



# Ecosystem approaches to the management and conservation of fisheries and marine biodiversity in the Asia Region

Prospectus Regional Symposium

Kochi, India, 28<sup>th</sup>- 30<sup>th</sup> October 2013

## Introduction

Coastal fisheries and their associated ecosystems have encountered dramatic changes in recent decades in South and Southeast Asia, in particular changes arising from the introduction of motorization and highly productive new fishing gears. This expanded use of capital-intensive technologies has created region-wide problems of overexploitation of the resource base and includes significant bycatch; non-targeted fish and other animals that are unintentionally caught in fishing, then discarded or retained. Habitat destruction and over exploitation of fisheries are considered two of the greatest and most pervasive threats to the balance of coastal ecosystems today. There is growing consensus that approaches for fisheries management take an ecosystem approach.

The Mangroves for the Future is a partnership based initiative promoting investment in coastal ecosystems for sustainable development. MFF promotes healthy coastal ecosystems for a more prosperous and secure future for coastal communities. Within this context the linkage between coastal ecosystems, fisheries and human well being are of direct interest and importance to MFF.

In light of the concerns for coastal fisheries, the MFF National Coordinating Body of India proposed to the MFF Regional Steering Committee (RSC) to hold a regional expert meeting to explore ecosystems based approaches to management and conservation of fisheries and marine biodiversity in the Asia Region. The Symposium aims to draw out knowledge from the countries in South and Southeast Asia and to share lessons and practical solutions for tackling the complex issues. The RSC endorsed the proposal from India, and proposed to hold a regional Symposium in India in October 2013.

In follow up to the decision MFF, Food Agriculture Organization (FAO), Bay of Bengal Large Marine Ecosystem Project (BoBLME), United Nations Environment Programme (UNEP), The Southeast Asian Fisheries Development Center (SEAFDEC) and Central Marine Fisheries Research Institute (CMFRI) are working in partnership to design and organize the regional fisheries Symposium for October 2013.

The main theme(s) of the Symposium is directly in line with the promotion of the 1995 FAO Code of Conduct for Responsible Fisheries (the Code) which calls for the sustainable use of aquatic ecosystems and requiring that fishing be conducted with due regard for the environment and promoting the maintenance, safeguarding and conservation of biodiversity of ecosystems by minimizing fisheries impacts on non-target species and the ecosystems in general. It is also directly in line with the subsequent International Guidelines on Bycatch Management and Reduction of Discards published by FAO in 2011 and the International Plan of Action-Sharks (FAO).

The Symposium discussions will be structured around presentations on the following themes:

1. Coastal Ecosystems and Fisheries – Towards an Ecosystem Approach to Fisheries Management
2. Marine Spatial Planning, Marine Protected Areas and Fisheries Management
3. Management of Artisanal Fisheries/ Artisanal Fishing Zones

4. Exploring the issues of Bycatch and Bycatch Management
5. Bycatch, Sharks, Marine Turtles and other endangered, threatened and protected (ETP) species.
6. Livelihood and conservation.

Further details about each of the proposed sub-themes can be found in Annex 1.

The Symposium aims to extract and examine scientific information and knowledge that fills important gaps in understanding, to debate contrasting viewpoints stemming from the diversity of ideas and perceptions from stakeholders and interest groups (scientists/ researchers, industries, government, civil society groups) and to seek practical and sustainable solutions to the complex problems currently being encountered.

Participants will be invited to share their research and experience, by submitting papers related to topics under the themes and presenting them for discussion at the Symposium. The Symposium will not focus on cutting edge science already in the public domain but on drawing out and making available practical experience and unpublished data important for filling information gaps and identifying practical solutions and actions.

One of the underlying aims of the Symposium is to achieve greater understanding and willingness for collaboration between the fishery and environmental sectors and to ensure that the perspective of the small scale fisher is well represented in the debate.

The focus of the Symposium is to explore ecosystem approaches for the management and conservation of fisheries and marine diversity. The Symposium discussions will probe practical and science based solutions for achieving sustainable fisheries, exploring multiple and integrated management measures, including spatial and temporal protection measures, as well as conventional fisheries management approaches, recognizing the wider interactions between fisheries and the ecosystem as a whole.

