Deliverable 7.3 Marine Strategies for the Baltic Sea
First steps in the implementation of MSFD in Denmark, Poland, Finland and Sweden

Authors:

Mia Pihlajamäki, Riku Varjopuro, Marmar Nekoro, Matilda Valman, Eva Roth, Iwona Psuty, Eugeniusz Andrulewicz, Wojciech Pelczarski, Anna Luzeńczyk and Noora Hyvärinen

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EXECUTIVE SUMMARY

In 2008, the European Commission adopted its first legislative instrument for comprehensive protection of the marine environment, the Marine Strategy Framework Directive (MSFD). By the end of 2012, the first concrete steps have been taken in the implementation of the directive, including its transposition into national legislations and the preparation of the first phase of the national marine strategies, i.e. Initial Assessment (IA) (Art.8), Determination of Good Environmental Status (GES) (Art.9), and Setting Environmental Targets and Indicators (Art.10). These steps aim at national marine strategies that will further include a Monitoring Programme and a Programme of Measures. The aim of this report is to describe and compare the different preparation processes the MSFD enacted in Denmark, Poland, Sweden and Finland. Throughout the Baltic Sea region, the preparation process has been supported by informal EU level working groups as well as by HELCOM working groups and projects. While the former WGs have concentrated on creating common understanding and providing guidelines for the process, the contribution of the latter ones has been mainly on providing relevant information (i.e. assessments and indicators) for the Baltic Sea region. This study was conducted between June and October 2012 and therefore the observations presented in this report reflect to the processes that took place up to October 2012.

The MSFD had been transposed into national legislation in all of the case countries apart from Poland in which the transposition is expected to be finalised by the end of 2012. The delay in the transposition process has significant consequences to the preparation process of Polish national marine strategy. However, all of the four countries failed to finalise the first phase of the national marine strategies (i.e. articles 8, 9 and 10 of the directive) by July 15th 2012, as was required by the directive. Furthermore, the directive stipulated that the first phases of the national marine strategies are reported to the Commission by October 15th 2012, but Denmark was the only country able to report the complete first phase of its national marine strategy to the Commission by the established deadline.
The preparation processes and the modes of operation varied regarding, for example, the division of responsibilities in the preparation process. In Denmark and Sweden the responsibility for implementing the MSFD was given to a single agency, whereas in Poland and Finland the responsibility was shared between three ministries and their respective administrative sectors. In Denmark and Poland, the preparation of articles 8, 9 and 10 were outsourced through tendering to national research institutes, universities and a consultancy company (in Denmark), whereas in Finland and Sweden, the related authorities (government agencies and institutes) have carried out the preparatory work as a part of their official duties.

