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Commissie voor de
milieueffectrapportage

Strategic Environmental Assessment

for Marine Spatial Planning

The need for sustainable governance of the marine environment

Spatial planning for the marine and maritime environment is increasingly important due to the growing demands from various emerging sectors such as offshore renewable energy, fisheries, shipping, and tourism.[1] These sectors all require space in the marine environment, leading to potential conflicts and the need for efficient space allocation. Additionally, climate change and the decline of marine biodiversity call for a strategic approach to ensure the sustainable use of marine resources.

[1]   The marine environment is about the natural aspects of the ocean, while the maritime environment is about human activities and their relationship with the sea.
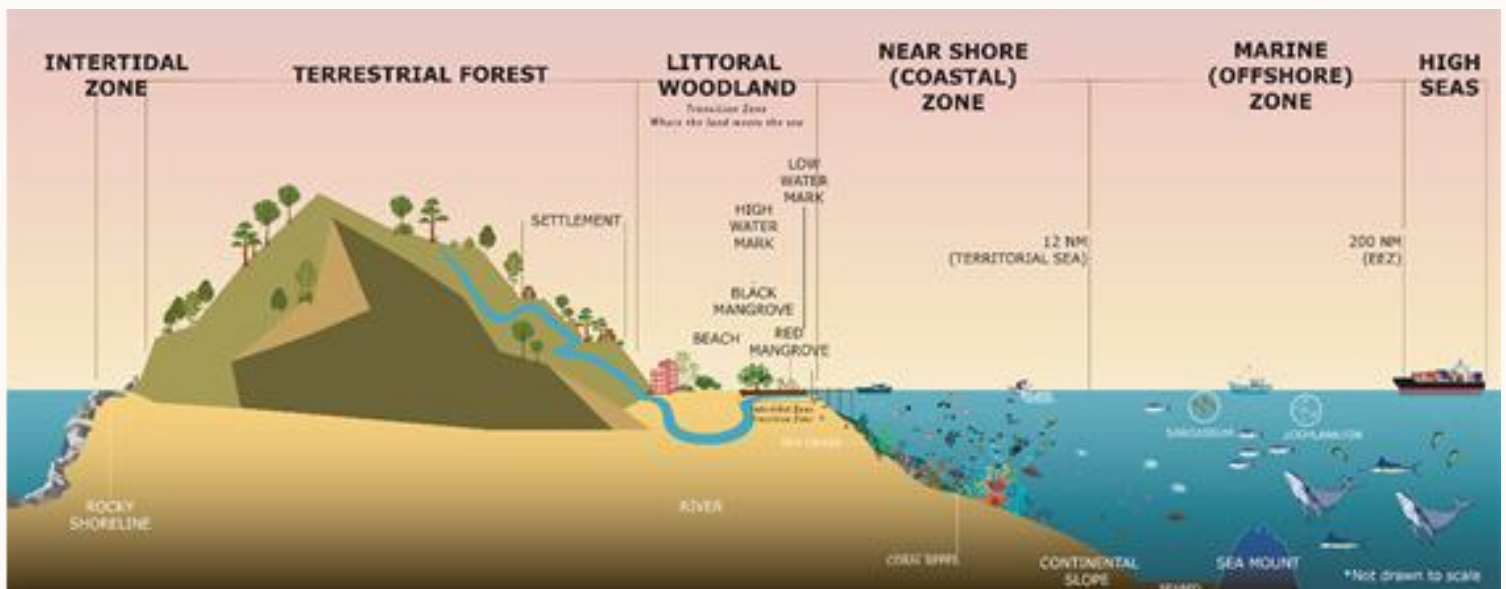

Figure 1 | Official designation of marine zones.

Marine Spatial Planning (MSP)

Marine Spatial Planning (MSP) is a public process that guides where and when human activities may occur in the ocean. MSP originated in the early 2000s, with significant development and adoption following the first International Workshop on MSP organized by the Intergovernmental Oceanographic Commission (IOC) in 2006.② The primary goals of MSP are to protect the environment, ensure the efficient use of marine resources, and reduce conflicts among different uses. MSP emerges from the concept of sustainable development, aiming for interconnected ecological, economic and social objectives, thus contributing to the goals of the UN 2030 Agenda for Sustainable Development and the international move towards sustainable blue economies.

