Marine Spatial Planning for Improved Fisheries Management: Resolving Spatial Conflicts in Balayan Bay, Philippines

Nygiel B. Armada
Chief of Party, ECOFISH

Regina Therese M. Bacalso
Senior FCRM Specialist, ECOFISH

Outline

- ECOFISH Backgrounder
- Fisheries zoning and marine spatial planning in ECOFISH
- Applications in Balayan Bay
- Challenges and future outlook

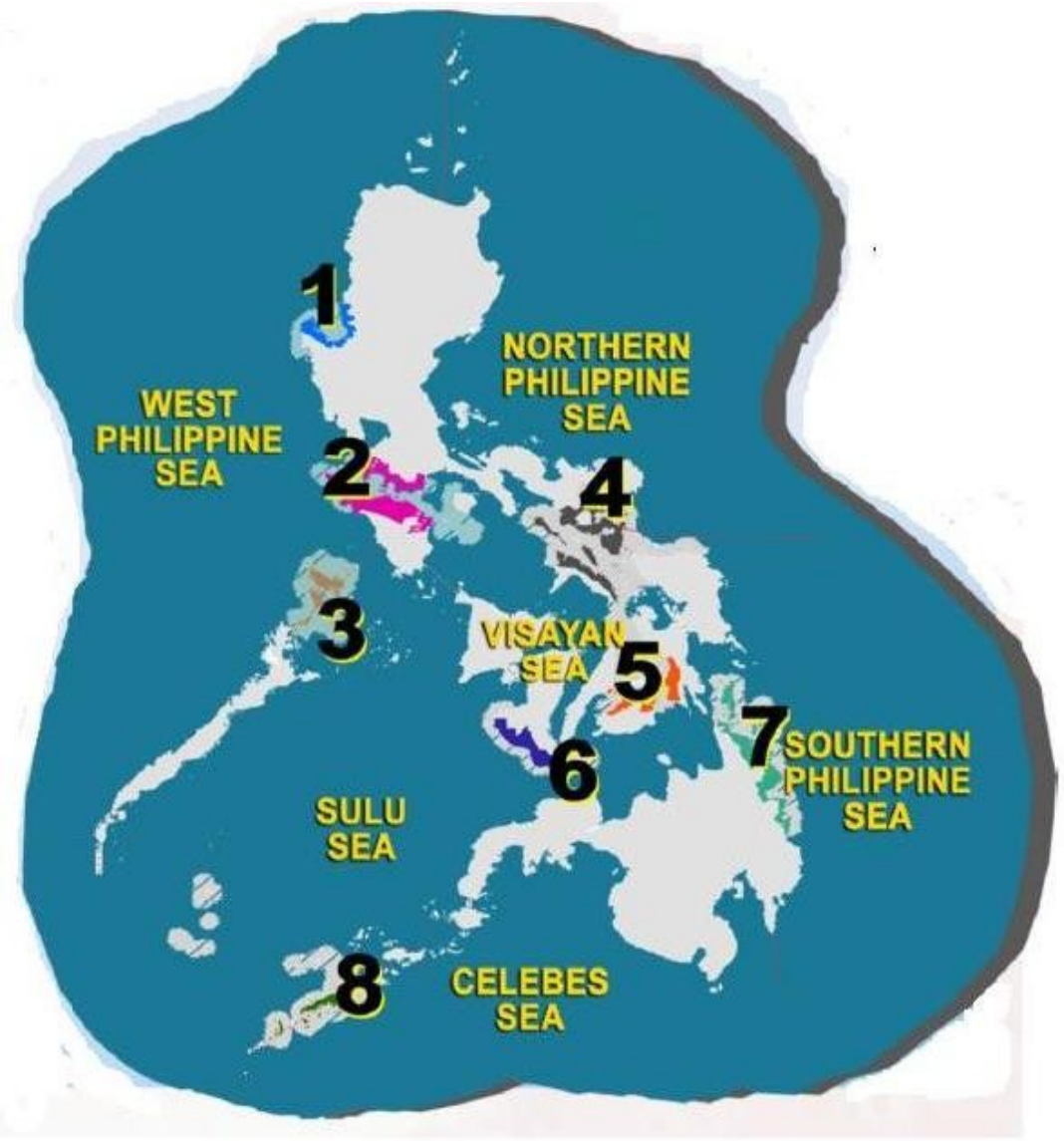
ECOSYSTEMS IMPROVED FOR SUSTAINABLE FISHERIES (ECOFISH) Project

Promoting the growth and restoring the profitability of fisheries through conservation of ecosystem health and effective management

Implemented with:

- **Department of Agriculture – Bureau of Fisheries and Aquatic Resources**
- **Other National Government Agencies (DILG, DENR, etc)**
- **Local Government Units (LGUS)**

Managed by: Tetra Tech – ARD, in collaboration with PRIMEX, REECS, MERF and SSG Advisors



