

ECOSYSTEM-BASED SEA USE MANAGEMENT

**From Theory to Practice through
MARINE SPATIAL PLANNING**

Fanny Douvère and Charles N. Ehler

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Intergovernmental Oceanographic Commission
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WHAT IS ECOSYSTEM APPROACH ?

“Comprehensive, integrated management of human activities based on best available scientific knowledge about ecosystem and its dynamics, to identify and take action on influences that are critical to health of marine ecosystem, thereby achieving sustainable use of ecosystem goods and services and maintenance of ecosystem integrity.”

ICES, 2000

HELCOM-OSPAR, 2003

European Union, 2005



WHAT IS ECOSYSTEM-BASED SEA USE MANAGEMENT

- Protection of ecosystem structure, functioning and key processes;
- Interconnectedness within and among systems
- Integration of ecological, social, economic, and institutional perspectives
- **Place-based or area-based**

Adapted from 2005 Consensus Statement (compassonline.org)



THE NEED FOR SPATIAL PLANNING

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Source: F.Maes, *et al*, A Flood of Space, Ghent University, 2005.

GENERAL OBJECTIVES

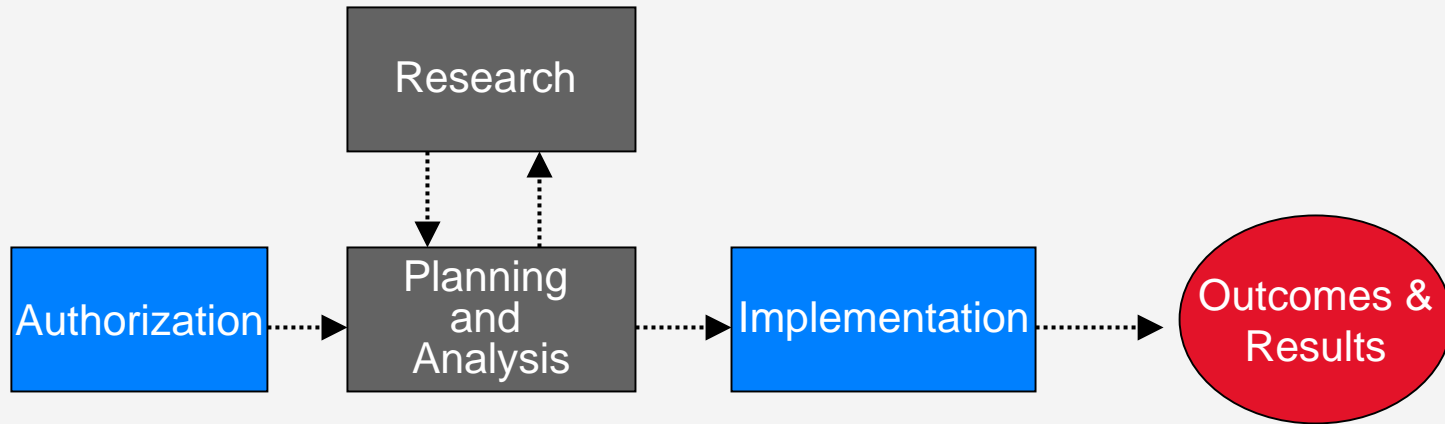
- Identify good practices that illustrate how Marine Spatial Planning can help implement an Ecosystem-Based Approach to Sea Use Management
- To develop an international community of scientists and planners that wants to put Ecosystem-Based Management into practice
- To share information and experience through new partnerships and the Internet
- To identify priorities for future action, including building new capacities for Marine Spatial Planning



