



Policy Brief

An ecosystem-based approach delivers future-proof maritime spatial planning



Main message:

Human use of the sea is currently at a transitional stage due to environmental degradation, climate change, increasing spatial conflicts and competing policy initiatives. An ecosystem-based approach to maritime spatial planning offers a future-proof path forward.

The EU Green Deal in MSP

The European Green Deal, approved in 2020, is a set of policy initiatives by the European Commission to improve the well-being and health of citizens and future generations. The Green Deal involves several environmental policies to be addressed in MSP, applying ecosystem-based approach. They are related to climate change, biodiversity and ecosystem health, restoration and zero pollution.

In the conclusions of the European Commission Report outlining the progress made in the implementation of Directive 2014/89/EU and establishing a framework for maritime spatial planning (COM (2022) 185), MSP is considered as a powerful enabler for the European Green Deal. Therefore, Member States will need to continue reflecting the ambitions of the European Green Deal in their maritime spatial plans, and to align their plans with these ambitions. It means that future maritime spatial plans will have to sustainably manage environmental pressures and their individual and cumulative impacts by applying an ecosystem-based approach.

Our mission

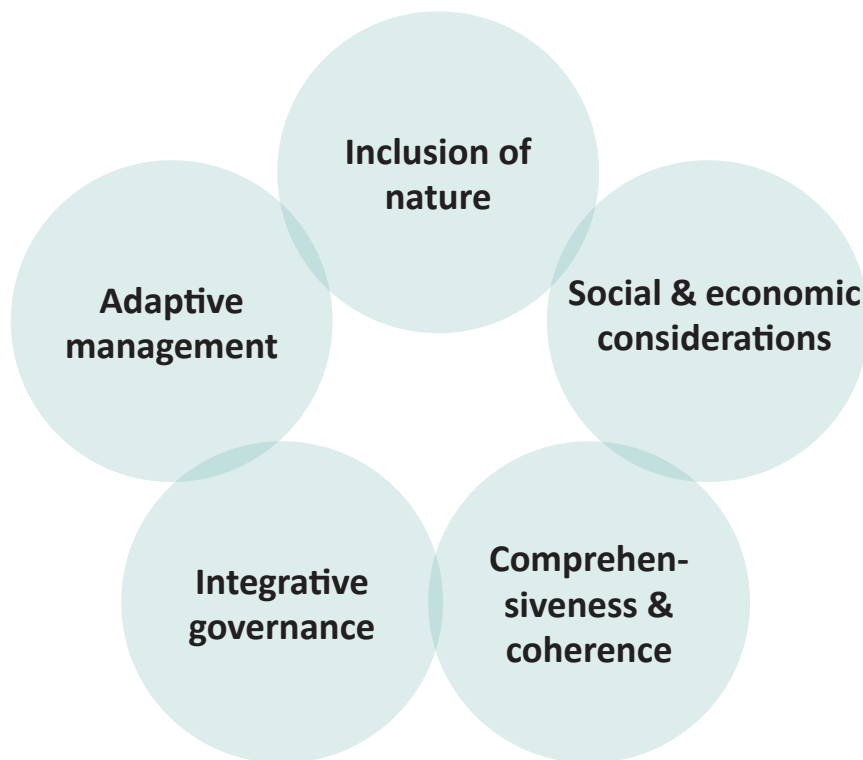
This policy brief on implementation of the ecosystem-based approach (EBA) in maritime spatial planning (MSP) is based on an overview of current practice among North Sea and Baltic Sea countries. Its aim is to identify, develop and share best practices to strengthen EBA in MSP. The policy brief has been developed by the EBA-learning strand of the Emerging ecosystem-based Maritime Spatial Planning topics in North and Baltic Seas Region project (eMSP NBSR) through a process of a Community of Practice. It is primarily directed at decision makers in the sphere of ocean governance but also concerns other stakeholders involved in maritime spatial planning.

What needs to be resolved and why?

Ocean space is an increasingly scarce resource. A growing demand for green energy has boosted a large-scale deployment of offshore energy facilities, transport is gradually relocated from land to sea, and aquaculture has emerged as one of the ways to address global food security. Meanwhile, spatial claims and needs of sectors such as fisheries, tourism, oil-, gas- and mineral extraction remain. Marine organisms are increasingly cornered in this new seascape, while also under pressure from the effects of climate change and pollution. Marine habitats providing vital ecosystem services are degrading, suffering from the cumulative pressure. New EU policy initiatives on protection and restoration grant nature a voice in the race for ocean space, but also alter the preconditions for maritime activities. An ecosystem-based guidance for the organization of current and future ocean use is therefore urgently needed.

