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Norad



**Bay of Bengal Large Marine  
Ecosystem Project Phase II**

**National Consultative Workshop on  
BOBLME Project II Implementation in  
India's Bay of Bengal Region  
(INDIA-BOBLME)**

**21 - 23 March 2024  
Chennai, India**



# ***National Consultative Workshop on***

## **BOBLME Project II Implementation in**

### **India's Bay of Bengal Region**

#### **(INDIA - BOBLME)**

## **1. Overview of BOBLME Project**

### ***1.1 Background***

Bay of Bengal Large Marine Ecosystem (BOBLME) is one of the largest LMEs of the world with an area of about 6.2 million km<sup>2</sup>. About 66 percent of the BOBLME lies within the exclusive economic zones (EEZ) of BOBLME countries - Bangladesh, India, Indonesia, Malaysia, Maldives, Myanmar, Sri Lanka, and Thailand. The remainder is the high seas area. The BOBLME is home to rich biodiversity and critical habitats. The natural resources are of considerable social and economic importance to the bordering countries. Fisheries and aquaculture contribute immensely to food security, employment, and trade.

The Transboundary Diagnostic Analysis (TDA) and Strategic Action Programme (SAP) phase of the BOBLME program (BOBLME Project Phase I, 2009-15) identified three priority transboundary concerns and their proximate causes. These include (1) overexploitation of marine living resources, (2) degradation of critical habitats, and (3) pollution and water quality.

In order to address these issues, the countries jointly developed the Strategic Action Programme (SAP), which the BOBP-IGO is all set to implement under the BOBLME Phase II project titled, ***“Sustainable management of fisheries, marine living resources and their habitats in the Bay of Bengal region for the benefit of coastal states and communities”***.

### ***1.2. Project Partners***

The project is funded by the Global Environment Facility (GEF) and the Norwegian Agency for Development Cooperation (NORAD). It is implemented by the Food and Agriculture Organization of the UN (FAO). The International Union for Conservation of Nature (IUCN), Bay of Bengal Programme Inter-Governmental Organisation (BOBP-IGO, for its member-countries), and Southeast Asia Fisheries Development Center (SEAFDEC, for countries part of BOBLME project and member of SEAFDEC) are the executing agencies of the project.

### ***1.3. Objective and Approach of the Project***

The project objective is to contribute to the sustainable management of fisheries, marine living resources, and their habitats in the Bay of Bengal region, to reduce environmental stress and improve environmental status for the benefit of coastal states and communities.

This will be achieved through interlinked project components based on the SAP themes, by undertaking country-led and adopting a participatory, bottom-up, integrated focus area approach to planning and implementation at community, sub-national, national, and regional levels to ensure greatest impact.

## 1.4 Project Details

Component	Outcome	Executing Agencies for South Asia
1. Sustainable Management of Fisheries	1.1 EAFM institutionalized at national level, including targeted transboundary fish stocks 1.2 IUU catch in the BOBLME reduced	BOBP-IGO
2. Restoration and conservation of critical marine habitats and conservation of biodiversity	2.1 Coastal and marine managed areas (MMAs) contribute to conservation of biodiversity 2.2 National MMAs established or strengthened resulting in improved MMA management effectiveness at national level 2.3 Regional consensus and agreements reached on reduction of threats to marine biodiversity in coastal and open waters	IUCN
3. Management of coastal and marine pollution to improve ecosystem health	3.1 Improved waste management practices in fishing harbours 3.2 Marking of fishing gears and the development and dissemination of corresponding regional guidelines	BOBP-IGO
4. Improved livelihoods and enhanced resilience of the BOBLME	4.1. Enhanced resilience and reduced vulnerability to natural hazards, climate variability and change of selected coastal communities 4.2 Enhanced sustainable livelihoods and diversification for selected coastal communities	IUCN
5. Regional mechanism for planning, coordination, and monitoring of the BOBLME	5.1 Strengthened institutional mechanisms at regional and national levels for planning, coordination and monitoring of the BOBLME 5.2 Adaptive results-based management and sharing of information and lessons learned	IUCN & BOBP-IGO

## 2. Objectives of the National Consultation Workshop

The broad objective of the National Consultation Workshop is to initiate the national activities under the BOBLME project in India. Within this broad objective, the specific objectives are:

- (i) Share information on BOBLME Project;
- (ii) Identify potential 2 EAFM and 2 MMA sites and scoping the sites to develop plans and implementation, while considering national integrated coastal management / Marine Spatial Planning interests/ policies;
- (iii) Initiate planning for reducing IUU fishing and management of coastal & marine pollution;
- (iv) Initiate planning for enhanced livelihoods and resilience of the BOBLME;
- (v) Establish partnerships with and amongst stakeholders for future collaboration.

The Workshop is expected to build linkages amongst the stakeholders which will be further strengthened during the project period.

## 3. Workshop Methodology

The workshop is being organized for three days during **21 – 23 March 2024 at Hotel Ambassador Pallava, Egmore, Chennai**. The programme will focus on the objectives mentioned above and will serve as a forum to apply the perspective and experience from the participants to initiate the project.

The workshop will have presentations by resource persons; and a significant time will be allotted for interactions and break-out group activities and presentations.

The workshop will be conducted in English.

## 4. Participants\*

The Workshop will be attended by about 83 participants from Ministry and Department of Fisheries, Ministry of Environment, Forest and Climate Change, Departments of Fisheries and Environment from the states of Tamil Nadu, Andhra Pradesh, Odisha and West Bengal and the Union Territories (UTs) of Andaman & Nicobar Islands and Puducherry, Academic and Research & Development Organizations, Non-Governmental and Community Organizations, Regional Organizations, and BOBP-IGO & IUCN.

Organisation		Expected number of participants
<b>Ministry/Department Union Government</b>		<b>07</b>
	Department of Fisheries (Ministry of Fisheries, Animal Husbandry & Dairying); (Including PSC Member, NC, BOBP GC Member)	04
	Ministry of Environment, Forest and Climate Change (Including PSC Member)	02
	Indian Coast Guard	01
<b>State Governments &amp; UTs</b>		<b>12</b>
	Department of Fisheries (East Coast States & UTs)	06
	Department of Environment (East Coast States & UTs)	06
<b>Academia, R&amp;D Institutions &amp; Experts</b>		<b>36</b>
<b>Community Organizations &amp; NGOs</b>		<b>12</b>
<b>Regional Organizations</b>		<b>06</b>
<b>BOBLME Project</b>		<b>10</b>
	BOBP-IGO	05
	IUCN (Regional and country office)	05
<b>Total</b>		<b>83</b>

*\*BOBLME Project encourages participation of women wherever found suitable.*

## 5. Key Deliverables of the Workshop

Reports with the following contents:

- Prioritized sites for planning and implementing EAFM and MMA in India;
- Provisional scope for preparation of plan action to reduce IUU fishing and manage coastal & marine pollution taking into consideration the work programme of the project;
- Direction for taking the livelihood component forward.

# Bay of Bengal Large Marine Ecosystem Project Phase II

## National Consultative Workshop on BOBLME Project II Implementation in India's Bay of Bengal Region (INDIA-BOBLME)

Chennai, 21-23 March 2024

### DRAFT Agenda

#### Day 1: 21 March 2024

Date & Time	Agenda Item	Person/Venue
<b>0930 – 1100</b>	<b>Session 1: Inaugural Session / BOBLME Overview</b>	
0930 - 1000	Registration	BOBP-IGO
1000 - 1010	Opening Remarks	Dr. Maeve Nightingale, IUCN
1010 - 1020	Workshop Context & Overview of the BOBLME Project	Dr. Krishnan Pandian, BOBP-IGO
1020 - 1030	Self-Introduction of participants	
1030 - 1040	Remarks from MoEFCC, India	Mr. Wren Mishra, MoEFCC
1040 - 1055	Inaugural Address	Ms. Neetu Kumari Prasad, IAS JS (Fisheries), MFAHD
1055 - 1100	Closing Remarks	Dr. Antony Xavier, FDC, DoF
<b>1100 – 1130</b>	<b>High tea</b>	
<b>1130 – 1715</b>	<b>Session 2: Overview &amp; Identifying Potential EAFM &amp; MMA Sites in India</b>	
1130 - 1145	EAFM: An Overview & Scope of Work	Dr. E Vivekanandan, BOBP-IGO
1145 - 1200	EAFM in India: Case Studies	Dr. K. Sunil Mohamed, Principal Scientist (Rtd.), CMFRI
1200 - 1215	Marine Managed Area (MMA) – Overview & Scope of Work	Dr. Maeve Nightingale, IUCN
1215 - 1230	MMA in India: Progress and Case Studies	Dr. K. Sivakumar, Pondicherry University, Puducherry
1230 - 1300	Interaction	BOBP-IGO/ IUCN/ participants
<b>1300 – 1400</b>	<b>Lunch</b>	

