



Overview of Actions for Enhancement of Nature Conservation and Restoration in MSP

Work Package 3: Energy transition and biodiversity in MSP

Project material

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Table of contents

1. Introduction.....	4
2. Methodology.....	5
3. Nature conservation actions in MSP.....	6
3.1. Policy instruments.....	6
3.2. Designation.....	7
3.3. Conditionality.....	8
3.4. INTERPRETATION - typology of “conservation approaches” in MSP.....	8
4. Restoration-oriented actions and/or passive restoration measures in MSP.....	12
4.1. Passive restoration.....	12
4.2. Active restoration embedded in broader MSP-related planning frameworks.....	13
4.3. INTERPRETATION - typology of “restoration approaches” in MSP.....	13
5. Policy drivers.....	16
5.1. Connection to specific legal or policy frameworks supporting nature conservation/restoration.....	16
5.2. INTERPRETATION - Typology of “policy Integration”.....	16
5.3. MSP priorities or principles related to nature conservation or restoration.....	18
6. Approaches and methods.....	19
6.1. Approaches or methods used to identify nature conservation/restoration needs in MSP.....	19
6.2. Data/information/tools support for the integration of conservation/restoration in MSP.....	20
6.3. Mechanisms to assess and/or monitor the effectiveness of conservation and restoration actions as well as mitigation measures included in MSP.....	21
7. Challenges and recommendations.....	22
7.1. Main challenges (gaps, obstacles) in integrating nature conservation/restoration actions into MSP.....	22
7.2. Main recommendations to enhance the role of MSP in supporting marine conservation and restoration.....	23
8. Discussion.....	25
8.1. Nature conservation actions and MSP remits.....	25
8.2. Practical means to support restoration in MSP.....	27

Project material: Overview of actions for enhancement of nature conservation and restoration in MSP

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1. Introduction

Inclusion of nature has been identified as one of the key elements of ecosystem-based approach in MSP ([eMSP NSBSR Policy brief](#)). The primary goal of the inclusion of nature is management of human activities at sea ensuring healthy functioning of the marine ecosystem. It means that planning solutions should *keep* individual and cumulative pressures caused by human activities within the ecosystem capacity limits. Therefore, despite limited mandate MSP directly or indirectly supports nature conservation and restoration actions ensuring that human activities impacts are compatible with introduced actions. Furthermore, maritime spatial planning process collects vast amounts of data, some specific nature conservation and restoration actions might be envisaged in the case they've not been introduced under dedicated legal frameworks.

The overview is a project document which summarises findings of task 3.2 (Overview of actions for enhancement of nature conservation in MSP) and intended to contribute to the WP3's key deliverables: a catalogue of mitigation measures and policy brief. The document presents nature conservation and restoration actions included in maritime spatial plans in the North Sea and Baltic Sea basins and analysis of their typology. It also presents a discussion on the role of MSP for nature conservation and restoration. Nature conservation and restoration actions might serve to mitigate potential impacts of planned human activities. Thus, the overview is considered in close relation to task 3.3 - a catalogue of mitigation measures. Relations between nature conservation and restoration actions and measures mitigating environmental impact within MSP is illustrated by Figure 1.

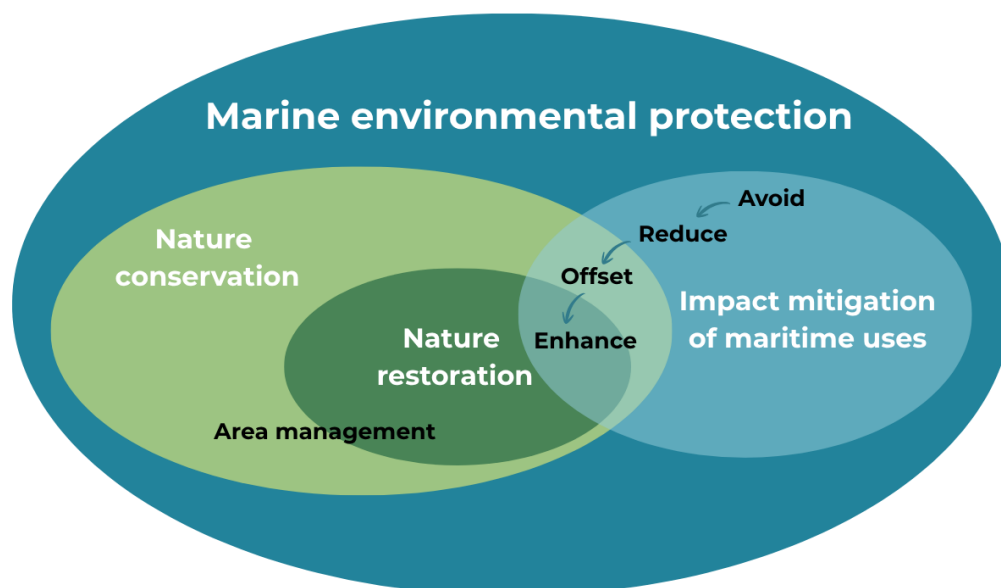


Figure 1. Conceptual relation of the protection of the marine environment, conservation, restoration and mitigation in MSP. (Source: Marie Dahmen 2025, NESB project).

2. Methodology

The task to collect information on nature conservation and restoration actions has been implemented through a survey. The survey was combined with the one on mitigation measures to avoid the fatigue of potential respondents. The survey consisted of 15 questions grouped into 5 sections: Section A. General Information; Section B. Nature Conservation and Restoration Actions in MSP; Section C. Approaches and Data Used; Section D. Mitigation measures; Section E. Effectiveness, Challenges and Needs. Many questions had predefined answers where respondent were invited to select the answer from the list. However, almost all questions included textual parts, where respondents were invited to explain their answers utilizing concrete examples from national MSPs.

The survey was supported by HELCOM-VASAB MSP WG, The North Seas Maritime Spatial Planning (MSP) Collaboration Group and NESBp (WP3). Respondents were invited to provide nationally coordinated response to the survey.

