

EFFECTIVELY MANAGING NETWORKS
OF MARINE PROTECTED AREAS
IN LARGE MARINE ECOSYSTEMS
IN THE ASEAN REGION
(ASEAN ENMAPS PROJECT)

THE COASTAL AND MARINE ENVIRONMENT OF THE ASEAN REGION

The ASEAN region is home to a third of the world's coastal and marine habitats, providing fisheries with breeding, nursing, and feeding grounds. These ecosystems also play a vital role in regulating natural processes, such as protection against storm surges and other increasingly unpredictable factors due to climate change.

Despite their importance, these rich ecosystems face threats due to unsustainable resource use, habitat change, pollution, policy gaps, and the pressures of population growth and overexploitation that heighten resource demands.

Pressure from human activities such as overfishing and pollution are particularly widespread across the region, impacting marine resources. In fact, the risk of environmental degradation is classified as very high in the Sulu-Celebes Sea, high in the Indonesian Sea, and medium in both the South China Sea and the Bay of Bengal. Given these factors, the human-environment interactions and associated vulnerabilities across the region are critically high and require urgent intervention.

Efforts to promote conservation through integrated coastal management (ICM), marine spatial planning (MSP), and ecosystems approach to fisheries management (EAFM) are progressing in terms of policy, planning, and implementation. However, effective multi-stakeholder collaboration remains a challenge, hindering the realisation of these conservation investments.



Juvenile fish caught in a gill net, an illegal fishing gear



Ady Kristanto



Conservation efforts
O UNDP Nature

The potential sustainable annual economic net benefits per square kilometre of healthy coral reefs in the ASEAN region range from USD 23,100 to USD 270,000 from fisheries, shoreline protection, tourism, recreation, and aesthetic values.

However, a geometrically growing population concentrated in coastal zones depend on coastal resources and fisheries for food and livelihood, which puts pressure on coastal and marine environment. This population is expected to reach 500 million by 2050.

If unsustainable fishing practices continue, there could be no available fish stocks left in the ASEAN region as early as 2048.

ASEAN ENMAPS PROJECT

The project Effectively Managing Networks of Marine Protected Areas in Large Marine Ecosystems in the ASEAN Region (ASEAN ENMAPS) is designed to address these challenges by facilitating transformative changes in managing marine protected areas (MPAs) and other coastal and marine resources in large marine ecosystems (LMEs) in Indonesia, the Philippines, and Thailand.

The ASEAN ENMAPS project strategy has a strong upscaling focus as it engages with ASEAN working groups and LME cooperative governance, while leveraging complementary investments across the region.

Project Information

Participating Countries

Funding Agency
Implementing Agency

Executing Agency
Project Duration

Total Budget

Republic of Indonesia Republic of the Philippines Kingdom of Thailand

Global Environment Facility (GEF)

United Nations Development
Programme Bangkok Regional Office

ASEAN Centre for Biodiversity (ACB)

March 2024 to March 2029

GEF Investment: USD 12,548,861 Co-financing: USD 57,907,646

ASEAN ENMAPS PROJECT THEORY OF CHANGE

Barriers to the Effective Management of Coastal and Marine Resources in the ASEAN Region

BARRIER 1

Inadequate understanding of ecological and other linkages in coastal and marine ecosystems

BARRIER 2

Insufficient investments in MPA management to maintain and expand coverage and build local capacities

BARRIER 3

Financial and governance barriers to successfully implement area-based management

BARRIER 3

Limited institutional capacities and sharing of knowledge, best practices, and lessons learned

CAUSAL **PATHWAY 1**

Identify connectivities and linkages

CAUSAL PATHWAY 2

Strengthen enabling environment for integrated strategies

CAUSAL PATHWAY 3

Facilitate adaptive management and upscaling





ASEAN **ENMAPS**

Outputs =

Causal Pathway 1

- · Scientific studies and modelling
- Social and institutional analysis
- Potential MPA network configurations

