

From vision to implementation: Applying the Ecosystem-Based Approach in Maritime Spatial Planning

Includes Practical Tool:
EBA Checklist



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INTRODUCTION

This communication material presents a visual aid of the revised version of the **Guideline for the implementation of ecosystem-based approach (EBA) in maritime spatial planning (MSP) in the Baltic Sea** originally adopted in 2016.

HELCOM-VASAB Maritime Spatial Planning Working Group initiated the revision of the Guideline in 2023 and established a dedicated Task Force for this purpose. The Guideline has been developed by the Task Force based on shared experiences and new knowledge gathered by national MSP authorities and stakeholders while developing maritime spatial plans and cooperating in numerous transboundary collaboration projects.

This material provides practical guidance on integrating an ecosystem-based approach into the MSP process, supported by an EBA checklist included in the document.

This communication material is addressed to North Sea and Baltic Sea countries, their marine authorities, policy-makers, MSP practitioners and researchers, as well as to the transboundary cooperation frameworks of the Greater North Sea Basin Initiative (GNSBI) and the HELCOM-VASAB Maritime Spatial Planning Working Group. It is equally relevant to other maritime authorities and countries across European sea basins and beyond wishing to implement or strengthen the application of the ecosystem-based approach in Maritime Spatial Planning.

Read full
Guideline:



PROBLEM TO ADDRESS

What does ecosystem-based approach mean for maritime spatial planning?

Currently all ecosystems are affected by human activities. In most cases, the impact is negative, but it might also be a positive one.

Ecosystem-based approach (EBA) in maritime spatial planning (MSP) considers **the ecosystem as a base and humans as an integral part of the ecosystem. Thus, maintaining the ecosystem's functionality is the goal for ecosystem-based management of human activities.**

This inclusive approach embraces - **nature conservation and restoration, sustainable use of ecosystem services, maintenance of pressures within ecosystem capacity limits, and achievement of good status of the marine environment.**



PROBLEM TO ADDRESS

MSP is a strategic, participatory process to:

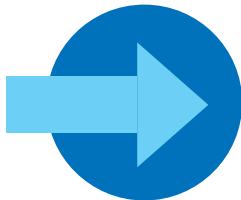
- ▶ Balance human activities and ecosystem protection
- ▶ Reduce cumulative pressures on the marine environment
- ▶ Ensure coherent planning across sea basins

Why it matters now: challenges

- ▶ European seas face increasing pressures:
 - climate change
 - energy transition
 - biodiversity loss
 - security challenges

MSP supports key EU priorities

- Biodiversity protection
- Nature restoration
- Sustainable blue economy
- Ocean governance



The ecosystem-based approach is the cornerstone of MSP
EBA ensures that:

- ▶ Ecosystems are protected from degradation
- ▶ Human uses stay within ecological limits
- ▶ Cumulative impacts remain compatible with Good Environmental Status

EBA KEY ELEMENTS

Practical application of the EBA in MSP integrates **five key elements**.

They are derived, primarily from the definition of ecosystem-based approach, addressing EBA principles (Malawi principles).

These five key elements should be integrated **into all MSP processes**.



Five key elements of the ecosystem-based approach in MSP

Social, cultural and economic considerations

Utilization of ecosystem services and incorporating relevant human activities

Ecosystem integrity

Conserving and restoring nature and retaining cumulative impacts within ecological carrying capacity

Comprehensiveness and coherence

Cross-border and cross-sectoral consideration

Integrative governance

Multi-level governance and aligning strategic policy goals and national or regional commitments with ecological objectives and targets

Adaptive management

Forward looking approach and adaptation of planning solutions to emerging challenges



Ecosystem integrity



CONSERVATION – MSP should integrate **spatial conservation measures to support the EU Biodiversity Strategy target** of protecting at least 30% of EU marine areas by 2030 (including 10% strictly protected) and **contribute to achieving Favorable Conservation Status** under the Birds and Habitats Directives.