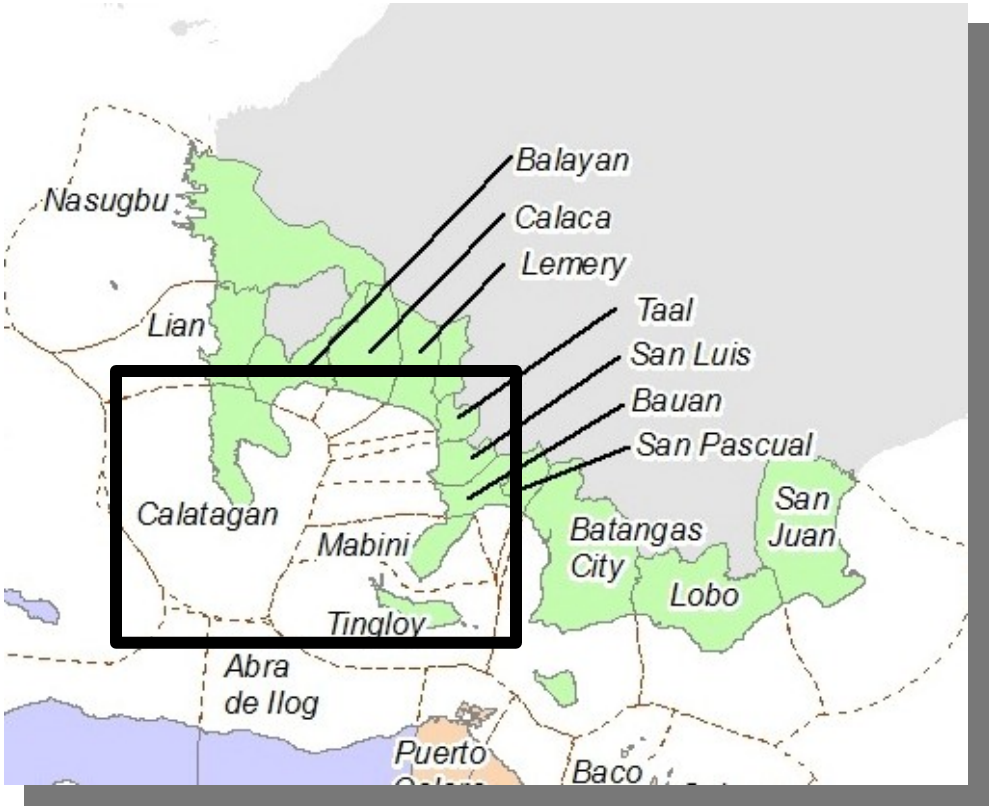
ECOFISH Project Sites

Legend:

1. **Lingayen Gulf**
2. **Verde Island Passage**
3. **Calamianes Island Group**
4. **Lagonoy Gulf**
5. **Danajon Reef**
6. **South Negros Island**
7. **Surigao del Sur & del Norte**
8. **Sulu Archipelago**

Marine Key Biodiversity Areas (MKBAs)

Within an MKBA…



Verde Island Passage

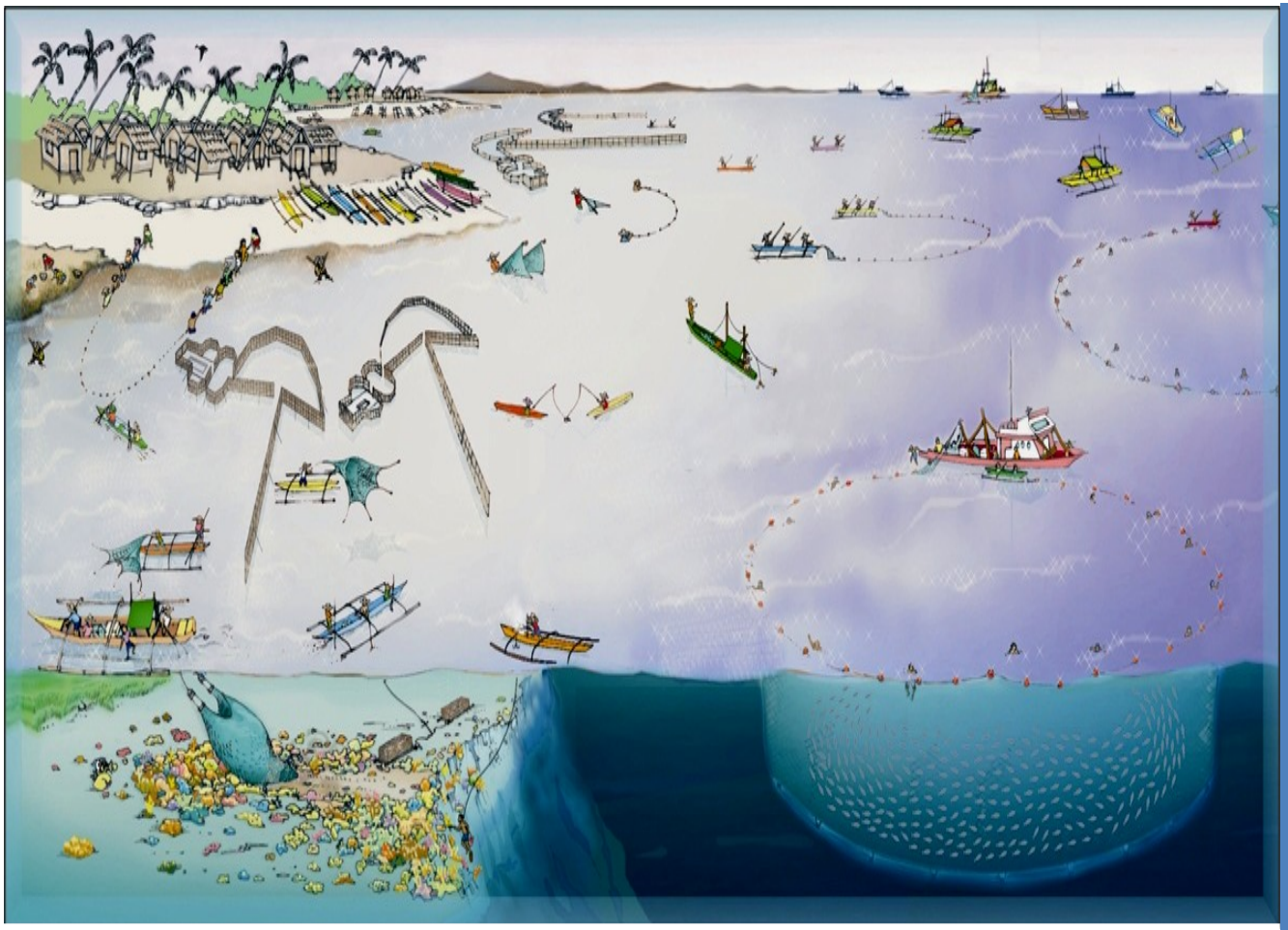
Marine Key Biodiversity Area
of the DA/BFAR-USAID ECOFISH Project