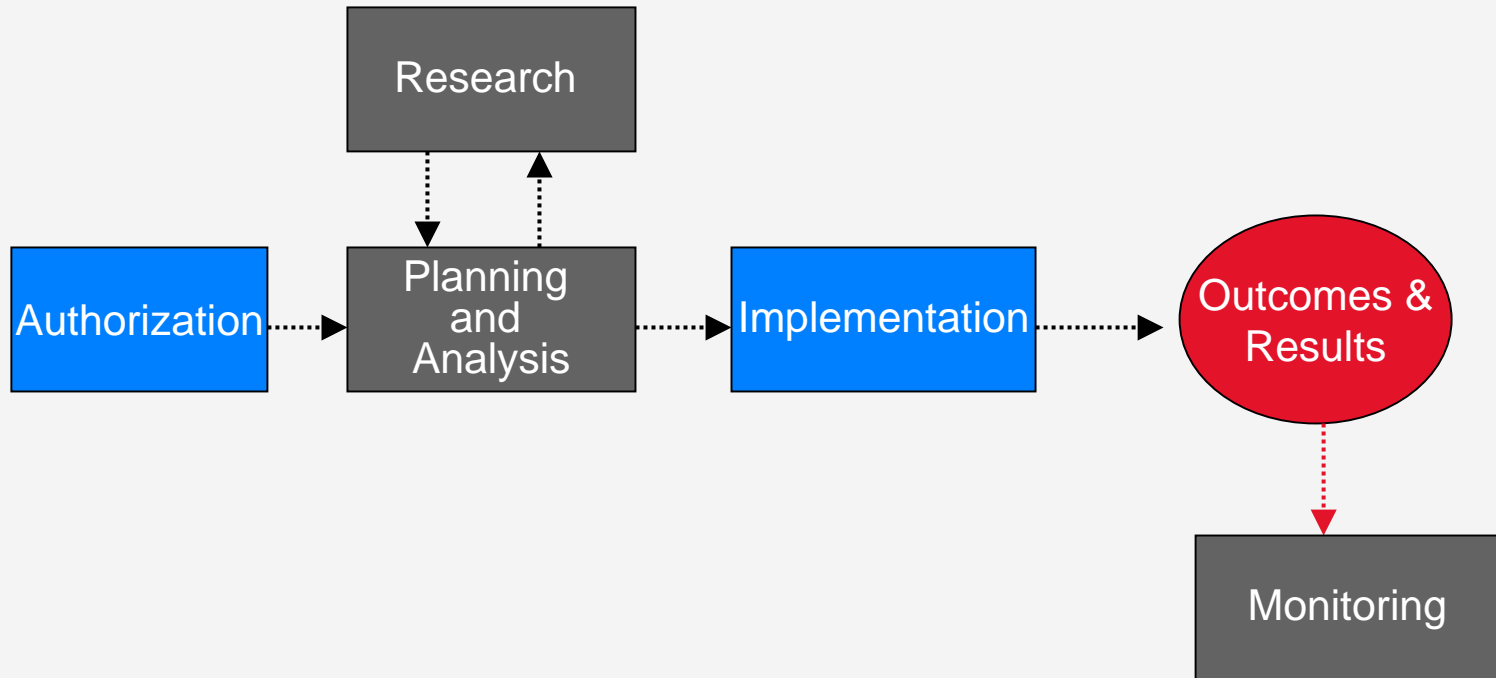
THE PLANNING AND MANAGEMENT FRAMEWORK



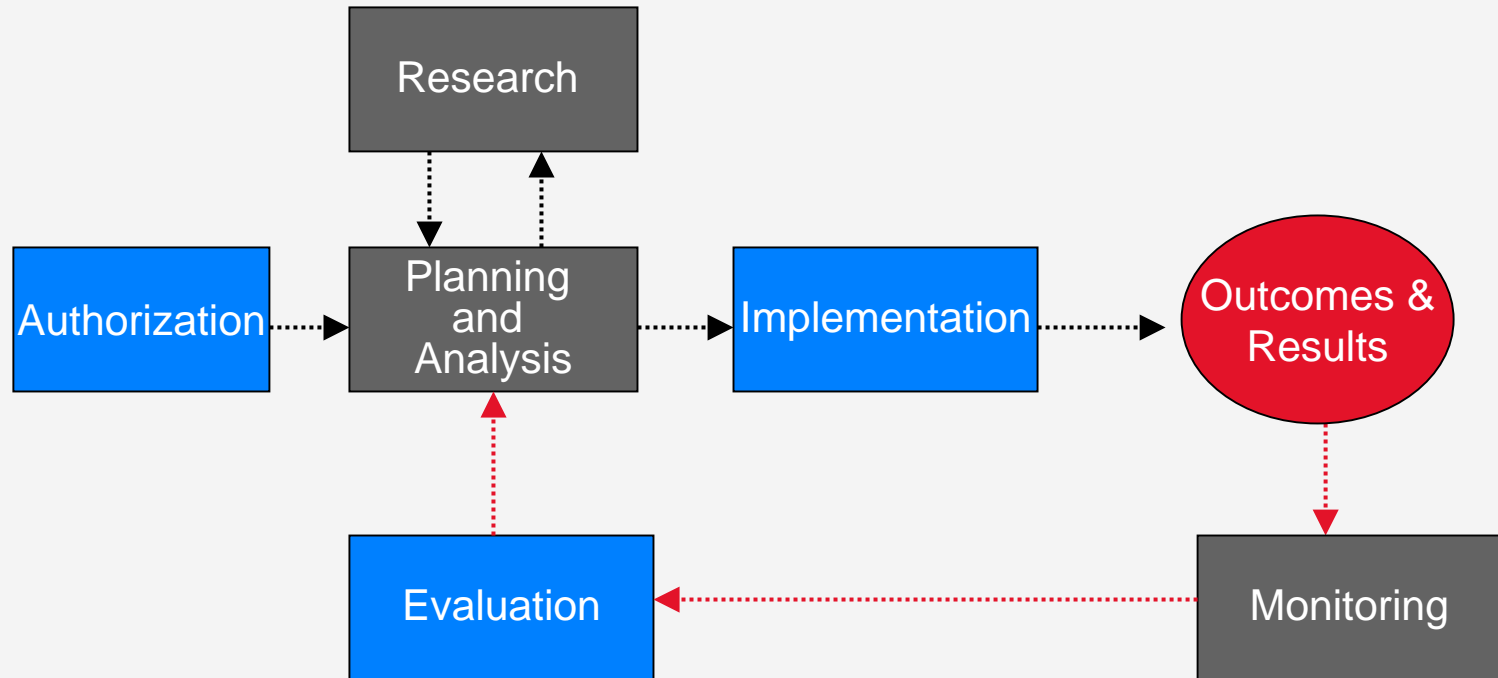
