Swedish Agency
for Marine and
Water Management

Scoping consultation for strategic environmental assessment of revised marine spatial plans in Sweden

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Content

1. Introduction

1.1 Introduction and reading guide

The Swedish Agency for Marine and Water Management (SwAM) held a national consultation on the scope of the strategic environmental assessment of marine spatial plans, for revised marine spatial plans from the 8th of July to the 10th of October 2022. In addition an ESPOO-notification is carried out from 1st December 2022 to 28th February 2023. This document is made available in the notification and describes the proposed scope of the strategic environmental assessment (SEA) according to Chapter 6, Sections 1-19 of the Environmental Code. Participating countries may provide comments on the scope of the SEA based on the proposed scope presented in this document.

The implementation of the SEA, assessing the impacts of the marine spatial plans on the environment, is part of SwAMs application of the ecosystem approach. SwAM is responsible for the SEA, including the preparation of the assessment's supporting material and the environmental impact statement (also referred to as the EIA-document) describing the environmental impact of the marine spatial plan. The purpose of the strategic environmental assessment is to integrate environmental considerations into planning.

This introductory chapter provides an overview of marine spatial planning, the new marine spatial planning process and the purpose of the strategic environmental assessment.

In Chapter 2, we describe the scope of the strategic environmental assessment where section 2.2 deals with the geographical scope, including transboundary impacts, and section 2.3 deals with scope in content, i.e. the assessment criteria for the SEA.

Chapter 3 provides an overall picture of the knowledge base underpinning the strategic environmental assessment.

Finally, in Chapter 4, we describe the interdependencies and links of marine spatial planning with other plans, programs and contexts. It provides an overarching policy framework that puts marine spatial planning in a broader context.

1.2 Ecosystem-based marine spatial planning

1.2.1 Marine spatial planning and the objectives of the marine spatial plans

The marine spatial plans shall demonstrate the most appropriate use of the sea. The plans provide spatial conditions for different types of activities or protection in the sea, based on a holistic perspective. Adopted marine spatial plans are guiding for further planning, management and licensing of projects. Marine spatial planning is one of several tools for the Government to control and influence activities and the state of the environment in the sea.

Marine spatial planning is the process in which marine spatial plans are developed. It organises current and future activities in marine areas in order to achieve environmental, economic and social objectives.

In July 2014, the EU adopted a Marine Spatial Planning Directive (2014/89/EU).The Directive requires marine spatial planning to promote the sustainable development of offshore energy, maritime transport, fisheries, aquaculture and the conservation, protection and improvement of the environment. The ecosystem approach shall be applied in planning so that the marine activities' pressures on the environment are compatible with good environmental status according to the EU Marine Strategy Framework Directive (MSFD).

The EU Marine Spatial Planning Directive was transposed into Sweden's national legislation in September 2014 through provisions in the Environmental Code (Chapter 4, Section 10) on national marine spatial planning, and 2015 through the marine spatial planning ordinance (2015:400) which regulates the implementation of marine spatial planning. The Environmental Code states that the purpose of the marine spatial plans is to contribute to long-term sustainable development.

The Marine Spatial Planning Regulation clarifies that the design of marine spatial plans shall contribute to good environmental status and that marine resources should be used sustainably, to promote development and coexistence in marine sectors.

New objectives in the planning process are mainly focused on increasing areas for energy production. In addition to these, the marine spatial plans will be updated based on new conditions for marine protected areas and for other interests when needed.

1.2.2 Overall timeline of the marine planning process

The marine spatial planning process is implemented according to a timetable guided by a number of government assignments:

- Government assignment to develop planning support for further areas offshore wind in the marine spatial plans (RK dnr: M2022/00276, HaV dnr 764-2022). The assignment is aimed at Svenska kraftnät, the Swedish Armed Forces, the Swedish Agency for Marine and Water Management, the Swedish Environmental Protection Agency, the Swedish Maritime Administration, the Swedish Energy Agency, the Swedish Board of Agriculture and Sweden's Geological Survey. The Swedish Energy Agency coordinates the work with planning data and the Swedish Agency for Marine and Water Management leads the planning process in accordance with the Marine Spatial Planning Ordinance. The Swedish Energy Agency shall report no later than the 31st of March 2023. The Swedish Agency for Marine and Water Management shall report no later than the 31st of December 2024.

- Government assignment to the Swedish Energy Agency and the Swedish Agency for Marine and Water Management to make a compilation of knowledge of conditions and possible measures for coexistence in areas with upcoming wind power establishment (RK dnr: N2022/00515, HaV dnr 899-2022). The assignment is implemented and presented jointly by the two authorities by the 28th of February 2023.

- Government assignment to the Swedish Agency for Marine and Water Management to, among other things, investigate how exclusive right to areas in territorial sea and Sweden's exclusive economic zone should be regulated and how an examination can be regulated for the handling of several simultaneous applications for offshore wind power in relation to the same area (M2022/00768, HaV dnr 1393-2022). The assignment shall be reported no later

than the 30th of November 2022.

- Assignment to the County Administrative Board to develop, with the support of the Swedish National Heritage Board, appropriate planning evidence on cultural environments in the national marine spatial planning. The Swedish Agency for Marine and Water Management shall guide the work, which shall be reported no later than the 31st of December 2024.

The scoping consultation is the first element of the strategic environmental assessment and is followed by the formal stages, Consultation, preliminarily from June — November 2023 and Review, around May — August 2024 (Figure 1). In conjunction with consultation, review and delivery to the Government, the environmental impact assessment is published together with proposals for marine spatial plans.

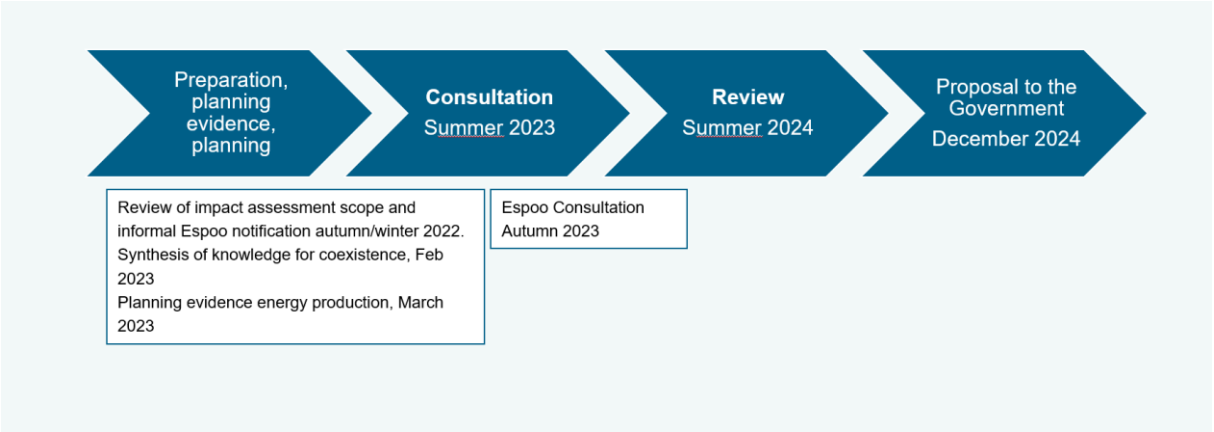

Figure 1 - Overall timetable for the maritime spatial planning process including environmental assessment.

1.3 Strategic Environmental Assessment of marine spatial plans

1.3.1 Formal requirements for strategic environmental assessment of marine spatial plans

According to the Environmental Assessment Ordinance, marine spatial plans are presumed to have a significant environmental impact as referred to in Chapter 6, Section 3 of the Environmental Code. There are therefore requirements for carrying out strategic environmental assessment in accordance with Chapter 6, Sections 1-19 of the Environmental Code. The work on strategic environmental assessment is documented in an EIA in the form of a single document for the three marine spatial plan areas.