<b>1400 – 1520</b>	<b>Presentations on potential EAFM &amp; MMA sites by Site Ambassadors</b>	
1400 - 1410	South Andaman	Dr. R. Kirubasankar, ICAR- CIARI
1410 - 1420	Pichavaram Mangrove Ecosystem	Dr. A. Gopalakrishnan, CAS (Marine Biology), Annamalai Univ.
1420 - 1430	Pulicat Lagoon	Dr. Ramu, MoES-NCCR
1430 - 1440	Coringa Mangrove Ecosystem	Dr. US. Panda, MoES-NCCR <i>With inputs from</i> Ms. Bharani IFS, DFO, Coringa
1440 - 1450	Gopalpur – Chilika ICZM site	Dr. Anjan Kumar Prusty, Berhampur University, Odisha
1450 - 1500	Digha ICZM site	Dr. Balakrishnan, ZSI, Digha Centre with inputs from MoEFCC-NCSCM
1500 - 1520	Interaction	Participants
<b>1520 – 1540</b>	<b><i>Idea Café &amp; Recharging</i></b>	
	<b><i>[EAFM &amp; MMA Groups to do concurrent Group exercise]</i></b>	
1540 - 1600	Criteria for site selection EAFM MMA	Dr. E Vivekanandan, BOBP-IGO Dr. Maeve Nightingale, IUCN
1600 - 1645	Site selection for EAFM & MMA – Group Exercise	Two separate groups for EAFM and MMA
1645 - 1715	Group Presentation: Finalising Potential Sites for EAFM & MMA	EAFM divided in to 4 Break- out Groups & 1 FGD for MMA
	<u>Deliverable:</u> Shortlisted potential EAFM & MMA sites	



## Day 2: 22 March 2024

0930 - 0945	Recap of Day 1	Participants
<b>0930 – 1300</b>	<b>Session 3: Scoping MMA &amp; EAFM Plan Development &amp; Implementation in Selected Sites</b>	
	<b>EAFM &amp; MMA Groups to continue Group exercise</b>	
0945 - 1115	<ul style="list-style-type: none"> <li>Identifying &amp; Prioritising Issues and Opportunities - Group Exercise (2 Groups)</li> <li>Identifying stakeholders</li> <li>Assessing Capacity Development Needs and Training – Group Exercise (2 Groups)</li> </ul>	Two separate groups for EAFM and MMA EAFM divided in to 4 Break-out Groups & 1 FGD for MMA
<b>1115 – 1145</b>	<b>Idea Café &amp; Recharging</b>	
1145 - 1215	Group exercise continued	
1215 - 1300	Presentation of Group Reports	
<b>1300 – 1400</b>	<b>Lunch</b>	
<b>1400 – 1615</b>	<b>Session 4: Management of Coastal and Marine Pollution</b>	
1400 - 1415	Status report on harbour management practices and gear marking in India/ NAP on Marine Pollution	Dr. Nilesh Pawar, DoF, GoI
1415 - 1430	Gear loss & Gear Marking in India: Findings from CIFT Studies	Dr. Madhu, ICAR-CIFT
1420 - 1445	Improving waste management practices in fishing harbours & fishing gear marking – Scope in BOBLME Project	Dr. Krishnan, BOBP-IGO
1445 - 1545	<ul style="list-style-type: none"> <li>Selection of sites (fishing harbours) for assessing waste management practices (WMP)</li> <li>Establishing synergy between India's NAP and BOBLME - Assessing National Capacity Needs &amp; Constitution of Working Group</li> <li>Ways to promote good WMP- Scope and Challenges in Establishing Waste to wealth in Fishing Harbour</li> <li>Selection of gear types for loss assessment &amp; Ways to promote gear marking- Scope and Challenges in Reducing ALDFG and Gear Marking</li> <li>Identification of supporting organisations and their strengths and opportunities</li> </ul>	Break-out groups
<b>1545 – 1615</b>	<b>Idea Café &amp; Recharging</b>	
1615 - 1715	Presentation of Group Reports	4 Break-out groups
1715 - 1730	Consolidation of 2 days' Workshop Output	IUCN/BOBP-IGO

## Day 3: 23 March 2024

0930 - 0945	Recap of Day 2	Participants
<b>0945 – 1300</b>	<b>Session 5: Reducing Catch from IUU Fishing</b>	
1000 - 1020	National Policies and measures to combat IUU Fishing/ Draft NPOA-IUU	Dr. Antony Xavier, FDC, DoF
1020 - 1030	IUU Fishing in India's EEZ: Extent and Challenges	Indian Coast Guard
1030 - 1115	Dealing with Domestic IUU Fishing: Experience of States & UTs and Community Organisations	<i>Presentation by identified speakers from the States</i>
<b>1115 – 1130</b>	<b>Idea Café &amp; Recharging</b>	
1130 - 1150	IUU Fishing: Scope of BOBLME Project	Mr. R. Mukherjee, BOBP-IGO
1150 - 1230	Parallel Group Discussion on IUU work-plan: Gr. A: Evaluating India's Draft NPOA-IUU Gr. B: Integrating Academic Research into IUU Policy and Practice Gr. C: Centre -State Government Roles and Capacity Building Gr. D: Regional Collaboration and Capacity Development in the BOBLME Gr. E: Participatory Approaches to IUU Fishing Management <i>(Discussion points for each group is are appended)</i>	FIVE Break-out groups  <i>(Base material will be shared with each group. Pre-group meetings will be arranged; Nodal person will be identified to facilitate desired outcome).</i>
1230 - 1300	Presentation of Group Reports	4 Break-out groups
<b>1300 – 1400</b>	<b>Lunch</b>	
<b>1400 – 1515</b>	<b>Session 6: Improved Livelihoods, Building Cooperation</b>	
1400 - 1430	Livelihoods & Regional Cooperation: Scope under BOBLME	Dr. Maeve Nightingale, IUCN
1430 - 1445	Livelihood concerns of coastal communities: Status Report	Dr. Ahana Lakshmi, BOBP-IGO
1500 - 1530	Managing ETP Species: Scope of Project	Dr. Maeve Nightingale, IUCN
	Messages from NPOA-Shark	Dr. E. Vivekanandan, BOBP-IGO
<b>1530 – 1600</b>	<b>Session 7: Concluding Session</b>	
1530 - 1545	Linkages between GoI schemes with BOBLME: Opportunities & Strategies for Building Synergy	PMMSY: Dr. Antony Xavier, DoF NCM: Dr. P. Ragavan, MoEFCC
1545 - 1600	Closing Remarks	BOBP-IGO & IUCN
<b>1600 – 1630</b>	<b>Parting Café</b>	

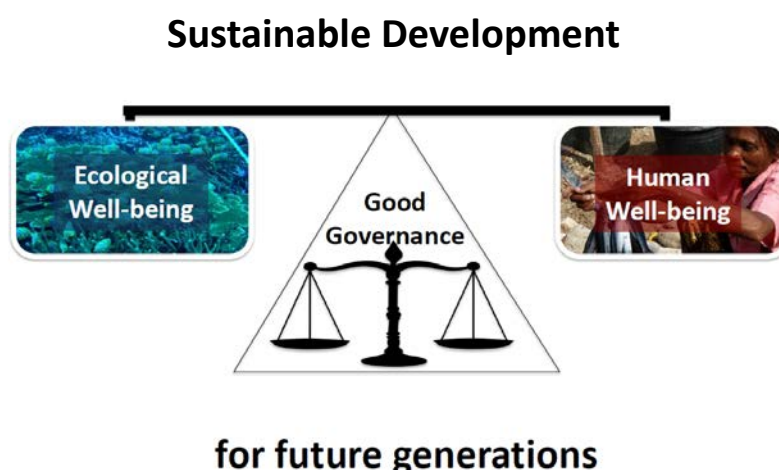
## Overview of Ecosystem Approach to Fisheries Management (EAFM) and Marine Managed Area (MMA)

