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FOR SPATIAL PLANNING AND DEVELOPMENT  
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# Maritime Spatial Planning Challenges in the Baltic Sea



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# Implementing Ecosystem Approach to Management in Maritime Spatial Planning

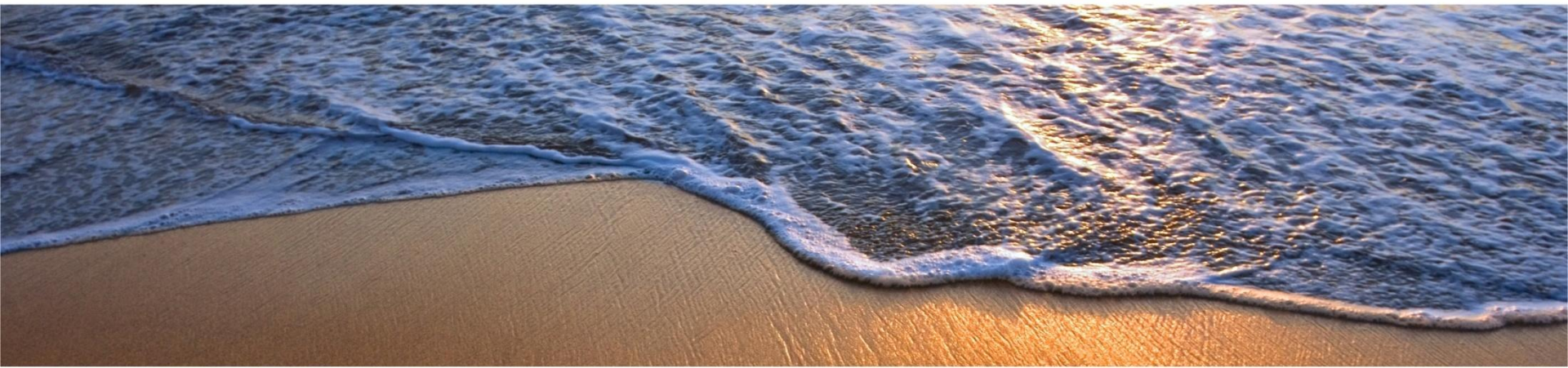
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# Ecosystem Approach as a Key Concept in Adaptive Management and Marine Spatial Planning

## What is Ecosystem Approach?

- Convention on Biological Diversity CBD defines the ecosystem approach as of “a strategy for the **integrated** management of land, water and living resources that promotes conservation and sustainable use in an equitable way”.
- The ecosystem approach is based on **scientific knowledge** and the application of appropriate methodologies focused on **different levels** of biological organization.

## Ecosystem Approach

- The ecosystem approach recognizes that **humans are an integral component of ecosystems.**
- Knowledge on key **biological** processes, functions and ecological interactions needs to be compiled with **socio-economic** information and approaches.

## What is Adaptive Management?

- Managing a range of human activities that affect ecological systems and processes
- Biological processes challenge management approaches to have sensitivity to **feedback** from the system regarding the measures taken
- Adaptive management should be seen as a constant **learning process**
- Coupling of **social - ecological systems** at different scales: local ecosystems/ regional seascapes/ large marine ecosystems

## Key Components of Ecosystem-based Adaptive Management

- Management is linked to appropriate temporal and spatial scales
- Management uses modeling to build synthesis and an embodied ecological consensus
- Management uses embodied ecological consensus to evaluate strategic alternatives for management
- Management communicates alternatives to stakeholder and political arena for negotiation of a selection

## What is Marine Spatial Planning?

- MSP is a **public process** of analyzing and allocating the spatial and temporal **distribution of human activities** in marine areas.
- Aims to achieve ecological, economic, and social objectives that are usually specified in a political process.
- MSP is a **continuing, iterative process** that learns and adapts over time.



