

Proposal for

FISH & PEOPLE
GET HOOKED ON FISHERIES EDUCATION

AN EDUCATIONAL VIDEO-COURSE FOR SCHOOL AND COASTAL COMMUNITIES

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I. Executive Summary

The need is great and the institutional stars align. A range of natural and human activities currently threatens the reefs within the Koh Sdach Archipelago (KSA), and global change is expected to exacerbate the problems in decades to come. Sustainable reef management is crucial to the conservation of biodiversity as well as the livelihoods of thousands of poor local people in the area. Recognizing this, the national government explicitly earmarked the KSA to become a Marine Protected Area (MPA) by Royal decree in 2004. Recent laws passed in Cambodia also empower resource users to make coastal resource management decisions. Community engagement in local resource management can increase resource users' engagement and ownership, the reforming outcomes, but requires a certain amount of community capacity and technical support to get off the ground. The lack of available data on the ecological and socio-economic systems of the region, ineffective law enforcement and the country's limited capacity, infrastructure, education and finances have so far hindered the effective engagement of the community and the creation of a management plan for coastal natural resources in KSA.

Shallow Waters and its partners aim to fill this gap by providing local and national stakeholders with the expertise, infrastructure and finances required to facilitate an application for the proposed MPA. In order to achieve this goal we require \$- for the year 2013-2014 from the [NAME OF THE POTENTIAL DONOR] to specifically support the social marketing, education and awareness-raising components aimed at changing perceptions of community members towards understanding how to reconcile development with conservation via natural resource management.

These activities will have two main objectives: 1) educate children via an environmental education programme delivered at and with the local secondary school and 2) prepare the community fishery organisation (CFO), and its members, to make management decisions for their local natural resources, as a small scale Locally Managed Marine Area (LMMA).

The project will support the on-going efforts of the Fishery Administration (FiA), Fauna and Flora International (FFI), Shallow Waters (SW) and other stakeholders in achieving their objectives for the protection of coral reefs and the sustainable development of Koh Sdach's fishing community and coastal Cambodia as a whole.

By maximising the expertise available from proponents of this project, the required funding application will be used to support the educational and training aspect of this project, with the remaining balance of \$- being sourced elsewhere, for example a crowd-funding campaign on Indiegogo.com.

In addition to being of direct benefit to local communities, regional government departments and universities, the project deliverables shall also be useful in facilitating the Royal Government of Cambodia toward meeting its national and international obligations.

II. Introduction

Shallow Waters was set up by Sarah Wilson and Luca Budello in early 2011. Our backgrounds in conservation, environmental science, scuba diving and science communication came together in the development of this community focused coral reef conservation project.

From years spent as both students and scientists, we came to believe that truly sustainable conservation projects must come from the people who are both guardians of, and dependant upon, their local natural resources.

The problems of climate change, overfishing, un-sustainable development and the lack of fisheries management present here in the archipelago mirror the larger issues effecting coastal communities around the world. By tackling the problems at a local scale, before large scale developments get up and running, we hope to develop effective long-term programmes that can be implemented and carried out by the people who live and work in the region, and not by ineffective centralised departments.

Our Motive

Through education, community empowerment and sustainable development, we believe that long-term management programmes for threatened natural resources can be realised.

Our Method

The lack of funding for small scale research projects and the increasing popularity for students combining their leisure time with gaining practical skills and experience makes volunteering an effective method for keeping specialised projects such as ours financially and practically viable in the long term.

Our Project

Shallow Waters is working on a long-term, community led coral reef management programme in Cambodia's Koh Sdach archipelago. We host international volunteers at our research outpost on the island of [Koh Sdach](#), whether they are students looking to undertake their [own research](#) in a unique marine environment, or those seeking to gain scuba qualifications whilst practically contributing to marine conservation in a developing country.