## Organizational and logistical arrangements

South and Southeast Asia will be the **geographical scope** for the Symposium. **Twelve (12) countries** will participate in the regional fisheries Symposium, including all the MFF and BoBLME member countries. This includes all MFF Member (including Outreach countries (11 in total); India, Pakistan, Sri Lanka, Bangladesh, Maldives, Indonesia, Vietnam, Thailand, Seychelles (Myanmar and Cambodia), BoBLME countries (in addition to the above, also Malaysia), SEAFDEC/ SIDA countries (only those covered by MFF/ BoBLME), FAO/ APFIC countries (only those covered by MFF and BoBLME).

A target **minimum of two papers per country** will be invited, in line with the agreed thematic areas for the Symposium. A **maximum total of 30 papers will be reviewed and screened** as part of the selection process. A maximum of five papers for each of the six sub-themes will be presented for discussion at the Symposium.

All sessions of the Symposium will be in plenary, there will be no breakout or parallel sessions for separate sub-themes. This design is intended to avoid the re-creation of sectoral separations as one of the underlying objectives of the Symposium is to engender cross sectoral collaboration.

A series of papers will be selected and presented under each sub-theme, followed by structured panel discussions.

### 1. Call for and selection of papers and presenters:

Potential key note speakers and presenters will be identified by regional and national partners (including NCBs, BOBLME focal points and the Symposium Science Committee and Organization Committee) and invited to submit papers on a specific subject. Other papers will be identified through an open call for contribution of papers under the various sub-themes. Regional and national partners will be requested to identify a few examples from each country which address at least one of the sub-themes and invite extended

abstracts (of about 500 words) from interested person(s). The abstract should contain the following information:

- Brief introduction to the research topic
- Method of research
- Main findings and discussion

An abstract may also be based on a critical review of existing information in the country, supplemented with authors' scientific analysis of the results.

The abstracts must be received by Regional and National focal point by **August 23<sup>rd</sup> (to be confirmed)**.

## **2. Evaluation of Abstracts**

The abstracts will be evaluated by a panel of experts (the Science Committee) which will decide on the acceptance of the abstracts. The authors will then be invited to submit the full paper by September 13<sup>th</sup> (**to be confirmed**). The Scientific Committee will also identify contributions from outside the member countries as necessary in order to enhance the value of the Symposium as necessary.

## **3. BoBLME Training on Scientific Presentation Skills**

BoBLME will sponsor and facilitate scientific presentations training for all the participants (authors/presenters) to attend. The training will be conducted immediately before the Symposium. The training and Symposium are scheduled as back to back events in the same location.

## **4. Symposium Programme**

The Scientific Committee will arrange the final programme of the Symposium based on the subject and content of the scientific abstracts and papers submitted.

## **5. Science Committee**

Role and function of the Science Committee:

- Setting the programme
- Identifying keynote speakers
- Identifying the targeted presenters/papers
- Screening abstracts
- Support/ guide authors in editing scientific papers
- Providing support to lead of Science Committee

The Science Committee would be composed of a Senior Advisor or Chair plus representatives from partner organizations MFF India, FAO/APFIC, BoBLME, UNEP, SEAFDEC, MFF Regional Secretariat, leading national scientists.

### Senior Advisor/ Chair of the Science Committee

The Science Committee will be led by a senior fisheries scientist with sound knowledge of fisheries in the region and contact with the network of individuals and organizations involved in fisheries and environmental management in Asia. The role of this person is to screen and edit all abstract and papers submitted (estimated 30 papers). Members of the committee will provide input for reviewing a select number of papers.

E. Vivekanandan (India) has been identified as strong candidate for this role.

The estimated time required by the Senior Advisor/ Chair of the Science Committee is 45-50 days.

## **6. Hosting of the Event and Organization and Logistical Arrangements**

The Regional Fisheries Symposium will be hosted by the Government of India. The Ministry of Environment and Forests (MoEF) has confirmed (by correspondence 6 May 2013) that the proposed Symposium may be held in the **third week of October 2013 at Kochi**.