### Ecosystem Approach to Fisheries Management (EAFM)

#### 1. Introduction

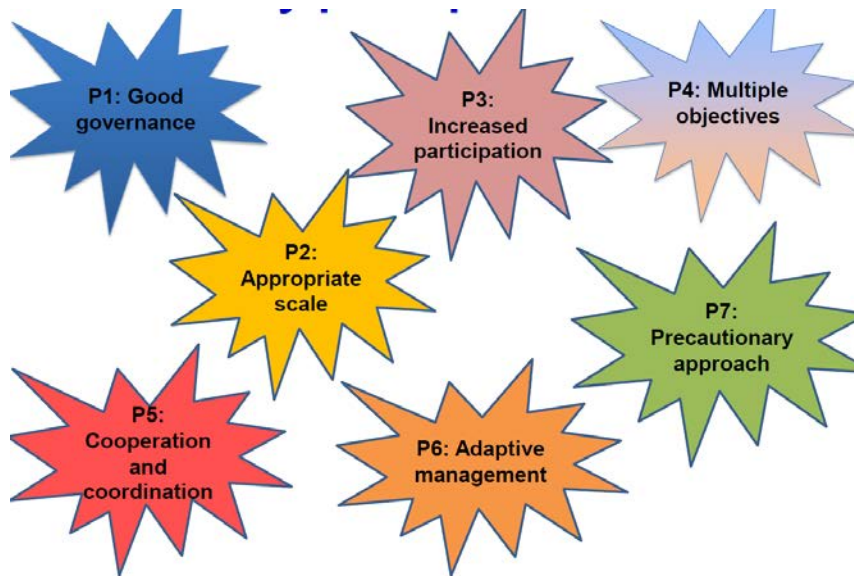
Ecosystem Approach to Fisheries Management (EAFM) offers a practical and effective means to manage fisheries more holistically. The management strategies in India have so far concentrated on fishing practices and have not addressed all the threats facing fisheries like climate change, pollution and habitat degradation. It has been realized that a broader and more inclusive approach is needed that expands on existing management. EAFM is an extension of the conventional principles for sustainable development in general, and sustainable fisheries development in particular, to cover the ecosystem as a whole. The EAFM aims to ensure that the capacity of ecosystems to produce fish and shellfish for food, employment and livelihoods, and to provide other essential services, is maintained for the benefit of the present and future generations in the face of variability, uncertainty and natural changes to coastal environments.

EAFM represents a move away from conventional fisheries management and focuses on target species and towards decision making processes that balance ecological and human well-being with improved governance frameworks essential for sustainable development (Figure 1). The seven principles of EAFM include: Good Governance, Appropriate Scale, Increased Participation, Multiple Objectives, Cooperation and Coordination, Adaptive Management and Precautionary Approach (Figure 2). This concept, which is relatively new to the region, needs to be adopted by the fisheries and develop management plans that not only work locally, but also fits into broader fishery/ecosystem strategies.



**Figure 1. Finding balance between human well-being and ecological well-being through good governance for future generations**

(Source: BOBLME, 2014. Essential EAFM – Handbook. [www.boblme.org](http://www.boblme.org).)



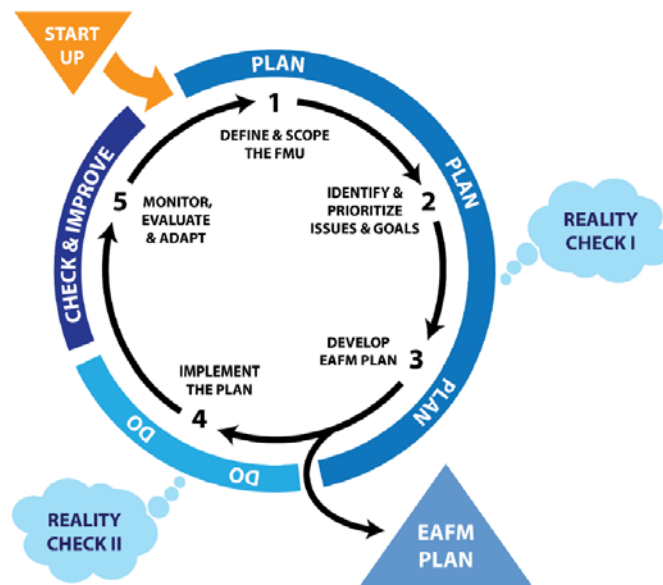
**Figure 2. Seven principles of EAFM**

(Source: BOBLME, 2014. Essential EAFM – Handbook. [www.boblme.org](http://www.boblme.org).)

## 2. A step-by-step procedure to implement EAFM

Ecosystem approach to fisheries management (EAFM) would typically begin with Startup task for preparing the ground to (i) identify the project team and facilitators, (ii) identify the management area, (iii) coordinate with other agencies and government, (iv) identify stakeholders and organisations, (v) establish key stakeholder group, and (vi) determine legal basis for ecosystem approach.

The five steps of EAFM framework are presented in Figure 3.



**Figure 3. EAFM framework**

(Source: BOBLME, 2014. Essential EAFM – Handbook. [www.boblme.org](http://www.boblme.org).)

### *Step 1. Define and scope the management unit and geographical area*

After preparing the ground and a series of ongoing processes in the Start-up, Step 1 of the EAFM process will start. The management unit will be defined. The geographical area of the ecosystem to be managed will be clearly defined based on the distribution of the resource and the geographical extent of the fishery. The final choice of the geographic area for the management plan will depend on a number of factors, covering all fishing subsectors like traditional and mechanised fisheries, etc. After agreeing to the management unit and geographical area, the stakeholder's agreement on a vision for the EAFM plan will be sought, which is a long-term statement of the aspirations of the stakeholders. For scoping the management unit, background information on the resources, gears, people and information relating to economic, social, environmental and governance factors need to be collected.

### *Step 2. Identify and prioritise threats and issues in the ecosystem*

The next step is for stakeholders to undertake an initial evaluation of threats and issues in the selected ecosystem. These threats and issues will be summarised into three categories: ecological well-being, human well-being and governance. Often, a large number of issues will be identified by the stakeholders that need to be prioritised so that a manageable number of addressable issues could be shortlisted. The shortlisted issues are of high priority and therefore need to be managed directly.

After this, a goal will be developed for each theme that would relate to the overall vision of the plan. A reality check needs to be undertaken at this stage to decide whether the goals are really achievable.

### *Step 3. Develop EAFM plan*

Clear and appropriate management objectives will be developed for all high priority issues requiring management. It is also important to develop indicators and benchmarks for the objectives to enable the stakeholders to assess whether the objectives are being achieved.

The management actions needed to meet each specific objective and how the actions will be complied with, should be discussed with the stakeholders. Collectively, the objectives, indicators, benchmarks and management actions provide a means to communicate with decision makers on how management is performing and will influence future changes in management.

### *Step 4. Implement the Plan*

A simple work plan will be developed that outlines who does what tasks during implementation, and by when. The Plan will be formalised so that it has the requisite authority and backing. A communication strategy needs to be developed to inform the stakeholders. The appropriate governance arrangement needs to be clearly defined. The implementation may establish co-management arrangements. This will take time and requires strengthening institutions and developing human capacity.

### *Step 5. Monitor, evaluate and adapt*

Monitoring the indicators and benchmarks allows management to see if the plan is on track and to take remedial action, if necessary. Reference points give the management plan pre-defined limits by which management effectiveness can be gauged during, and at the end of a management cycle. Hence, indicator information should be collated and reviewed periodically to assess whether the management actions are meeting the objectives.

By monitoring data, the plan can be adapted if there is sufficient evidence to indicate that a change is necessary. In the light of long-term data and reviews, the Plan may need to be adapted considerably to allow unforeseen elements and to incorporate the lessons learned.

## **2. Co-management is at the heart of EAFM**

Whereas co-management is enshrined in the principles of EAFM, and the two approaches are complementary, increased participation by stakeholders in managing and conserving the resources and ecosystems is critical. In co-management, both the communities of local resource users and the government share the responsibility and authority for managing and determining the goals of the fishery, with various degrees of power sharing. Stakeholders will be the central part of the management process. Stakeholders and resource users include a number of users who interact with and care about the fishery and the associated ecosystems, for example, fishermen of different subsectors, traders, processors, department of fisheries, department of environment, non-governmental organisations, scientists, conservationists, etc. In co-management, the rights and degree of empowerment of stakeholders have an important role on decision making and implementation process.

### **Marine Managed Area (MMA)**

Marine Managed Area (MMA) is an area of ocean, or a combination of land and ocean, where all human activities are managed toward common goals. MMAs are a form of ecosystem-based management, where all elements—biophysical, human, and institutional—of a particular system are considered together. There are several overarching principles under which MMAs should be developed:

- All human uses and their subsequent impacts on the defined area should be considered and their management integrated.
- All stakeholders in the defined area should be consulted and fully involved in the policy and management development, and implementation processes concerning the MMA's conditions and uses.
- Effective development and implementation of a MMA involves the following important characteristics: Boundary definition, participatory and transparent process, incorporation of scientific and traditional knowledge across ecological and social considerations, and adaptive management.