Our Supporters



III. Needs/Problems

Coastal habitats play a significant role in the national economy of Cambodia, with the fishery sector alone comprising an estimated US\$ 7,200 million. Coral reefs, together with mangrove forests and seagrass beds, are critical habitats for resident and migratory species by providing shelter, cleaning stations and rich sources of food. Furthermore, many Cambodians are reliant on coral reefs for their livelihood and nutrition, with much demand placed on the many commercial species dependent on these habitats. Little is known about the status and health of the coral reef system, and a review of the limited available data suggests that Cambodia's coral reefs are under a potentially high risk from a range of human and natural activities. Particular risks include poorly regulated and illegal fishing practices, over-fishing, coastal development, increasing human populations and coral bleaching. There is an urgent need for the effective communication of a basic scientific understanding of the limits to fisheries, and the importance of natural resource management vs. open access, in order to preserve coral reefs and associated ecosystems for future generations.

The fatalistic attitude of many people is primarily due to a widespread lack of awareness of concepts such as basic ecology and sustainability, which are required in order to maintain healthy fish stocks within functioning socio-ecological systems. For example, unregulated access to fishing grounds lead to a depletion of fish stocks. Fishermen who were used to fishing close to their homes now need to move further and further afield in order to make their daily catch. This is because coastal areas such as coral reefs are not managed sustainably and fish stocks are not able to replenish themselves, resulting in an ecological system that cannot support healthy populations of fish and other important species, and higher costs for the fishermen to make their daily catch.

In order to address this need, the aim of this proposal is to present an outline (and supporting rationale) for the development of an educational media project aimed at increasing awareness of the management of coastal natural resources. This media project will benefit local communities to protect biodiversity, develop sustainably and equip the Royal Government with an educational tool to be used during the creation of Cambodia's first Marine Protected Area, which is underway.

IV. Goals/Objectives

Shallow Waters believes that as a critical aspect of the community's socio-economic survival, conservation programmes should fully integrate with the education of the future leadership of the island. An on-going and sustained effort in raising awareness and local education will make any conservation project successful in the long run. Thus, Fish and People may enable a process of behavioural change and a better understanding of the root causes of the problems, and will aid with their solutions in an accessible and interactive way. The Goals of this media production are:

- **Goal 1:** Enhance education about natural resource management for coastal communities amongst school children grade 10-13
- **Goal 2:** Provide local communities with an accessible educational tool aiding with the creation of fishery organizations and LMMA 's
- **Goal 3:** Provide the Fishery Administration and schoolteachers with a coherent structure to deliver coastal environmental awareness programmes

V. Procedures/Scope of Work

Fish and People - Cambodia is a 60 minute production adapted from the original *Fish and People Asia-Pacific*. The production is divided into six educational modules explaining the concept of reconciling development with natural resource management in an easily accessible manner and with a cleverly crafted portfolio of explanatory graphics and natural history photography.

The production will focus on species that are of economic (and ecological) importance for coastal communities, deal with country specific issues, and will be produced in the Khmer language.

Two versions of this production will be created. Version 1 is tailored toward middle and upper high school students and is accompanied by a comprehensive teacher's guide. Version 2 is designed for the wider community and will be toured throughout coastal Cambodia during a series of specifically designed workshops.

The full production will be revised in due course; however the following titles may be included:

- **Plenty more fish in the sea.** Exploring the concept of unsustainable fishing. Why there are less and less fish available in the sea?
- **Fish and people today and tomorrow.** Fishing sustainably. The importance of thinking about current and future generations of both fish, and people!
- **Where do fish come from?** Understanding the ecology of coral reefs, connectivity, and why we need to avoid fishing very small and very large fish.
- **Community means you and me!** Healthy reefs mean bigger catches and more money for less effort, benefiting everyone, so everyone has a role.
- **What are the other options to make a living out of a reef?** Exploring the concept of ecosystem services and the economic benefits that a healthy natural environment provides.
- **Diversifying your options for a better living and a healthier reef.** Exploring concept of livelihood diversification and conservation activities linked to training and access to micro-finance initiatives (i.e. crab bank).

- **Creating a Locally Managed Marine Area (LMMA).** A step-by-step guide to creating a community fishery organization and taking charge of the management of local natural resources.