Ecosystems Improved for Sustainable Fisheries (ECOFISH) Project

Ecosystems Approach to Fisheries Management (EAFM)

- is about managing fisheries at ecosystem scales rather than the scales defined by jurisdictional boundaries
- addresses the sustainability of ecosystems and not just the sustainability of target species
- provides governance mechanisms for the selected spatial scale

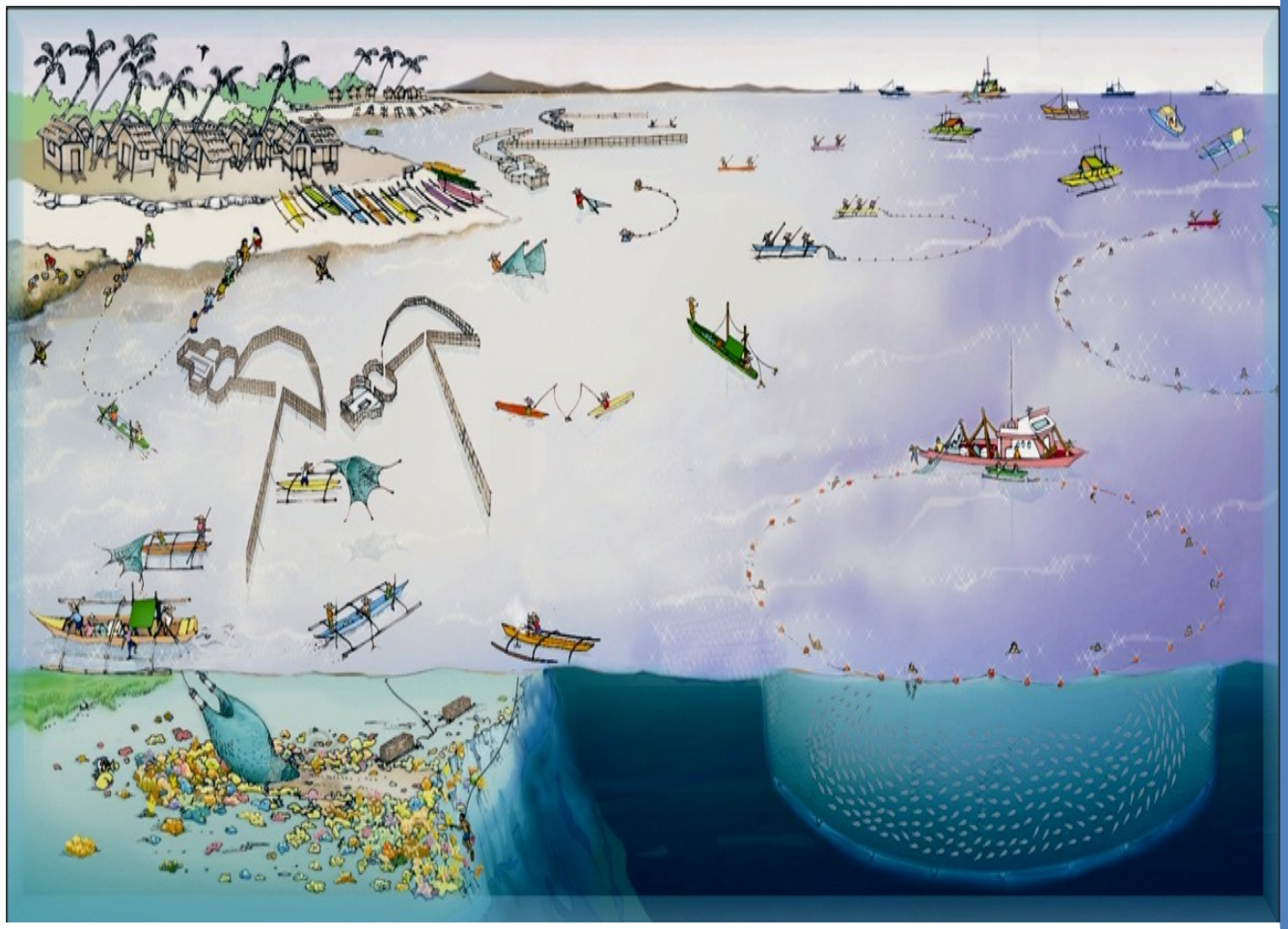
Overview of Fisheries Zoning and MSP in ECOFISH



Fisheries activities and other sea uses – a typical Philippine setting

- to reduce, if not remove the conflicts between uses and the component habitats by ensuring the compatibility of the activities and the environment where they take place