The requirements for the environmental assessment of marine spatial plans are also based on the Environmental Code's portal clause according to which shall be applied in such a way that:
1. human health and the environment are protected against damage and detriment, whether caused by pollutants or other impacts;
2. valuable natural and cultural environments are protected and preserved;
3. biological diversity is preserved;
4. the use of land, water and the physical environment in general is such as to secure a long term good management in ecological, social, cultural and economic terms; and

5. reuse and recycling, as well as other management of materials, raw materials and energy are encouraged with a view to establishing and maintaining natural cycles.

The requirements mean that social and economic aspects also need to be included in the assessment of impacts.

1.3.2 Scoping consultation

Scoping of the SEA shall take place at an early stage in the planning process. The purpose of scoping of the SEA is, among other things, to ensure that the environmental assessment focuses on the environmental issues that are most relevant to the plan in question, with a sufficient level of detail. The marine spatial plans are large-scale and strategic but still need to relate to the specific characteristics and sensitivity of the areas in question. The SEA can, by providing a relevant description of the environmental impacts at the plan level, contribute to a more efficient process in subsequent licensing of different activities, with its project level environmental impact assessments. This not least by analysing the cumulative effects of different plan proposals, which is not possible in the same way at project level.

Marine spatial planning and the SEA shall support municipal planning at a more detailed level.

The SEA shall describe and assess the significant direct, indirect, cumulative, short-term and long-term cumulative effects. What is significant is assessed on a case-by-case basis based on, among other things, the type and degree of impact and the values and sensitivity of the site.

The focus of this planning round is on planning for more areas of energy production. The scope of the environmental assessment shall capture the effects linked to such areas, but also other significant effects resulting from the modified marine spatial plans.

1.3.2.1 Nationally

The authority that draws up or amends a plan shall consult on the scope and degree of detail of the SEA (Chapter 6, Section 10 of the Environmental Code). The marine spatial plans are plans at a national level as they together cover the most of Sweden’s seas. The national scoping consultation took place with those municipalities, county administrative boards and other authorities which, due to their specific environmental responsibilities, are likely to be affected by the marine spatial plan (Chapter 6, Section 10 of the Environmental Code).

The Swedish Agency for Marine and Water Management therefore conducted a broad consultation aimed at giving all interested parties, including industry and interest organisations, the opportunity to provide feedback.

1.3.2.2 In case of significant environmental impact in another country

The Espoo Convention together with the Protocol on the Strategic Environmental Assessment Directive (2001/42/EC) regulate consultations on transboundary significant effects on the environment. These have been implemented in Swedish law through transposition in Chapter 6 of the Environmental Code and the Environmental Assessment Ordinance (2017:966). The general requirements are to inform the countries concerned of current planning and to conduct consultations when planning proposals and EIA-document have been developed.

Responsibility for consultations vis-à-vis another country under the Environmental Assessment Ordinance is at the Swedish Environmental Protection Agency.

1.4 Terminology and definitions

Use is a term for the types of activities or interests categorised in marine plans: electricity transmission, energy production, investigation area energy production, defence, general use, culture, nature, recreation, sand extraction, investigation area sand extraction, shipping, investigation area shipping, and commercial fishery.

Pressure is the change in physical conditions caused by the implementation of the plan (e.g. use of an area leading to turbidity or noise).

The effect or impact is the change in the environment caused by a pressure on an ecosystem component (habitat or individual component of flora and fauna). Effects can be direct or indirect, cumulative, positive or negative, long-term or short-term and give rise to consequences.

The Ecosystem Approach is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. It aims to take into account both environmental and social contexts and integrated management methodology. The approach includes a number of guiding principles (the[1]"Malawi Principles"), including the principle of ensuring that the use of ecosystems takes place within their limits.[2]

Symphony ecosystem components (see heading 2.4.3) are habitats, species or groups of animals and plants that form part of marine ecosystems.

Ecosystem services are the products and services of natural ecosystems that contribute to human well-being. The concept helps to systematise and bridge ecology and society and makes it visible that well-functioning ecosystems are important for society, health and welfare.

Climate neutrality means that greenhouse gas emissions are net-zero.

Consequences are the importance of impacts from an environmental and societal perspective.

Environmental aspects are the aspects described in Chapter 6 of the Environmental Code, with regard to which themes the environmental assessment is carried out on.

The Environmental Impact Assessment (EIA) is the written report documenting the results of the Strategic Environmental Assessment.

Strategic Environmental Assessment (SEA) of plans and programmes is the process that includes certain elements that authorities and municipalities must carry out when drawing up or amending certain plans or programmes whose implementation is likely to have significant effects on the environment (Chapter 6 of the Environmental Code).

[1] Malawi principles, https://www.cbd.int/ecosystem/principles.shtml

[2] Ecosystem Approach, https://www.cbd.int/ecosystem

2 Scope of the strategic environmental assessment

In accordance with Chapter 6, Section 11 of the Environmental Code, an strategic environmental impact assessment shall include:

1. a summary of the content, purpose and relationship of the plan with other plans and programmes;
2. the identification, description and assessment of reasonable alternatives to the plan
3. details of:
   a. the environmental conditions and the likely development of the environment if the plan is not implemented;
   b. the environmental conditions in areas likely to be significantly affected;
   c. existing environmental problems relevant to the plan or programme, in particular relating to protected areas or other areas of particular importance to the environment; and
   d. how relevant environmental quality objectives and other environmental considerations are taken into account;
4. the identification, description and assessment of the likely significant environmental effects of the implementation of the plan;
5. information about the measures envisaged to prevent, hinder, alleviate or remedy significant adverse environmental impacts;
6. a summary of the considerations made, the reasons behind the choice of alternatives and any problems associated with the compilation of data and information;
7. a description of the follow-up and surveillance measures planned to follow up the significant environmental effects resulting from the implementation of the plan; and
8. a non-technical summary.

This chapter describes the scope of the SEA with respect to items 2, 3 and 4 and the part of item 6 that concerns uncertainty in the assessment.

2.1 Temporal scope and alternatives

According to Chapter 6, Section 11 of the Environmental Code, reasonable alternatives must be identified, described and assessed taking into account the purpose and geographical scope of the plan or programme. Reasonable alternatives may be different planning scenarios to achieve the objectives of the plan or programme (prop. 2003/04:116). In accordance with Chapter 6, Sections 12 and 16 of the Environmental Code, the SEA shall also describe why the plan or programme was adopted instead of other reasonable alternatives.

In the SEA, reasonable alternatives shall be assessed taking into account the purpose and geographical scope of the plan or programme. In the context of the SEA, alternatives will be addressed as follows:

- The environmental effects of the plan will be assessed against a so-called zero alternative, which describes the conditions and the likely development of the environment if the plan proposal were not implemented. The zero alternative assumes that the marine plans adopted

by the Government in February 2022 are fully implemented. This means that the SEA will show the difference in terms of environmental effects between the new plan proposals and the marine spatial plans adopted in 2022.

- Environmental effects will also be assessed against the current situation, which describes the environmental status in 2023.
- If different planning options are developed within the marine spatial planning process, the SEA will analyse the environmental effects of the plan alternatives relative to the zero alternative. In some areas or for certain environmental effects, it may also be relevant to assess both the environmental effects of plan alternatives against the current situation and the zero alternative against the current situation. This enables an assessment of the aggregate effects that are expected to arise from the implementation of the adopted marine spatial plans and the new plan proposals.
- If the marine spatial planning process does not develop plan alternatives, these might be developed as part of the SEA in order to show the effects of different choices concerning future uses of the sea. Such choices may include, among other things, different locations for energy production areas, different assumptions regarding fishing activities in wind farms or different assumptions concerning management measures in areas with particular consideration to high natural and cultural values. The environmental effects of these alternatives will be compared with those of the zero alternative and the current situation as described in the previous paragraph.

The reference year for both zero and plan alternatives is 2040. The reference year was set on the assumption that the full effects of the marine spatial plan will take between 10 and 15 years to materialise, in particular with regard to offshore wind development. It was also set taking into account time for implementation of management measures in areas with particular consideration to high natural or cultural values proposed in the plan. The SEA may also highlight the long-term effects and impacts of the application of the marine spatial plans beyond 2040.

2.2 Geographical scope

The marine spatial plans cover Sweden’s economic zone and the areas not included in real estate in the Swedish territorial sea from one nautical mile outside the baseline, referred to in the Act (2017:1272) on the Swedish Marine Territory and Zones (Figure 2). The SEA will analyse the significant effects on the environment that may result from the marine spatial plans, both inside and outside the planning areas, including on land.