The survey was conducted in November–December 2025 within the NESBp project in the Greater North Sea and Baltic Sea basins' countries, namely Denmark, Sweden, Germany, Finland, France, Latvia, Poland, Estonia, Belgium and the Netherlands. Information on specific nature conservation and restoration actions as well as other measures intended to mitigate potential adverse effects of planned human activities, were compiled and analysed. In the overview, nature conservation and restoration actions are generalised compared to specific examples supplied by national respondents to avoid repetitions. Further reported actions were categorized according to the mechanism of their impact and classified by used approaches. Collected information related to policy drivers for respective actions, sources of information for their justification, encountered challenges and recommendations was compiled in a separate section of the overview.

The survey results were discussed at the dedicated session of the Synthesis workshop titled “Let’s talk a common language” in Gdansk in March 2026. The workshop, organized by NESBp project together with Policy Area Spatial Planning of the EU Strategy for the Baltic Sea Region, gathered experts representing different sectors and target groups from the North and Baltic Sea regions. The goal was to verify and complement information compiled for the overview of nature conservation and restoration actions. Outcomes of the discussion are briefly summarised in this overview.

3. Nature conservation actions in MSP

90% of analysed MSPs include some form of nature conservation provisions, still their legal strength and operational depth differ significantly.

Three main types of conservation actions can be identified in the analysed MSP systems: designation, condition, and policy instrument. In practice, these types often overlap and are used in combination. Some MSP systems rely mainly on guiding designations and strategic principles, while others use more operational combinations of designations, conditions and legally embedded planning rules. Overall, conservation in MSP is most commonly expressed through spatial designation and activity-related conditions, whereas policy instruments provide the broader logic through which nature protection is embedded in the plan.

Nature conservation actions are listed in table 1.

Table 1. Nature conservation actions in MSP.

Nature conservation action category	Countries
Policy instrument / principle	SE, DE, FI, FR, LV, PL, EE
Designation	SE, DE, FI, FR, LV, PL, NL, BE
Conditionality	SE, DE, FR, LV, PL, EE, NL, BE
Concrete conservation actions not regulated in MSP	DK

3.1. Policy instruments

Policy instruments refer to the normative or legal embedding of nature protection in MSP through planning principles, strategic objectives, legal mandates or guidance rules. These instruments do not always create protection spatially on their own, but they shape how the plan interprets and applies nature-related priorities. Examples:

- *Sweden* - policy instruments include planning principles and guidance for protection as well as co-existence and adjustment possibilities;
- *Germany* - policy instruments are expressed through a wide range of formal principles relating to species protection, environmental best practice and impact avoidance;
- *Latvia* - one of the MSP's strategic objectives is explicitly framed around preserving the marine ecosystem and averting excessive pressure from economic activities;

- *Poland* – the legal mandate of the plan itself is important, as the MSP is a legally binding instrument under national law and clearly includes planning principles related to nature protection;
- *France* – policy instruments are reflected in the integration of environmental actions and management-oriented tools linked to Natura 2000 and species protection;
- *Estonia* – the underlying principle that activities harmful to protected areas are not permitted also functions as a policy instrument embedded in the planning logic;

3.2. Designation

Designation refers to the identification and designation of areas where nature protection is prioritised or clearly recognised in planning process. These may include protected areas, high-nature-value areas, nature-investigation zones, bird or habitat areas, or other nature-oriented spatial allocations. In some cases, such designations correspond to formally protected areas; in others, they function as planning areas that support future protection or guide decision-making without giving legal protection status as such.

This type of action appears in most of the analysed responses, but with different degrees of legal and operational strength:

- *Sweden* – the MSP designates *N-areas* where nature is the prioritised use (MPAs and areas of national interest for nature conservation), as well as *n-areas* where other uses should take high nature values into account;
- *Germany* – designations are particularly evident through priority and reservation areas for nature protection, including areas for divers and harbour porpoises as well as requiring measures for OWF in bird migration corridors;
- *Finland* – identifies areas of *Significant underwater natural values*, which are not protection proposals as such, but still function as spatially nature-oriented designations;
- *Latvia* – designates *investigation zones of nature values*, which do not create protected areas directly but support future MPA development;
- *Poland* – one example is basin *POM.92.0*, of the basic function of *environment and nature conservation* due to its ecological value for birds;
- *Belgium* – designates habitat areas, bird areas, marine reserves and zones for bottom integrity;
- *France* – designation is expressed through actions such as completion of Natura 2000 at sea and the strengthening of high protection zones;
- *the Netherlands* designates areas with specific regulatory conditions reflecting conservation requirements of marine protected areas (e.g. Natura2000) and zones where these conditions are provided by MSFD requirements.

3.3. Conditionality

Conditionality refers to provisions that limit, exclude or regulate human activities in order to protect nature. These include use limitations, restrictions on certain sectors or techniques, species- or season-specific conditions, and other rules attached to designated areas or environmentally sensitive locations. This is one of the most widespread forms of conservation action in MSP based on questionnaires.

- *Germany* - highly developed and include seasonal restrictions related to divers, limitations in bird migration corridors, and noise-related requirements during offshore energy construction;
- *Sweden* - other uses are expected to adjust to nature conditions in areas with particular consideration to high nature values;
- *Latvia* - for example, fish farming is allowed in the Gulf of Riga, but it depends on technology - fish aquaculture in open cages should not be allowed as the feed and end products used in the farming process increase the burden of marine eutrophication and affect natural populations;
- *Poland* - condition takes the form of activity restrictions and spatial limitations in designated sea-basins;
- *Belgium* - bottom disturbance is restricted in zones for bottom integrity, and marine reserves limit activities other than fishing;
- *Estonia* - the plan sets conditions to ensure that activities take habitats, biota and sensitive fisheries areas into account and avoid adverse impacts;
- *the Netherlands* - the plan sets conditions in the form of activity restrictions and spatial limitations (e.g. no-fisheries zones or restricted fisheries) in designated areas.

By contrast, *Denmark* represents a limiting case where MSP does not establish its own conservation designations, conditions or principles, but rather reflects existing environmental frameworks.