There is a carefully reasoned rationale for approaching the impending fisheries management crisis in the South China Sea with a high-school level learning tool and a community awareness campaign like the Fish and People program.

We believe if a critical mass of young adults acquire a clear understanding of how overfishing destroys fisheries and food security, they will not only innovate their own, 'bottom-up' fisheries management strategies as they assume positions of influence within the community, but they will also be more likely to understand the need for, and therefore comply with, 'top-down' management approaches such as size limits, gear restrictions, trade agreements and quotas.

Fish and People will be a co-production between Sallow Waters, The Coral Identification Capacity Building Program (CICBP), the award-winning natural history producers Digital Dimensions, and Eco Media Productions.

Other collaborations have been (or are in the process of being) established with:

- Fauna and Flora International – Cambodia (FFI)
- Royal University of Phnom Penh (RUPP), Media and Environmental Science Departments
- Wildlife Conservation Cambodia (WCC)
- Save Our Seas Foundation – Application for funding currently pending

VI. Milestones

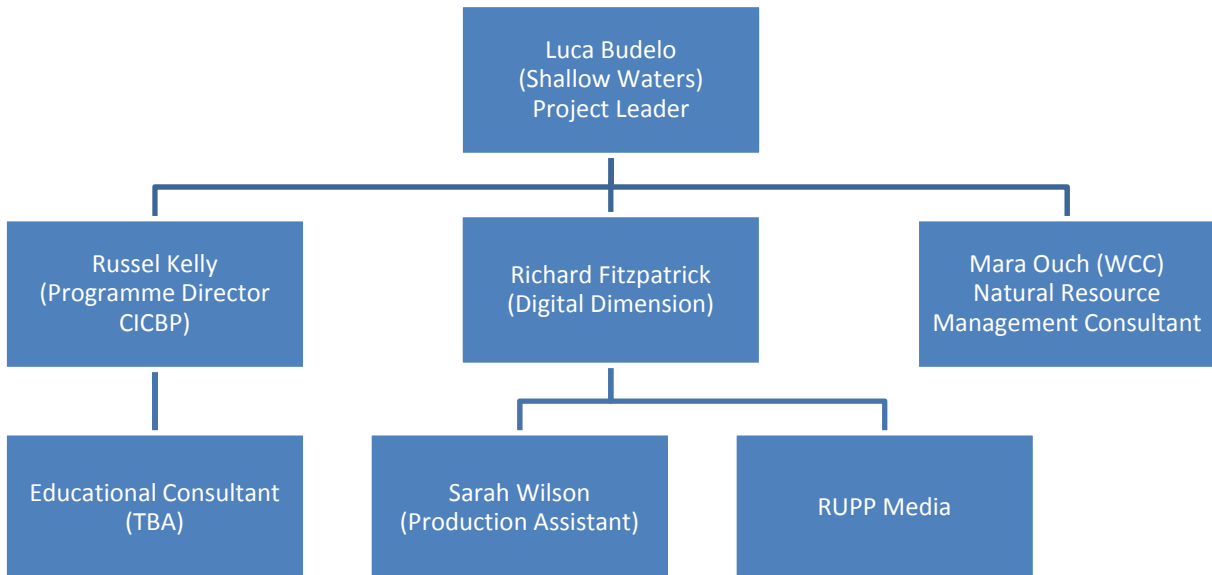
| | Description of Work | Start and End Dates |
|-------------|---|-------------------------------|
| Phase One | Secure Funding | Ongoing |
| Phase Two | Develop Script and Educational Content | March 2013 – June 2013 |
| Phase Three | Develop lesson plan and instructor guide | March 2013 – September 2013 |
| Phase Four | Film on location | October 2013 |
| Phase Five | Edit material | November 2013 – December 2013 |
| Phase Six | Print educational and marketing materials | October 2013 – December 2013 |
| Phase Seven | Train educator | January 2014 – February 2014 |
| Phase Eight | Project opening (first screening) | April 2014 |
| Phase Nine | Touring project amongst communities | April 2014 – December 2014 |