Five key components of the ecosystem-based approach in MSP

There are good examples of ecosystem-based MSP in the North Sea and Baltic Sea countries, but the implementation of the EBA needs to be strengthened. We propose ecosystem-based MSP that comprises the following five key components: 1) Inclusion of nature, 2) Social and economic considerations, 3) Comprehensiveness and coherence, 4) Integrative governance, and 5) Adaptive management. The main features of each component to consider in implementation are outlined below.



1. Inclusion of nature

- **Biodiversity.** The EU Biodiversity Strategy requires at least 30 percent of the EU marine area to be designated for nature conservation purposes by 2030, 10 percent of which should be strictly protected. MSP should consider spatial conservation measures to deliver in relation to this target as well as to protect species under the Birds and Habitats Directive, and thus contribute to good environmental status under the Marine Strategy Framework Directive.
- **Restoration.** MSP should deliver in relation to the target set by the recently proposed Nature Restoration law, ensuring that 20 percent of the sea area is designated for restoration measures. MSP should have a role in the enhancement of these habitats and their connectivity, aiming for achievement of a good environmental status.
- **Ecosystem capacity limits.** MSP should contribute to restraining environmental pressures within the ecosystem's capacity limits, safeguarding its natural functions. This requires early and careful consideration of single and cumulative impacts, development of alternative planning solutions and mitigation measures.
- **Cumulative effects.** Planning must consider the joint effect of, and interaction between, different environmental pressures. Cross-border/transboundary consultation is an important tool to determine cumulative effects and assure coherence between MSPs across sea basins.

2. Social and economic considerations

- **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.
- **Ecosystem services.** Mapping and assessment of ecosystem services, through e.g. the Common International Classification of Ecosystem Services (CICES), should be based on the best available knowledge of ecosystem components, their condition as well as the social and economic benefits and values that they produce.

3. Comprehensiveness and coherence

- **Comprehensive knowledge.** The best available scientific knowledge should be fully applied in the development of planning solutions. Spatial data on nature values, pressures as well as social and economic values should be synthesized at an early stage to identify knowledge gaps and organize targeted research to bridge them.
- **The Precautionary principle.** Recognizing the limitations of the best available knowledge is equally important as making use of it. Planners must consider uncertainties regarding the true impacts of human activities, and make conservative decisions when uncertainty is high. Uncertainties related to changing climate parameters increase the importance of a precautionary approach.
- **Land-sea interaction.** Maritime activities are not the sole sources of pressure for the marine environment, significant impacts also originate from land-based sources. While organization of land-based activities is beyond the scope of MSP, the effects of these activities still need to be considered in the assessment of cumulative pressures.

4. Integrative governance

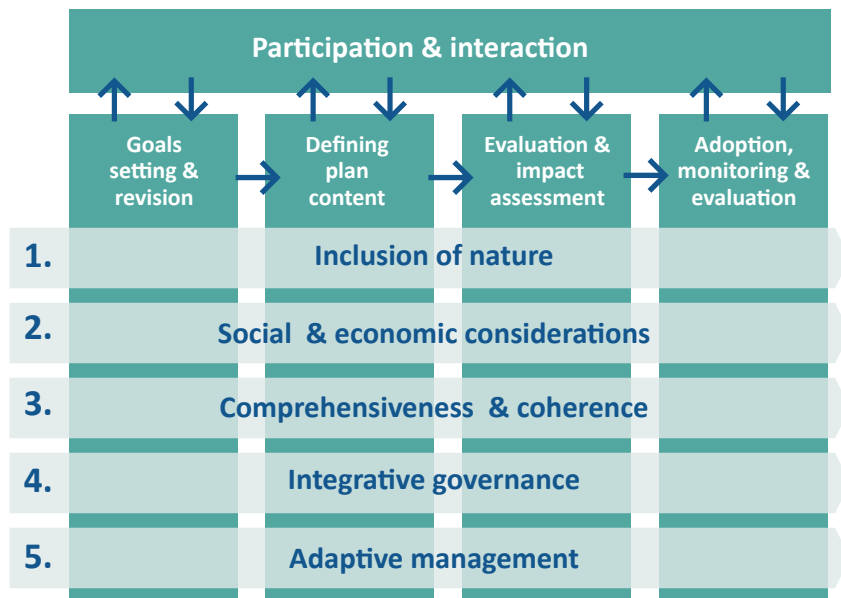
- **Coordination.** Cross-sectoral and multi-level transparency of the planning process strengthens sharing of the best knowledge, accounting for sectoral, national, and local interests. In doing so, broad acceptance of planning solutions and resolution of potential conflicts can be achieved. Awareness raising and education should become tools to build trust between stakeholders.
- **Participation.** Relevant authorities, stakeholders and the wider public should be involved at an early stage in the planning process. They can be identified in national legal acts or through a Public Participation Strategy. Participation can be organized through Community of Practice (CoP) workshops, sectoral (thematic) and/or integrative meetings, or individual consultations.
- **International cooperation.** Regional Sea Conventions such as HELCOM and OSPAR, as well as the EU through e.g. the Marine Strategy Framework Directive and the Maritime Spatial Planning Directive, serve as platforms to coordinate planning and management of cross-border pressures and ecosystems. Consultations under the ESPOO Convention also offer opportunities to address anticipated impacts of MSP across borders.