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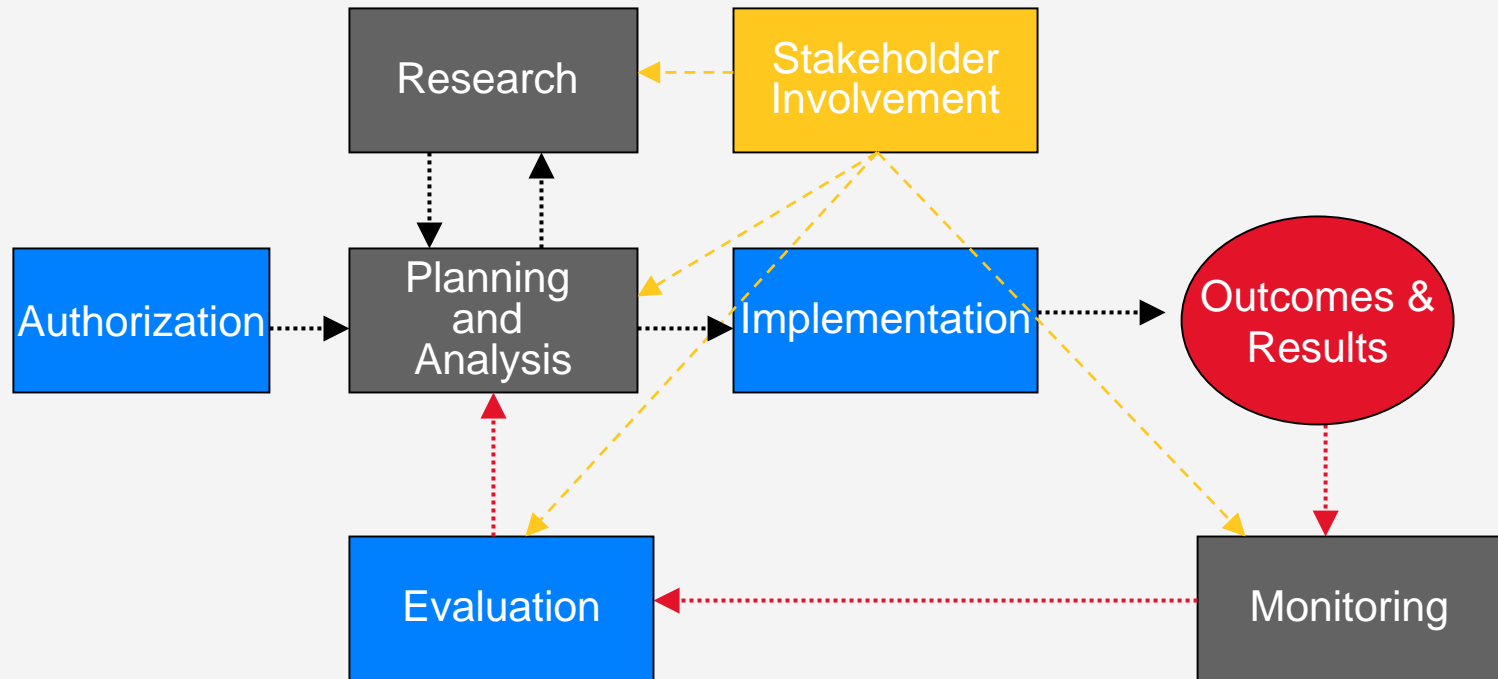
THE PLANNING AND MANAGEMENT FRAMEWORK



