parfish
PARTICIPATORY FISHERIES STOCK ASSESSMENT

Introduction

This is the second of a series of flyers giving updates on the development and application of Participatory Fishery Stock Assessment (ParFish).

This flyer covers:

- The ParFish Toolkit;
- Experience of ParFish in Zanzibar & Turks Caicos Islands
- Further use of ParFish in India, Kenya and Gabon.

The ParFish Toolkit

The first version of the ParFish Toolkit has now been completed and is available to any individuals or institutions as guidance to undertaking a Participatory Fisheries Stock Assessment.

The Toolkit consists of the following elements:

ParFish Guidelines: describe the overall approach for implementing ParFish to assist fishers and other stakeholders enter a cycle of learning, management planning, implementation and evaluation;

ParFish Software: allows data from the ParFish assessment to be entered and analysed;

ParFish Software Manual: explains how to use the software with step-by-step instructions.

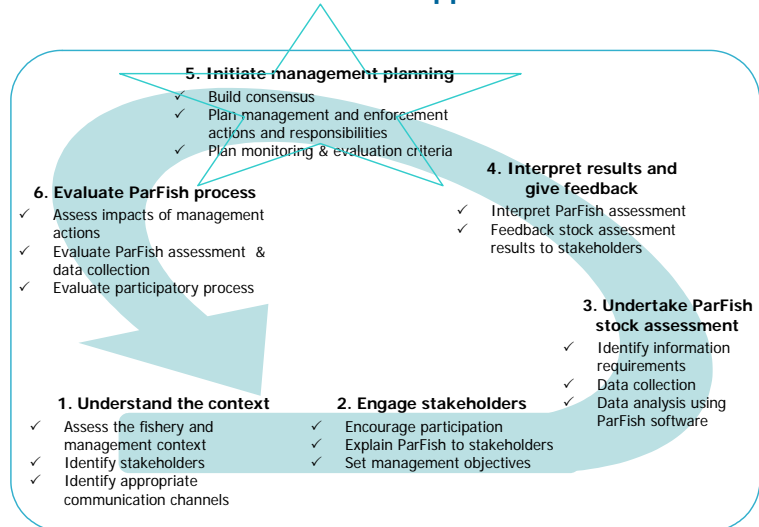## Experience of ParFish in Zanzibar

ParFish has been used in **Zanzibar** to assess a mixed species fringing reef and a patch reef fishery. The case study has now reached Stage 5 and has involved representatives from the Institute of Marine Sciences, Zanzibar Fisheries Department, and State University of Zanzibar.

Stages 1-3 involved understanding the background to the fishery, engaging fishers and other stakeholders, and data collection. The data was analysed using the ParFish software to provide information on the fishery and a range of management control options.

Results have been fed-back to fishers and other important stakeholders through a series of meetings and workshops in September 2004 (Stage 4).

The ParFish Approach

5. Initiate management planning
- ✓ Build consensus
- ✓ Plan management and enforcement actions and responsibilities
- ✓ Plan monitoring & evaluation criteria

6. Evaluate ParFish process
- ✓ Assess impacts of management actions
- ✓ Evaluate ParFish assessment & data collection
- ✓ Evaluate participatory process

4. Interpret results and give feedback
- ✓ Interpret ParFish assessment
- ✓ Feedback stock assessment results to stakeholders

3. Undertake ParFish stock assessment
- ✓ Identify information requirements
- ✓ Data collection
- ✓ Data analysis using ParFish software

1. Understand the context
- ✓ Assess the fishery and management context
- ✓ Identify stakeholders
- ✓ Identify appropriate communication channels

2. Engage stakeholders
- ✓ Encourage participation
- ✓ Explain ParFish to stakeholders
- ✓ Set management objectives

Management planning (Stage 5) was initiated through a multi-stakeholder workshop in January 2005, involving representatives of fishers, Department of Fisheries, Marine Parks, Department of Environment and local NGOs.

It was first time such a range of stakeholders had jointly discussed the Kizimkazi fishery and a number of options for management and recommendations were outlined. Examples include controlling the number of fishers, improving patrols, establishing a community based organisation, developing alternative livelihoods such as seaweed farming and providing environmental education. Further meetings will be required to prioritise and agree actions, taking into consideration the results of the ParFish assessment and the opportunities to improve the results with further data collection .

Experiences of ParFish in the Turks & Caicos Islands

In the **Turks and Caicos Islands** the conch fishery was assessed using the ParFish Software.

Data inputted into the software included fisher interviews and available catch and effort data.

The assessment revealed that the current quota for the fishery is adequate and fits with the optimal control level suggested by ParFish.

It also illustrated that using fisher interviews alone produced a sensible result that could have been used in isolation if catch and effort data had not been available.

The case study indicated that if ParFish had been used 30 years ago using only fisher interview data it would have prevented the crash in conch stocks witnessed in the 1970s.

Further use of ParFish in India, Kenya and Gabon

Following on from the successful use of the ParFish approach in Zanzibar and the Turks & Caicos Islands, the DFID FMSP programme is supporting further testing of the approach in India, Kenya and Gabon.

Training in the ParFish approach will be given to a number of fisheries departments in India followed by a case study within a selected fishery in Andhra Pradesh.

This is being conducted in partnership with the Andhra Pradesh Fisheries Department and the Bay of Bengal Programme Intergovernmental Organisation (BOBP-IGO).

The Andhra Pradesh Fisheries Department is looking for tools to support the development of a co-management framework for coastal fisheries and BOBP-IGO is keen to see if lessons learned from this case study can inform the other states in the Bay of Bengal region.

The ParFish software will also be further tested using data collected from fisheries in Kenya, in partnership with CORDIO (Coral Reef Degradation in the Indian Ocean Project) and in Gabon in partnership with the WCS (World Conservation Society).

CORDIO is currently working in Diani to support monitoring programmes and a developing an Integrated Coastal Area Management Institution. WCS is working in Gabon to support sustainable fisheries management.

Obtaining the ParFish Toolkit

To obtain a copy of the ParFish Toolkit:

1. Request electronic or hardcopy versions of the Toolkit from MRAG (see contacts below);

2. Download the Toolkit from FMSP website: http://www.fmsp.org.uk [Go to current projects and search under R 8464.]

Further Information

For further information, also request or download:

- ParFish Flyer 1 (September 2004): gives an overview of the ParFish Approach

- ParFish Brief 1 (September 2004): describes the scientific background to ParFish

- ParFish Brief 2 (March 2005): describes the relevance of ParFish to management

CONTACT DETAILS

For further information or to give feedback please contact:

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