RESTORATION – MSP should support **the Nature Restoration Regulation** by considering restoration measures across 20% of sea areas and enhancing habitat recovery and ecological connectivity.



ECOLOGICAL CARRYING CAPACITY – MSP should ensure that **human activities remain within ecosystem capacity limits** by considering cumulative impacts, alternative planning options and mitigation measures.



GOOD ENVIRONMENTAL STATUS (GES) – MSP should contribute to achieving GES by **coordinating human activities and keeping pressures within ecological limits**, using MSFD descriptors and relevant indicators where appropriate.



RELATIONAL UNDERSTANDING – MSP should consider the **interactions between human activities and ecosystems**, including direct and indirect, short- and long-term, and positive and negative effects.



CUMULATIVE EFFECTS – MSP should account for the **combined effects of multiple pressures**, with cross-border cooperation helping to assess transboundary impacts and ensure coherence across sea basins.



MITIGATION MEASURES – MSP should include **measures to prevent, reduce and offset significant environmental impacts**.



Social, cultural and economic considerations



ECOSYSTEM SERVICES – Mapping and assessment of ecosystem services and ecosystem accounting **should be based on the best available knowledge of ecosystem components**, their condition and produced social and economic benefits and values.

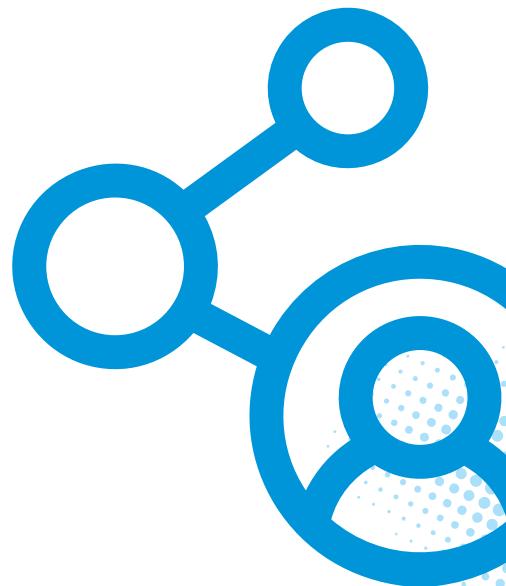


CULTURAL ELEMENTS – Identification and assessment of tangible and intangible values related to past and present sea uses should be recognized in MSP to support their existence and viability in the long term.

- ▶ **Tangible values** are related to different underwater and coastal elements that are often recognized as cultural heritage monuments.
- ▶ **Intangible values** (practices, traditions, skills of craftsmanship, and knowledge) that form community values, should be respected within MSP by mapping culturally significant areas. Cultural values may play an important role in tourism and recreation development and be part of the assessment of cultural ecosystem services.



HUMANS AS PART OF THE ECOSYSTEM – MSP solutions should explore the **positive linkages between environment, economy, and social dimensions**. A synergy and conflict matrix could be an efficient tool to display interactions between interests.



Comprehensiveness and coherence



COMPREHENSIVE KNOWLEDGE

MSP should rely on the best available scientific knowledge, combining ecological, social and economic data to inform planning and identify knowledge gaps.



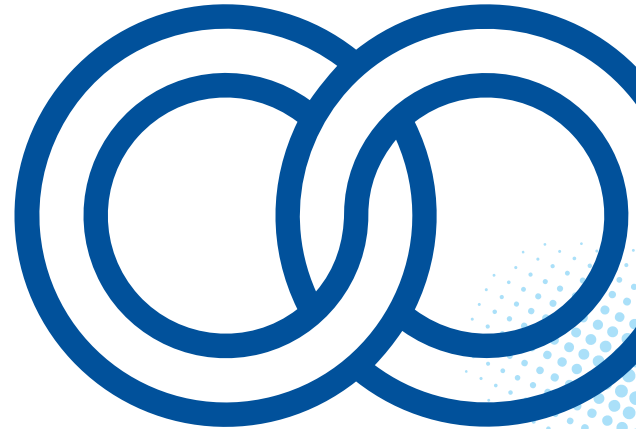
PRECAUTIONARY PRINCIPLE

Where knowledge is limited or uncertain, MSP should apply a precautionary approach, making conservative decisions to avoid environmental harm, especially under climate uncertainty.