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IMMEDIATE OUTCOMES

- UNESCO Technical Report summarizing the meeting
- Special Issue on Marine Spatial Planning in a major ocean policy journal
- Continuing development of IOC Marine Spatial Planning Website: <http://ioc3.unesco.org/marinesp>





Natural England



The Gordon and Betty Moore Foundation



World Conservation Union
World Commission on Protected Area
(Marine)



Flemish Government



European Commission
DG Fisheries and Maritime Affairs
Maritime Policy Task Force



The Great Barrier Marine Park Authority



The Nature Conservancy
Global Marine Initiative



National Oceanic and Atmospheric Administration - USA



Belgian Federal Public Service (FPS) Health,
Food Chain Safety and Environment



Belgian Science Policy Office



WWF International



Department of Fisheries and Oceans
Canada



European Environment Agency



Conservation International



”...The problems of ocean space are closely interrelated and need to be considered as a whole...”

*Preamble to the United Nations Convention
on the Law of the Sea, 1982*

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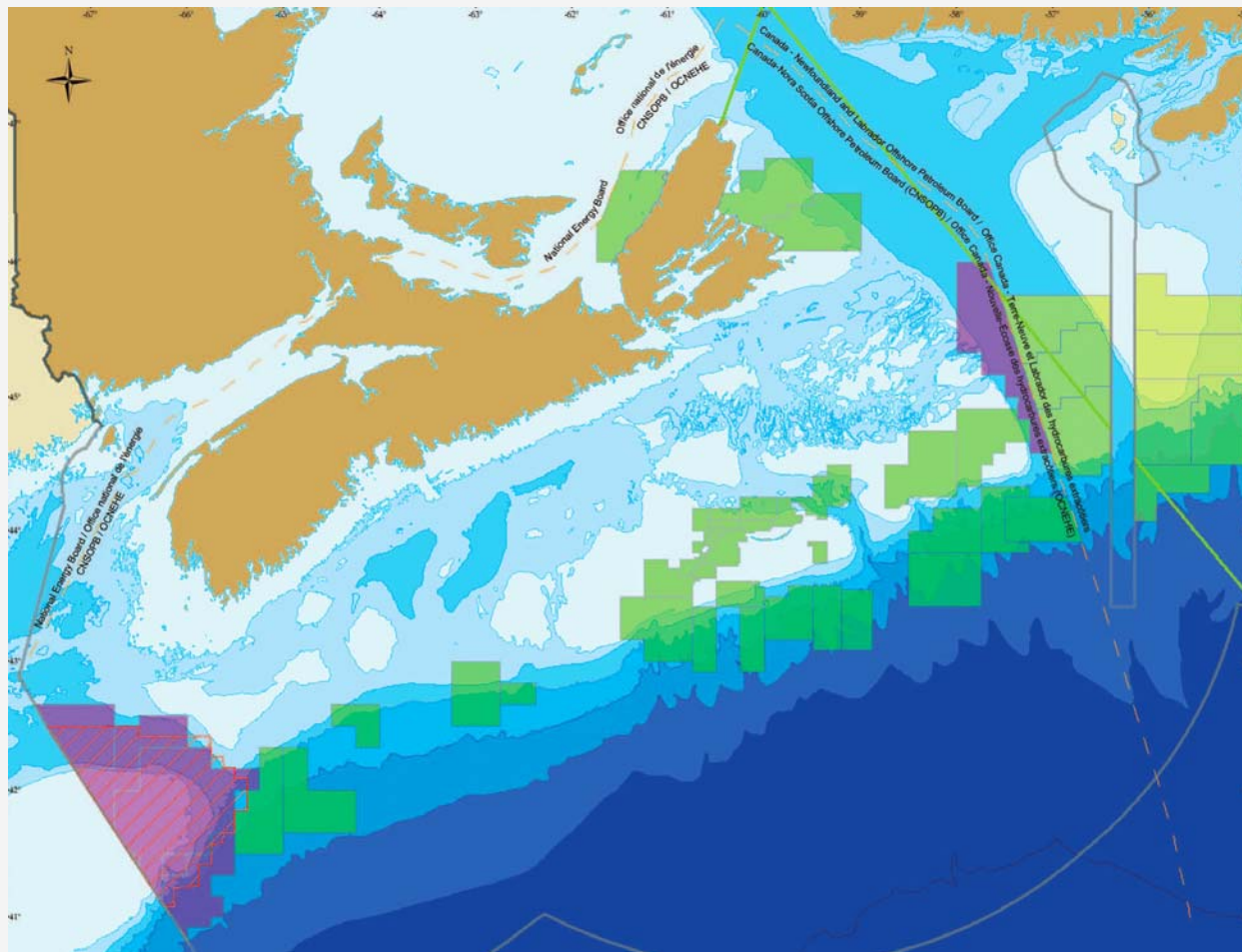