In all of the four countries, relevant administrative sectors participated in the preparation process, however, wider stakeholder participation was organised only through the hearing procedures. The hearing procedure was organised in Finland and Sweden in the spring of 2012 and in Denmark over the summer of 2012. The procedure will be organised in Poland after the transposition of the MSFD has been finalised. Despite of the short – only 4 weeks long – hearing procedures over a hundred comments were received in Finland and over seventy in Sweden. In Denmark, the process lasted for 12 weeks and 28 comments were received.
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>BSAP</td>
<td>Baltic Sea Action Plan</td>
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<tr>
<td>CFP</td>
<td>EU Common Fisheries Policy</td>
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<td>EC</td>
<td>European Commission</td>
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<td>ENGO</td>
<td>Environmental Non-Governmental Organization</td>
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<td>EU</td>
<td>European Union</td>
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<td>EU COM</td>
<td>European Commission</td>
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<td>GES</td>
<td>Good Environmental Status</td>
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<td>HELCOM</td>
<td>Helsinki Commission</td>
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<td>HELCOM CORESET</td>
<td>Development of HELCOM core set indicators with targets</td>
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<td>HELCOM GEAR</td>
<td>Group for the Implementation of the Ecosystem Approach</td>
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<td>HELCOM JAB</td>
<td>Joint advisory board</td>
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<td>HELCOM MONAS</td>
<td>Monitoring and assessment group of HELCOM</td>
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<tr>
<td>HELCOM TARGREV</td>
<td>Review of environmental targets for eutrophication</td>
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<tr>
<td>HVMFS</td>
<td>Havs- och vattenmyndighetens föreskrifter (Swedish Agency for Marine and Water Management, SwAM)</td>
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<td>ICES</td>
<td>International Council for the Exploration of the Sea</td>
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<td>MER</td>
<td>Marine Environmental Regulation</td>
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<td>MS</td>
<td>Member State (of the European Union)</td>
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<td>MSCG</td>
<td>Marine Strategy Coordination Group</td>
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<td>MSP</td>
<td>Marine Spatial Planning</td>
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<td>NGO</td>
<td>Non-Governmental Organisation</td>
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<td>NIP</td>
<td>National implementation Plan</td>
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<td>REACH</td>
<td>European Union regulation concerning the Registration, Evaluation, Authorisation and restriction of Chemicals</td>
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<td>SEPA</td>
<td>Swedish Environmental Protection Agency</td>
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<td>SMHI</td>
<td>Swedish Meteorological and Hydrological Institute</td>
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<td>WFD</td>
<td>Water Framework Directive</td>
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<td>WG ESA</td>
<td>Working group on economic and social assessment</td>
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<td>WG GES</td>
<td>Working group on good environmental status</td>
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<td>WG DIKE</td>
<td>Working group on data, information and knowledge exchange</td>
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1 INTRODUCTION

1.1 Aim of the report

In 2008, the European Commission adopted its first legislative instrument related to the protection of marine biodiversity, the Marine Strategy Framework Directive (MSFD) (European Union, 2008). By the end of 2012, the first concrete steps have been taken in the implementation of the directive; first, the Member States were required to transpose the directive into national laws, regulations and administrative provisions by July 15\(^{th}\) 2010; second, the directive stipulates that the first part of the implementation is finalised by July 15\(^{th}\) 2012. The latter includes (i) 'initial assessments' (IA) that describe the use of the marine resources and respective pressures on the marine environment, (ii) determination of Good Environmental Status (GES), and (iii) establishment of environmental targets and a set of indicators for following how the progress towards GES proceeds. The process of defining the GES and setting of targets are decisive steps in policy formulation, since they set the goal for actual regulations and support mechanisms that will be defined later (2015) in the national Programmes of Measures. The directive also requires that the Member States report articles 8, 9 and 10 within three months of their completion, i.e. October 15\(^{th}\) 2012.

In addition to its technical and scientific dimensions, the preparation of the national marine strategies and the consecutive implementation of the MSFD introduce new governance structures and processes for the Member States (and the regional seas). As is typical for the European Union (EU) directives, the directive itself does not define in a detailed manner what governance structures and processes are expected from the Member States. Therefore, the directive can enact very different processes in different Member States. National marine strategies introduce also new contents for the marine governance. The freedom of Member States in terms of the contents is, however, limited as the directive and its annexes define general descriptors of the GES and have also introduced a list of possible indicators. The requirements on the content of the work thus have implications also on the decision making process, because the initial
assessment describes 'a system-to-be-governed' (Kooiman et al. 2008) that is not detached from the governing system.

This report focuses on the governance aspects of the preparation of national marine strategies regarding Articles 8, 9 and 10 of the MSFD (i.e. the initial assessment, determination of good ecological status and establishment of environmental targets). More specifically, the main question addressed by our research is: What kind of preparation processes has the MSFD enacted in the Member States in the Baltic Sea region? The main focus is on four countries: Denmark, Poland, Finland and Sweden, which are studied through independent case studies (Annexes 1, 2, 3 and 4 respectively).

The case studies are based on relevant documents and reports as well as semi-structured interviews with experts and authorities involved in the preparation processes in each country. The study was conducted between June and October 2012. It should be noted that the preparation processes are on-going until the expected finalisation of the national marine strategies in 2015 and therefore the observations presented in this report only reflect to those processes that had been taken place by October 2012.