SP has become globally recognised as a necessary area-based approach to shift the paradigm from uncoordinated and sometimes contradictory sectoral policies towards an integrated, multisectoral and participatory overarching process. At the same time, the implementation of MSP varies drastically by country and region.

② Intergovernmental Oceanographic Commission, 'Marine Spatial Planning', UNESCO.

Environmental assessment and connection to MSP

Environmental and Social Impact Assessment (ESIA) is an important legal framework for integrating environmental and social considerations into decision-making about impactful projects. Evolved out of ESIA, Strategic Environmental Assessment (SEA) complements ESIA by taking along environmental and social considerations at the strategic decision-making level of plans, programs and policies. Project-level ESIA is widely adopted in the world, while a growing number of countries has made legal arrangements for SEA.

Strategic Environmental Assessment (SEA) is a crucial component of MSP by promoting sustainable development and minimizing negative impacts on marine ecosystems. It can help identify potential conflicts between different uses of marine space, such as fishing, shipping, offshore energy, and conservation and propose measures to avoid or mitigate these conflicts. It also supports the assessment of cumulative impacts, ensuring that the combined effects of multiple activities are considered. Integrating SEA into MSP processes help planners and stakeholders to make informed decisions balancing economic, ecological, and social objectives.

Depending on national legislation, SEA for MSP is obligatory. In other cases, SEA is voluntarily used for MSP elements (e.g. for site-selection, stakeholder engagement, alternative options, integration with other sectors etc).

Annex 1 contains a list of international agreements and frameworks that support the integration of SEA into MSP, such as The MSPglobal Initiative, the OSPAR Convention, the Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI-CFF), and the Regional Seas Programme (RSP): coordinated by the United Nations Environment Programme (UNEP).

In many cases though, SEA is not (yet) applied. Here lies an opportunity as Strategic Environmental Assessment can support and optimize MSP in various ways.

The added value of Strategic Environmental Assessment (SEA) for MSP

Strategic Environmental Assessment can improve and complement MSP in a number of ways:

SEA:
1. ... ensures that marine planning includes the spatial component of all contributing sources affecting the sustainable use and management of the marine and maritime area (thus including coastal zones);
2. ... addresses cumulative effects of multiple human activities in the same region;
3. ... can pre-empt or avoid conflicts between conservation and use;
4. ... lays the groundwork for marine spatial planning as well as project-specific ESIAs;

5. ... contributes to climate change mitigation strategies and assesses impacts on the marine environment;
6. ... contributes to the advancement of ocean science and establishes a baseline of background information;
7. ... gives support to developing international management plans for the High Seas;
8 ... contributes to selecting 30% Marine Protected Areas.

Views & Experiences

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Applying environmental assessment to find a good balance between growing offshore wind production and the marine environment

Case of the North Sea

Illustrative example: Case of the North Sea

An illustration of beneficial interaction between MSP and SEA is the development of offshore wind energy in the North Sea.
Derived from this case, Table 1 on page 5 shows some examples of the application of SEA and ESIA in the Dutch planning system for offshore wind.

Want to learn more? Read the full case description here.

Assessment	Decision-making
Strategic Environmental Assessment (SEA)	• Distributing the space at the North Sea for different uses including wind energy • National targets for wind energy generation • Formulate overall conditions for wind farms (e.g. reduction of hammering impacts during construction, maximum mortality rates for birds and bats). • Locations for additional wind farms.
Environmental and Social Impact Assessment (ESIA)	• Wind energy capacity • Minimum and maximum turbine capacity and dimensions • Boundaries of the wind farm area • Locations of the turbines, offshore substations and cable connection routes to the shore • Mitigation measures to reduce impacts on the ecology How to deal with already existing functions and users in the designated wind area • Obligations for data gathering and monitoring • Conditions for decommissioning

Table 1 | Examples of the application of SEA and ESIA in decision-making about offshore activities (derived from the case of the North Sea).