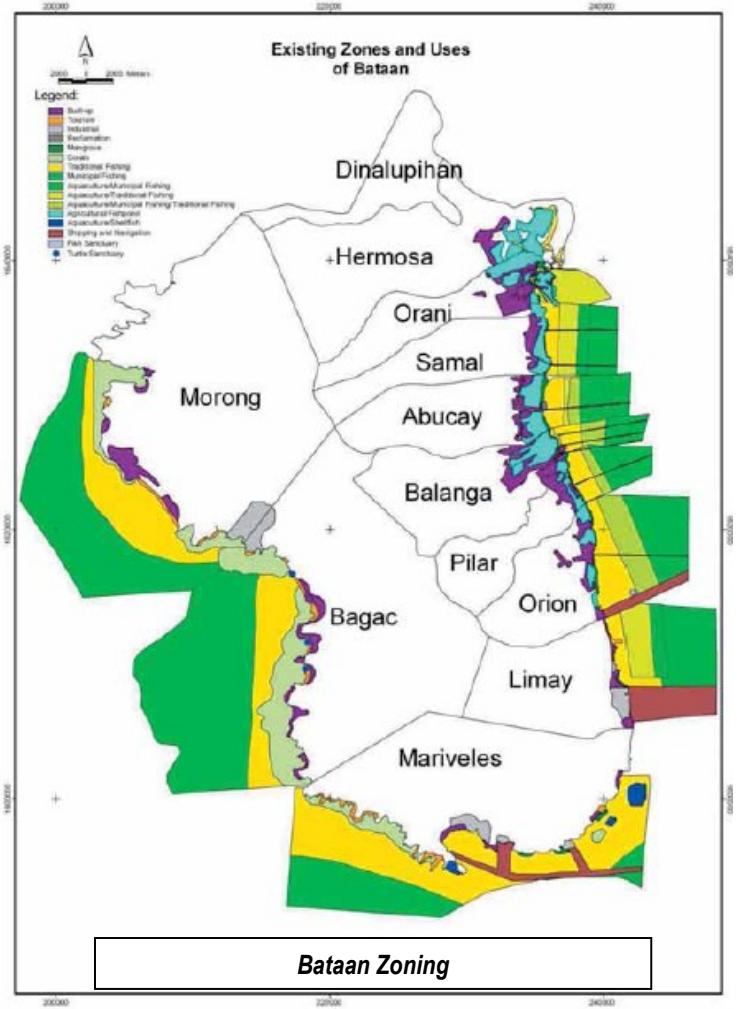
Overview of Fisheries Zoning and MSP in ECOFISH



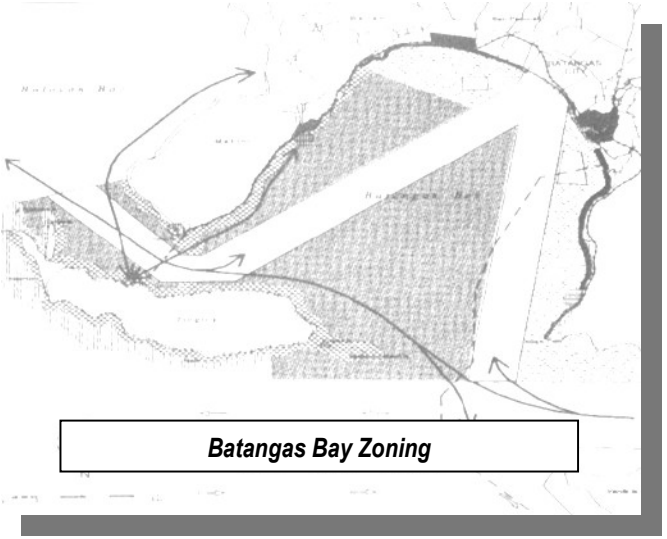
Fisheries activities and other sea uses – a typical Philippine setting

- to reconcile the various and often times conflicting demands of the uses of the coasts and marine waters, and further, provide managers, regulators, and future investors a consistent basis for planning and decision-making

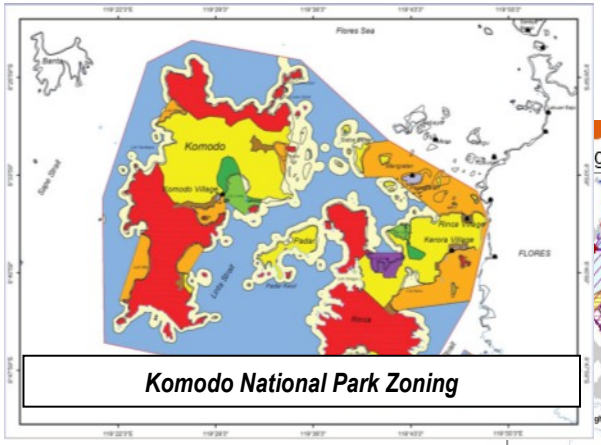
Lessons learned from previous MSP experiences