5. Adaptive management

- **Integrated approach.** Feedback from impact assessments should be incorporated in the planning process through iterative revision and evaluation of goals and planning solutions. Plan elements, such as dynamic conservation areas in space and time can also be considered in the development and implementation of MSP.
- **Climate change.** MSP should address adaptation to climate change by e.g. identifying climate refuges, restoration areas, coastal protection and climate mitigation through areas for renewable energy and carbon sequestration functions of the ecosystem.
- **Monitoring & evaluation.** Changes in the state of ecosystems, societal and economic demands, as well as a growing scientific evidence base should be recognized in the MSP process. Monitoring of both environmental, social, and economic effects of plan implementation should lay the basis for adaptive management through regular or continuous plan revision.

The process is key

The process perspective is key for applying an ecosystem-based approach in MSP. Inspired by the HELCOM VASAB EBA-guidelines, five main process stages have been identified: 1) Goals' setting and revision, 2) Defining plan content, 3) Evaluation and impact assessment, 4) Participation and interaction, and 5) Adoption, monitoring & evaluation. Note that these stages are inherently interdependent and therefore cannot be considered in isolation. The five key components of the EBA in MSP must be considered in all stages of a planning process but may be featured differently between them.



Conclusions and priorities for future actions

The implementation of an ecosystem-based approach in MSP can be enhanced by incorporating the above five key components in the planning process. However, the progress towards a sustainable future in the North and Baltic Sea regions needs to continue. The EBA Community of Practice identifies the following themes as the most important to address:

- Strengthening linkages between **MSP and spatial nature protection** processes to achieve synergies and improve the effectiveness of conservation measures.
- Increasing marine policy coherence through **integration of MSP into the Marine Strategy Framework Directive** as one of the tools for achieving good environmental status of European seas.
- Enhancing the practical application of the **precautionary principle in MSP**.
- Developing a **joint Strategic Environmental Assessment framework** to strengthen impact assessments and its integration to MSP.
- Enhancing international cooperation by carrying out **transnational impact assessments**, covering the waters of several nations, to better determine cumulative effects on populations and ecosystems in a transboundary context.
- Developing and sharing methods to better account for **climate change** in MSP.
- Utilizing **Community of Practice (CoP)** as an interaction platform for stakeholder engagement.

Further reading

HELCOM-VASAB (2016). Guideline for the implementation of ecosystem-based approach in Maritime Spatial Planning (MSP) in the Baltic Sea area.

European Commission (2021). Guidelines for implementing an Ecosystem-based Approach in Maritime Spatial Planning.

European Commission (2022). Outlining the progress made in implementing Directive 2014/89/EU establishing a framework for maritime spatial planning.

D. Frank-Kamenetsky and J. Schmidtbauer Crona. (2023). A review of application of ecosystem-based approach in national MSPs to reveal challenges and compile good national practices.

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**eMSP
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Emerging Ecosystem-based
Maritime Spatial Planning
Topics in the North and Baltic
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The eMSP NBSR project, implemented from September 2021 to February 2024, provided a platform for marine spatial planners and other experts to collaboratively advance MSP practice. It addressed five urgent emerging MSP topics through a community of practice-based approach that enabled joint learning across professions and across the North Sea and Baltic Sea areas.

Project work took into account the European Green Deal, climate change and how climate-neutrality targets can be addressed in MSP.

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