the surface of all the issues affecting this community. We have created a number of expectations amongst active local members of the CFO, which if not followed through may create a sense of frustration. Further funding is needed for more focused action, primarily training for the newly established committee and support in developing and implementing a management plan. Without this, all the efforts put during this phase of the project may be lost due to a lack of understanding, management and therefore ability to move forward.