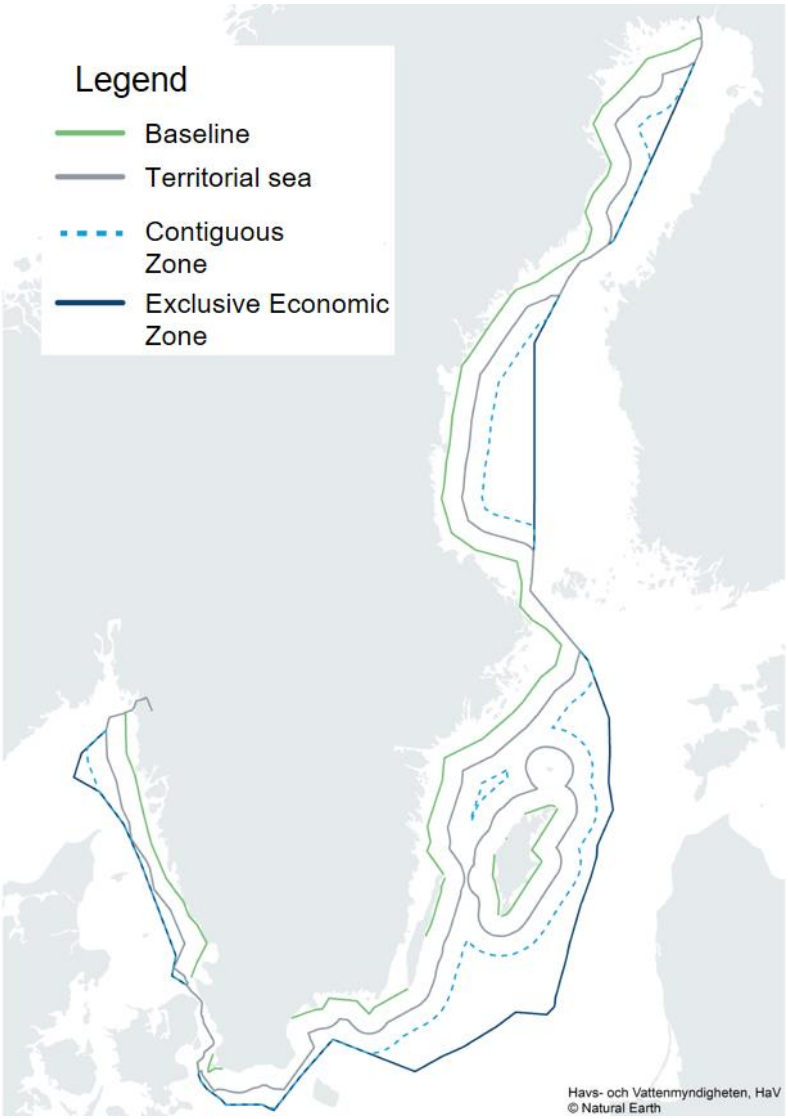

Figure 2 - Borders in the Swedish maritime territory.

Some environmental effect may be reported at the national level, such as effects on the economy of marine sectors and effects on human health and population.

Cross-border effects in relation to Sweden's neighbouring countries will also be reported where such effects are considered significant. Effects beyond neighbouring regions may also be relevant, for example in terms of effects on migratory species or shipping.

The plan areas have been divided into sea basins, which in turn are divided into areas (Figure 3). Environmental effects are reported for each marine plan area, but more detailed analyses at sea basin and area level may also be relevant depending on the environmental effects caused by the implementation of the marine spatial plans. The effects on populations whose distribution extends over multiple marine areas will be analysed at a higher level, for example at the national level and where relevant, also from a transboundary perspective.

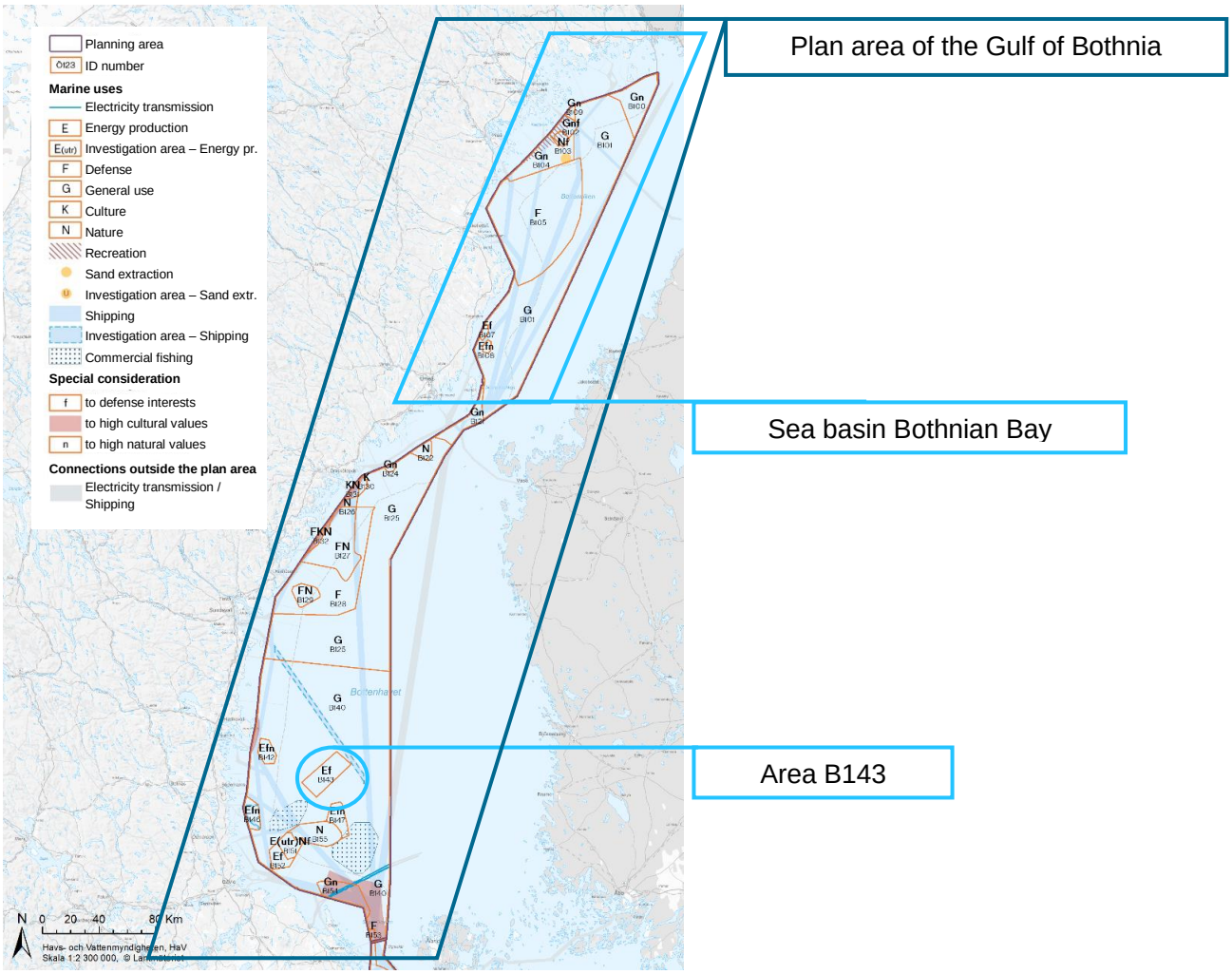

Figure 3 - Geographical assessment areas used in the environmental assessment

2.3 Thematic scope and assessment criteria

The starting point for setting the thematic scope of the SEA are the environmental aspects that are considered to be affected by the implementation of the marine spatial plans and which are listed in Chapter 6, Section 2 of the Environmental Code:

1. population and human health;
2. animal or plant species protected under Chapter 8, and other biodiversity;
3. land, soil, water, air, climate, landscape, and built and cultural environment,
4. the management of land, water and other parts of the physical environment;
5. other management of resources, raw materials and energy; or
6. other parts of the environment.