MMA will not automatically result in a new, overarching policy and management authority, but it will rely on the integration and coordination of existing management regimes for such typical uses as subsistence and commercial fishing, shipping, mineral extraction, and tourism.

MMA's can take many forms, addressing many different issues and objectives. Some are multiple-use areas; others ban all extractive uses. Still others restrict certain areas to one specific use that is judged to be the most beneficial use of that area, to the exclusion of other uses.

BOBLME Phase II Project will lead to improved management and status of degraded, vulnerable and critical coastal and marine habitats and Endangered, Threatened and Protected (ETP) species in selected Marine Managed Areas (MMAs), and Vulnerable Ecosystems (VEs). The project will support national, provincial and local government resource managers, private sector partners, non-governmental organizations, and local resources users to strengthen management of existing MMA's and establish new MMA's where agreed. Regional and national capacity development programmes will be established.

By the end of the project, the following key outputs are anticipated:

- At least one MMA strengthened in each country to address issues related to climate change, transboundary fisheries, Vulnerable Ecosystems (VEs), biodiversity and/or Endangered, Threatened and Protected (ETP) species. In priority areas of these MMAs, conservation of coral reefs, associated biodiversity and ETP species,
- Regional capacity development programme promoting best practices in management and evaluation of MMAs and training of practitioners at all levels, using IUCN Green List process; and
- Gender mainstreamed into MMA planning and management.

To support the implementation of effective MMAs, the project will support development of national standards and guidelines for representative MMA selection, assessment and monitoring standards. It will also support adaptation of the IUCN Green List Standard for protected and conserved areas, which will help set criteria and indicators suitable for benchmarking progress of protected and conserved areas.

### **How are EAFM and MMA related/different?**

While MMAs are clearly defined areas that are afforded greater protection than the surrounding waters for biodiversity conservation or fisheries management purposes, they may include fish sanctuaries or refugia, Marine Protected Areas, and no-take zones. MMAs will rely on the integration and coordination of existing management regimes for uses as subsistence and commercial fishing, shipping, mineral extraction, and tourism. MMAs are typically embedded in broader and more comprehensive national, regional, or global governance systems, such as exclusive economic zones or international agreements. From an EAFM perspective, MMAs are an important tool for managing fisheries, but do not equate to EAFM as they cannot address all issues/elements that EAFM includes, with particular reference to fisheries management. EAFM is an extension of the conventional fisheries management paradigm. Some key elements of fisheries management which MMAs do not usually address include control of fishing capacity, management of an area beyond the boundary of the MMA; and impacts of other uses on fisheries and/or the marine ecosystem.

With the move of fisheries management towards an EAFM, a well as increasing the application of spatial management tools, an integration of EAFM and MMA can be an effective measure to achieve the protection of ecosystem structure, function, key processes, accounting for the interconnectedness within and among systems, and integrating across scales (*Pomeroy et al., 2013; USAID Coral Triangle Support Partnership, www.coraltriangleinitiative.org*). Many of the FAO's guidelines for EAFM are similar to those guiding the development of co-managed or locally managed marine resource

management areas, and so there is a great deal of overlap between activities oriented to spatially managed areas and those oriented to EAFM. In line with the principles of EAFM and MMA, it will become beneficial to designate MMA within, or that overlaps, the FMU; or the FMU that is within or overlaps the MMA. The best results will be achieved when spatial management approaches, such as MMAs and EAFM are integrated in a balanced way to maximise the benefits.



## Selection of Suitable FMUs and MMAs

Though the EAFM concept is widely recognized and accepted as a part of national policy, there are no functional models or pilots in any of the BOBP-IGO member countries. Under the BOBLME Phase II project being implemented by BOBP-IGO, two pilots will be established in each of the member countries.

Selection of suitable Units plays a significant role in the success of the project. A scientifically grounded methodology is needed for selecting pilot Fishery Management Units, integrated with stakeholder consultation, to ensure objective, comprehensive, and data-driven decision-making. Such a methodology provides an unbiased framework, allowing for a thorough evaluation of ecological, socio-economic, and governance factors, and aligns selection of Units with broader conservation and fisheries management goals.

This approach not only enhances the credibility of the selection process of the Units, but also ensures that the chosen Units are suitable for demonstrating the efficacy of EAFM and fostering its long-term sustainability and scalability. Therefore, the development and application of a scientific methodology, complemented by stakeholder engagement, is fundamental to the successful implementation of EAFM initiatives.

### Why Scientific Approach


- **Proof of Concept and Scalability:** Choosing pilot Units where EAFM can be most successfully implemented serves as a tangible proof of concept. Success in these Units will provide a model that can be scaled up and adapted to other locations, facilitating national adoption.
- **Stakeholder Engagement and Buy-In:** The selection of pilot Units is informed by stakeholder consultations and project documents. Aligning our choices with stakeholder recommendations ensures local buy-in and harnesses local knowledge, which are critical for the success of EAFM.
- **Learning and Adaptation:** Pilot Units offer a learning ground. Lessons learned from these Units will inform the scaling-up process, ensuring that future implementations are more efficient and effective.
- **Risk Management:** By starting with Units that have the highest chance of success, the project minimizes the risk of early failures that could undermine the credibility and future adoption of EAFM.

A successful EAFM plan requires a clear statement of the area to be managed – the FMU. Fisheries management can be applied at a number of geographic scales, ranging from a large marine ecosystem (LME) to a fishing community (cluster of villages). However, EAFM works best at the level of a “fishery” and it is important to clearly define the area to be managed, i.e. the FMU.

*Ideally, the chosen FMU should:*

- relate to some known ecological boundaries, although this is often difficult to achieve in a practical sense as ecological boundaries seldom coincide with political boundaries and are often nested;
- cover the whole of the geographical range of the main stocks; and
- cover all the gears that are fishing that stock, including both small-scale artisanal fishers and large-scale commercial fishers.

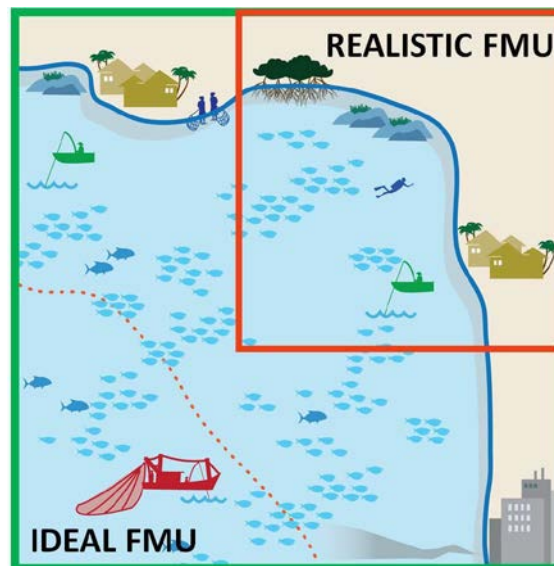
Options for EAFM	
Option	Example
Critical Habitat -based	Coral reefs-based; Mangroves-based; Lagoon-based; Seagrass-based
Area-based	Maritime States/Provinces, Marine Management Areas
Species-based	Shark fishery, Hilsa fishery, Pelagic fishery, Demersal fishery
Fishery-based	Trawl fishery, Gillnet fishery, Purse-seine fishery
Issue-based	Overfishing, Pollution, Coastal Disasters, Safety-at-sea, Climate Change
Transboundary	Fish Stocks, Ecosystems, Other Issues



Ecosystems are often nested and on different geographical scales. Considering a fishery adjacent to a community may be adequate for sedentary species such as a seacucumber or seaweed stock that is fished almost exclusively by that community, but totally inadequate for a more mobile fish such as a coastal tuna that are fished by different stakeholders and different gears along the coast, as well as by the community.

When the ideal (matching the FMU with known ecological boundaries) cannot be achieved, the lack of complete coverage must be acknowledged and considered in the planning. Where too much of a species’ range falls outside the FMU – for example, a fishery where the stock is shared by two countries (as is the case with some coastal tuna species) – then every effort must be made to engage the other parties in the planning.

## Ideal vs Practical FMU (Source: BOBLME 'E-EAFM Handbook')



### SELECTION OF SUITABLE FMU AND MMA

Selecting the right EAFM Units (FMUs) and MMAs is a strategic step towards demonstrating their benefits and facilitating national adoption. The chosen Units/sites will be showcasing the effectiveness of achieving sustainable fisheries management and biodiversity conservation goals. This approach, grounded in stakeholder engagement, ecological significance, governance structures, socioeconomic considerations, and feasibility, will pave the way for a successful and scalable model.