CURRENT PRACTICE

- Designating areas of the sea for particular purposes is now common practice throughout the world
- Designations are done usually by specific sectors, typically under different authorities
- No process for assessing the cumulative effects of these designations



OIL & GAS EXPLORATION LICENSES ON CANADIAN SCOTIAN SHELF



Fisheries and Oceans Canada, 2005, The Scotian Shelf: An Atlas of Human Activities



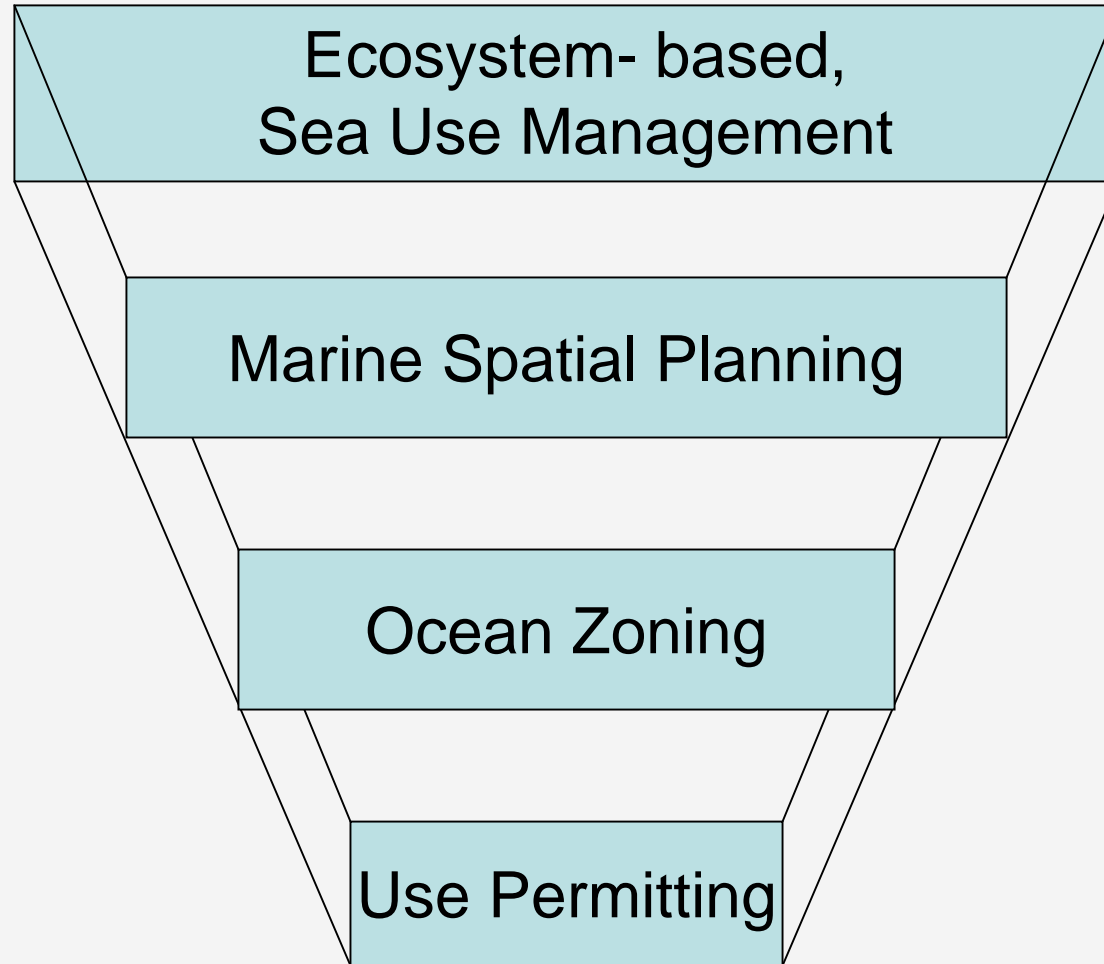
CURRENT SITUATION

With a few exceptions.....