According to the same paragraph, the SEA shall take into account environmental effects that are direct and indirect, positive and negative, temporary and permanent, cumulative or individual (not cumulative), as well as effects that occur in the short, medium and long terms.

The following paragraphs describe how the above-mentioned environmental aspects will be interpreted and assessed in the context of the SEA. 14 includes an overview of the assessment methodology for each environmental aspect.

2.3.1 Population and human health

This environmental aspect will be assessed in terms of risks to human health from exposure to pollution from activities affected by the marine spatial plans. The assessment will also take into account more indirect effects on public health caused by changes in recreational and outdoor activities as a result of the guidance provided by the marine spatial plans. The assessment of these two types of effects includes an analysis of the distribution of effects among the population, including in cases of accidents or other unexpected events.

2.3.2 Protected animal and plant species in accordance with Chapter 8 of the Environmental Code and biodiversity in general

The assessment of this environmental aspect includes an analysis of the effects of the marine spatial plans on different marine animal and plant species. In several cases, the assessment will focus on species groups as a whole, but for protected or endangered species, species-specific assessments will be made. Environmental effects will be assessed in terms of effects on population size and distribution. For some species, other assessment criteria may also be relevant, such as the size and age structure of fish species or coverage of habitat-forming plants and animals.

2.3.3 Land, soil, water, air, climate, landscape, and built and cultural environments

This environmental aspect covers various aspects that will be assessed separately based on different assessment criteria.

Effects on land and soil are assessed on the basis of effects on sea bottom environments, which include both non-living (abiotic) and living (biotic) components, such as bottom structures and substrates and habitat-forming species. The assessment is based on the degree of physical disturbance and distribution of different bottom habitat types that occur within the assessment areas.

The environmental aspect water is assessed in terms of effects on water as habitat in offshore, coastal and transitional waters. The assessment is based on physical and chemical parameters according to the EU Water Framework Directive, as well as hydrodynamic parameters according to the MSFD.

Air and climate are assessed in terms of the effects on air quality of air pollution from marine activities that the marine spatial plans directly and indirectly affect, as well as effects on greenhouse gas emissions. Emissions of both air pollutants and greenhouse gases are mainly caused by combustion engines of vessels, the most common types of which are merchant vessels, fishing vessels and recreational boats. The effects on climate will also be assessed in terms of changes in greenhouse gas emissions associated with increased offshore renewable energy production. The SEA will also take into account adaptation to climate change in terms of both how the implementation of the marine spatial plan will affect adaptation, and how climate change could add to the other effects of the marine spatial plans.

The effects on landscape will be assessed in terms of the effects on visual interference at different points at sea and on the coast, as well as the possible effects on other characteristics of landscapes. The main influencing factors are considered to be fixed installations at sea and to a lesser extent vessels, depending on their size and number.

The environmental aspect of cultural environments will be assessed in terms of the consequences for cultural environments mainly as a result of changes in the landscape, which relates to the previous environmental aspect. Effects on the built environment will be assessed in terms of changes in infrastructure and settlements in the coastal zone as a result of changes in the maritime activities affected by the marine spatial plans.

2.3.4 Management of land, water and the physical environment in general, as well as other management of resources, raw materials and energy

Assessment of this environmental aspect involves an analysis of whether the use of land, water, physical environment, etc. as affected by the marine spatial plans constitutes good management in relation to the carrying capacity of the natural environment and the benefits to society. The assessment will compare the guidance provided by the marine spatial plans with other possible uses, for example, according to current national interests or sectoral planning. It will be based on an analysis of environmental and indirect effects on various economic and social aspects, such as value added and employment in the sectors affected by the marine spatial plans.

2.3.5 Other parts of the environment

No additional elements of the environment are to be included in the SEA other than the ones reviewed above.

2.4 Methodological approach

2.4.1 The approach in brief

The environmental assessment of the marine spatial plan proposals will include the identification, description and assessment of significant environmental effects in accordance with Chapter 6, Section 1 of the Environmental Code, and an assessment of the economic and social effects that the implementation of the marine spatial plans is expected to have. The assessment will therefore apply a methodological approach based on the cascade model,[3] which encompasses these different aspects (Figure 4).

The approach consists of three main elements. The first part is the environmental assessment part, within which the effects of the marine spatial plans on ecosystems will be estimated. The second part consists of a simplified ecosystem service analysis where the results of the first part will be interpreted in terms of effects on relevant ecosystem services. The effects on ecosystems and ecosystem services resulting from the implementation of the marine spatial plans are then used in the third part of the approach for estimating economic and social effects for society, with a particular focus on the marine sectors.

[3] Haines-Young, RH, Potschin, M (2010) The links between biodiversity, ecosystem services and human well-being, Ecosystem Ecology: A New Synthesis. Cambridge University Press, (s110-139)

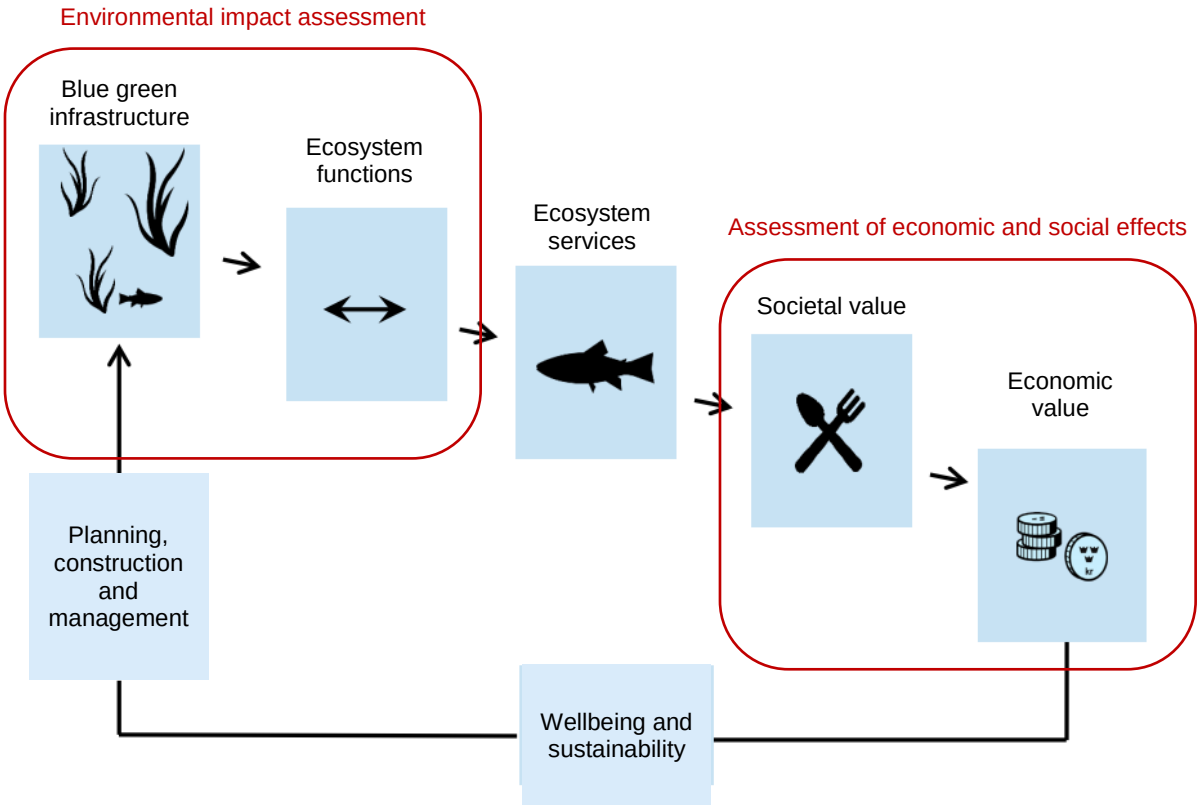

Figure 4 - Schematic image of the cascade model underlying the methodological approach.