3.4. INTERPRETATION - typology of “conservation approaches” in MSP

Based on the different combinations of designations, conditions and policy instruments identified in the questionnaire responses, three broader conservation approaches in MSP could be distinguished.

MSP as spatial reflection of environmental law (*Denmark*) where:

- MSP does not establish its own conservation designations, conditions or policy instruments beyond reflecting existing environmental frameworks.
- Nature protection is regulated primarily through Natura 2000, the MSFD and national environmental legislation.

- MSP does not function as an autonomous conservation instrument, but rather as a spatial framework aligned with existing environmental law.

MSP as strategic organiser of nature conservation knowledge and precautionary spatial guidance (*Finland, Latvia, partly: Sweden, Estonia, Poland*) where:

- MSP uses nature-oriented designations, ecological value areas or investigation zones to guide planning, permitting and future protection, without necessarily conferring formal protected-area status.
- Conservation is supported through a combination of spatial guidance, planning principles and, in some cases, precautionary conditions rather than through fully binding conservation regulation.

These systems rely strongly on scientific datasets, ecological assessments, vulnerability evidence and, in some cases, precautionary planning logic.

MSP as conservation instrument (*Germany, France, Poland, Belgium*) with different levels of operational strength, where:

- MSP uses spatially specific conservation areas, zones or designations to prioritise or protect nature interests.
- Conservation is further operationalised through conditions, restrictions or exclusions affecting other uses
- In some cases, species-specific, seasonal or sector-specific measures are also embedded in the plan.

Within this group, *Germany* and *France* seems to represent the strongest operational models, while *Poland* and *Belgium* reflect more selective or legally bounded forms of conservation operationalisation.

Table 2. A compilation of conservation actions included in maritime spatial plans by category.

Category	Action
<i>Policy instruments</i>	• Nature conservation must be considered when planning any activity. • Planning principles including guidance for co-existence and adjustment possibilities should be set at early stages of MSP process. • Any potential threat to the marine environment from economic uses – in particular adverse impacts on the natural functions of the marine ecosystem – shall be avoided as far as possible. • Specific periods when species are particularly susceptible to disturbance including periods of ecological interactions of animal and plant species should be considered in planning solutions. • Spatial and temporal conditions for the sea use can be identified by national regulatory acts (such as “Position paper of the Federal Ministry for the Environment on the cumulative assessment of diver habitat loss as a result of offshore wind farms” (2009) in Germany).

	• Best environmental practice in accordance with international conventions on marine protection and the state of the art in science and technology should be taken into consideration. • The input of sound into the marine environment during the construction of energy generation installations shall be avoided as far as possible applying best available scientific knowledge and technology. • Overall coordination of energy installations construction and spatially related infrastructure should aim to avoid or mitigate cumulative impacts. It involves coordination of timing for the construction work as well as minimization of related ship traffic, associated acoustic effects and visual disturbances. • Nature values should be thoroughly considered in MSP. • Zones of high nature value, identified in MSP process, should be utilized to guide the designation or extending MPAs to meet the 30% protection target of the EU Biodiversity Strategy for 2030. • Objectives of the Marine Strategy Framework Directive (MSFD) should be incorporated in MSP. • The marine ecosystem and its ability to regenerate should be preserved, ensuring the protection of biological diversity and averting excessive pressure from economic activities
Designations	• Designation of areas for nature (where nature is the prioritised use), based on existing MPA's and National Interest areas for nature conservation. • Designation of high nature values areas (where other prioritised uses need to adjust to nature conditions), based on different planning evidence indicating high nature values or climate refugia that are not (yet) protected. • Designation of areas for co-existence where mutual adjustments are needed. • Designates around 40% of the EEZ as priority and reservation areas for nature protection, in which uses that are incompatible with marine nature conservation are either excluded ("priority areas") or should not take place in principle ("reserved areas"). • Designation of areas reserved for sensitive species: aquatic birds (e.g. "divers"), harbour porpoises, migratory species (where barrier effects in the sea are avoided), bird migration corridors. • Designation of area of 'significant underwater natural values' (significant in terms of the biodiversity, vulnerability and uniqueness of biotopes), including areas of geological diversity and natural state areas. These designations are not an equivalent to marine protected areas. • Other designations may include - High Protection Zones (HPZs), local authorities' decrees for habitat/biotope protection, spatial and temporal quiet zones, fisheries conservation areas, zones for bottom integrity (restricting bottom disturbance by fisheries). • Areas with specific regulatory conditions for fisheries can be designated, including no fisheries zones, areas closed for bottom trawling, areas closed for fly-shooting (Commercial Fishing), areas with restriction for beam trawls and pulse trawls. It might also include areas to research the long-term effects of various fishing gear application.

	• Investigation zones of high nature values (e.g. for aquatic birds) can be designated in MSP, where nature conservation is the priority use of maritime space. • Based on obtained data and knowledge, MSPs might include proposals for designation of new and expansion of existing MPAs as well as adjusting MPA's management plans.
Conditionality	• Zoning of marine use itself is based on the precautionary principle to minimize negative impacts on the marine environment and thus, might be considered as conditions for regulation (restriction) of human activities at sea. • MSP can include action plans to protect specific species which include specific restrictive provisions addressing concrete pressures such as bycatch or underwater noise in transboundary context (e.g. Shark action plan, Porpoise protection plan and others). • In the priority areas for aquatic birds (divers) the sea uses that are incompatible with nature conservation purpose are prohibited. Identification of such uses is the subject of assessment at project level. • Spatial and temporal conditions should be set in relation to aquatic birds (e.g. diver group) sensitive to disturbance. Restrictions should be introduced in areas, where this species should not be adversely affected by human activities (e.g. sand and gravel extraction). • For the areas of the bird migration corridors (e.g. "Fehmarn-Lolland" and "Rügen-Skåne") the following condition applies during periods of mass migration events, wind turbines shall not be operated in bird migration corridors if other measures are not sufficient to exclude a proven significantly increased risk of collision of birds with wind turbines. Under the same conditions, construction and maintenance work should not take place. • Other protection plans for vulnerable species can be developed. To implement this a list of species which require conservation plans should be developed as starting point. • Issuing of new net fishing licences as well as expansion of the areas for existing ones should be ceased in nature reserves (e.g. Natura 2000). • The planned solutions, which include recommendations for various economic activities at sea, are also based on the precautionary principle in terms of environmental impact, for example, prohibition of sea-based fish farming due to high level of eutrophication. However, regenerative and multi-trophic aquaculture may be permitted due to its net positive environmental effect. • Marine protected areas (MPA) are included in the MSP as conditions for sea use, as MPAs are defined under another legal framework.