LAND-SEA INTERACTIONS

MSP should consider the impacts of land-based activities on the marine environment when assessing cumulative pressures.



Integrative governance



COORDINATION

Ensure transparent planning across sectors and levels to share knowledge, consider all interests, build trust, and avoid conflicts.



SUBSIDIARITY

Apply the ecosystem-based approach at the most appropriate level, ensuring coherence across governance levels.



PARTICIPATION

Involve authorities, stakeholders, and the public at early stage of the process through workshops, meetings, or consultations.



INTERNATIONAL COOPERATION

Work with regional and EU frameworks (e.g. HELCOM, OSPAR) to address cross-border issues and impacts.



Adaptive management



INTEGRATED APPROACH

Use impact assessments to iteratively refine planning solutions and, where needed, adjust objectives



CLIMATE CHANGE

Integrate adaptation and mitigation by identifying climate refuges, restoration areas, and zones for renewable energy and carbon storage



MONITORING & EVALUATION

Track environmental, social and economic impacts to support adaptive management and regular plan updates



ALTERNATIVE DEVELOPMENT

Consider alternative scenarios to minimise negative impacts and protect ecosystem services



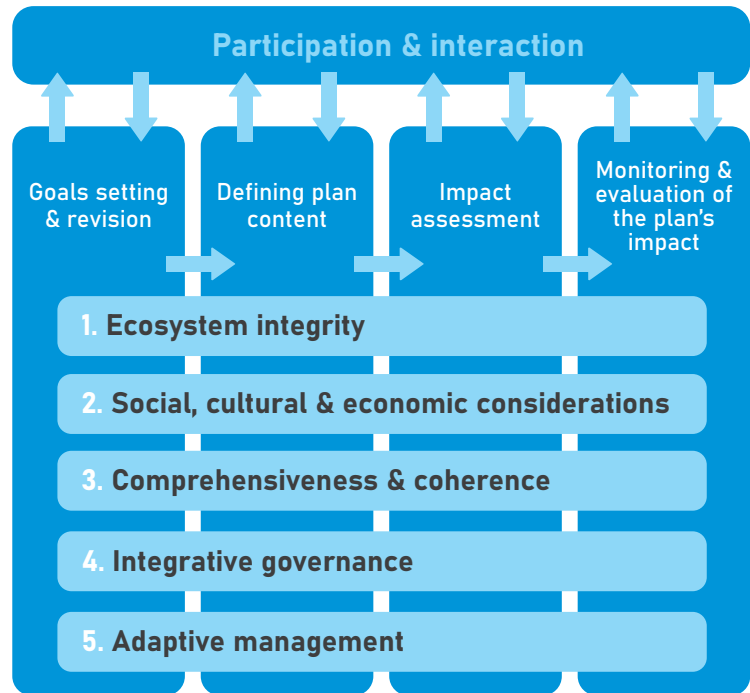
Key elements integrated in the planning process

Planning process is divided into **four major consecutive stages**:

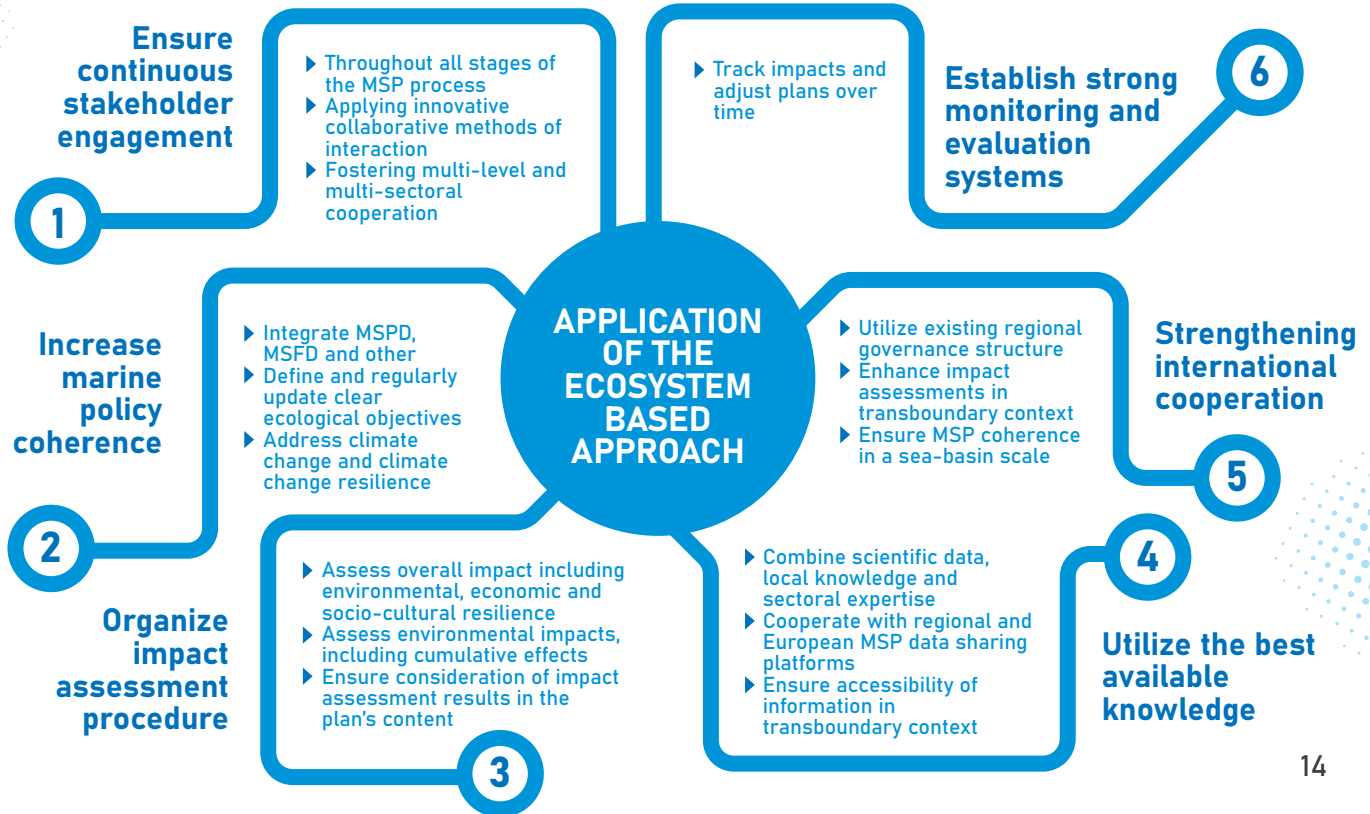
- 1) Goals' setting and revision,
- 2) Defining plan content,
- 3) Evaluation and impact assessment,
- 4) Adoption, monitoring & evaluation

However, these stages are closely interconnected and cannot be considered separately.

The fifth stage - participation and interaction - is an **integral part of the participatory planning process** and considered as a continuous activity during the whole planning and beyond.



Key process recommendations





Practical Tool:

Ecosystem-Based Approach Checklist

For each of the five key elements of the ecosystem-based approach in MSP, the checklist proposes a set of indicators to assess whether MSP effectively applies the EBA. This tool is primarily designed for MSP planners, but it also could support policymakers and stakeholders involved in MSP.