Option 1: Ex-post
or evaluative SEA

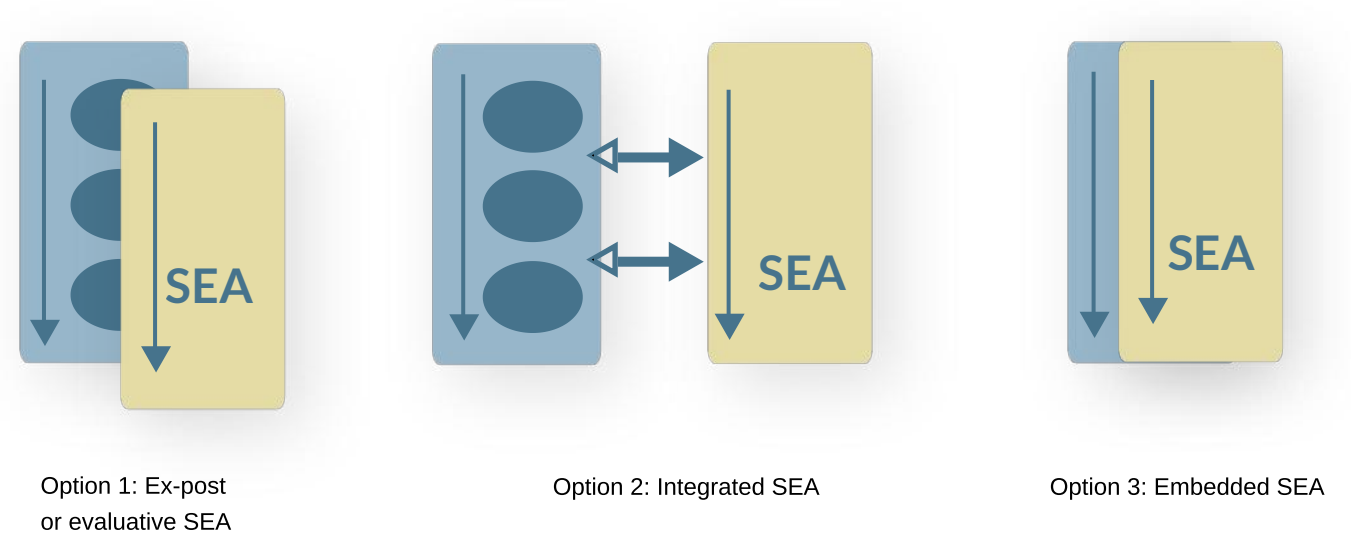Option 2: Integrated SEA

Option 3: Embedded SEA

Figure 2 | Practical application of SEA in relation to MSP in three ways (see page 6).

Linking Strategic Environmental Assessment to MSP: practical application

In general, the role of SEA supporting strategic decision-making differs according to the MSP context. The following options can occur:

Situation 1 - No MSP
Some relevant information for the development of a future MSP is available. Interventions planned in the marine area use often scattered sectoral information to develop the intervention and assess feasibility. Integration of available data and information is the responsibility of the proponent. Depending on national legislation, SEA is obligatory or voluntarily used (e.g. for site-selection; stakeholder engagement; alternative options; integration with other sectors; etc.). The intervention plan will be assessed by the competent authorities and is subject to ESIA.

Situation 2 - First generation or basic MSP
MSP is available but characterised by lack of data and or limited integration of all relevant sectors. A generic idea of spatial planning and availability of (other sectoral) data is present, but insufficient to effectively guide sustainable development in the marine area. The MSP can guide the proponent in developing its (sectoral) plan (e.g. defining preferred sites), but SEA still needs to ensure cross-reference to other (sectoral) spatial claims and embedding in national legislation. This integrated process will precede ESIA.