4. Restoration-oriented actions and/or passive restoration measures in MSP

A majority of the analysed MSP systems (60%) include some form of restoration-oriented or passive restoration measure, but their scope and intensity differ significantly. In most cases, MSP supports restoration indirectly through pressure reduction, spatial safeguarding or procedural linkages. Only a smaller part of cases articulates more specific active restoration ambitions. Passive restoration remains the most common form of restoration-related action in national MSPs, while active restoration is limited to a smaller number of cases and is often embedded in broader planning or policy frameworks.

Table 3. Active and passive nature restoration actions.

Restoration-oriented actions category	Countries
Restoration actions not regulated in MSP	<i>Denmark, Finland, Latvia, Estonia</i>
Passive restoration measures included	<i>Sweden, Germany, Poland</i>
Active and passive restoration measures included	<i>France, Netherlands, Belgium</i>

4.1. Passive restoration

In some MSP systems, restoration is not expressed as direct intervention, but rather through procedural arrangements that can support future recovery or by reducing, excluding or redistributing pressures rather than through direct intervention. This includes limiting harmful activities, preserving ecologically less disturbed areas, preventing further degradation, or creating conditions more favourable to natural recovery. Examples:

- *Sweden* - pressures are allocated to less sensitive areas and management measures are guided through designations of areas with particular consideration to high nature values.
- *Germany* - passive restoration is supported by large-scale priority and reservation areas for nature protection, decommissioning of fixed installations at the end of their use, and indirect fisheries exclusion in offshore wind-related contexts.
- *Poland* - prohibitions and limitations on the use of sea areas, environmental conditions attached to designated zones, and the use of spatial reservations aimed at preventing deterioration of ecological conditions.

- *Belgium* - restoration actions are given priority in marine reserves before other uses.
- *Latvia* - restoration is not included in MSP itself but the investigation zones of nature values and their connection to LIFE REEF project and future MPA management planning create an indirect pathway towards restoration-oriented follow-up outside the plan.

4.2. Active restoration embedded in broader MSP-related planning frameworks

A smaller number of cases includes more explicit restoration ambitions, such as habitat recovery, species restoration, nature-inclusive construction or oyster and reef restoration. In these cases, MSP-related planning goes beyond passive recovery and recognises active ecological intervention as a legitimate policy direction. Examples:

- *France* - restoration of salt meadows, intertidal habitats, elasmobranch populations and seabird habitats, as well as pilot sites for ecological restoration.
- *the Netherlands* - restoration is linked to nature-inclusive construction, flat oyster introduction, biogenic reef recovery and species protection planning.
- *Belgium* - the plan specifies that restoration actions take priority in marine reserves and explicitly mentions research into oyster and reef restoration as part of MSP implementation.

4.3. INTERPRETATION - typology of “restoration approaches” in MSP

Based on the responses, three broader restoration approaches in MSP could be distinguished.

No-Restoration Model (*Denmark, Finland, Latvia, Estonia*)

In these cases, MSP does not include restoration-oriented actions as such. Restoration remains outside the scope of the plan or is addressed through other environmental, sectoral or future management instruments. *Denmark* is the clearest example, as restoration activities at sea are explicitly stated not to be part of the Danish MSP.

Passive Restoration through spatial pressure management (*Sweden, Germany, Poland*)

In this model, restoration is understood primarily as reduction, redistribution or prevention of pressures rather than direct ecological intervention. MSP contributes to ecological recovery by limiting harmful uses, protecting ecologically sensitive areas, or maintaining conditions that support long-term ecosystem resilience.

Active restoration embedded in broader MSP-related planning frameworks (*France, Netherlands, Belgium*)

In this model, restoration is articulated more explicitly through habitat or species recovery actions, nature-inclusive construction or implementation-oriented restoration pathways. *France* represents the strongest case, while the *Netherlands* and *Belgium* also indicate more active restoration ambitions, though with different degrees of direct embedding in MSP.

It could be noted that responses from North Sea countries more often refer to active restoration, nature-inclusive design and implementation-oriented ecological measures, whereas Baltic Sea responses more often frame MSP as a tool for spatial guidance, conditionality and precautionary environmental steering.

Table 4. A compilation of active and passive nature restoration actions from maritime spatial plans in the North and Baltic Sea regions.

Category	Actions
PASSIVE	• Designing planning solutions to allocate pressures to less sensitive areas. • Guiding new possible management measures when planning areas with high nature values. • Designation of areas for nature protection, in which the sea uses that are incompatible with marine nature conservation are either excluded ("priority areas") or should not take place in principle ("reserved areas"). • Exclusion of fisheries in OWF. However, passive fishing with fish traps and baskets is possible in the safety zones of the wind farms. • Actions include protecting specific habitats and fish fauna within designated zones. • Prohibitions and limitations of sea use, considering nature conservation requirements. • Studies that integrate sea and terrestrial space, ensuring a holistic approach to sustainable development that respects ecological conditions. • Designation of areas with basic function "space reserved for future use" (function P) or "space reserved for future use with extraction allowed" (function Pw). These functions mean preventing permanent development in the area and preventing deterioration of the ecological condition of the basin. However, function "Pw" allows structures for hydrocarbon extraction. • Withdrawal/reduction of pressures, compatibility requirements are recommended for permitting procedure. • Recommendations for environmental impact assessment (EIA) in selected areas regarding protection of existing natural habitats vital for migratory and aquatic birds as well as for recruitment of important commercial fish species.