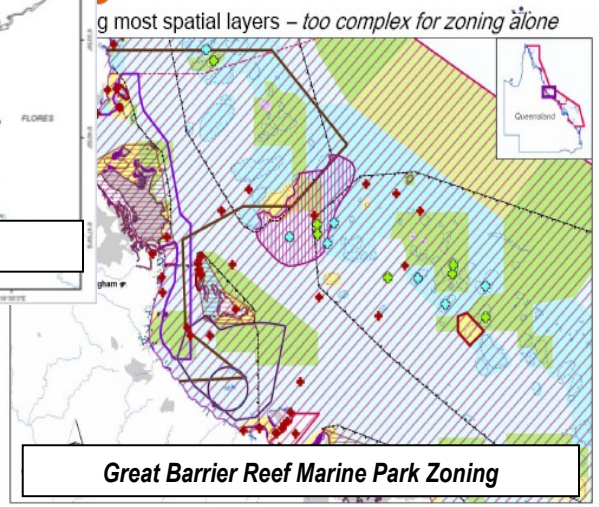
Bataan Zoning



Batangas Bay Zoning

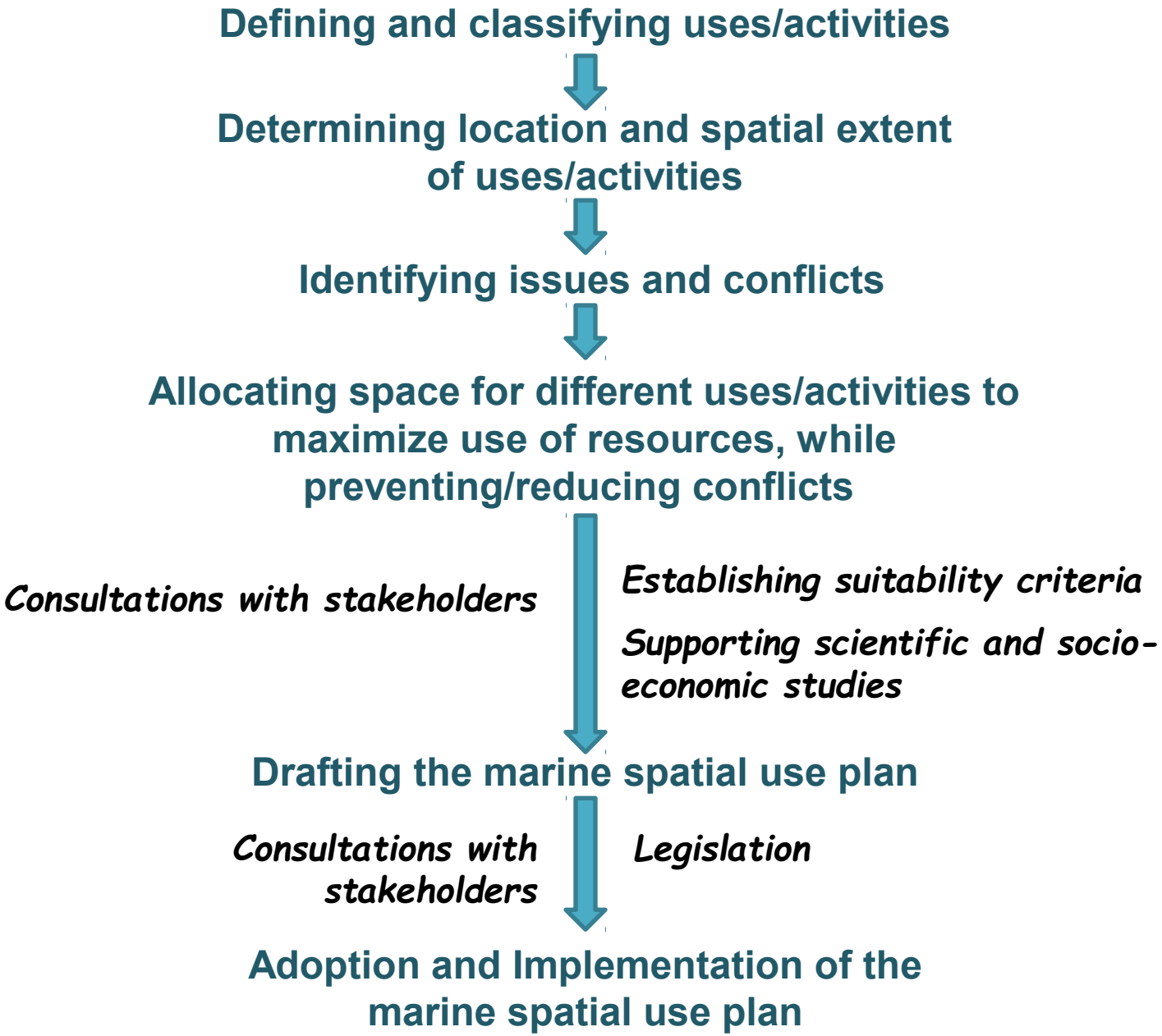


Komodo National Park Zoning

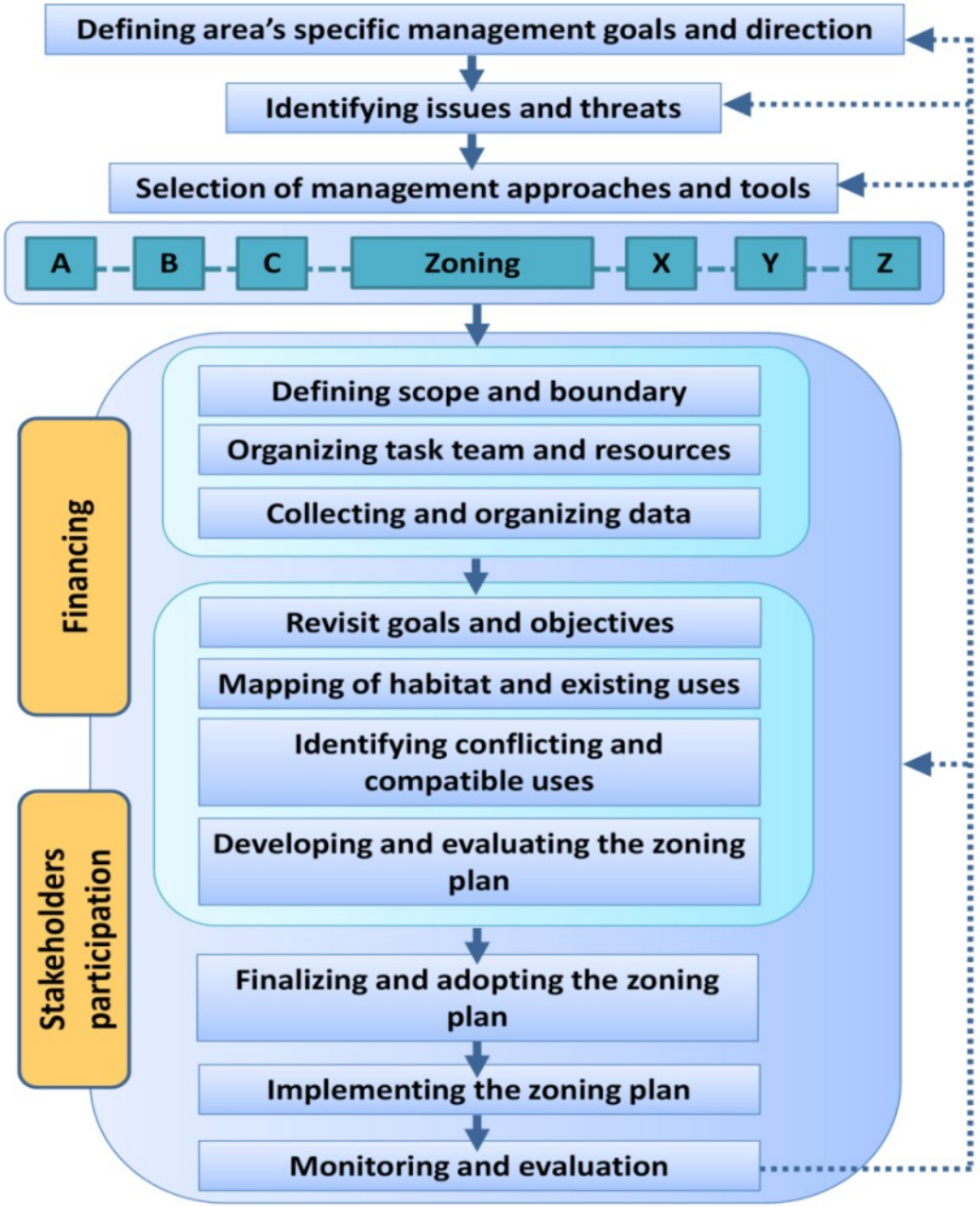


Great Barrier Reef Marine Park Zoning

Lessons learned from previous MSP experiences



Overview of Fisheries Zoning and MSP in ECOFISH



Overview of Fisheries Zoning and MSP in ECOFISH

Defining area's specific management goals and direction

Identifying issues and threats

Selection of management approaches and tools

A | B | C | Zoning | X | Y | Z

Financing

Defining scope and boundary

Organizing task team and resources

Collecting and organizing data

Stakeholders participation

Revisit goals and objectives

Mapping of habitat and existing uses

Identifying conflicting and compatible uses