1.2 The Marine Strategy Framework Directive

The underlying idea behind the MSFD is to confirm common objectives and principles among the Member States (MS) of EU for protecting and maintaining marine ecosystems. It was adopted on 17 June 2008 and it is the first comprehensive legislative instrument related to the protection of marine environment in EU. The aim of the MSFD is to protect the marine environments across Europe more effectively and to achieve Good Environmental Status in all sea-areas by 2020. For the European Union it is also important to establish a framework for cooperation in the field of marine environmental policy.

According to the MSFD the European sea areas can be divided in to the following four: the Baltic Sea, the North-East Atlantic, the Mediterranean and the Black Sea (Art.4). Countries that are located in the coasts of these seas and are members of the
European Union are required to implement the directive. Cooperation with neighbouring countries and third countries in the same marine region is considered a prerequisite for achieving the agreed goals of the MSFD.

"Sharing our marine waters does not mean only sharing the benefits from the seas, but also addressing together the numerous challenges to be faced in achieving Good Environmental Status." (European Commission, 2012a)

The underlying idea is that in order to achieve good environmental status, the different conditions, problems and needs of every sea-area have to be taken into consideration, as each regional and sub-regional sea-area requires its unique solutions. Cooperation between the coastal states around each sea-area is essential in order to ensure coherence between the various national strategies. Furthermore, the best possible accuracy is achieved when the Member States develop the strategies themselves (i.e. instead of them being developed at the EU-level). All interested parties should be given an opportunity to participate in the implementation of the directive and therefore the directive requires that each Member State organizes a public consultation (Art.19).

The directive encourages Member States to utilize already existing marine cooperation-organizations, international forums and marine conventions (Art.6). These organizations already have existing interest, experience and expertise relating to their respective seas. These sea region based conventions also facilitate the cooperation with the non-EU member state countries in the coastal areas. In the Baltic Sea region this body is the Helsinki Commission (HELCOM).

The implementation process of the directive has been divided into various steps (see Figure 1, page 9). The directive should have been transposed into national legislation by July 15th 2010, after which the Member States had two years to prepare the national marine strategies with respect to the articles 8, 9 and 10, i.e. the initial assessment, the determination of good environmental status and the establishment of environmental targets and indicators. These constitute the first phase of the

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1i.e. the Barcelona Convention, Bucharest Convention, HELCOM, and OSPAR
preparation process. The detailed requirements are described in more detail later (chapter 1.2.1). The second phase of the preparation process corresponds to the development of the monitoring programs, which should be finalized in 2014 (Art.11) and the third phase on the programmes of measures that are going to be prepared in 2015 and taken into operation in 2016.

![Figure 1](image.png)

**Figure 1. Implementation process of the EU Marine Strategy Framework Directive. This report focuses on topics of the two highlighted boxes.**

After 2016, the process continues by reviewing the marine strategies every six years after their initial completion (Art. 17). In addition, the Member States submit a brief report concerning the implementation of their respective marine strategies to the Commission every third year (Art.18). The marine strategies currently under preparation are going to be updated in 2018.
1.2.1 Preparation of the national marine strategies

The European Commission requires that the Member States carry out the following actions for the national marine strategies by July 15th 2012:

1. Initial Assessment (IA) (Art.8)
2. Determining Good Environmental Status (GES) (Art.9)
3. Setting Environmental Targets and Indicators (Art.10)

During the first phase of the implementation, every MS develops an initial assessment of their marine waters (Art.8). The IA is an analysis, which assesses the current ecological state of the sea and the pressures and impacts, including human activity affecting the environmental status of the sea. It should also include an economic and social analysis of the use of those waters and the cost of the degradation of the marine environment.