2.4.2 A method in different steps

The first step of the environmental assessment method consists of identifying the environmental aspects to be included in the assessment. The overall categories are set out in Chapter 6, Section 2 of the Environmental Code (12.3), but they need to be further specified in terms of species groups and individual species, habitat types and biotic and abiotic parameters that are likely to be affected by the marine spatial plans. The choice of environmental aspects will be based on the ecosystem components of Symphony that formed the basis for the SEA of the latest marine spatial plan proposals in 2019 (Table 1). This list will be revised based in part on other sources and in part on responses to the scoping consultation. A similar procedure will be followed to specify the other environmental aspects mentioned under 12.3.

Environmental aspect	Ecosystem Components in Symphony Gulf of Bothnia	Baltic Sea	North Sea
Plankton communities	Pelagic plankton	Pelagic plankton	Pelagic plankton
Fish, incl. spawning areas	*Pelagic species/species in the free water mass:* Herring, sprat, vendace *Demersal/bottom species:* Cod *Migratory species:* Eel *Other:* Spawning areas Fish in estuaries	*Pelagic species/species in the free water mass:* Herring, sprat *Demersal/bottom species:* Cod *Migratory species:* Eel *Other:* Spawning areas Fish in estuaries	*Pelagic species/species in the free water mass:* Herring, sprat *Demersal/bottom species:* Cod *Migratory species:* Eel *Other:* Spawning areas Fish in estuaries
Marine mammals	Grey seal Porpoise Baltic Sea Ringed seal	Grey seal Harbour seal Porpoise Belt Sea Porpoise Baltic Sea	Grey seal Harbour seal Porpoise Belt Sea Porpoise North Sea
Birds *	Wintering seabirds offshore Wintering coastal birds Coastal birds	Wintering seabirds offshore Wintering coastal birds Coastal birds	Wintering seabirds offshore Wintering coastal birds Coastal birds
Bottom environments *athletic:* founder than 30 m aphotic*:* between 30 and 60 m depth *depth:* deeper than 60 m	Angiosperms (flowering plants) Deep reef Coarse bottom aphotic Coarse bottom deep Coarse bottom photic Haploops reef Hard bottom aphotic Hard bottom deep Hard bottom foot Artificial reef Coastline Soft bottom aphotic Soft bottom deep Soft bottom photic Mussel reef Transport bottom aphotic Transport bottom deep Transport bottom photic	Angiosperms (flowering plants) Deep reef Coarse bottom aphotic Coarse bottom deep Coarse bottom photic Haploops reef Hard bottom aphotic Hard bottom deep Hard bottom photic Artificial reef Coastline Soft bottom aphotic Soft bottom deep Soft bottom photic Mussel reef Transport bottom aphotic Transport bottom deep Transport bottom photic	Angiosperms (flowering plants) Deep reef Coarse bottom aphotic Coarse bottom deep Coarse bottomphotic photic Haploops reef Hard bottom aphotic Hard bottom deep Hard bottom photic Artificial reef Coastline Soft bottom aphotic Soft bottom deep Soft bottom photic Mussel reef Transport bottom aphotic Transport bottom deep Transport bottom photic

Table 1 - Environmental aspects and ecosystem components in Symphony.

(*) Bird species: Wintering seabirds offshore and wintering coastal birds: Velvet scoter (*M fusca*), long-tailed duck (*C hyemalis*), common scoter (*M nigra*), eider (*S mollissima*).
Coastal birds: black-tailed godwit (*L limosa*), razorbill (*A torda*), dunlin (*C alpina schinzii*), barnacle goose (*B leucopsis*), pied avocet (*R avosetta*), common term (*S hirundo*), Arctic term (*S paradisaea*), common murre (*U aalge*), black guillemot (*C grylle*), Caspian tern (*H caspia*), lesser black-backed gull (*L fuscus*), velvet scoter (*M fusca*), parasitic jaeger (*S parasiticus*), European shag (*G aristotelis*), black-legged kittiwake (*R tridactyla*), northern pintail (*A acuta*), garganey (*S querquedula*), ruddy turnstone (*A interpres*), common pochard (*A ferina*), greater scaup (*A marila*), ruff (*C pugnax*), common eider (*S mollissima*), little tern (*S albifrons*), Sandwich tern (*T sandvicensins*) and European herring gull (*L argentatus*).

The second step of the assessment method includes the evaluation of the different environmental aspects for each geographical area. In most cases, this evaluation is based on existing sources,

such as maps of abundance of species and habitats, or assessments of cultural values. For those environmental aspects where previous assessments are not available, the evaluation will be carried out in the context of the environmental assessment with the support of subject matter experts. In this process, the assessment criteria for certain environmental aspects may also be reviewed.

The third step consists of identifying and estimating how the human activities included in the marine spatial plans affect the chosen environmental aspects. This involves mapping each activity in time and space based on Symphony, other sources and expert judgement. An assessment is then made of the effects of each activity on each environmental aspect, in part through Symphony for the environmental aspects included in the tool (see 2.4.3) and in part on the basis of existing studies and in some cases expert judgement. The effects are assessed in terms of intensity, geographical scale and duration, according to the scales set out in Table 2.

Criterion	Scale
Intensity	Highly positive (> 10 percent lower effect) Moderately positive (6-10 percent lower effect) Small positive (2-5 percent lower effect) Marginally positive (0-2 percent lower effect) Zero (no effect) Marginally negative (0-2 percent higher effect) Small negative (2-5 percent higher effect) Moderately negative (6-10 percent higher effect) Largely negative (> 10 percent higher effect)
Geographical scale	Local (within the sea basin) Regional (in the plan area) National (within Swedish territory and EEZ) International (cross-border)
Duration	Short term (up to 2 years) Medium term (between 2 and 5 years) Long term (longer than 5 years) Irreversible/permanent

Table 2 - Scales for assessing the intensity, geographical scale and duration of environmental effects.

For the social and economic aspects, the effects on ecosystem components may first need to be interpreted in terms of the effects on ecosystem services relevant for the human activities in the marine spatial plans. Table 3 presents an initial proposal for the ecosystem services to be included in the analysis.

Use class	Use subclass [code]	Category	Group	Example
Food	Food from wild animals (both from land and water) [1.1.1.4]*	Supplying	Biomass	Production of cod
Food	Food from cultivated aquatic plants and algae [1.1.1.5]	Supplying	Biomass	Production of algae
Food	Food from farmed aquatic animals [1.1.1.6]	Supplying	Biomass	Production of rainbow trout, char, mussels, crayfish
Energy	Wild plants, fungi or algae for energy production (both terrestrial and aquatic) [1.3.1.4]	Supplying	Biomass	Production of tree biomass, macroalgae biomass
Regulation of physical, chemical and biological conditions	Erosion control and stabilisation of masses [2.2.1.1] *	Regulatory and enforcement	Regulating normal flows and extreme events	Erosion control and sediment stabilisation of plants (in aquatic environment including attached animals)
Regulation of physical, chemical and biological conditions	Upright holding of nursery and growing up environments [2.2.2.3]*	Regulatory and enforcement	Maintenance of life cycles, protection of habitats and protection of gene pools	Provision of nesting and breeding grounds for huntable game species, breeding places for fish fry (e.g. shallow bottoms)
Regulation of physical, chemical and biological conditions	Regulation of saltwater chemistry through living processes (water treatment) [2.2.5.2]	Regulatory and enforcement	Water conditions	Nutrient regulation of edge zones; nutrition regulation/ water treatment of eel grass
Regulation of physical, chemical and biological conditions	Regulation of the Atmosphere chemical composition (Carbon bonding) [2.2.6.1]	Regulatory and enforcement	Composition and conditions of the atmosphere	Carbon sequestration of plants, carbon bonding of phytoplankton
Direct interaction with living systems that require presence in the environment	Characteristics of living systems that enable activities that promote health, recovery or well-being through active interactions [3.1.1.1] *	Cultural	Physical interaction with natural environments	Provision of attractive recreational environments
Direct interaction with living systems that require presence in the environment	Characteristics of living systems contributing to cultural or historical heritage [3.1.2.3] *	Cultural	Intellectual interaction with natural environments	Organisms and/or ecological functions contributing to the maintenance of cultural landscapes
Remote, indirect, interactions with living systems that do not require presence in natural environments	Characteristics or functions of species or living systems having an intrinsic value of existence [3.2.2.1/3.2.2.2]	Cultural	Biotic egesics that have non-user values	Provision of endangered species, nature types and ecosystem processes

Table 3 - Proposals for ecosystem services to be included in the analysis. Ecosystem services marked with (*) are prioritised on the basis of the anticipated environmental effects of the marine spatial plans. Classification according to Naturvårdsverket

(2017), Ekosystemtjänstförteckning med inventering av dataunderlag, Rapport 6797 (*Swedish Environmental Protection Agency (2017), Ecosystem service list with inventory of data, Report 6797*).