	• Recommendations regarding the scope of information that should be included in the environmental impact assessment process. • Designating areas where actions for nature restoration prevail over all other uses. • MSP acknowledges that nature restoration can take place anywhere in the as long as it doesn't hinder other specified uses in the plan. • Developing of protection plans for vulnerable species, such as seabird, sharks or porpoise. Such plans reduce pressure factors with focus on restoration and strengthening population of respective species. • Draw up a list of species for which require conservation plans, including a timeline for planning and implementation. • Set clear environmental objectives related to nature restoration such as 'return and restoration of biogenic reefs, including flat oyster beds'. So, the objective supports various actions aiming to spare biogenic reefs or increase the chances of resettlement.
ACTIVE	• Restoration of salt meadows, intertidal habitats, elasmobranch populations, seabird habitats. • Developing a framework for nature-inclusive construction, including further specification of relevant nature objectives and desired effects. • Encouraging a nature-inclusive approach to the construction of new wind farms by means of plot decision regulations. • Exploring and development of opportunities to encourage nature-inclusive construction, e.g. through the "comparative test" procedure under the amended Offshore Wind Energy Act. • Ensuring comprehensive or additional monitoring of effects arising from plot decision regulations for nature-inclusive construction. • Encouraging the introduction of flat oysters through nature-inclusive construction of offshore wind farms. • Exploring opportunities for synergy, such as introducing flat oysters to the seabed (nature enhancement) and cultivating flat oysters in the water column (aquaculture) in wind farms. • Research into the restoration and protection of biogenic reefs and flat oyster beds. • The development of a programme (e.g. MONS programme) outlining the real need for an integrated and systematic research and monitoring.

5. Policy drivers

5.1. Connection to specific legal or policy frameworks supporting nature conservation/restoration

All analysed MSP systems refer to broadly similar EU and national environmental frameworks, but they integrate them in different ways. The same framework — such as the MSFD — may function as a legal boundary, a planning objective, a source of spatial provisions, or part of a broader implementation logic. The results suggest that the mere presence of legal and policy references is not decisive; what matters more is how these frameworks are translated into planning logic, spatial measures and implementation pathways.

Table 5. Connection of nature conservation/restoration actions in MSP with specific legal or policy framework.

Legal/policy frameworks	Countries
MSP explicitly refers to multiple EU and national frameworks	DK, SE, DE, FI, FR, LV, PL, EE, NL, BE
MSP refers to MSFD explicitly	DK, SE, DE, FI, FR, PL, EE, NL, BE
MSP refers to EU Biodiversity Strategy / 30% target	DK, SE, FI, LV, NL, BE
MSP refers to Natura 2000 / MPAs	DK, SE, DE, FI, LV, PL, NL, BE
MSP refers to global frameworks (CBD, EBSA, Ramsar)	SE, FI, LV, EE, NL

5.2. INTERPRETATION – Typology of “policy Integration”

Reflective Integration (ex.: *Denmark*)

MSP reflects existing legal and policy frameworks without establishing its own separate nature conservation or restoration logic. Environmental protection is framed through Natura 2000, the MSFD, the EU Biodiversity Strategy and national nature legislation, but MSP itself does not act as an independent conservation instrument. Frameworks define the legal boundary of the plan rather than being translated into new planning content.

Guiding Integration – policies as strategic guidance (ex.: *Finland, Latvia, Estonia*)

In this model, MSP refers to a broad set of nature conservation-related frameworks, which guide planning choices, ecological designations or future protection pathways, but are not fully operationalised through the plan itself. In *Finland*, frameworks such as the EU Biodiversity Strategy, the Habitats and Birds Directives, Natura 2000, HELCOM MPA,

Ramsar and EBSA are explicitly considered when planning potential areas for human use.

In *Latvia*, MSP and MPA policies are described as interlinked, and investigation zones of nature values are used to support future MPA development in relation to the 30% biodiversity target.

In *Estonia*, MSP is described as having been prepared taking into account a number of broader strategies and development plans, including the MSFD.

Multi-Objective Integration – policies as part of planning objectives and process (*Sweden*)

Sweden represents a more process-oriented and multi-objective model of integration. Here, the achievement of GES under the MSFD is described as one of the main MSP's objectives (GES), while the ecosystem-based approach is applied in the planning process itself. International, EU and national frameworks are not only referenced but incorporated into planning objectives and the wider planning logic. This makes *Sweden* more than a simple guiding case, even if not all elements are fully operationalised through hard spatial regulation.

Operationalised integration (*Belgium, France, Germany, the Netherlands, Poland*)

In this model, external frameworks are translated more directly into spatial designations, environmental goals, restrictions, conditions or implementation-oriented provisions. In *Germany*, nature protection law, MPA ordinances, MSFD-related measures and species-specific environmental concepts are clearly linked to spatial designations in the MSP. Although no explicit reference is made to the Biodiversity Strategy due to the earlier publication of the plan, Germany is already meeting the 30 % target, with 45 % of its marine area designated as MPAs.

In *France*, the action plan for the Eastern Channel-North Sea contributes to the implementation of national biodiversity and protected-area strategies through the integration of 44 environmental actions.

In *Poland*, EU directives, Natura 2000 and national conservation strategies are described as integrated into the MSP through protected zones, activity limitations and environmental requirements.

In *Belgium*, environmental goals defined in the plan refer directly to MSFD, the Water Framework Directive, the Birds and Habitats Directives, the Biodiversity Strategy 2030 and the Nature Restoration Regulation, while compatibility with Natura 2000 objectives is built into the plan logic.

In *the Netherlands*, the Dutch North Sea Program 2022–2027 and its annex MSFD Programme of measures are part of the National Water Programme and establishes the frameworks for the spatial use of the North Sea in relation to the state of the marine ecosystem, as well as for policies aimed at improving the environmental condition. It refers to the Birds and Habitats Directives, the Water Framework Directive, OSPAR, CBD and fisheries policy.

5.3. MSP priorities or principles related to nature conservation or restoration

A large majority of the analysed MSP systems clearly articulate nature-related priorities or principles, although their level of abstraction or operational relevance varies considerably. In some cases, these priorities take the form of broad environmental objectives, in others, they are linked more directly to protection targets, environmental status or conditions limiting harmful uses.