Developing and evaluating the zoning plan

Finalizing and adopting the zoning plan

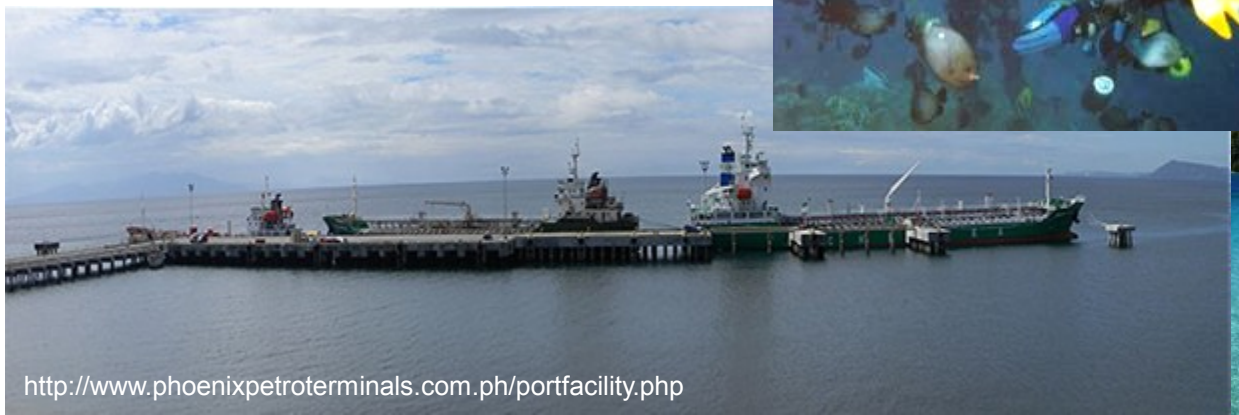
Implementing the zoning plan

Monitoring and evaluation

Balayan Bay Focal Area

Balayan Bay Focal Area

Balayan Bay Focal Area



http://www.phoenixpetroterminals.com.ph/portfacility.php

Overview of Fisheries Zoning and MSP in ECOFISH

Defining area's specific management goals and direction

Identifying issues and threats

Selection of management approaches and tools

A – B – C – Zoning – X – Y – Z

Financing

Defining scope and boundary

Organizing task team and resources

Collecting and organizing data

Revisit goals and objectives

Mapping of habitat and existing uses

Identifying conflicting and compatible uses

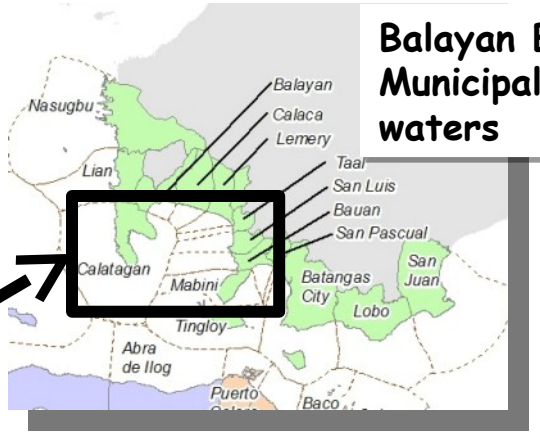
Developing and evaluating the zoning plan

