



Fostering Ecosystem-Based Marine Spatial Planning in the Western Baltic Sea

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Research context

Marine Spatial Planning (MSP) is the main governance process that ideally balances economic, ecological and socio-cultural goals through the regulation of human uses at sea. With the global and regional conservation and green energy targets ahead, there is an urgent need to better align MSP and strategic conservation planning, hence the operationalisation of an ecosystem approach to MSP. The EU-funded project MarinePlan supports the implementation of ecosystem-based MSP through the development of a Decision Support System (DSS). To inform the DSS, research has been conducted on the effectiveness of current governance regimes across eight European study sites, including the Western Baltic Sea study site. It is a transboundary site, with Denmark and Germany surrounding the region. Through an institutional and policy audit, supported by interviews and a survey with key marine actors, detailed information has been

developed on the barriers and enablers of adaptive marine governance in each region.

Governance targets and objectives

The Western Baltic Sea is one of the most intensively used marine areas in the world. Denmark and Germany are leading in the development of offshore wind energy, and there are high levels of shipping, fishing and tourism. Thus, marine activities must be carefully managed to avoid conflicts. MSP will play a key role in minimizing conflicts and ensuring sustainable practices in the region. A key objective of both Denmark and Germany's MSP is to harmonize policies at the regional level to achieve coherent management. However, this research has identified several governance challenges that are obstructing MSP related progress. These challenges, as well as proposed solutions, are listed on the page below.

Barriers to achieving targets and recommendations



Barrier #1 – There are several key scientific knowledge gaps regarding the marine environment in the Western Baltic Sea

Recommendation – More standardized, long-term, and spatially comprehensive monitoring efforts are needed to provide a better understanding of environmental trends. Data integration across national boundaries, as well as within government departments, needs to be improved for more effective cross-border management and policy decision-making. Using emerging technologies – e.g., remote sensing – is encouraged.



Barrier #2 – Uncertainty regarding the efficiency of existing Natura 2000 sites and other protection areas to protect local biodiversity hotspots

Recommendation – Develop a multifaceted approach that combines scientific research, enhanced management, transboundary collaboration and effective policy enforcement. This should involve providing resources to conduct regular ecological assessments – e.g., habitat mapping, species inventories, and fisheries data – to determine whether the sites are meeting conservation objectives.



Barrier #3 – Impaired interaction and cooperation between the fisheries sector and environmental Non-Governmental Organisations (eNGOs)

Recommendation – Develop joint projects between the fisheries sector and eNGOs to build trust. Efforts could involve supporting low-risk projects to maintain local fisheries practices. For example, projects could involve establishing fisheries management zones wherein fishers and environmental groups jointly manage resources. Shared monitoring programs – focused on water quality or fish stock – could also be supported.



Barrier #4 – Limited transboundary cooperation when identifying priorities and developing specific objectives for the Western Baltic Sea region

Recommendation – Establish a transboundary biodiversity council that consists of representatives from governments, scientific bodies, eNGOs and maritime industries. The council should develop and review policies on fisheries, marine conservation, pollution control and other shared issues. The transboundary council could be formalized through treaties, memorandums of understanding or agreements under HELCOM.



Barrier #5 – Limited political will or commitment to develop adaptive marine governance

Recommendation – Mobilise public support and align political incentives with sustainable marine policies. This can be achieved by identifying political figures in both countries who can act as champions for the marine environment. Such leaders can develop new engagement networks and create adaptation roadmaps.

More information

To read more on MarinePlan's recommendations for Western Baltic Sea, click on the below links to an ArcGIS StoryMap, Deliverable reports, and a publication presenting an EB-MSP assessment tool:

[ArcGIS StoryMap](#)

'Fostering ecosystem-based MSP in Western Baltic'



[Deliverable 4.1](#)

'Report on existing policies and institutions'



[Deliverable 4.2](#)

'Report on adaptive capacity of governance'



[EB-MSP Assessment Tool](#)

'Assessment tool to address implementation challenges of EBM principles in MSP processes'



References

ArcGIS StoryMap – <https://arcg.is/0LbmX10>

Deliverable 4.1 – doi.org/10.5281/zenodo.10829632

Deliverable 4.2 – doi.org/10.5281/zenodo.13862281

EB-MSP Assessment Tool – doi.org/10.1038/s43247-024-01975-7

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