- No clearly articulated vision for the use of marine areas
- No plan-driven approach to the management of marine areas
- A lack of certainty for developers and users of marine areas



HIERARCHY OF TERMS

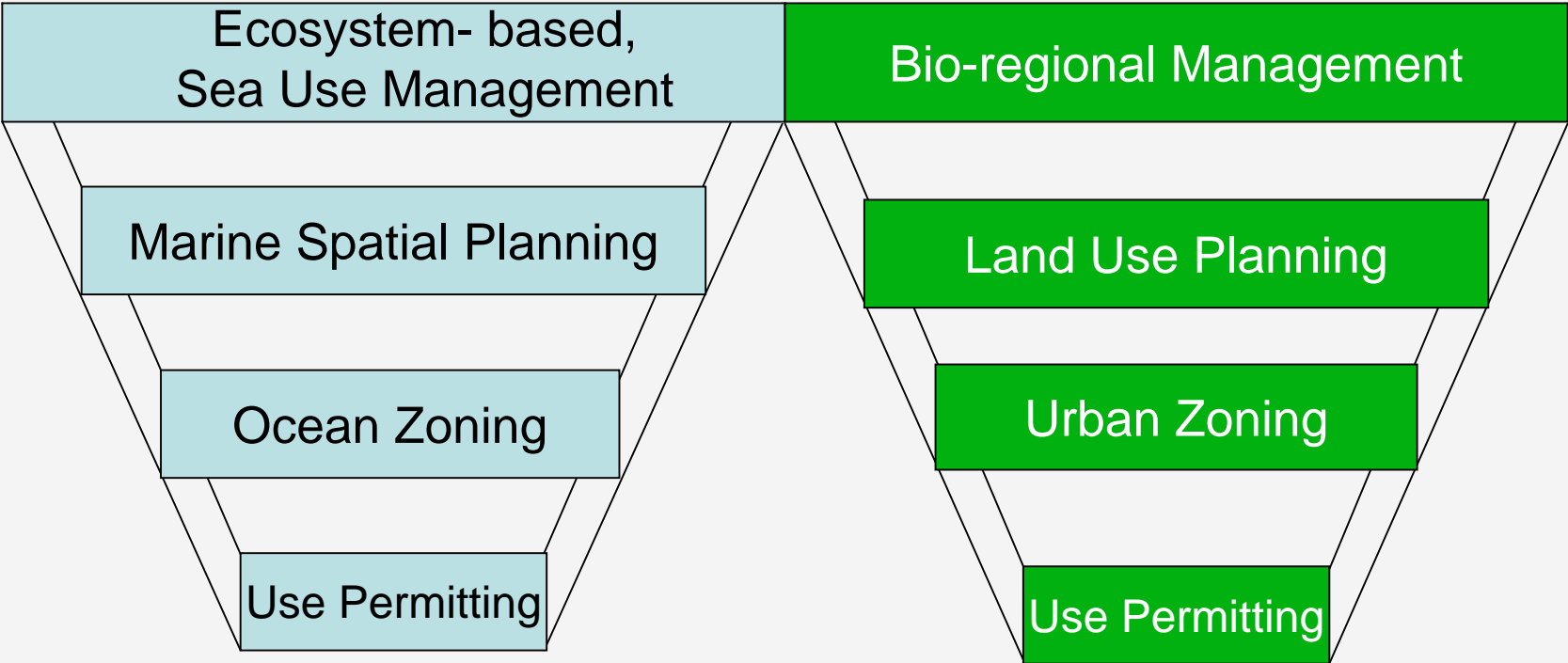


LAND USE AND SEA USE

- If we can manage human activities on land through land use planning and zoning
- We can manage human activities on the sea through sea use planning and zoning



PARALLEL PROCESSES



MORE THAN MARINE SPATIAL PLANNING AND ZONING

- Marine Spatial Planning can be applied at a variety of scales and in combination with other management strategies
- MSP and OZ can be used to manage the spatial and temporal distribution of human activities
- Other tools are needed to manage the performance of those activities
 - Permits
 - Regulations
 - Economic incentives (e.g., development charges)
 - Technical assistance
 - Education and outreach



BENEFITS OF MARINE SPATIAL PLANNING

- Reduces conflicts among uses and users
- Promotes efficient use of space and resources, so reducing impacts on the environment
- Establishes areas of importance or sensitivity, thereby reducing the risk of conflict with development
- Ensures 'room' for biodiversity and nature conservation
- Enables biodiversity commitments to be at the heart of planning and management
- Provides greater certainty to private sector when planning new investments
- Provides context for establishing network of protected areas