Causal Pathway 2

- MPA management plans enhanced and priority actions implemented
- Integrated management approaches strengthened and implemented in at least one site per country
- Priority investment projects studied, developed, and pilot tested
- Enhanced sustainable livelihood initiatives
- Marine corridor management interventions designed and implementation initiated
- Marine corridor cooperation mechanisms identified and agreed upon

Causal Pathway 3

- Strengthened capacities in integrated marine ecosystem management
- KM strategy and action plan implemented
- IW:LEARN and IW portfolio-wide learning through cross LME exchanges, IW conference, workshops, and trainings
- Project implementation and results monitored, evaluated, and reported

⇒ Outcomes □

- 1.1 New or strengthened MPA networks conceptualised through ecological, socioeconomic, and governance linkages across proposed marine corridors
- 2.1 Improved management of MPAs by addressing key threats, strengthening of approaches, and enhancing financial sustainability
- 2.2 Management and governance arrangements of MPA networks and associated marine corridors initiated
- 3.1 Adaptive management and sustainability facilitated through M&E, communications and KM, and portfolio-wide learning

Longer Term **Outcomes**

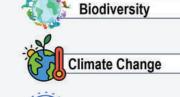
Strengthened Blue Economy in the three countries

Participatory approaches contribute towards achieving management objectives and enhanced well-being of local communities

Reduced threats to coastal and marine ecosystems

Upscaling across AMS through knowledge sharing and regional collaboration

Impacts





Contributions to SDGs & GBF 2030 Action Targets

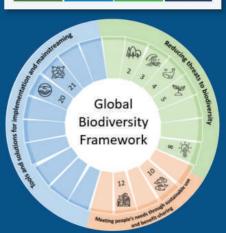












Note: AMS = ASEAN Member States

IW:LEARN = International Waters Learning Exchange and Resource Network

KM = knowledge management

LME = Large Marine Ecosystem M&E = monitoring and evaluation

MPA = marine protected area

THAILAND

Bay of Bengal

Threats & Challenges

- Annual fish catch and fishing effort are increasing, reaching 4 million tons per year
- High risks of pollution, ecosystem degradation, and vulnerability
- Transboundary integration needs to be addressed

Muko Surin 2 National Park (AHP)

2 3

3 Ranong Biosphere Reserve

1 Muko Similan National Park (AHP) 4

> 4 Tarutao National Park (AHP)

South China Sea

Threats & Challenges

- Annual fish catch surged from 90,000 tons in 1950s to over 6 million tons in the 2010s
- Excessive nitrogen load
- Overfishing, destructive fishing, and pollution
- Reefs and coral cover face very high and high threats, respectively.
- Regional instability impedes collaborative fisheries management and conservation efforts.
- Threats to fish stock sustainability due to artificial island construction and extensive fishing
- Geopolitical strife undermines regional cooperation

6 Agoo-Damortis Protected Landscape and Seascape

5 BBBIDA Marine Protected Area Network

7 Ticao-Burias
Pass Protected

Seascape

PHILIPPINES

- 8 Tubbataha Reefs
- 8 Natural Park (AHP)
- 9 Turtle Island
- 9 Wildlife Sanctuary

Sulu-Celebes Sea

10 Kepulauan Togean National Park

INDÓNESIA

Threats & Challenges

- Human activities put the LME at very high risk.
- Rising demand for fish from industrial and artisanal fisheries
- Coral reefs face very high threat.
- Increasing thermal stress could critically threaten coral reefs by 2030.
- Lacks measures for transboundary fisheries integration or coordination

11 Wakatobi

National Park (AHP)

Indonesian Sea

Threats & Challenges

 Increasing fishing effort annually

PILOT SITES

- Climate change impacts marine biodiversity
- Political challenges hinder sustainable fisheries management.
- Weak enforcement and governance
- Conflicting maritime claims exacerbate illegal activities and lack of coordinated policy
- Illegal, unreported and unregulated (IUU) fishing persist
- Inadequate infrastructure
 for monitoring and
 enforcement hampers
 conservation efforts
- Environmental degradation
- High levels of nutrient loading

Note: The terms/names used for the LMEs are nomenclatures adopted from GEF and does not reflect the position of the UNDP or ACB.