## Effective Marine Spatial Planning?

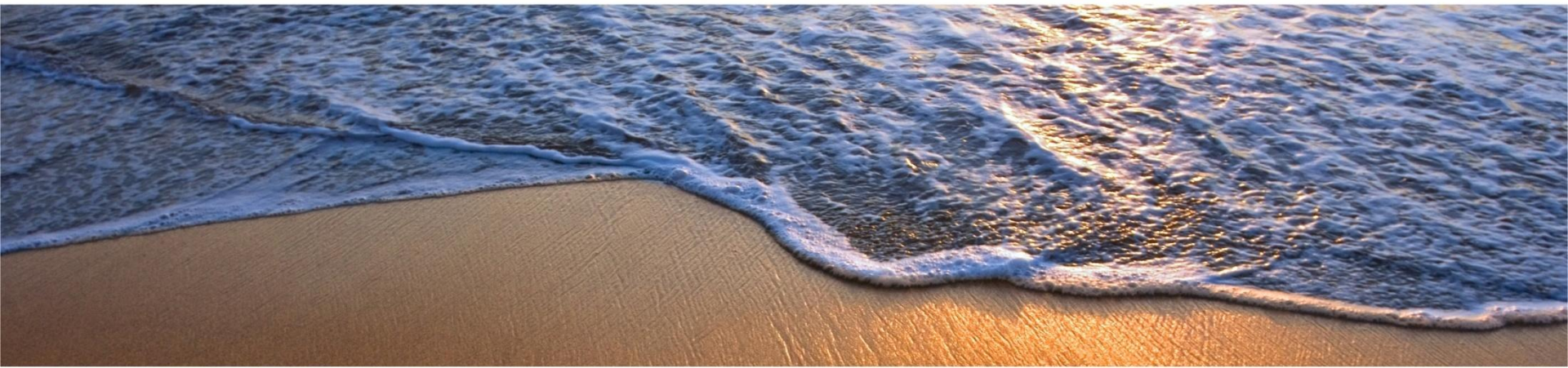
- Ecosystem-based, balancing sustainability dimensions
- Integrated, across sectors and agencies
- Place- or area-based
- Adaptive
- Strategic and anticipatory
- Participatory, with stakeholder involvement

## Why Marine Spatial Planning?

- MSP is an approach that can decrease
  - (i) potential conflicts arising by sector-oriented human uses, and
  - (ii) conflicts between human uses and the marine environment.
- MSP should take into account a range of human activities and their impacts and multiple objectives.
- From reactive to future-oriented proactive, cross-sectoral approach



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# Developing Ecosystem-Based Adaptive Management in the Baltic Sea Context

## HELCOM Ecosystem Approach

- In 2003, the Helsinki Commission (HELCOM) and joint HELCOM/OSPAR Ministerial Declarations of 2003 put forward a concept of the ecosystem approach to management of human activities in the Baltic Sea area.
- The ecosystem-based management concept should be adopted by 2010.

## Baltic Sea Area is a Complex System

- The processes and functions of the Baltic Sea ecosystem are complex and highly variable.
- Baltic Sea suffers from eutrophication, hazardous substances, maritime transport, degradation of biodiversity --> common challenges and increasing and varying interests related to use and conservation.
- The level of uncertainty is increased by the interaction with the socio-economic drivers and different cultural dimensions around the area.

## Baltic Sea Area is a Complex System

- Management approaches and activities in the Baltic Sea area should
  - be based on marine spatial planning and
  - must involve an area-wide learning process, which incorporates feedback from targeted actions and helps to adapt methodologies and practices for improved management and monitoring.
- Management should focus on long-term benefits supporting the maintenance of ecological goods and services provided by the ecosystem.
- Incentives should be realigned to support the aims of the ecosystem based approach promoting sustainability.

## Interactive and Intersectoral Process with Strong Stakeholder Involvement

- Management of natural resources calls for increased intersectoral communication and cooperation at different levels, including transnational/ regional levels.
  - creation of networks or more formal working groups or fora for sharing of information and experience.
  - tools developed for systematic, interactive foresight such as the Delphi method relying on a panel of independent experts, may prove to be useful at specific stages
- Need for flexibility in policy-making and implementation
- Transnational framework; decentralization in management



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# Challenges and Key Issues to be Considered



## Baltic MSP and EA to management: synergies?

- Planning and management need to be linked together
- Baltic MSP sets the scene for ecosystem-based management.
- MSP is a process that influences where and when a range of human activities occur in marine areas.
- MSP & EA-based management both focus on
  - identifying relevant ecosystems, their boundaries and characteristics
  - seeking a broad agreement with different stakeholders on the benefits and objectives
  - process and future orientation: long-term objectives as well as short to medium-term objectives.

## Baltic MSP and EA to management: synergies?

- Sustainability indicators and accompanying monitoring needs to be established.
- Knowledge base: improved tailoring of research and information provision to support the ecosystem approach.
- Processes must be organized to generate information at various points of time.

--> Implementing ecosystem approach to MSP and management can be a fundamental tool for integrating different sectors of maritime management into a holistic **learning-by-doing process.**



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**Thank You!**