#### **1.0 Short-listing and prioritising potential FMUs and MMAs**

The following six sites are provisionally shortlisted for final selection by discussing with different stakeholders including officials from Ministries:

1. South Andaman Islands
2. Pichavaram mangroves
3. Pulicat Lagoon
4. Coringa Mangrove Ecosystem
5. Gopalapur-Chilika ICZMP Site
6. Digha ICZM Site

For prioritizing the potential FMUs and MMA, the shortlisted six sites will be subjected to detailed discussion during the Workshop and in order to assemble the details of the sites, identified Site Ambassadors will make focused presentations and a brief overview of the sites.

***The presentation and overview will focus on the following information on each site:***

1. Characteristics of the site/ecosystem.
2. Geographical area/extent
3. Uniqueness of the site in terms of biodiversity/critical habitat/ETP species/biological productivity - also proximity to MPAs/ESAs

4. Status of Fisheries (major species caught, craft and gear used/unique fisheries)
5. Dependent human population (number of villages/sources of livelihood)
6. Governance structure (sanctuary/MPA/biosphere/Ramsar site/stakeholder participation/informal co-management arrangements)
7. Data availability (focus of research organizations, government projects -completed/planned)
8. Key issues and opportunities from the fisheries and ecosystem perspective

## 2.0 Method for prioritising potential sites

The potential sites for implementing EAFM and MMA will be prioritised in consultation with the participants in the National Workshop. During the National Workshop, the participants will be divided into break-out groups comprising different categories of stakeholders. Each group will undertake the exercise independently and the final normalized outcome will guide the selection of prioritized pilot sites for implementation of EAFM and MMA.

### 2.1 Criteria for prioritisation

In an earlier (December 2023) Experts' Consultation Workshop conducted by the BOBP-IGO, six criteria were short-listed along with weightage for selection of sites.

The six criteria along with weightage and application criteria for selection of site are given in the Table below:

#	Criteria	Weightage	Application of criteria for prioritization
1	<b>Stakeholder participation</b>	<b>0.374</b>	In FMUs where stakeholders are highly receptive and willing to participate in the initiatives to improve management measures may be prioritized. For e.g., in FMUs/sites where a formal or informal co-management arrangement already exists, the implementation would be fairly smoother and successful.
2	<b>Government participation</b>	<b>0.312</b>	FMUs with high levels of government interest and investment will be acceptable to the governments for implementing EAFM have a priority
3	<b>Technical &amp; Institutional capacity</b>	<b>0.180</b>	FMUs, where institutions are already working and have good knowledge and capacity, it will provide an impetus to the entire process have a priority
4	<b>Scale</b>	<b>0.064</b>	FMUs have to be prioritized based on the potential of the project to implement within practical scales and boundaries
5	<b>Issues in the FMU</b>	<b>0.044</b>	Potential of the project to find solutions to the issues and implement considering the limited human and monetary resources and time availability need to be considered.
6	<b>Information/Data availability</b>	<b>0.026</b>	FMUs having enough data/information are in an advantageous position to begin action. They have priority over others.

**Group Exercise:**

Utilizing the criteria given in the table above, the groups will discuss and allot scores for each site. The sites will be prioritised based on the scores allotted by the groups. (Score 1-10\*).

***The group shall discuss the fill the score on consensus basis. Comparison of each site shall be done against each criterion separately. (Fill the table row-wise; one by one, for each criterion)***

#	Criteria	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
1	Stakeholder participation						
2	Government priority						
3	Technical & Institutional capacity						
4	Scale						
5	Issues in the FMU						
6	Information/Data availability						

**\*With increasing score, the scope for selection of FMU increases; For e.g., Score 1: Not favourable; Score 10: Highly favourable**

## Identifying Issues & Opportunities

During initial period of stakeholder consultation, an important activity is to identify all issues relevant to the fishery in the FMU, to help stakeholders decide where to focus the management system so as to generate the best outcomes for stakeholders.

The identification process must cover all direct and indirect impacts of fishing activities on fish that are retained and those that are discarded; on the broader ecosystem; and the wanted and unwanted social and economic outcomes on both the fishers and the community. The process should also identify all the elements needed to enable the effective governance and administration of the fishery, including legislation, plans, consultation, compliance, etc. Finally, it also records any issues external to the management system that could affect the performance of the fishery, including natural (e.g. climatic) and human induced ecological (e.g. pollution), social (e.g. international attitudes) or economic (e.g. exchange rates) impacts.

Because a large number of issues can be identified, the key part of the whole EAFM process is to ensure only the most important are addressed by direct management intervention. This requires a determination of their relative priority using some form of prioritization procedure. Such procedures should be based upon the fishery trying to deliver the three components of EAFM, not just the ecological ones. A successful planning process relies, for the most part, on prioritization of the identified issues.

Issues and opportunities in each selected site will be identified under three components, namely, Ecosystem well-being, Human well-being and good governance. The list of impacting issues and opportunities are given in the Table below:

### Name of site/FMU:

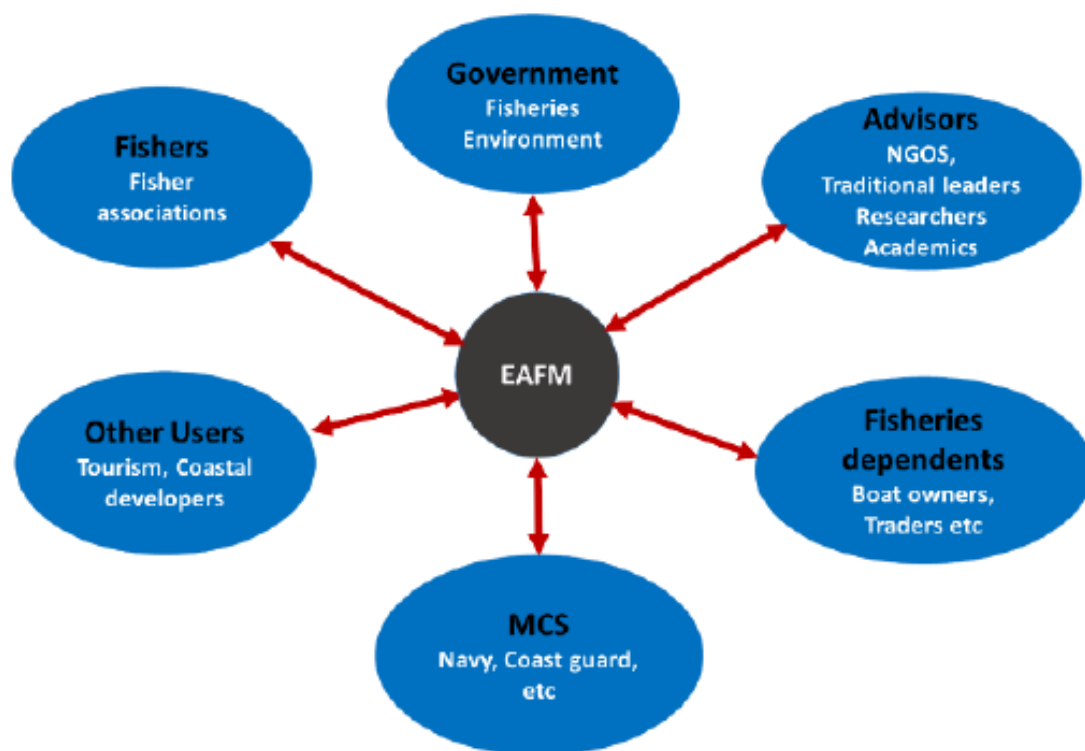
EAFM Components	Explanation	Impacting Issues	Opportunities to address issues under the project
Ecological Well-being	All ecological assets relevant to the fishery (stocks, biodiversity, habitats)	<ul style="list-style-type: none"> <li>- Overfishing</li> <li>- Bycatch</li> <li>- IUU fishing</li> <li>- Biodiversity loss</li> <li>- Habitat loss</li> <li>- Pollution</li> <li>- Climate change</li> <li>- Others (specify)</li> </ul>	

<b>EAFM Components</b>	<b>Explanation</b>	<b>Impacting Issues</b>	<b>Opportunities to address issues under the project</b>
Human Well-being	Social and/or economic outcomes currently being generated by the fishery, both the good (e.g., food security and economic development) and the bad (e.g., conflicts)	<ul style="list-style-type: none"> <li>- Unprofitable fishing</li> <li>- Gender disparity</li> <li>- Poor health infrastructure</li> <li>- Conflicts</li> <li>- Climate change issues and natural disasters</li> <li>- Aspirations to adopt technological advancements</li> <li>- Other (specify)</li> </ul>	
Good Governance	Management and institutional systems in place to deliver wanted outcomes (e.g., compliance, democratic process, conflict resolution, institutional arrangements)	<ul style="list-style-type: none"> <li>- Weak resource management</li> <li>- Open access regime</li> <li>- Economic development vs conservation</li> <li>- Lack of proper planning</li> <li>- Lack of stakeholder participation and co-management</li> <li>- Weak institutional capacity and infrastructure</li> <li>- Poor compliance and enforcement</li> <li>- Others (specify)</li> </ul>	

## Identifying stakeholders

A stakeholder is any individual, group or organization which has an interest in or which can affect or is affected, positively or negatively, by the EAFM process.