Stakeholders participation

Finalizing and adopting the zoning plan

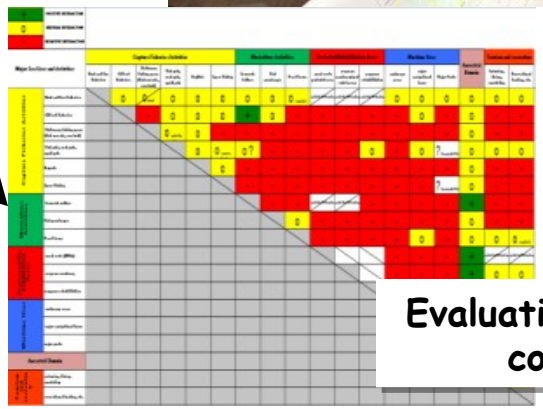
Implementing the zoning plan

Monitoring and evaluation



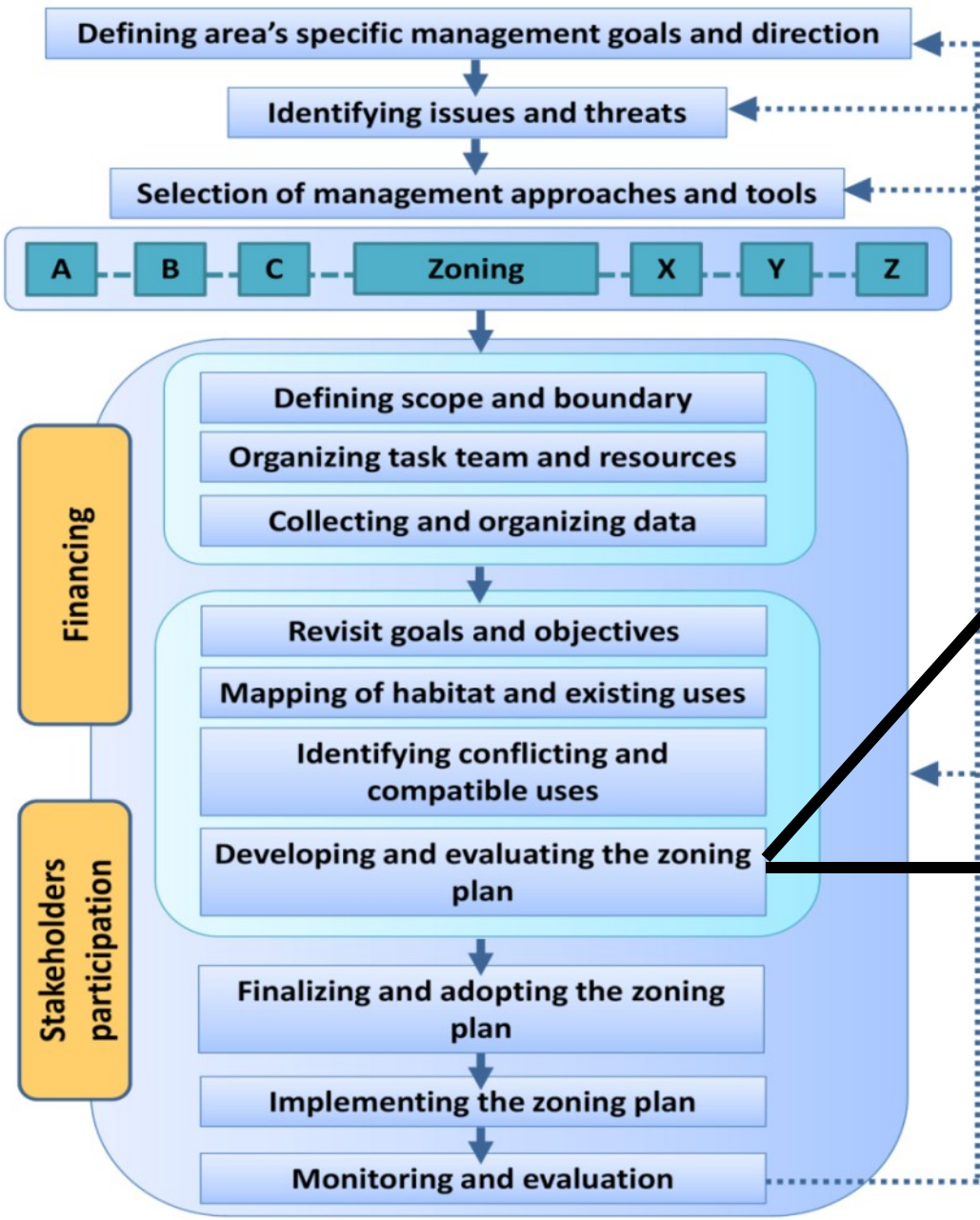
Balayan Bay Municipal waters

Identifying & mapping current uses

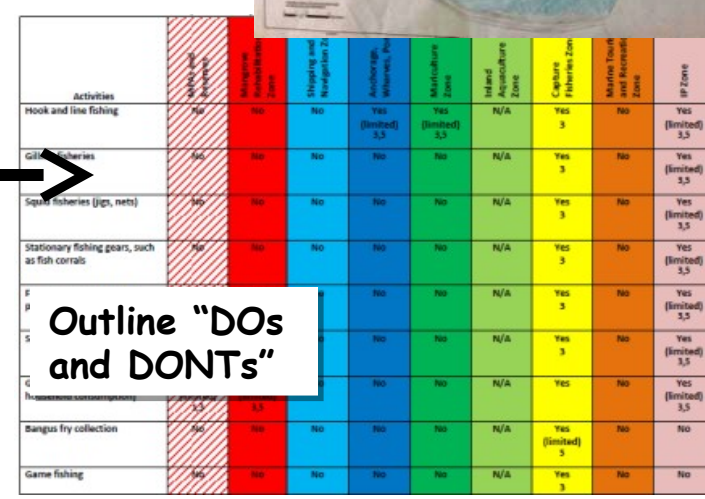


Evaluating use conflicts

Overview of Fisheries Zoning and MSP in ECOFISH



Draft sea use zones



Activities	[illegible]	Mangrove Rehabilitation Zone	Shipping and Navigation Zone	Anchorage, Wharves, Po[illegible]	Mariculture Zone	Inland Aquaculture Zone	Capture Fisheries Zone	Marine Tourism and Recreation Zone	IP Zone
Hook and line fishing	No	No	No	Yes (limited) 3,5	Yes (limited) 3,5	N/A	Yes 3	No	Yes (limited) 3,5
Gillnet fisheries	No	No	No	No	No	N/A	Yes 3	No	Yes (limited) 3,5
Squid fisheries (jigs, nets)	No	No	No	No	No	N/A	Yes 3	No	Yes (limited) 3,5
Stationary fishing gears, such as fish corrals	No	No	No	No	No	N/A	Yes 3	No	Yes (limited) 3,5
[illegible]	[illegible]	[illegible]	[illegible]	No	No	N/A	Yes 3	No	Yes (limited) 3,5
[illegible]	[illegible]	[illegible]	[illegible]	No	No	N/A	Yes 3	No	Yes (limited) 3,5
[illegible]	[illegible]	[illegible]	[illegible]	No	No	N/A	Yes	No	Yes (limited) 3,5
Bangus fry collection	No	No	No	No	No	N/A	Yes (limited) 5	No	No
Game fishing	No	No	No	No	No	N/A	Yes 3	No	No

Outline "DOs and DONTs"

Overview of Fisheries Zoning and MSP in ECOFISH