VII. Budget

| | Description of Work | Anticipated Costs | Potential Donor |
|-------------|---|---------------------|-----------------|
| Phase One | Secure Funding | \$ 500 | SW |
| Phase Two | Develop Script and Educational Content | \$ 9,500 | CUFA |
| Phase Three | Develop lesson plan and instructor guide | \$ 6,500 | CUFA |
| Phase four | Film on location (one month) | \$ 15,000 | SOSF –SW |
| Phase five | Edit, authoring, subtitling, DVD production | \$ 11,500 | SOSF |
| Phase six | Print educational and marketing materials | \$ 18,500 | SOSF |
| Phase seven | Train educators | \$ 9,000 | - |
| Phase eight | Project Opening (first screening) | \$ 2,500 | SOSF |
| Phase Nine | Touring project amongst coastal communities | \$ 24,750 | - |
| | Total | \$ 97,750.00 | |

SOSF: Save Our Seas Foundation; **CUFA:** Credit Union Foundation Australia; **FFI:** Fauna and Flora International; **SW:** Shallow Waters

VIII. Key Personnel



IX. Evaluation

The project will be evaluated at regular intervals during the production process. Every month a production update will be sent to the all working team members and donors with news, achievements and issues encountered during the month.

A formal report on progress will be sent out to donors quarterly.

An evaluation of progress will be made against milestones set out in the Milestone section of this document.

X. Endorsements

These following individuals and organisations have given their support of this project. Please, feel free to get in touch with them for any more information required.

- **Mr Berry Mulligan:** Project Manager for Fauna and Flora International's Cambodian Coastal and Marine Project. FFI provide overall co-ordination on matters regarding coastal conservation planning at the national level. Contact: Berry.Mulligan@fauna-flora.org
- **Dr Kirsten Oleson:** University of Hawaii, Manoa. Dr Oleson is Shallow Waters' scientific advisor on socio-economic research. Dr Oleson is also closely collaborating on an application for funding with the WAITT foundation. Contact: koleson@hawaii.edu
- **Dr Neal Haddaway:** Centre for Evidence-Based Conservation, Bangor University. Dr Haddaway is advising Shallow Waters on evidence-based conservation planning by ensuring that our conservation activities are informed by scientific knowledge. Contact: n.haddaway@bangor.ac.uk

XI. Next Steps

If you are interested in supporting this project, please feel free to contact Luca Budello at luca@shallow-waters.co.uk in order to organize a meeting or for further information.

- Next Step 1: If you would like to support the full production costs, please get in touch with Luca via email or official letter stating the terms and condition of engagement.
- Next Step 2: If you would like to support this project with a partial contribution, please get in touch with Luca stating the amount you would like to commit and the terms and conditions of engagement.
- Next Step 3: On receipt of your offer, Shallow Waters will issue a MoU and bank details required for the payment of the agreed sponsorship.

XII. Appendix

These are a number of resources you may want to have a look at before making your final decision:

- Shallow Waters is the proponent of this project: www.shallow-waters.co.uk
- Ecomedia is the production company behind the Fish and People - Asia Pacific project. Although the Fish and People - Cambodia will be somewhat different the main aim is similar. Please scroll to the bottom of the page to watch Fish and People - Asia Pacific: <http://www.ecomedia.com.au/fishandpeople.html>
- Digital Dimension (DD) is an award winning Production Company with studios at James Cook University, Cairns, Australia, they will co-produce Fish and People – Cambodia: <http://www.digitaldimensions.com.au/home.html>
- Coral Hub is Dr Russell Kelly main project under the CICBP: <http://www.coralhub.info/>
- Wildlife Conservation Cambodia is Shallow Waters' main partner in the area of natural resource management and community governance. In this project they will play a fundamental role as cultural mediators: <http://www.wcc.org.kh/>
- To understand more about the LMMA network, please visit <http://lmmanetwork.dreamhosters.com/home>