Table 6. Reported occurrence of priorities and principles driving nature conservation and restoration actions in MSP.

Category	Countries
No explicit priorities or principles	<i>Denmark, Finland</i>
Explicit priorities/principles included	<i>Sweden, Germany, France, Latvia, Poland, Estonia, Netherlands, Belgium</i>

The most common normative direction is the protection of the marine environment and avoidance of adverse impacts, rather than restoration as such.

Table 7. Typology of nature-related priorities and principles in MSP.

Priority / principle type	Frequency	Countries
Nature protection	6	DE, LV, PL, EE, NL, BE
Avoidance of adverse impacts	5	EE, DE, LV, PL, SE
Good Environmental Status (GES)	4	SE, DE, PL, NL
Ecological coherence / green infrastructure	2	SE, NL
Ecosystem services	1	SE
Strict protection	2	FR, NL
Biodiversity target (30%)	2	LV, NL
Explicit planning objectives	3	DE, SE, LV
No priorities / no response	2	DK, FI (no response)

6. Approaches and methods

6.1. Approaches or methods used to identify nature conservation/restoration needs in MSP

Across the analysed MSP systems, the dominant pattern is the use of existing environmental evidence, formal assessment procedures and stakeholder input to identify conservation and restoration needs. Heavy reliance on Natura 2000 data, MSFD assessments and national environmental monitoring might indicate high consistency of baseline knowledge across countries. Only a smaller number of cases — most clearly *Sweden*, and more cautiously *Latvia* and *Estonia* — suggest that MSP processes also generate new analytical outputs of their own. Overall, MSP more often functions as a knowledge integrator and translator than as a primary producer of ecological evidence.

Table 8. Approaches and methods justifying conservation/restoration actions in MSP.

Approach / method	Countries
Use of existing environmental authority data	DK, SE, DE, FI, FR, LV, PL, EE, NL
Strategic Environmental Assessment (SEA)	DK, SE, DE, PL, EE, NL, BE
Environmental Impact Assessment (EIA)	DE
Habitat / biotope mapping	SE, FI, LV, PL
Stakeholder / expert input	DE, PL, EE, NL, BE, SE
MSP-driven new analyses / datasets	SE, LV, EE

Existing environmental authority data form the dominant basis for identifying nature-related needs in MSP. This is especially clear in *Denmark*, where the MSP relies on data, mappings and technical inputs provided by the Ministry of Environment, and in *France*, where environmental sectors were identified through the marine environment action plan and MPAs, including Natura 2000 sites, were taken into account. *Germany* similarly relies on environmental authority input, including BfN planning input, designated MPAs and species-related policy concepts.

Formal environmental assessment also plays an important role, though differently across countries. *Denmark*, *Sweden*, *Poland*, *Estonia*, *the Netherlands* and *Belgium* explicitly refer to SEA or broader environmental assessment, while *Germany* refers specifically to EIA and project-level monitoring data.

Habitat and biotope mapping appear in a smaller but analytically significant group of responses. *Sweden* refers to regional assessments of high-nature-value areas, marine

mapping, offshore bank inventories and climate refugia mapping. *Finland* relies on the long-running VELMU programme and EMMA areas, which provide a strong biodiversity- and habitat-based evidence base. *Latvia* uses habitat distribution maps and biodiversity-related spatial data, while *Poland* explicitly refers to biotope and habitat mapping as part of a broader analytical package.

Stakeholder and expert input are also important in several countries. This is particularly visible in *Germany*, where stakeholder input is combined with regulatory and scientific evidence, and in *Estonia*, where stakeholder groups were closely engaged alongside studies and spatial analyses. *The Netherlands* also places strong emphasis on stakeholder consultation through the North Sea Consultation and related discussions. *Belgium* also reports stakeholder input and environmental assessment as the main basis for identifying environmental needs.

Only a limited number of responses suggest that MSP processes themselves generated new analytical nature-related outputs. *Sweden* is the clearest example, with Symphony, green maps, climate refugia work and regional assessments embedded in the planning process. *Estonia* also points to studies, spatial analyses and survey-based work that informed MSP GIS layers. *Latvia* can cautiously be included here, although its response also relies strongly on project-supported and institutionally sourced environmental evidence.

6.2. Data/information/tools support for the integration of conservation/restoration in MSP

Table 9. Data and tools supporting conservation/restoration actions in MSP.

Support instrument type	Countries
Existing environmental layers	DE, DK, FI, PL
MSP-related spatial layers / maps	SE, DE, FR, PL, EE
Digital tool / platform	SE, LV, PL, EE, NL
No response	BE

The responses show that national MSP systems use different kinds of technical support to integrate conservation and restoration into planning. In some cases, MSP relies mainly on existing environmental layers provided by environmental authorities. This is most evident in *Denmark* and *Finland*. In other cases, MSP is supported by map-based outputs or spatial layers linked to the planning process, as in *Sweden*, *France*, *Poland* and *Estonia*. A third group refers to digital tools or platforms, such as the *Latvian* Baltic Sea2Land tool, Swedish Symphonia, the Polish SIPAM geoportal and the Dutch Marine Information House.

Some countries combine several of these elements. *Poland* uses both a digital platform and environmental layers, while *Sweden* and *Estonia* combine map-based outputs with broader technical support tools. *Belgium* did not provide a substantive response to this question.

6.3. Mechanisms to assess and/or monitor the effectiveness of conservation and restoration actions as well as mitigation measures included in MSP

The responses suggest that assessing the effectiveness of conservation, restoration and mitigation measures in MSP remains methodologically difficult. In most cases, it is easier to monitor whether planning provisions, recommendations or implementation measures have been introduced than to determine their actual ecological effectiveness. This is because environmental status depends not only on MSP, but also on wider sectoral pressures, external impacts and parallel regulatory or management frameworks.

In some countries such mechanisms are set in in or directly linked to MSP itself, such as plan monitoring, indicators linked to objectives, reporting on implementation, review/update procedures, or follow-up under strategic objectives. This is clearly visible in *France*, where objectives and actions are linked to indicators, in *Germany*, where plan evaluation and adaptation are clearly mentioned, and in *Latvia*, where a plan of measures with deadlines is linked to strategic objectives. *Poland* also partly fits here through reporting on the state of marine space and post-implementation follow-up.