The local logistical and organizational arrangements will be the responsibility of the MFF National Coordinating Body of India and GoI. The NCB and GoI will identify the most appropriate location for the Symposium, including possibly, an opportunity to visit a site of interest and relevance to the Symposium. Central Marine Fisheries Research Institute (CMFRI) is recommended as the lead national agency and host agency for the planning coordination of the workshop.

The number of international participants will be limited to 20-25. The number of Indian participants (including presenters) is expected to be 10.

## **7. Organization/ Steering Committee;**

One member of each partner organization; MFF, BoBLME, APFIC/ FAO, UNEP, SEAFDEC will be identified as focal point to support the smooth organization of the Symposium in partnership with the NCB India, MoEF and CMFRI. These people will advise the organizers on matters related to the:

- Smooth liaison between all partner organizations during the organization, implementation and post-Symposium completion process and finalization of outputs.
- Communications and branding related to the Symposium – visibility of all partners is important
- Agreement over matters concerning intellectual property rights
- Logistical arrangements; Participants list, letters of invitation, travel, visa, accommodation etc. note – there is currently a two-month processing time for Indian visas

## **8. Outputs of the Symposium**

The proceedings of the Symposium which will contain recommendations on good practices and an analysis of region-wide experiences will be compiled and edited through the science committee and published by the MFF Secretariat, and the proceedings will be presented to the Regional Steering Committee meeting in 2014.

- Action statement
- Papers produced
- Proceedings edited
- A Symposium - collection of scholarly contributions

## **9. Budget and Financing for the Symposium**

MFF will bear most of the core costs for the Symposium while seeking co-sponsorship from lead partners. MFF will lead on the financial management and planning related to the core costs with all partners.

Regional Partners (FAO, BoBLME, SEAFDEC, UNEP) and the Government of India will seek to identify sources of co-financing. This is largely expected to cover:

- In-kind or financial support for work related to the Science Committee, logistical organization for the Symposium, time spent at the Symposium and post-Symposium to complete final outputs. Including financial contribution for lead / senior advisor of the Science committee.
- Sponsorship of participants to attend the Symposium
- Pre-Symposium training & capacity building on scientific presentation skills (BoBLME)

MFF Secretariat  
23 Aug 2013

## Annex 1: Proposed Sub-Themes for the Symposium

### 1. Coastal Ecosystems and Fisheries – Towards and Ecosystem Approach to Fisheries management

Ecosystems are complex and dynamic natural units that produce goods and services beyond those of benefit to fisheries. Because fisheries have a direct impact on the ecosystem, which is also impacted by other human activities, they need to be managed in an ecosystem context. One major challenge of implementing the Ecosystem Approach to Fisheries (EAF) management is in turning the available concepts and principles on EAF into operational objectives from which an EAF management plan could more easily be developed. The future of EAF and fisheries depends on the way in which the two fundamental concepts of fisheries management and ecosystem management, and their respective stakeholders, will join efforts or collide. (Adapted from the FAO Fisheries Technical Paper 443 The Ecosystem Approach to Fisheries)

This sub-theme explores the linkages between the current status of coastal ecosystems in South and Southeast Asia and the impacts from fishing and explores practical options for working towards the implementation and realization of EAF management. Address the inadequacy of meaningful information for building knowledge on ecosystems based approaches to fisheries management and how the existing guidance and codes of conduct on EAF could achieve better uptake.

### 2. Spatial Planning, Marine Protected Areas and Fisheries Management

This sub-theme will explore the nexus where spatial management and implementation of marine protected areas has provided successful results for the protection and conservation coastal habitats but failed to capture and address fisheries management objectives and how an adaptation and expansion of marine spatial planning principles/approaches and tools would contribute significantly to effective fisheries management approaches where good fisheries science is applied in the design and implementation; e.g. seasonal/ temporal closures, aimed at protecting the breeding and feeding grounds of commercially important and biodiversity indicator species, gear control/gear fixes to protect sensitive habitat and juvenile fish important for recruitment.

### 3. Management of Artisanal Fisheries/ Artisanal Fishing Zones

This sub-topic will explore in particular the opportunities for better management and protection of artisanal fisheries / artisanal fishing zones / the preservation of the near shore/ small scale fisheries areas with designated rights/ preferential access and benefit for local small scale fishers and the use of traditional(passive and non-destructive) fishing gear.