Stakeholders are individuals, groups or organizations of men and women, old and young, who are in one way or another interested, involved or affected (positively or negatively) by a particular process. They may be motivated to take action based on their interest or values. Stakeholders may include groups affected by the management decisions; concerned about the management decisions; dependent upon the resources to be managed, with claims over the area or resources; with activities that impact on the area or resources; and with, for example, special seasonal, geographic or cultural interests.



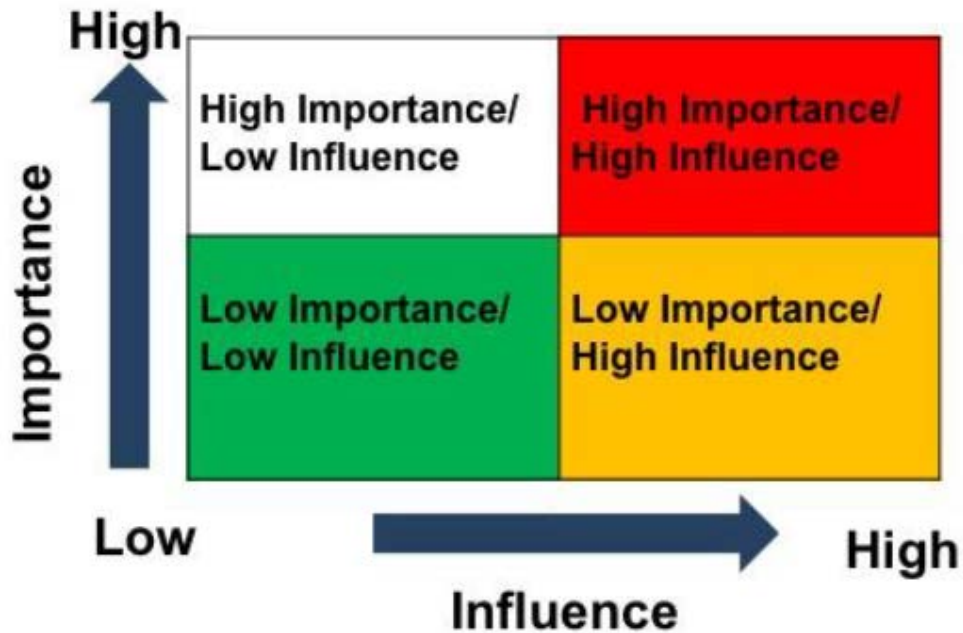
Support or lack of support by stakeholders can lead to the success or failure of an EAFM. Stakeholder analysis is conducted to identify potential partners for an EAFM, to explore possible approaches in relating to a particular person or group who can be supportive or potentially hostile to an EAFM, and to provide insights into the dynamics and relationships of individuals and groups with various interests in a particular resource or project.

One form of stakeholder analysis is the 2x2 matrix where stakeholders are plotted according to (i) how important the stakeholder is to the EAFM process on one axis (Y axis) and how much influence (power) they have over the EAFM process on the other axis (X axis).



<b>Stakeholder categories</b>	<b>Identify specific nodal person/agency, where possible for the site</b>
<b>State Departments</b> <ul style="list-style-type: none"> <li>• Fisheries</li> <li>• Environment</li> <li>• Commerce</li> <li>• Others (specify)</li> </ul>	
<b>Fisheries Dependents</b> <ul style="list-style-type: none"> <li>• Fisher workers</li> <li>• Boat owners</li> <li>• Fisher associations</li> <li>• Traders</li> <li>• Vendors</li> <li>• Others (specify)</li> </ul>	
<b>MCS</b> <ul style="list-style-type: none"> <li>• Coastguard</li> <li>• Others (specify)</li> </ul>	
<b>Advisors/Influencers</b> <ul style="list-style-type: none"> <li>• Research institutions</li> <li>• Academic institutions</li> <li>• NGOs</li> <li>• Local leaders</li> <li>• Others (specify)</li> </ul>	
<b>Other Users</b> <ul style="list-style-type: none"> <li>• Tourism operators</li> <li>• Coastal developers</li> <li>• Others (specify)</li> </ul>	
<b>Other categories</b> <ul style="list-style-type: none"> <li>• Specify</li> </ul>	

A 2x2 matrix importance and influence stakeholder analysis (source: BOBLME handbook)



- Those in the red box are key stakeholders for EAFM success; they need to be kept motivated and on board as they are 'allies'. They do not need convincing about the importance of EAFM- they already know.
- Those in green box are not interested and have little influence; they need to be kept informed and involved, with minimal effort and monitoring.
- Those in yellow boxes require active strategies. High influence + low importance: these need to be moved along to the red box, they need to 'buy in' into the EAFM process, as they could be potential supporters and could use their influence to support the process.
- Those in white box have to be consulted intensely and their views obtained and incorporated to make the process effective.

### Exercise

The participants shall be working in groups. They will be provided with flip charts, charts, and necessary materials. Stakeholders of a particular site will be categorized in the matrix as per their perceived importance and influence.

## Assessing National Capacity Needs

### 1. Need for capacity development

Capacity development is to provide training and other resources to create, enhance and develop the capacity of stakeholders at the national and sub-national levels to effectively plan and implement EAFM and deliver and sustain the expected outcomes. Relevant state agencies are expected to adopt and operationalize the plan and continue to implement this plan beyond the duration of the project. The key objectives of the capacity development plan are to create, enhance and develop capacity to effectively plan and implement EAFM and MMA.

Capacity development provides trainees with the skills that will help them to develop a plan to more sustainably manage capture fisheries. This course will equip trainees to:

- *manage fisheries more holistically;*
- *better resolve fisheries issues and challenges;*
- *reduce user group conflicts;*
- *work cooperatively with other stakeholders;*
- *and help unlock financial resources and increase political will.*

Participants of capacity development programmes will learn about the concepts of EAFM and MMA and work with a template to develop a draft plan for their area. They will understand the principles of EAFM and MMA and co-management and how to foster cross-sector coordination and will also practice the crucial skills of effective communication, facilitation, and conflict management. They will learn skills and knowledge to develop, implement and monitor the plan to more sustainably manage capture fisheries.

### 2. Categories of stakeholders

The categories of stakeholders with different levels of interest and influence to be considered for capacity development include representatives from National and Provincial Governments, Non-Government Organisations, research institutions and academia. To some capacity development is synonymous with workshops and training, to senior managers it can mean organizational development, to non-governmental organizations (NGOs) it is associated with empowering individuals and grassroots organizations and to international agencies and to donors it is about national institutions, governance and economic management. Some activities are for strengthening the capacity of individuals while others strengthen the organizational capacity.

Different audiences require different approaches to capacity development and also different materials. The main target for mid-level managers and fishery and environment staff, as well as related economic development and planning staff, at the provincial/state and district/local levels who are responsible for administering or managing fisheries and the marine environment in which they operate. The training will be designed in a way which should make local adaptation in different countries easy by including local, context-specific case studies, possibly sourced from the participants. A major strength of the training is that it allows participants to develop an EAFM plan that can be taken away from the course and, with some further work, be implemented either in the participant's country or as a transboundary plan.

The closely related training for leaders, executives, and decision makers aims to provide senior-level leaders with an understanding and forum for discussion of the why, what and how to implement the plan from national to local levels. A concise overview PowerPoint presentation on the EAFM, supported by a one-pager providing information on “Essential EAFM in a nutshell” and its course content and objectives will also be used to address the top level decision-makers. Local fishing communities could be made aware of EAFM and MMA and trained in sessions.