Table 3 Summary matrix of offices and sectoral agencies with functions and responsi
various coastal and marine zones of CIG. (TO BE FILLED UP BY PARTNERS)

Zones	LGU	DA-BFAR	DENR	DILG	DOT	PPA	PCG	PNP-MG
1. Marine Protected Areas and Reserves								
2. Mangrove Protection and Rehabilitation Zones								
3. Shipping and Navigation Zones								
4. Anchorage zones, wharves, and ports								
5. Mari-Culture Zones								
6. Inland Aquaculture Zone								
7. Capture Fisheries Zone								
8. Marine Tourism Zones								
9. Indigenous Peoples (IP) Zone								

Outline roles and responsibilities of various offices/agencies

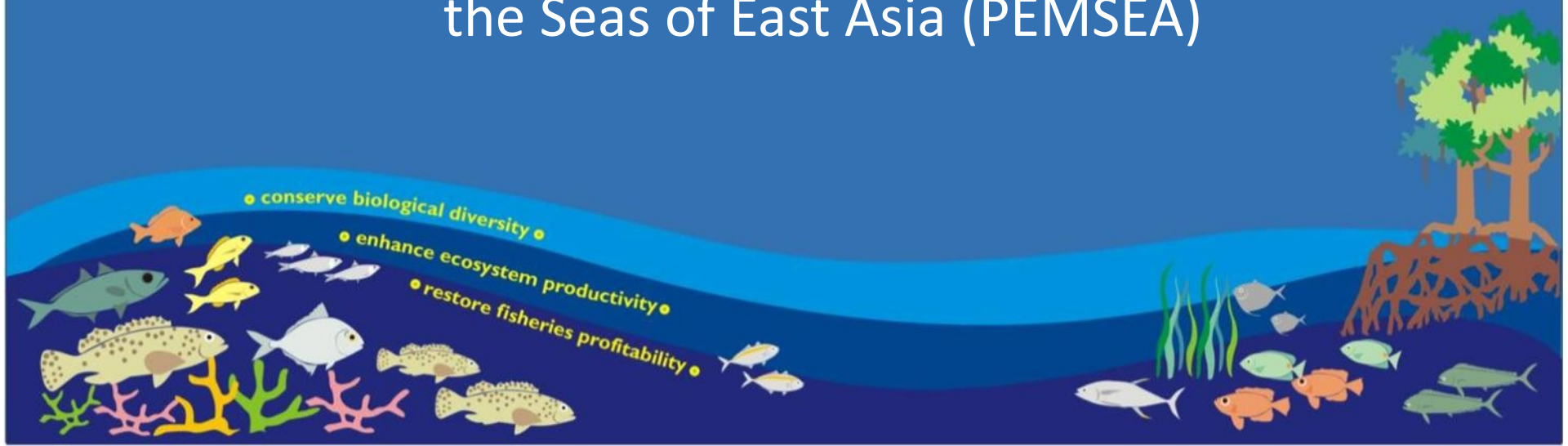
On-going and upcoming activities

- Site Validations and stakeholder consultations
- Re-drafting of zoning maps and activity guidelines
- Policy reviews, ensuring compatibility with existing Plans (e.g. ICM Plan)
- Write-shops for drafting the inter-LGU MSP and respective LGU ordinances
- Public hearings
- Adoption and implementation

Challenges and Future Outlook

- Unresolved municipal water boundary issues
- Cross-boundary fisheries violations and apprehensions
- Monitoring effectiveness of zoning implementation
- Accounting for cross-boundary impacts of zoning (benefits and costs)

THANK YOU FOR YOUR ATTENTION!

Acknowledgements:

Korean Maritime Institute (KMI)
Partnerships in Environmental Management for the Seas of East Asia (PEMSEA)