The monitoring of effectiveness very often includes broader environmental monitoring systems operating beyond MSP itself, such as Natura 2000 monitoring, MSFD monitoring, environmental assessment procedures, project-related monitoring, or wider environmental reporting. This is especially clear in *Belgium* and *the Netherlands*, where monitoring is described mainly through Natura 2000 and MSFD-related frameworks.

In practice, many countries appear to rely on a combination of both pathways. Rather than operating as a fully self-contained effectiveness system, MSP is often linked to wider environmental monitoring and governance frameworks, and current efforts increasingly seem to focus on connecting these systems more explicitly.

7. Challenges and recommendations

7.1. Main challenges (gaps, obstacles) in integrating nature conservation/restoration actions into MSP

The most frequently reported barriers are structural (mandate, competences) and data-related (data, knowledge gaps) rather than technical planning issues.

Table 10. Main challenges in integrating conservation/restoration actions into MSP.

Challenge category	Countries
Limited MSP mandate / competences	DK, DE, FI
Data gaps and lack of knowledge, Cumulative impacts & uncertainty	DE, FR, LV, PL, SE
Weak effectiveness / monitoring mechanisms	FI, PL
Institutional / sectoral coordination issues	SE, DE, FR, PL
Political challenges - political arbitration, legitimacy issues, Political will, multi-level competence split	SE, FR, BE
No major challenges reported	EE

A repeating issue is the **limited mandate of MSP** in relation to conservation, restoration or sectoral regulation. This is especially clear in *Denmark, Germany* and *Finland*, where respondents emphasise that key measures remain outside MSP or under other authorities.

A second major challenge concerns **data gaps and insufficient knowledge**, particularly in relation to habitats, species, migration routes and cumulative pressures. This is mostly taken up in the responses from in *France, Germany, Latvia* and *Poland*. In *Sweden*, the challenge is framed more as difficulty in assessing cumulative impacts, defining limits and identifying tipping points.

Several responses also point to **institutional and coordination problems**, like unclear division of competences, weak integration between sectors, and difficulties in translating ecological knowledge into final planning or zoning decisions. This is particularly visible in the responses from *Germany, Poland, Sweden* and *France*. In *Belgium*, the challenge is described in terms of political will, limited knowledge and the division of competences between the federal and regional levels.

Some of countries mentioned **weak monitoring or effectiveness mechanisms**. This appears most clearly in responses from *Finland* and *Poland*, where the challenge is not only to include environmental considerations in the plan, but also to identify how MSP effectiveness can be assessed and strengthened over time.

Not all countries reported major challenges. *Estonia* stated that no major challenges were known, while *the Netherlands* indicated that there had been insufficient capacity to formulate a response to this question.

7.2. Main recommendations to enhance the role of MSP in supporting marine conservation and restoration

Across the responses, six recurring recommendation themes can be identified:

1. **improving data, knowledge and monitoring;**
2. **strengthening integration between MSP and environmental policy;**
3. **making conservation and restoration measures more operational;**
4. **strengthening the legal or practical role of MSP;**
5. **reinforcing ecosystem-based and cumulative impact approaches;**
6. **improving coordination across sectors and governance levels.**

A first repeated theme is the need to **improve data, knowledge and monitoring**. This is particularly visible in the responses from *Denmark*, *France*, *Latvia* and *Poland*, where respondents call for better accessibility of environmental data, stronger knowledge bases, improved monitoring, or new research programmes to support conservation and restoration decisions.

A second theme concerns the need **to strengthen the integration between MSP and environmental policy or conservation frameworks**. This is reflected in the responses from *Denmark*, *Germany*, *Sweden*, *Finland*, *France* and *Latvia*. The focus here is on improving alignment between MSP and existing biodiversity, restoration or protected-area policies, so that MSP can better support their implementation without necessarily replacing them. Spatial designations and their alternatives are to be adapted during the planning process considering environmental impacts.

A third recommendation theme is **to make conservation and restoration measures more operational within MSP**. This is especially clear in the responses from *Sweden*, *France* and *Poland*, where respondents pointed to the need for clearer instruments, stronger restrictions or more explicit implementation pathways linking planning provisions to real conservation outcomes. *Germany* added suggestions to include ecosystem function in definition of important areas for nature conservation and designate sites for active restoration measures.

A fourth theme relates to the need to **strengthen the legal role of MSP**. This is most evident in *Latvia*, where MSP is described as only conditionally binding, and in *Germany*, where priority areas for conservation strictly exclude incompatible uses. However, this recommendation also appears indirectly in other responses calling for MSP to influence conservation decisions more effectively.

Finally, several responses emphasise the need for **better cross-sectorial coordination and stronger ecosystem-based approaches**. This is visible in *Germany, Poland, Latvia* and *France*, where ecosystem-based approach and ecological limits are considered through improved cross-sectoral coordination, better alignment between authorities, or stronger use of cumulative-impact perspectives as far as possible.

8. Discussion

The material obtained through the survey and its analysis were discussed at the dedicated session of the [Synthesis workshop](#) (Gdansk, Poland, 30.-31.03.2026). Participants were invited to verify and complement information compiled through the survey and capitalize on additional inputs from other targeted projects and regions. In general, the discussion was focussed on two key questions:

- Which nature conservation actions fall under MSP remits?
- What are practical means to support restoration in MSP?

8.1. Nature conservation actions and MSP remits

Integration of nature conservation actions into maritime spatial planning is provided by the fact that MSP should apply an EBA and contribute to GES. It is also intended to enable efficient utilization of ecosystem services if useful, at the same time ensuring their sustainable functioning. Thus, MSP in general guides human activities through areas where nature conservation requirements set certain regulations.

However, MSP is so far the only tool/approach with a wider focus. It has the potential to be a forum for cross-sectorial negotiation from an ecosystem-based approach perspective, which in turns requires support through regulations and the organisational structure of authorities and decision making.