### **3. Phases of capacity development**

UNDP and FAO have identified the following five strategic phases of capacity development:

- Phase 1 establishes the baseline and addresses the basic question - *where are we now?*
- Phase 2 looks ahead to the future desired state, the vision of what capacity is required in the future and asks the question - *where do we want to go?*
- Phase 3 compares the present situation and future desired state, identifies the capacity gaps and plans strategies and actions designed to fill these gaps and achieve the desired goals - *how do we get there?*
- Phase 4 is the implementation phase, fulfilling the strategies and undertaking the planned capacity development activities in order to meet the defined objectives - *what actions do we take?*
- Phase 5 is monitoring and evaluation to feedback experiences into the planning phase - *how do we stay there?*

### **4. Analytical process of assessing the need for capacity development**

UNDP makes the case for capacity assessment as a structured and analytical process, whereby the various dimensions of capacity are assessed within the broader socio-economic environment, as well as evaluated for specific organizations and individuals. The UNDP model for needs assessment based on three levels of capacity provides the basis for the first three phases of capacity development (given in the matrix below). These are assessing existing capacities, identifying possible future capacity, estimating the gaps and defining possible strategies. The capacity levels are expanded to include a number of sub-levels or dimensions that need to be considered in the assessment.

**Matrix for assessing capacity for planning and implementing EAFM and MMA\***

<b>Capacity</b>	<b>Enabling system</b>	<b>Organisations</b>	<b>Individuals</b>
Knowledge			
- Knowledge base			
- Use of knowledge			
- Access to knowledge			
Decision-making			
- Evidence-based?			
- Involvement of stakeholders			
- Uptake of advise			
- Transparency			
Implementation			
- Attitude			
- Cooperation			
- Communication			

*\*Score of 1 to 3; 1 = Poor, 2 = Moderate; 3 = Good*

## **Identifying Institutions & Individuals for Constitution of National Working Group**

The Working Group is a small number of stakeholders (perhaps four or five depending on the prioritization process) representing the community, institutions and management agencies who will work with the Project Team to guide the EAFM and MMA process after the Startup. The WG is crucial as it engages with, gives responsibility and power to the community members, and works through the planning and implementation process. The WG can serve to:

- develop dialogue and stimulate EAFM and MMA discussion;
- facilitate community organization;
- help stakeholders understand EAFM and MMA;
- identify problems, issues, and opportunities in engaging stakeholders;
- assist in decision-making within an EAFM and MMA process;
- identify other stakeholders and stakeholder groups; and
- gather and spread information among community members.

## Management of Coastal and Marine Pollution

### Improving waste management practices in fishing harbours

The health of the BOBLME is threatened by wastewater and solid waste from upriver and coastal cities and settlements, industrial zones, ports and shipping, and excessive nutrient application in agriculture and high nutrient loads in rivers and water courses. The Transboundary Diagnostic Analysis (TDA) of BOBLME Phase I has identified the following major sources of pollution and water quality issues:

- Sewage-borne pathogens and organic load
- Solid waste/marine litter
- Increasing nutrient inputs
- Oil pollution
- Persistent organic pollutants (POPs) & Persistent toxic substances (PTSs)
- Sedimentation
- Heavy metals.

Dissemination and adoption of improved waste management practices in fishing harbours will contribute to improved hygiene, waste disposal and public health, and include sharing of the experiences. Fishing harbours need to be upgraded to international standards of hygiene and fish quality assurance.

This initiative will focus on improving environment at fishing ports, such as water quality standards, personal hygiene, sewage treatment and waste reception facilities and disposal. A best practice guide will also be developed.

In BOBLME II Project, the activities identified to improve waste management practices in fishing harbours or selected hotspots include:

- Study / assessment of waste management practices in fish landing sites / fishing ports / selected hotspots
- Development and dissemination of guidelines, action plan or good practice document
- Promotion of implementation of good waste management practices in selected fishing activities or hotspots.

*In the Workshop, the participants will discuss the ways to strengthen management and reducing pollution in fishing harbours in break-out sessions:*

- *Selection of sites for assessing waste management practices*
- *Upgrading infrastructure and sanitation*
- *Strengthening management*
- *Capacity building needs & methods*

### Fishing gear marking

The abandonment and discarding of commercial fishing gear is one of the most problematic types of marine debris. It can remain in the oceans for years continuing to entangle fish and marine animals in its nets and killing them – a phenomenon known as ‘ghost fishing’. Over time, fishing nets left in the ocean may break down into micro-plastic pieces, which become accessible to a wide range of

organisms, including small fish and plankton, and may cause serious toxicological harm to marine wildlife.

Fishing gears are marked to establish and inform origin, ownership and position. It also contributes to combat illegal fishing. Gear marking for location provides quicker retrieval of the gear, reduce gear conflict, and improve safety at sea. It aids in capacity control, reduce marine litter due to abandoned, lost or otherwise discarded fishing gear (ALDFG).

Traditionally, physical marking, inscription, writing, colour, shape, and tags have been used for ownership and capacity purposes. Buoys, lights, flags, and radar reflectors are used for marking of position. More recently, electronic devices are installed on marker buoys to enable easier relocation of the gear by owner vessels. Promotion of marking of fishing gears and the development and dissemination of corresponding International Guidelines will further contribute to the reduction of marine litter.

Potential national priorities and activities include:

- Capacity development of the relevant national and regional authorities and the fishing sector to implement effective gear marking systems
- Preparing and disseminating studies identifying best practices including incentives to enhance the uptake of gear marking systems
- Supporting countries in implementing best practices

BOBLME II project will develop and promote good practice among the fishing communities. The national activities to promote marking of fishing gears and reduce related marine litter in the Project are:

- Study on lost fishing gear and fishing gear marking;
- Developing and disseminating guideline / action plan or good practice document;
- Promoting fishing gear marking in selected fishery.

*In the Workshop, the participants will discuss the ways to initiate and implement gear marking in break-out sessions:*

- *Selection of gear type for marking*
- *Implementation mechanism for gear marking*
- *Issues and challenges in gear marking*
- *Considerations for awareness building and capacity development needs*



## Combating IUU Fishing

Illegal, Unreported and Unregulated fishing (IUU fishing) is known to contribute to overexploitation of fish stocks and is a clear hindrance to the management and recovery of overexploited fish populations and ecosystems. A wide range of influencing factors are known to influence the level of IUU fishing, such as fishing vessels, fishery types, and factors relating to the flag, coastal, port and market aspects of a country. Illegal fishing related to fishing in the EEZ of another country, spatio-temporal closures, illegal harvest/possession of protected species, illegal transshipment, landing of catch in unauthorised foreign ports, use of prohibited gear are some common types of illegal fishing.

FAO has defined the terminologies of Illegal, Unreported and Unregulated fishing (FAO, 2002) in the following way:

*Illegal fishing refers to fishing activities:*

- (1) conducted by national or foreign vessels in waters under the jurisdiction of a State, without the permission of that State, or in contravention of its laws and regulations;
- (2) conducted by vessels flying the flag of States that are parties to a relevant regional fisheries management organization but operate in contravention of the conservation and management measures adopted by that organization and by which the States are bound, or relevant provisions of the applicable international law; or
- (3) in violation of national laws or international obligations, including those undertaken by cooperating States to a relevant regional fisheries management organization.

*Unreported fishing refers to fishing activities:*

- (1) which have not been reported, or have been misreported, to the relevant national authority, in contravention of national laws and regulations; or
- (2) undertaken in the area of competence of a relevant regional fisheries management organization which have not been reported or have been misreported, in contravention of the reporting procedures of that organization.

*Unregulated fishing refers to fishing activities:*

- (1) in the area of application of a relevant regional fisheries management organization that are conducted by vessels without nationality, or by those flying the flag of a State not party to that organization, or by a fishing entity, in a manner that is not consistent with or contravenes the conservation and management measures of that organization; or
- (2) in areas or for fish stocks in relation to which there are no applicable conservation or management measures and where such fishing activities are conducted in a manner inconsistent with State responsibilities for the conservation of living marine resources under international law.

In BOBLME Phase II, the expected Outcome from Sub-Component 1.2 is to reduce the catch from IUU fishing in the BOBLME.

By the end of the project, the following key outputs are anticipated under this Outcome:

- 20% reduction in IUU fishing from the BOBLME phase 1 baseline estimate for selected fisheries.
- Implement and as necessary prepare Regional Plan(s) of Action (RPOA) to address IUU fishing in the BOBLME.
- National Plan of Action (NPOAs-IUU) and national IUU Monitoring, Control and Surveillance (MCS) systems and Vessel Monitoring Systems (VMS) strengthened.
- Tools for promoting best practices, such as MCS, Port State Measures (PSM) and traceability of fish and fisheries products (including catch documentation schemes), policies and national actions, to combat IUU fishing developed and implemented in national pilot/investment projects. Countries supported in acceding to the PSMA.
- Regional capacity development programme on port inspections, MCS and traceability implemented with 20 national fisheries staff trained in each country.
- Gender is mainstreamed into actions to combat and eliminate IUU Fishing in BOBLME.