Based on the IA, each Member State determines a set of characteristics for GES for their respective marine waters (Art.9). The European Commission has listed qualitative descriptors that should be taken into consideration when determining GES (Annex I of the Directive). These are:

1) Biological diversity is maintained. The quality and occurrence of habitats and the distribution and abundance of species are in line with prevailing physiographic, geographic and climatic conditions.
2) Non-indigenous species introduced by human activities are at levels that do not adversely alter the ecosystems.
3) Populations of all commercially exploited fish and shellfish are within safe biological limits, exhibiting a population age and size distribution that is indicative of a healthy stock.
4) All elements of the marine food webs, to the extent that they are known, occur at normal abundance and diversity and levels capable of ensuring the long-term abundance of the species and the retention of their full reproductive capacity.
5) Human-induced eutrophication is minimized, especially adverse effects thereof, such as losses in biodiversity, ecosystem degradation, harmful algae blooms and oxygen deficiency in bottom waters.
6) Sea-floor integrity is at a level that ensures that the structure and functions of the ecosystems are safeguarded and benthic ecosystems, in particular, are not adversely affected.

7) Permanent alteration of hydrographical conditions does not adversely affect marine ecosystems.

8) Concentrations of contaminants are at levels not giving rise to pollution effects.

9) Contaminants in fish and other seafood for human consumption do not exceed levels established by Community legislation or other relevant standards.

10) Properties and quantities of marine litter do not cause harm to the coastal and marine environment.

11) Introduction of energy, including underwater noise, is at levels that do not adversely affect the marine environment.

Qualitative descriptors are a starting point for describing the good environmental status. To complete these and to facilitate the preparation of marine strategies in coherent and holistic manner in the same marine region, the European Commission established a criteria and a list of indicators for these descriptors (European Commission, 2010).

After defining the GES, the directive requires Member States to establish a comprehensive set of environmental targets and associated indicators (Art.10). These targets should be based on the initial assessment and respect marine regions. Environmental targets set goals for future and guide the work with marine strategies towards good environmental status in the marine areas. When carrying out this action, Member States should take into account the indicative list of pressures and impacts in Table 2 of Annex III. This indicative list gives detailed information about pressures and impacts such as physical loss, physical damage, other physical disturbance, interference with hydrological process, contamination by hazardous substances, systematic and/or intentional release of substances, nutrient and organic matter enrichment and biological disturbance. Also Annex IV, in which an indicative list of characteristics that must be regarded when setting environmental targets is presented, should be taken into consideration.
The European Commission requires that the Member States report the implementation of the directive three months after the completion of each phase (Art 12, 16).
According to the directive, the Commission will then evaluate if these phases meet the required framework. The Commission also evaluates the coherence of these elements within the different marine regions and across the Community.

1.2.2 European Commission working groups

The implementation of the MSFD is supported by three informal EU level working groups (WGs). These groups facilitate the Commission and the Member States in the implementation of the directive. In addition, Marine Strategy Coordination Group (MSCG) was established for the coordination of the three WGs and other activities under the common strategy (European Commission 2009). The participants of the group, as well as of the WGs, included representatives from the Member States, European Commission, non-member state countries, stakeholders, regional seas conventions and consultants. The groups have been meeting regularly since 2009 and the work in all the groups is on-going.

The main task of the Working Group on Economic and Social Assessment (WG ESA) has been to develop common methodologies and approaches to the economic and social analysis of the use of the marine waters and of the cost of degradation of marine environment (corresponding to Art 8.1 c). As a result of the WG ESA meetings, a guidance document for economic and social analysis for the initial assessment was produced (European Commission 2010b). This document presents different methods and approaches that can be applied by the Members States. For example, for the economic and social analysis of the use of marine waters, the ecosystem services approach or the marine water accounts approach can be used. For the cost of degradation, three different approaches are suggested. These are 1) the ecosystem service approach, 2) the thematic approach, and 3) the cost-based approach. The Member States are not obliged to use any of these; these are merely suggestions on how the analysis could be done.
The Working Group on Good Environmental Status (WG GES) was established to provide a consistent and comparable approach across all marine regions by the Member States with respect to Articles 8, 9 and 10. In 2011, the working group compiled a guidance document on Common Understanding of Initial Assessment, Determination of Good Environmental Status and Establishment of Environmental Targets (Claussen et al. 2011). The document provides a coherent and consistent approach to the articles 8, 9 and 10. It attempts to aid understanding and highlights commonalities, but it should only be applied when appropriate, as the document does not necessarily take into account the differences between the marine regions and the subregions in particular. To facilitate the implementation of the descriptors and standardization of monitoring methods, two technical working groups under the WG GES were also established.