The fact that in many countries MSP is not binding brings additional uncertainty in identification of nature conservation actions which can be stipulated by national MSPs. The overall governance structure does not always give MSP a strong role in relation to conservation. It often remains just a guidance. It makes the task to balance between different "sectors" and "conservation" extremely challenging, as the advocacy for carrying capacity of marine and coastal ecosystems lays quite often on a single authority.

Nevertheless, MSP can support nature conservation through avoiding sensitive areas. This is often not "visible" in the plan, however, can be considered as a conservation action. Moreover, when CIA identifies zones where ecosystem functioning might be disrupted due to high environmental pressure, MSP should provide management actions accordingly, e.g. designating conservation zones in the plan.

Conservation actions in MSP are in general guided by a hierarchical framework:

- At the highest level, the ecosystem-based approach guides planning.
- Tools such as Strategic Environmental Assessment support decision-making.
- The core MSP action is spatial planning, particularly avoiding environmentally sensitive areas.

Additionally, sector-specific actions, addressing environmental impacts on specific biotopes originating from specific human activities, can be introduced. In relation to sector-specific actions sectorial character of “nature conservation” is a subject for debates. While it may not have the same lobbying strength as other sectors, conservation benefits from:

- Formal designations (protected areas)
- Site-specific assessments evaluating environmental impacts.

In general, four major situations describing integration of conservation actions into MSP can be distinguished:

1. **Managed conservation areas (MPAs)**
2. **Areas without conservation actions or management plans**
3. **Impacts on MPAs originating from outside their boundaries**
4. **Designated MPAs without management plans**

The first option, when marine protected areas are designated and managed is obviously the most preferable one. In this regard, strengthening dialogue with relevant authorities to encourage the development of management plans seems essential. However, in general MSP response to the identified cases might be described as following:

- **Managed areas (MPAs with management plans):**
MSP approaches vary by country, but generally, planning aligns with the objectives of the management plan. MSP can prioritise compatible activities and introduce restrictions (e.g. temporal or spatial limitations) in accordance with the MPA's plan.
- **Areas without environmental management:**
In such cases, MSP should be guided by the objective of achieving Good Environmental Status. Planning decisions should support this goal. Additionally, Other Effective Area-Based Conservation Measures (OECMs) (if identified) can provide useful guidance.
- **Impacts originating beyond MPA borders:**
MSP responses should rely on tools such as Strategic Environmental Assessment and Cumulative Impact Assessment (CIA) to address external pressures. However, MSP as a tool to manage human activities at sea faces significant restrictions of its capacity to address all varieties of pressures. Firstly, it concerns pressures originating from land such as input of nutrients, hazardous substances and marine litter. Secondly, there are human activities at sea which are not regulated by MSP but another legislative framework. However, these pressures might be highlighted in CIA and related documentation can be utilized to raise awareness and draw attention to actions required in other sectors.

- **Designated but unmanaged MPAs:**

While MSP cannot replace a formal management plan, it can partially compensate its absence by applying precautionary planning decisions, based on available environmental data. MSP can guide activities and introduce certain restrictions where possible.

Finally, it's worth to highlight that while concrete conservation actions exist, a key challenge lies in their operationalisation within planning, particularly in a context of overlapping legislation. It requires:

- **Robust environmental knowledge to identify hotspots, pressures, and areas of high ecological value.**
- **Designation of protected areas as one of the strongest and most effective conservation tools.**

The need for a regional perspective is strongly emphasised. While some solutions are identified at national level through SEA, they are often deferred to project-level Environmental Impact Assessments. This can result in a lack of a coherent regional perspective. However, regional approach is crucial to address issues such as ecological connectivity and migration corridors, enabling more effective national-level decisions aligned with broader regional needs.

8.2. Practical means to support restoration in MSP

Nature restoration regulations at national and European levels should be integrated into MSP to strengthen planning frameworks. However, MSP as an instrument for integrated management of human activities at sea possesses limited tools for direct support of restoration. Therefore, MSP plays more of an enabling and coordinating role rather than implementing restoration measures directly.

Four key means for indirect influence can be identified: raising awareness, building knowledge, facilitation of policy dialogue and enhancing administrative capacities.

The MSP process is capable to raise awareness about restoration with all the actors included in the process. It can facilitate the discussion across borders and sectors to understand potential coherence and avoid contradictory actions.

Improved knowledge requires better access to regionally consistent/coherent data (e.g. on ecosystem components) and identification of sensitive habitats with respective maps for restoration potential. Monitoring and knowledge sharing plays an important role which might also require a joint reporting mechanism.

Political ambition in setting restoration targets is the major driver. Respective goals should be clearly set, well communicated and linked to other marine restoration goals/measures and institutions. It might require national or even intergovernmental

working groups/resource centres in ecological engineering, in order to elaborate weighted and practical objectives.

Acknowledging that MSP has limited direct tools to influence on restoration activities, its practical contributions can be:

- Allocating space for restoration activities
- Raising awareness of restoration needs
- Data collection and analysis conducted within SEA processes
- The use of CIA tools to identify areas with restoration potential

To further enhance nature conservation in MSP, environmental authorities are recommended to:

- develop clear catalogues of conservation and restoration actions
- communicate this information with planners for integration into MSP.

MSP can become a valuable partner for the authorities responsible for nature restoration, as it provides a comprehensive overview of human activities and economic uses at sea. Learning networks, pilot projects, community-driven restoration initiatives could enhance mutual understanding. Regional cooperation strengthens exchange of information on conservation efforts and transboundary data such as distribution maps, bird migration corridors, etc., leading to learning from neighbours' examples of good practice.



Overview of actions for enhancement of nature conservation and restoration in MSP

This project document summarises findings of project task 3.2 (Overview of actions for enhancement of nature conservation in MSP) and intended to contribute to the WP3's key deliverables: a catalogue of mitigation measures and policy brief. The document presents nature conservation and restoration actions included in maritime spatial plans in the North Sea and Baltic Sea basins and analysis of their typology. It also presents a discussion on the role of MSP for nature conservation and restoration.



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