Recent improvements in fisheries management in the region like introduction of Port State Measures, expansion of VMS and AIS in fleet management and measures to address excess and unrecorded fleet capacity, better governance and management may have positive effects on reducing the level of IUU fishing in the region, but their effects have to be measured.

*In the Workshop, the participants will discuss the broad actions needed to prepare and support IUU fishing in break-out sessions:*

- *Assessing IUU fishing*
- *Action needed for addressing Illegal and Unregulated fishing*
- *Action needed for addressing Unreported fishing*
- *Legal & Policy needs*
- *Technology needs*
- *Identifying the agencies*
- *Human capacity development needs*

## Curbing IUU Fishing: BOBLME Project Intervention

Category	Details
<b>Objective</b>	Combat IUU fishing to support the recovery of overexploited fish stocks and ecosystems in the BOBLME, applying ecosystem approaches to fisheries management (EAFM), participatory and inclusive approaches for ecosystem health improvement and livelihood enhancement.
<b>Outputs</b>	<p>Output 1.2.1: BOBLME countries join and implement a Regional Plan of Action (RPOA) on IUU fishing.</p> <p>Output 1.2.2: National Plans of Action-IUU and national IUU Monitoring, Control and Surveillance (MCS) systems and Vessel Monitoring System (VMS) strengthened.</p> <p>Output 1.2.3: Tools for promoting best practices to combat IUU developed and implemented (including MCS, PSM, and traceability, and policies and national actions to combat IUU fishing).</p> <p>Output 1.2.4: Regional Capacity Development Program on port inspections, MCS, and traceability implemented.</p>
<b>Scope of Work</b>	<ul style="list-style-type: none"> <li>- Strengthening NPOAs-IUU and national IUU MCS systems and VMS.</li> <li>- Developing/implementing tools for promoting best practices (MCS, PSM, traceability).</li> <li>- Implementing regional capacity development on port inspections, MCS, traceability.</li> <li>- Mainstreaming gender in IUU fishing combat efforts.</li> <li>- Aiming for a 20% reduction in IUU fishing.</li> <li>- Coordinating RPOAs for efficiency and cooperation at the regional level.</li> <li>- Supporting training in MCS and promoting knowledge sharing.</li> <li>- Initiating annual dialogues for intelligence on IUU fishing.</li> <li>- Providing support for PSMA accession and implementation.</li> </ul>
<b>Targets</b>	<ul style="list-style-type: none"> <li>- 20% reduction in IUU fishing.</li> <li>- 20 national fisheries staff trained per country.</li> <li>- Enhanced gender representation and participation.</li> </ul>
<b>Methodologies</b>	<ul style="list-style-type: none"> <li>- Regular review/update of NPOAs-IUU.</li> <li>- Use of best practices in MCS, VMS, inspection procedures, catch documentation, e-reporting, and licensing.</li> <li>- Study tours, placements, and annual dialogue for knowledge sharing and intelligence development.</li> <li>- Collaboration with BOBP-IGO and SEAFDEC for regional cooperation.</li> </ul>

<b>Gender Mainstreaming Strategies</b>	<ul style="list-style-type: none"> <li>- Inclusion of women’s and men’s perspectives in planning and development processes.</li> <li>- Gender representation in NPOA development, sub-regional hubs, and training platforms.</li> <li>- Gender-sensitive training materials.</li> </ul>
<b>Private Sector Engagement</b>	<ul style="list-style-type: none"> <li>- Initiating dialogue around IUU fishing, its impact on the value chain, and effective market entry for small-scale fishery products.</li> <li>- Emphasizing CSR, engaging with national and multinational business actors linked to BOBLME resources.</li> </ul>
<b>Collaborations for Addressing IUU</b>	<ul style="list-style-type: none"> <li>- Working with groups advocating for decent work conditions to address issues associated with long-distance/distant-water fishing.</li> <li>- Partnering with entities like the World Ocean Council for broader stakeholder engagement.</li> </ul>

## **Format for Group Discussion**

### **Gr. A: Evaluating India's Draft NPOA-IUU**

- Discuss the draft NPOA-IUU's strengths, gaps, and areas for improvement in the Indian context
- Discuss the steps needed to set up National IUU Working Groups (NWG-IUU) and the stakeholder matrix.
- Address how the draft NPOA-IUU aligns with the ecosystem approach to fisheries management (EAFM) and MMA.
- Consider gender balancing within the stakeholder groups and the development of the NPOA

### **Gr. B: Integrating Academic Research into IUU Policy and Practice**

- Summarize recent research trends and needs on IUU fishing and fisheries governance.
- Explore how recent academic research can inform and enhance India's IUU fishing policies and MCS strategies.
- Evaluate current and emerging research and technologies that could significantly reduce IUU fishing practices.
- Assess the structure of a national status paper on IUU Fishing, focusing on reliable data sources and robust methodologies for quantifying IUU activities.

### **Gr. C: Centre -State Government Roles and Capacity Building**

- Examine existing laws and policies related to IUU fishing within the lens of India's responsibilities as a flag and coastal state.
- Identify gaps in the current framework and suggest reforms that align with international best practices and India's ecological and socio-economic context.
- Discuss the division of responsibilities and collaboration between central and state governments in tackling IUU fishing.
- Identify specific capacity needs at various governmental levels to effectively address IUU fishing.

### **Gr. D: Regional Collaboration and Capacity Development in the BOBLME**

- Deliberate the importance of India's role in the BOBLME and how it can contribute to and benefit from regional initiatives.
- Discuss the development of regional capacity-building programs and the inclusion of traditional knowledge from fishers in such initiatives.
- Explore opportunities for India to lead or participate in regional partnerships, capacity building, and knowledge-sharing.

### **Gr. E: Participatory Approaches to IUU Fishing Management**

- Discuss the importance of participatory approaches that include fishers in the development and implementation of IUU fishing policies.
- Debate potential frameworks for inclusive decision-making and co-management of fisheries resources.
- Consider case studies or examples of successful participatory management strategies that could be adapted for India.

## Improved Livelihoods

Improved livelihood of coastal communities will lead to positive changes in the overall well-being of coastal people and their involvement in both fisheries management and biodiversity conservation, which is expected to lead to both enhanced ecosystem resilience of the BOBLME and of local livelihoods and food security. Vulnerability to natural hazards, and climate variability and change will be reduced and livelihoods diversified for selected coastal communities, with a particular focus on women.

The anticipated Outcome in this Component of BOBLME II project is “Enhanced sustainable livelihoods and diversification for selected coastal communities” Under this Outcome, the anticipated Outputs are:

- Livelihood diversification for women piloted in at least one site per country;
- Access to innovative financial services and insurance mechanisms to enhance resilience and improve livelihoods promoted;
- A regional capacity development programme for selected coastal communities on alternative livelihoods, promoting decent work opportunities, including social protection for empowerment and enhanced participation in coastal and marine resource management and conservation.

Executed by IUCN, the scaling up of sustainable and more resilient livelihood options will be promoted through enhanced access to financial services and insurance mechanisms, including micro-finance, and training on alternative livelihoods with a focus on women. There will also be a special focus on women in the piloting of livelihood diversification.

The national activities proposed are:

- Target locations identified in the country
- Capacity development program established for target locations
- Alternate livelihood strategies implemented in target locations
- Value chain improvement analyses undertaken in vulnerable coastal communities and opportunities for expanded role by women identified
- Establish women’s small-scale processor networks
- Provide sharing of experiences opportunities

The overarching activities at national level are:

- Analysis of status of capacity development needs of partners in each focus area
- Capacity development programs established for alternate/diversified livelihoods
- Capacity development program established for decent work principles
- Implementation of national capacity development strategy in focus areas.



## Bay of Bengal Large Marine Ecosystem (BOBLME)

*The Bay of Bengal Large Marine Ecosystem Project II (BOBLME-II: 2023-28) builds on the success of BOBLME-I (2009-15).*

*It strives to promote sustainable management of fisheries and marine life while conserving their habitats in the Bay of Bengal, with ecosystem services of approximately USD 240 billion over the next 25 years that will be protected and sustained. Funded by the Global Environment Facility (GEF) and the Norwegian Agency for Development Cooperation (NORAD), the project is being implemented by the Food and Agriculture Organization of the United Nations (FAO). The International Union for Conservation of Nature (IUCN), the Southeast Asian Fisheries Development Center (SEAFDEC), and the Bay of Bengal Programme Inter-Governmental Organisation (BOBP-IGO) are the executing partners.*

*The BOBP-IGO is executing the project in South Asia for the benefit of its member countries.*