The effects of the marine spatial plans on ecosystems and ecosystem services are then assessed in terms of different effects on social and economic values based on expert judgement. A starting point for the selection of assessment criteria is the list used in the 2019 Sustainability Appraisal of the marine spatial plan proposals (Table 4). This will be complemented with other sources and based on responses to the scoping consultation. In this process, the assessment criteria for certain economic and social effects may also be reviewed.

Dimension	Criterion	Indicator
Economic	Value added	Effect on value added in the sector as a result of the marine spatial plan.
Social	Availability	The extent to which the assessed sector has an effect on perceived accessibility as a result of the marine spatial plan;
Social	Health	The extent to which the assessed sector has an effect on human health as a result of the marine spatial plan;
Social	Employment	The extent to which the assessed sector has an effect on jobs as a result of the marine spatial plan;
Social	Cultural environments	The extent to which the assessed sector has an effect on cultural environments as a result of the marine spatial plan.

Table 4 - Criteria and indicators for assessing the effects on economic and social aspects from the 2019 Sustainability Appraisal of the marine spatial plan proposals (Hållbarhetsbeskrivning av havplaner. Underlag till regeringen, Havs- och vattenmyndigheten (2019), Dnr 3628-2019).

The fourth and final step of the environmental assessment includes compiling the results at an aggregate level and in relation to the objectives in relevant policy frameworks. This may mean, for example, an overall assessment per plan area of results for each environmental aspect in Chapter 6, Section 2 of the Environmental Code; an assessment per plan area against the environmental quality standards in the Marine Environment Ordinance and the Water Management Ordinance; and an assessment of all three marine spatial plans against Sweden’s environmental objectives and other targets based on the sustainable development objectives contained in the marine spatial plans.

2.4.3 Symphony Method

Symphony is an assessment method developed for the Swedish national marine spatial planning with the purpose of estimating the level and distribution of the aggregate environmental effects of marine spatial plans. Symphony calculates the spatial distribution of cumulative environmental effects, which means that every portion of the sea is given a value that describes how much human activities affect a representation of the marine environment.

The results are illustrated with the help of environmental effect maps, and partly through tables and diagrams that illustrate which sectors and pressures affect each ecosystem component. In Symphony, assumptions about changing conditions can be made to estimate the results of scenarios relative to human pressures. In this way, Symphony provides a quantitative basis to the

environmental assessment. Cumulative environmental effect is calculated, among other things, for assessing the current environmental state, the baseline and plan options, as well as for specific analyses.

2.4.4 Uncertainty in the assessment

Uncertainty at different levels may affect the results of the SEA. Lack of knowledge about the marine environment and how it is affected by various factors, including human activities, is an important source of uncertainty. In particular, there is a lack of knowledge about offshore marine ecosystems, in particular with regard to interactions between different ecosystem components. Advanced models describing ecosystems have been developed and are constantly evolving, but they are based on assumptions and simplifications with different types and degrees of uncertainty.

There is relatively good knowledge about the main marine activities, but there are important gaps in knowledge about how the activities affect individual ecosystem components or ecosystems as a whole. Most marine areas are currently affected by a variety of human pressures, and in most cases it is not possible to distinguish and assess the effects of individual activities. It can therefore be difficult to establish causal relationships between an observed environmental effect and a particular human activity. For the same reason, there is also some uncertainty in the assessment of how environmental changes affect social and economic aspects such as value added and employment.

Uncertainty increases when assessing effects at higher levels of aggregation, as the number of different system components and interactions between them increases. The assessment tool Symphony provides a representation of these causal relationships, but is based on a number of assumptions and different data sets that contain uncertainties. Symphony results will therefore need to be complemented with other sources in order to reduce uncertainty in the assessments.

Another source of uncertainty relates to the future implementation of the marine spatial plans. According to Swedish legislation, the plans provide strategic guidance and do not specify or regulate how the different uses will be developed. The results of this guidance are largely determined by the way in which is the plans are interpreted and applied by the sectors and management authorities. A series of assumptions will need to be made about how private investments, permit processes and other decisions affecting marine activities will develop as a result of the marine spatial plans. Such assumptions are especially uncertain in sectors experiencing fast technology development, such as offshore wind energy development.

In order to be transparent about the validity of the assessment results, the SEA will describe all assumptions and uncertainties that are deemed to have affected the results.

3 Knowledge base for assessment

The SEA will primarily use existing data and knowledge. Additional studies may be needed in cases where relevant or up-to-date knowledge is lacking in order to make a good assessment. In such cases, the Swedish Agency for Marine and Water Management will be responsible for commissioning or producing the necessary knowledge, in consultation with subject matter experts from other organisations. The SEA will include a full disclosure of used sources according to customary practice.

The SEA of marine spatial plans is a complex process involving many different areas of knowledge. The knowledge base will necessarily reflect this complexity and is expected to include, inter alia, the following types of sources:

- Symphony data, in the form of maps of distribution of different ecosystem components, intensity of environmental pressures caused by different maritime activities, and cumulative environmental effects.
- Marine environmental monitoring data, including maps;
- Statistics about the different maritime industries, including environmental, social and economic aspects;
- Studies on the current situation and trends regarding environmental status and use of the marine environments in Sweden and neighbouring regions. This includes specific surveys, modelling and mapping of nature values for specific species and habitats, as well as maritime activities and their environmental effect.
- Expert judgements from subject matter experts on relevant topics.

4 Relationship with plans, programmes and other relevant processes

An SEA shall contain a summary of the plan's main purpose and its relationship with other relevant plans and programmes in accordance with Chapter 6, Section 11 of the Environmental Code. This section intends to present the relationship with relevant plans and programmes based on the objectives of marine spatial planning.

Marine spatial plans shall aim at sustainable development and planning shall be based on objectives and strategies at local, regional, national and international level, including EU level. The following section includes overarching strategic documents on sustainable development, municipal planning and environmental objectives. Strategies and targets are intended to guide regional and municipal priorities and municipal overview and detailed plans.

The selection of plans, programmes and other relevant processes presented in the section is mainly based on their relevance within the current government assignment to identify new areas for energy production in the marine spatial plans.

4.1 Areas of national interest, policy documents and spatial planning

4.1.1 Areas of national interest

Areas of national interest are geographical areas that have been designated as nationally important areas. Proposals for a marine spatial plan shall be consistent with regulations for land and water use management and shall be consistent with specified areas of national interest as set out below:

- Areas of national interest in accordance with Chapter 3 of the Environmental Code, reported by national authorities of interest.
    - These include national interest in commercial fishing, nature conservation and outdoor recreation, conservation of the cultural environment, facilities for energy production and electricity distribution, facilities for communications, and total defence. Areas of national interest and respective authorities are specified in Section 2 of the Ordinance (1998:896) on management of land and water areas.
- Areas of national interest under Chapter 4 of the Environmental Code (specified directly in the Act)
    - These concern larger areas with high natural and cultural values as well as values for outdoor activities and include coastal areas and Natura 2000 sites (listed in special order).

The marine spatial plans shall guide the use of the sea areas based on designated areas of national interest and trade-offs between them.

4.1.2 Extension of the transmission network

During the autumn of 2021, Svenska kraftnät (authority of transmission system for electricity) was commissioned by the Government to develop a plan for the expansion of the transmission network in Swedish marine territory. The mission was presented in June 2022 and proposed six offshore connection nodes along the coasts of the country. The geographical location of the connection points could have an impact on the indicative use of marine spatial planning on energy extraction, if they will be realised. The planning of these connection nodes has although currently been postponed.