Examples of the sub-topics this theme may explore include:

- The opportunities for promoting community based management and co-management as effective models for the management of local and near shore fisheries resources (including mangroves and other coastal wetlands).
- The economic values and incentives for protecting near-shore fisheries from the point of view of increased food security (affordable animal protein), reduction in costs and risk associated with increased effort and need to travel offshore to achieve catch minimal food and livelihood requirements.
- Making the policy argument for protecting near shore fisheries for local use and management. Total economic valuation of near shore fishery areas (economic valuation of environmental services provided by coastal habitats and fisheries), contribution of small scale / near shore fisheries to national economy, and the cost of losing near shore fisheries (opportunity cost, cost of replacement, other costs to human well-being).

### 4. Exploring the Issues of Bycatch and Bycatch Management

This sub-theme supports the International Guidelines on Bycatch Management and Reduction of Discards and provides opportunity to explore in detail the issues of bycatch and bycatch management in Asia.

Examples of the sub-topics this theme may explore include:

- The underlying causes driving bycatch in Asia. The current and historical trends in bycatch in relation to fishing practices in Asia and how they have been measured and monitored in past.
- Existing guidance, laws and policies, best practices (technologies) aimed at minimizing levels of bycatch and the challenges faced in implementation of these.
- Economic and other incentives that can increase compliance for measures to manage bycatch.

## **5. By-catch, sharks, marine turtles and other endangered and threatened species**

Hunting by humans has played a major role in the loss of megafauna in marine ecosystems. Declines of large marine vertebrates such as sea turtles, seabirds and marine mammals, have focused attention on the ecological impacts of incidental take, or bycatch, in global fisheries. In spite of the recognition of the problem of bycatch, there are a number of factors such as the lack data and the large spatial scales that pelagic vertebrates and fishing fleets cover, that make this issue challenging to overcome.

According to the FAO, there are few fisheries that don't catch sharks as bycatch, and some fisheries actually catch more sharks than their targeted species. Estimates suggest tens of millions of sharks are caught as bycatch each year. With the high demand for shark fins, sharks are no longer thrown overboard with a chance for survival, but finned first, thus blurring the line between targeted fisheries and bycatch. Some of the most troublesome fishing gears for sharks are long-lines, trawls and gillnets.

Bycatch from fisheries also pose a significant threat to marine turtles, both in near shore coastal fisheries, for example from gill net fishing, and from large-scale open ocean fishing such as trawling.

This thematic area is directly in line with International Plan of Action (IPOA)-Sharks and the BoBLME Regional Plan of Action (RPOA) for Sharks, as well as National Plans of Action in the BoBLME countries and provides an opportunity to explore further practical options for the implementation of this IPOA.

Examples of the sub-topics this theme may explore include:

- The issue of lack of scientific data on shark and marine turtle species needed for more effective conservation management.
- Lessons from the Maldives story on banning shark fishing and shark trade.
- Lessons from across Asia on introduction and use of turtle excluding devices (TEDs)
- Use of economic valuation to identify the economic argument for the protection of charismatic species for national tourism purposes. PES & equity in benefit sharing. Example from the Seychelles in engaging artisanal shark fishers in shark conservation.

## **6. Livelihoods and Conservation**

While acknowledging that the theme of livelihoods is of cross cutting interest in the preceding five Symposium themes, this sixth theme entitled 'Livelihoods and Conservation' aims to explore conservation and sustainable use of biodiversity by the coastal communities specifically, recognizing that livelihood issues are central to the discussion of biodiversity conservation in the region. This theme aims to discuss among others, specific case studies and experiences on:

- Biodiversity, access rights and benefit sharing
- Sustainable use of biodiversity for poverty reduction
- Livelihood and governance dimension and policy initiatives
- Biodiversity and cultural linkage - strong linkage between cultural and spiritual values on bio-resources help sustain biodiversity; for example, whale shark and fishermen, dolphins and fishermen, sea cucumber, corals and coastal communities, communities living in mangrove forests etc.