Situation 3 - Mature MSP in place
The MSP has fully integrated all elements of a good quality SEA and can guide the proponent towards its proposed interventions. Site selection based on good quality data, information on sectoral claims and priorities, governmental legislation, options for alternative development pathways, and inclusion of all relevant stakeholders are part of the MSP. A separate SEA process is not required and based on adherence to the MSP the proponent can immediately proceed to preparing the ESIA.

SEA can support MSP in different ways. Regarding the application of SEA, three approaches can be distinguished. They differ with respect to the moment of start of the SEA and the level of integration between the MSP and SEA (see figure 2):

- *Ex-post or evaluative SEA*: an MSP has been developed and is operational. SEA is used to evaluate the MSP after its completion, signalling possible gaps, redundancies and errors, providing recommendations to improve the guidance that the plan can give to (sectoral) actors and project proponents in the marine/maritime environment.
- *Integrated SEA*: the SEA process runs concurrently with the MSP process, allowing timely interactions and steering of the Plan. It addresses the relevant issues at the moment of occurrence, e.g. addressing practical questions from a (sectoral) proponent.
- *Embedded SEA*: The MSP has fully integrated all elements of a good quality SEA and can guide the proponent towards its proposed intervention. No separate SEA process has to be conducted and the proponent as steered by the MSP can directly enter the ESIA process.

Annex A: International agreements including SEA for MSP

Several international agreements and frameworks support the integration of SEA into MSP. These are as follows but not limited to:

Global
- MSPglobal Initiative: a joint effort by the Intergovernmental Oceanographic Commission (IOC) of UNESCO and the European Commission's Directorate-General for Maritime Affairs and Fisheries (DG MARE). The MSPglobal International Guide provides comprehensive guidance on implementing MSP, including the integration of SEA to ensure sustainable ocean governance.
- Convention on Biological Diversity (CBD): encourages the use of SEA in MSP to protect marine biodiversity. The Aichi Biodiversity Targets, particularly Target 11, emphasize the importance of conserving marine areas through effective management and planning.
- European Union's Marine Strategy Framework Directive (MSFD): requires EU member states to develop marine strategies that include SEA to achieve good environmental status of marine waters. It promotes an ecosystem-based approach to MSP.
- United Nations Convention on the Law of the Sea (UNCLOS): While not explicitly mentioning SEA, UNCLOS provides a legal framework for the conservation and sustainable use of marine resources, which can be supported by SEA in MSP processes.

Europe
- OSPAR Convention: to protect the marine environment of the North-East Atlantic and incorporates SEA in its guidelines for MSP to ensure that environmental considerations are integrated into planning processes.
- Helsinki Convention (HELCOM): promotes the use of SEA in MSP to protect the marine environment of the Baltic Sea.
- Barcelona Convention: aimed at protecting the Mediterranean Sea and includes protocols that encourage the use of SEA in MSP to promote sustainable development.

Asia and the Pacific
- Partnerships in Environmental Management for the Seas of East Asia (PEMSEA): a regional partnership promoting sustainable development of the coastal and marine environment in East Asia. It includes SEA as a key tool for integrated coastal management and MSP.
- Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI-CFF): this multilateral partnership among six countries in the Coral Triangle region emphasizes the use of SEA in MSP to protect marine biodiversity and ensure sustainable fisheries.
- Pacific Islands Regional Ocean Policy: this policy framework encourages the use of SEA in MSP to manage and protect the marine environment of the Pacific Islands

Latin America and South America
- Regional Seas Programme (RSP): coordinated by the United Nations Environment Programme (UNEP) and includes several regional agreements in Latin America that promote the use of SEA in MSP to protect marine and coastal environments.
- Latin American and Caribbean Network of Environmental Funds (RedLAC): a network supporting the integration of SEA into MSP to ensure sustainable use and conservation of marine resources in the region.

The Netherlands Commission for Environmental Assessment has more than 30 years of experience in supporting governmental organisations in the Netherlands and abroad with SEA and ESIA. Our expertise includes independent review at the request of governments, coaching, capacity development, and system analysis. We follow national legislation and apply international good practice.

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