4.1.3 Sustainable development strategies, a Swedish marine strategy, and the EU

According to the Marine Spatial Planning Ordinance, proposals for a marine spatial plan must be designed in such a way that the plan integrates economic, social and environmental objectives. The *National Strategy for Regional Sustainable Development across the country from 2121 to 2030* sets out a number of national strategic areas and priorities for overarching objectives relating to economic, social and environmental objectives. The national strategy shall guide the direction of regional development strategies (RUS)[4] and govern the state resources for regional development work. National regional development policies are part of the implementation of the 2030 Agenda and are closely integrated with the EU's strategic objectives, directives and sectoral policies.

The major societal challenges that highlighted in the national strategy for sustainable regional development are; *environmental problems and climate change, demographic change and widening inequalities nationally and within the EU*. The strategy identifies a number of strategic areas to serve as a basis for the implementation of regional development policy. The strategic areas that are considered to be primarily relevant for marine spatial planning are: *equal opportunities for living, work and well-being throughout the country*, which includes *good urban planning* where community planning *"promotes a social structure that contributes to sustainable habitats, reduced climate impact, conservation of biodiversity and ecosystem services in a changing climate*", and the strategic area *of accessibility throughout the country through digital communication and transport* [5].

Sweden has as well a *Swedish national marine strategy*, decided by the government in 2015. The strategy sets out the Government's vision for the development of marine industries: *Competitive, innovative and sustainable maritime industries that can contribute to increased employment, reduced environmental pressure and an attractive living environment*. The vision is based on three similar perspectives: *Seas in balance*, *Competitive maritime industries* and *Attractive coastal areas*. The marine spatial plans are highlighted in the strategy as an important instrument for steering development in the Swedish sea areas. The strategy covers and integrates several policy areas, such as industrial policy, regional development policy, social objectives, and sectoral policies relating to the sea and its use, as well as environmental policy. The strategy thus constitutes a guidance for implementing an integrated maritime policy in Sweden.

[4] &https://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/forordning-2017583-om-regionalt-tillvaxtarbete_sfs-2017-583>

[5] & https://www.regeringen.se/rattsliga-dokument/skrivelse/2021/03/skr.-202021133/> and,

<https://www.regeringen.se/4956ea/contentassets/53af87d3b16b4f5087965691ee5fb922/nationell-strategi-for-hallbar-regional-utveckling-i-hela-landet-20212030>

The Swedish Maritime Strategy also notes the importance of the EU's specific strategies for the different sea basins. For Sweden, the EU Strategy for the Baltic Sea Region is relevant, with its Action Plan for Sustainable Development and Implementation of the EU Green Deal and Agenda 2030[6].

The EU Strategy for the Baltic Sea Region aims to strengthen cooperation to jointly address challenges and opportunities. The strategy has three overarching objectives *Saving the Sea, Connecting the region and Increasing prosperity* and a nine sub-objectives. The strategy has an action plan with 14 policy areas (PA) and actions. The action plan includes policy areas such as spatial and marine planning (PA Planning), as well as policy area Energy (PA Energy), with actions and targets regarding renewable energy. According to the Strategy, adaptation to the Green Deal and the EU's 2050 climate neutrality objective requires the integration of climate change measures and the promotion of sustainable development into the strategy as a whole and in all its policy areas. Swedish marine spatial planning is closely integrated with neighbouring country work in the policy area within the strategy, its actions within the action plan and also related to the implementation of HELCOM's Baltic Sea Action Plan (BSAP).

With relevance to marine spatial planning are as well particular sectoral strategies such as, climate and energy strategies, strategy related to transport, fisheries, outdoor activities and security and defence policies, which all have specific objectives relevant to marine spatial planning. The EU Blue Economy Strategy and[7] Offshore Renewable Energy Strategy[8], as well as proposals for an updated Renewable Energy Directive,[9] promote implementation and objectives of the EU Green Deal.

The European Union's *Green Deal* is a roadmap which aims to transform into a modern, resource-efficient and competitive economy. *The Green Deal* comprises a number of targets, including industrial transition towards a climate-neutral EU by 2050. In addition to climate neutrality, the initiative includes efforts to protect people, animals, plants, habitats and that companies should become world leaders in clean goods and technology, and contribution to a just transition for all[10].

Renewable energy production targets are based on international agreements such as the Paris Agreement, which is reflected in Swedish and European energy policy. In the EU, the proposed REPowerEU plan is now[11] in place to speed up the transition in the energy sector to reduce import dependency and increase investment in renewable energy and hydrogen. The proposed plan includes, among other things, proposals to amend Directive (2018/2001) on the promotion of the use of energy from renewable sources. Amendments include, inter alia, land and sea basin designation schemes for energy production, including the management of environmental impact assessment.

[6] <https://www.regeringen.se/contentassets/86a578f7a521469e9b6b8c62ac5aa128/maritim-strategi.pdf>

[7] <https://ec.europa.eu/oceans-and-fisheries/ocean/blue-economy/sustainable-blue-economy_en>

[8] <https://energy.ec.europa.eu/topics/renewable-energy/eu-strategy-offshore-renewable-energy_en>

[9] <https://energy.ec.europa.eu/topics/renewable-energy/renewable-energy-directive-targets-and-rules/renewable-energy-directive_en>

[10] <https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_sv#documents>

[11] &https://www.regeringen.se/49f1ff/contentassets/6831d5c34e214871b6e01ac488da6521/planen-repowereu-samt-meddelande-om-el--och-gasmarknaden-202122fpm102

4.1.4 Regional development strategies

According to Ordinance (2017:583) on Regional Growth, each region is required to develop regional development strategies (RUS). Regional development strategies aim to provide an overall picture of how the region intends to develop and provide regional perspectives for the implementation of sustainable development. Taking into account sectoral claims and assets, these strategies are relevant to marine spatial planning. The EU Strategy for the Baltic Sea Region, the National Strategy for Sustainable Development, the Maritime and Fisheries Programme, as well as municipal master plans including maritime areas[12], shall guide the orientation of regional development strategies. Regional development strategies shall be developed in cooperation with the municipalities, regions concerned, county administrative boards and other relevant state authorities. These strategies should be anchored locally and regionally.

4.1.5 Municipal and regional planning

According to the Planning and Building Act, PBL, (2010:900), each municipalities shall have a comprehensive plan for the entire municipality, including the sea area (internal water and territorial sea) within the municipality's borders. Through the marine spatial planning ordinance, municipalities and the state have overlapping planning responsibilities in the territorial sea.

The overlap implies that the state and municipal planning levels coincide within a geographical zone in the territorial sea. This may lead to differences between municipal and government planning interests in the overlapping zone. The overlap poses a challenge for state and municipal planning regarding collaboration and dialogue in future planning. Through good cooperation between the state and the municipality, future conflict of objectives between planning levels can be minimised. The overlapping zone may also imply that state marine plans can contribute to the development and strengthening of municipalities' coastal zone and territorial sea planning.

Regarding cross-municipal issues such as infrastructure, climate aspects and housing supply, regional spatial planning is also carried out according to the PBL. Regional planning aims to facilitate municipal planning and other planning. A regional plan shall provide the basis for the use of land and water areas. The regional plan is non-binding but should be serve as guidance for detailed development plans and area regulations. According to PBL, regional planning is to take place in the counties of Stockholm and Skåne. For the rest of the counties, it is voluntary. Regional plans are relevant to marine spatial planning based on their spatial planning, linking seas and land, for example in terms of infrastructure and climate aspects.

According to the Act (1977:439) on municipal energy planning, each municipality should have a current plan for the supply, distribution and use of energy in the municipality. In its planning, the municipality shall promote energy management and promote a safe and sufficient supply of energy[13].