English Nature, 2005



EQUITY AND PARTICIPATION

- Marine Spatial Planning can establish priorities among different uses of marine resources and may redistribute the costs and benefits of management strategies among different groups
- Involving stakeholders in development and implementation of Marine Spatial Planning is essential to sustained implementation

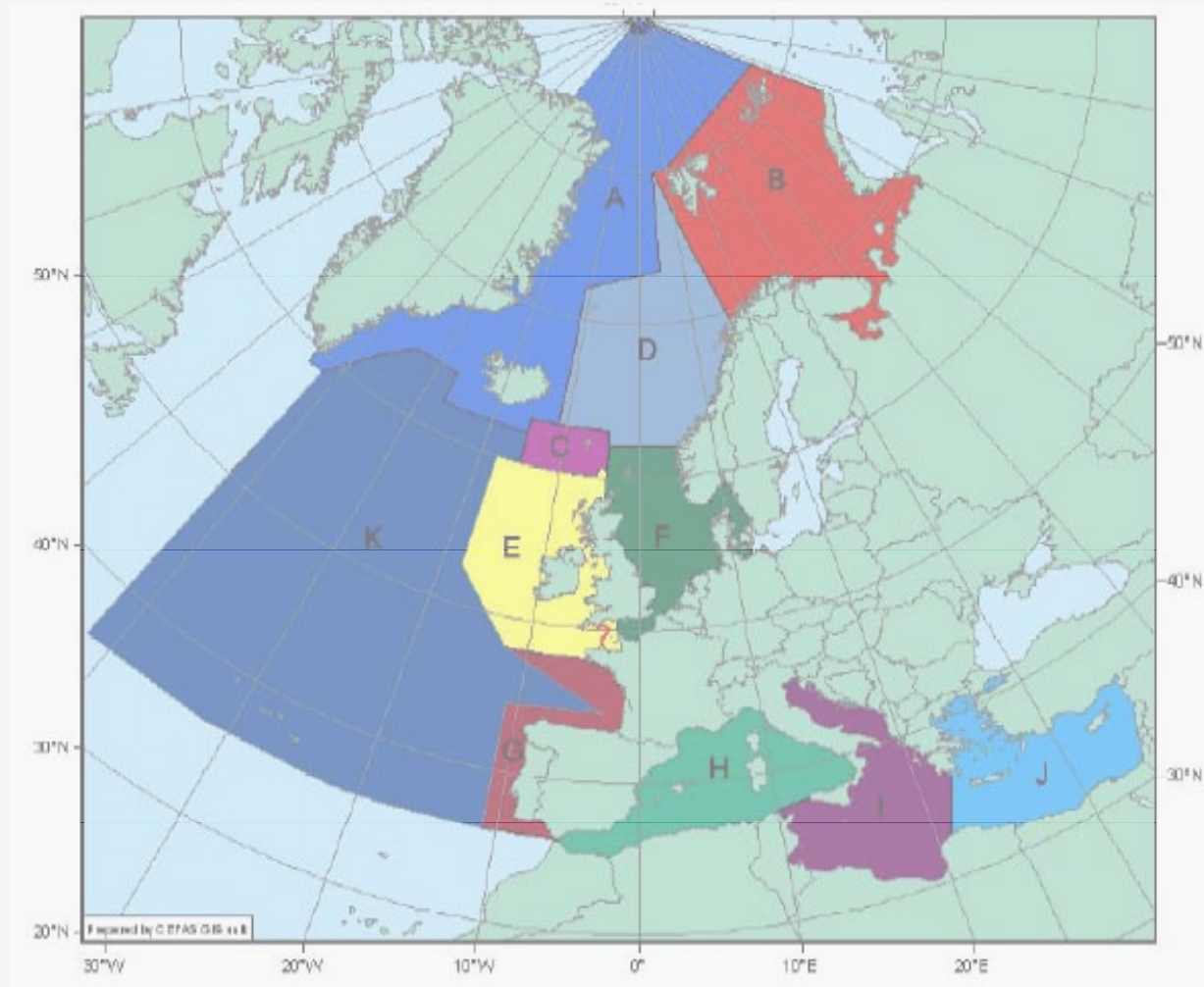


INFORMATION REQUIREMENTS

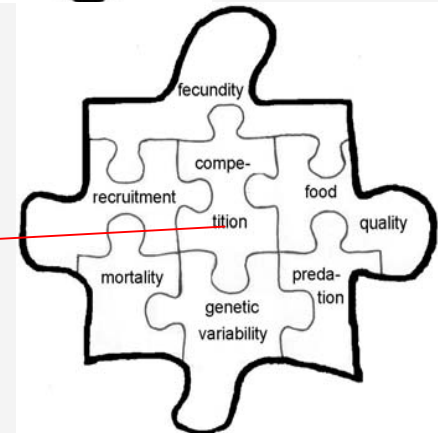
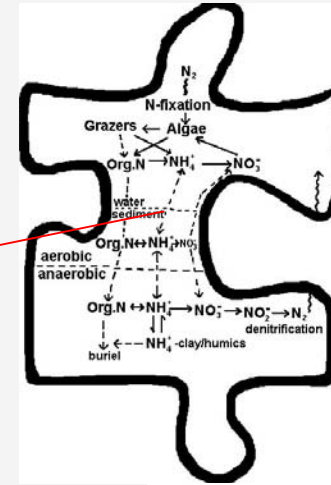
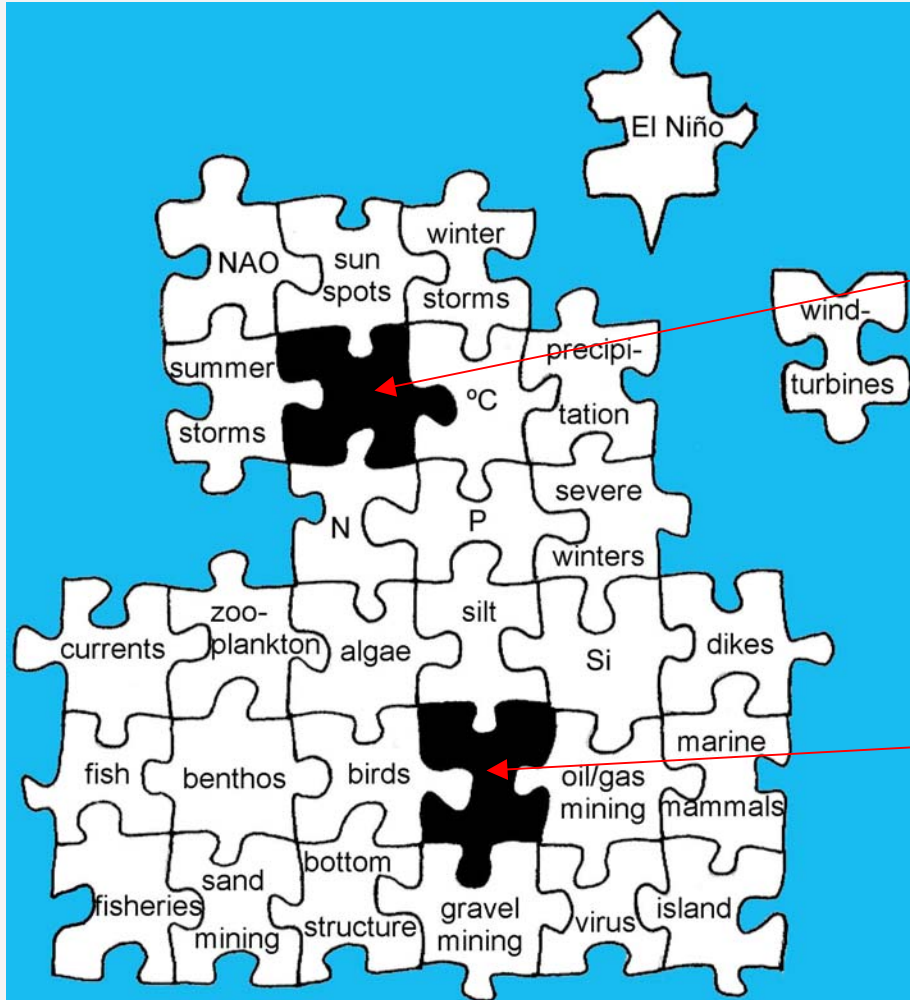
- Marine spatial planning requires spatially explicit information on ecosystem characteristics, human activities (current and future), and offshore jurisdictions
- This information is usually not readily available for most areas and is expensive and time-consuming to collect



NEED FOR BOUNDARIES



NEED FOR SCIENCE



From: Han Lindeboom, Wageningen IMARES , 2006

THE CHALLENGE

- The time has come for a strategic, comprehensive integrated plan-driven approach to the management of marine areas
- The time has come to use marine spatial planning to put Ecosystem-based, Sea Use Management into practice