Potential indicators to assess whether MSP applies EBA

A. Ecosystem integrity – conserving and restoring nature while keeping impacts within ecological limits

	FULLY ADDRESSED	PARTIALLY ADDRESSED	NOT ADDRESSED	COMMENTS
BIODIVERSITY & RESTORATION				
▶ Nature conservation targets are integrated	☐	☐	☐	_____
▶ Spatial protection measures are defined	☐	☐	☐	_____
▶ Nature restoration objectives are included	☐	☐	☐	_____
RESTORATION				
▶ Planning solutions consider ecological carrying capacity	☐	☐	☐	_____
▶ Contribution to Good Environmental Status is demonstrated	☐	☐	☐	_____
CUMULATIVE IMPACTS				
▶ Cumulative impacts are assessed	☐	☐	☐	_____
▶ Transboundary effects are taken into account	☐	☐	☐	_____
MITIGATION HIERARCHY				
▶ Measures to avoid, reduce and offset impacts are included	☐	☐	☐	_____

Potential indicators to assess whether MSP applies EBA

B. Social, cultural and economic considerations – utilisation of ecosystem services and integration of human activities

	FULLY ADDRESSED	PARTIALLY ADDRESSED	NOT ADDRESSED	COMMENTS
SUSTAINABLE BLUE ECONOMY				
▶ The plan supports the development of a sustainable blue economy	☐	☐	☐	_____
▶ Economic activities are balanced with environmental sustainability	☐	☐	☐	_____
SOCIAL DIMENSION				
▶ Social impacts are considered in planning decisions	☐	☐	☐	_____
▶ Stakeholders' needs and uses are reflected	☐	☐	☐	_____
ECOSYSTEM SERVICES				
▶ Ecosystem services are identified and considered	☐	☐	☐	_____
▶ Planning contributes to maintaining their healthy functioning	☐	☐	☐	_____
CULTURAL VALUES				
▶ Tangible and intangible cultural values are taken into account	☐	☐	☐	_____

Potential indicators to assess whether MSP applies EBA

C. Comprehensiveness and coherence - cross-border and cross-sectoral integration

	FULLY ADDRESSED	PARTIALLY ADDRESSED	NOT ADDRESSED	COMMENTS
USE OF BEST AVAILABLE KNOWLEDGE				
▶ Planning is based on the best available scientific and technical knowledge	☐	☐	☐	_____
▶ Data gaps and limitations are acknowledged	☐	☐	☐	_____
HANDLING UNCERTAINTY				
▶ Uncertainties in impact assessments are identified	☐	☐	☐	_____
▶ Precautionary approaches are applied where needed	☐	☐	☐	_____
CLIMATE CHANGE INTEGRATION				
▶ Climate change impacts are considered in planning solutions	☐	☐	☐	_____
▶ Adaptation measures are integrated	☐	☐	☐	_____
LAND-SEA INTERACTIONS				
▶ Land-based pressures affecting the marine environment are considered	☐	☐	☐	_____
▶ Interactions between terrestrial and maritime activities are addressed	☐	☐	☐	_____

Potential indicators to assess whether MSP applies EBA

D. Integrative governance – Multi-level governance and alignment of policy goals with ecological objectives

	FULLY ADDRESSED	PARTIALLY ADDRESSED	NOT ADDRESSED	COMMENTS
IN THE PLANNING PROCESS				
▶ Cross-sector and multi-level coordination is ensured	☐	☐	☐	_____
▶ Decisions are taken at the most appropriate level (subsidiarity principle)	☐	☐	☐	_____
▶ Stakeholders are engaged early and throughout all the process	☐	☐	☐	_____
▶ Transboundary coordination is established	☐	☐	☐	_____

E. Adaptive planning – Adapting MSP to changes and emerging challenges

MONITORING AND ADAPTATION OF MSP

▶ Feedback from impact assessments is integrated into planning decisions	☐	☐	☐	_____
▶ Climate change is considered in planning solutions	☐	☐	☐	_____
▶ A monitoring and evaluation system is in place	☐	☐	☐	_____
▶ Alternative solutions are explored to avoid or reduce negative impacts	☐	☐	☐	_____

Read full
Guideline:



Northern European Sea Basins project fosters international cooperation in Maritime Spatial Planning across the North Sea and Baltic Sea regions, addressing four key project themes:

Ocean governance



Energy transition and
biodiversity in MSP



Multi-use in practice



Knowledge
transfer & sharing