[12] <https://riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/forordning-2017583-om-regionalt-tillvaxtarbete_sfs-2017-583>

[13] The Act on Local Energy Planning, & https://www.energimyndigheten.se/energieffektivisering/lagar-och-krav/lagen-om-kommunal-energiplanering/>

4.2 Environmental and climate objectives

4.2.1 National environmental objectives

Sweden's environmental objectives system includes a generational goal, 16 environmental quality objectives, and six milestone targets. The generational goal is an overarching goal for Swedish environmental policy and serves to guide environmental action at all levels of society. It focuses on a number of environmental efforts to clarify the implications of the target and what it should focus on. The efforts especially relevant for marine spatial planning are considered to be: *Ecosystems have recovered, or are about to recover, and their ability to generate long-term ecosystem services is secured. Biodiversity and the natural and cultural environment are preserved, promoted and used sustainably. Human health is exposed to minimal negative environmental impact while promoting the positive impact of the environment on human health. The share of renewable energy is increasing and energy use is efficient with minimal impact on the environment.*

Of the 16 Swedish environmental quality objectives, it is primarily *A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos*, *Reduced Climate Impact*, A *Non-Toxic Environment*, *Zero* E*utrophication*, *A Rich Diversity of Plant and Animal Life and A Good Built Environment* that is considered to be central to marine spatial planning. Central to the environmental quality objective is to achieve a sustainable use of the marine environment and its resources. But also clarifications on good environmental status according to the Marine Environment Ordinance (2010:1341) and good chemical and ecological status according to the Water Management Ordinance (2004:660).

4.2.2 Marine and aquatic environment, national, EU and regional

The EU Marine Strategy Framework aims to achieve good environmental status in the EU's marine areas and is implemented in Sweden by the marine environment ordinance. The Swedish Agency for Marine and Water Management (HVMFS 2012:18) has define on what characterises good environmental status implies and established environmental quality standards with indicators for the Sweden's sea basins and established an environmental monitoring programme and an action programme. Marine spatial planning shall support the implementation of marine environmental management by taking into account the objectives of good environmental status and through spatial planning in favour of good environmental status. Marine spatial planning plays an important role, of the proposed action programme, such as measures to increase area of protection, contribute to favourable conservation status of species and habitats and develop guidance for marine environmental impact assessments.

To consider within marine spatial planning is as regional agreements, conventions and objectives for a better marine environment, such as HELCOM (Helsinki Convention), with an updated Action Plan for the Baltic Sea, as well as corresponding to the North-East Atlantic, OSPAR (Convention for the Protection of the Marine Environment of North-East Atlantic).

The EU Water Framework Directive do as well[14] relate to marine spatial planning based on land-based activities, water resources and potential indirect impact and utilisation factors on land and

[14] <https://www.havochvatten.se/planering-forvaltning-och-samverkan/vattenforvaltning/vattendirektivet/vattendirektivet.html>

seas. The Directive is implemented in Sweden through the Water Management Ordinance and has correspondingly targets for the environmental status of freshwater and coastal area. Sweden's five water authorities decide on management plans, environmental quality standards and action programmes.

4.2.3 Climate policy at national and EU level

In 2017, Sweden adopted a climate policy framework. The framework consists of a climate law, climate targets and a climate policy council. The Climate Act entered into force on the 1st of January 2018. The law imposes a responsibility on current and future governments to pursue policies based on climate objectives and to report regularly on developments. Sweden's long-term climate target means that by 2045 Sweden should not have any net emissions of greenhouse gases to the atmosphere, and thereafter achieve negative emissions. The target means that greenhouse gas emissions from Swedish territory should be at least 85 per cent lower by 2045 than in 1990. The remaining emissions down to zero can be achieved through so-called complementary actions. In order to reach the target, the capture and storage of carbon dioxide of fossil origin may also be counted as a measure where there is considered to be no other reasonable alternatives.[15]

National policies regarding climate adaptation is also considered relevant in terms of marine spatial planning. This includes work for increased preparedness and risk and vulnerability assessments based on Ordinance (2018:1428) on authorities' climate adaptation work and national climate adaptation strategy (Government Bill 2017/18:163), related on its priority of biological and ecological effects, but also generally linked to management areas and practical considerations within the framework of spatial planning.

The EU's 2050 climate neutrality objective is in line with international commitments under the Paris Agreement. Through a regulation on a European Climate Law,[16] the political ambition to achieve climate targets by 2050 becomes a legal obligation for the EU and, through its adoption, commits Member States to reduce net greenhouse gas emissions by 55 % by 2030. The EU Green Deal is the EU's strategy to achieve these targets and through the so-called 55 % package, it is expected to be put into practice. The package includes a set of proposals for the revision of climate, energy and transport legislation and for new legislative initiatives to align Union law with the EU's climate objectives[17].

The EU Strategy on Adaptation to Climate Change[18] and its actions, such as the collection and exchange of data and knowledge, as well as objectives to promote nature-based solutions to strengthen climate resilience and ecosystems are all relevant for marine spatial planning.

[15] <https://www.naturvardsverket.se/amnesomraden/klimatomstallningen/sveriges-klimatarbete/sveriges-klimatmal-och-klimatpolitiska-ramverk>

[16] <https://www.consilium.europa.eu/sv/press/press-releases/2021/05/05/european-climate-law-council-and-parliament-reach-provisional-agreement>

[17] https://www.consilium.europa.eu/sv/policies/green-deal/

[18] https://www.consilium.europa.eu/sv/press/press-releases/2021/06/10/council-endorses-new-eu-strategy-on-adaptation-to-climate-change

4.2.4 Biodiversity and fisheries

Marine protection areas [19], regional action plans for green infrastructure[20], counteracting physical impacts of the aquatic environment, restoration, measures for endangered species, counteracting invasive alien species[21] and regulations in fisheries are part of Sweden's efforts to strengthen biodiversity, combat climate change and promote sustainable use. The national work is mainly based on Sweden's implementation of the EU Habitats Directive, the EU Biodiversity Strategy 2030[22] and the EU's Common Fisheries[23]and Agricultural Policy[24]. The role of maritime spatial planning here concerns spatial guidance and trade-offs such as commercial fishing and the protection of natural values.

In 2020, the European Commission adopted a Biodiversity Strategy[25], as well as a strategy for a sustainable food system "From Farm to Fork"[26]. The Biodiversity Strategy includes a long-term plan for the protection and restoration of nature and ecosystems, including a goal of formally protecting at least 30 % of the marine area. Of this 30 %, one third should be strictly protected by 2030, i.e. 10 % of the entire sea area. The Biodiversity Strategy also covers areas for action on invasive alien species and threatened (red-listed) species, and includes Member States developing national commitments for protection and restoration. On 22 June 2022, the European Commission presented, as part of its strategy work, a proposal for a regulation on the restoration of nature, including the restoration of 20 % of the sea by 2030.

The Commission will request Member States to ensure by 2030 that there is no deterioration in the conservation trends and status of any of the habitats and species protected under the Birds and Species and Habitats Directive (for marine environments also EUNIS). The Strategy requires Member States to ensure that at least 30 % of all species and habitats that are not currently in favourable status reach that category or have a strong positive development. The Strategy also aims to achieve synergies with other initiatives included in the EU Green Deal, such as the Farm to Fork Strategy and represents the EU's contribution to international negotiations on global work on biodiversity and sustainable development.

Marine spatial planning has a role to play in supporting the implementation of these directives and strategies through the spatial guidance provided by the marine spatial plans on the use of the sea.

[19] <https://www.havochvatten.se/arter-och-livsmiljoer/atgarder-skydd-och-rapportering/skyddade-omraden/marina-skyddade-omraden/ramverk-for-marint-omradesskydd.html>

[20] <https://www.naturvardsverket.se/gron-infrastruktur>

[21] <https://www.havochvatten.se/download/18.4b6151c116b836ca6984081d/1605262122205/handlingsplan-spridningsvagar-invasiva-frammande-arter.pdf>

[22] & https://ec.europa.eu/transparency/documents-register/detail?ref=COM(2020)380 &lang=en>

[23] & https://www.europarl.europa.eu/factsheets/sv/sheet/114/den-gemensamma-fiskeripolitiken-ursprung-och-utveckling>

[24] & https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/cap-glance_sv>

[25] &https://www.naturvardsverket.se/om-miljoarbetet/miljoarbete-i-eu/biologisk-mangfald>
&https://environment.ec.europa.eu/strategy/biodiversity-strategy-2030_sv>

[26] & https://ec.europa.eu/food/horizontal-topics/farm-fork-strategy_en>