PROJECT STRATEGY

OBJECTIVE

To develop and improve the management of MPA networks and marine corridors within selected large marine ecosystems in the ASEAN region for the conservation of globally significant biodiversity and support for sustainable fisheries and other ecosystem goods and services

PROJECT COMPONENTS



COMPONENT 1: Multifaceted approach to supporting and expanding MPA networks

Component 1 aims to synthesise the marine, fisheries, and connectivity science behind the identified MPAs and determine the appropriate configurations of MPA networks in the four target LMEs.

Indicative Activities		Poculto
Regional	National	Results
Transboundary diagnostic analysis, analysis of strategic action programmes and national action programmes for the target LMEs in cooperation with LME governance mechanisms Support national teams in assessing viable governance and management arrangements and financing options for the proposed MPA networks Regional knowledge sharing and scientific workshops	Strategic Environmental and Social Assessment (SESA) Fish resources and ecological connectivity modelling with hydrodynamic studies Review potential governance mechanisms and financial sustainability for MPAs Prepare conceptual designs for the proposed MPA networks and disseminate through stakeholder workshops	Confirmed ecological, socio-economic, and institutional connectivity in four sub-regions within the target LMEs Nine MPA networks designed and endorsed



COMPONENT 2: Strengthened environment for management and governance of MPA networks

Component 2 intends to effect proper governance in MPA networks using appropriately designed interventions and investments that contribute to improving coastal and marine health and fisheries in the LMEs in terms of scale, magnitude, types of inputs, and partnerships and governance.

Indicative Activities		Populto
Regional	National	Results
 Regional workshops: Capacity development on MPA management; exchanging best practices Field missions to deliver technical and strategic assistance to MPAs Provide support to LME-level consultations and workshops for the integration of management plans Capacitate the national teams on UNDP Social and Environmental Standards (SES) Complement GEF investment ASEAN Heritage Park (AHP) interventions through AHP Regional Action Plan Engage strategic partners and private sectors in implementing ICM, MSP, and EAFM 	MPA network and locally managed marine area coordination Develop, enhance, and integrate management plans for the established MPA networks Identify priority interventions Conduct and capacitate stakeholders on Management Effectiveness Tracking Tool (and related local tools) Advocate for integrating the management plans into the National Fisheries Management Plan	Four sub-regions in the targeted LMEs with confirmed ecological, socio-economic, and institutional connectivity Nine MPA networks designed and endorsed Management plans for nine MPA networks agreed upon by key partners across three countries Six dialogues convened with transboundary partners on the collaborative management of the MPA networks

PROJECT STRATEGY



COMPONENT 3: Learning, knowledge management, and networking

Component 3 documents, packages, and disseminates the knowledge products developed in the course of project implementation to ensure that the best practices are shared with the relevant stakeholders.

Indicative Activities		Populto
Regional	National	Results
 Implement project-level communication and knowledge management strategy and action plan Develop project website and linking it to relevant knowledge-sharing platforms Produce and disseminate knowledge products and communication materials Convene traditional knowledge workshops Arrange learning exchanges among the participating countries Develop and initiate the implementation of a project sustainability plan. 	Contribute to the implementation of the project communications and knowledge management strategy, with local- and national-focused activities Participate in GEF IW conferences, IW:LEARN Twinning with other GEF projects Participate in GEF Communities of Practice Contribute to IW:LEARN with Experience Notes and other relevant content (e.g. multimedia, data visualisation, etc.).	Improved institutional capacities in ICM Knowledge products and Experience Notes disseminated 1,000 visits to knowledge-sharing spaces Participation in GEF IW: Conference

PROJECT GOVERNANCE STRUCTURE