The main task of the Working Group on Data, Information and Knowledge Exchange (WG DIKE) has been to support Member States with their data reporting obligations. As a result, the WG DIKE produced a guidance document for the reporting in 2012 (European Commission 2012b), particularly concerning articles 8, 9 and 10. The reporting framework includes "reporting packages" with reporting sheets, guidance documents and a concept paper on the approach to reporting under the MSFD.

1.3 HELCOM's role in the implementation of the MSFD

MSFD encourages Member States to utilize the already existing commissions and conventions in the regional marine areas during the implementation process and in developing country-specific marine strategies. In the Baltic Sea region this is done through the Helsinki Commission (HELCOM), which governs the Convention on the Protection of the Baltic Sea area. All nine coastal states of the Baltic Sea are members of HELCOM and since the EU enlargement in 2004, eight of these coastal states are also members of the EU. The preparation of the HELCOM Baltic Sea Action Plan (BSAP) coincided with the preparation of the directive. Consequently, the MSFD and the BSAP (HELCOM 2007) have the same target to reach good environmental status in the marine areas by 2020 and 2021, respectively. Furthermore, HELCOM's

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2 Although endorsed by the MSCG and the Marine Directors, this is a living document.
activities have been planned so that they benefit the implementation of both the MSFD and the BSAP (see e.g. HELCOM 2011). During the HELCOM Ministerial meeting in Moscow in 2010, it was agreed that HELCOM functions as a coordination platform for the implementation of the Directive in the Baltic Sea region (HELCOM 2010).

In addition to the abovementioned, HELCOM has had a coordinating role in the development of indicators, setting targets and preparing assessments (HELCOM 2011). Since 2010, the technical coordination of the MSFD implementation in the Baltic Sea region has been organized through the Joint Advisory Board (JAB) of the HELCOM projects CORESET (Development of HELCOM core set indicators, 2010-2013) and TARGREV (Review of ecological targets for eutrophication of the HELCOM BSAP, 2010-2011). The 11 descriptors identified in the directive are all addressed by the JAB, but the main focus is on biodiversity, hazardous substances and eutrophication. The CORESET project develops indicators and environmental targets for biodiversity and hazardous substances and the TARGREV project for eutrophication. Although the work in these projects is first and foremost driven by the implementation of BSAP, the indicators and targets can also be used for the implementation of the directive. The work of these projects and the JAB are supported and monitored by the HELCOMs Monitoring and Assessment Group (MONAS), which also facilitates the elaboration of the initial assessment and determination of good environmental status.

In 2012, the HELCOM Group for the Implementation of the Ecosystem Approach (GEAR) was established. The aim of the group is to support the implementation of the Baltic Sea Action Plan, but since the ecosystem approach is also one of the key elements in the MSFD, the GEAR serves as a regional coordinator for the implementation of the directive as well, especially with respect to articles 8, 9, 10, 11 and 13.
2. IMPLEMENTATION OF THE MSFD IN DENMARK, POLAND, FINLAND AND SWEDEN

Throughout the Baltic Sea region, the preparation processes of articles 8, 9 and 10 have been supported by informal EU level working groups as well as by HELCOM working groups and projects. The former WGs have concentrated on creating common understanding and providing guidelines for the process (i.e. how to approach it), the contribution of the latter ones has been mainly on providing relevant information (i.e. assessments and indicators) for the Baltic Sea region thereby contributing to the harmonisation of the national strategies in the region. Despite the joint efforts at the various WG meetings, the actual preparation processes have varied between the four case study countries in terms of organisation and mode of operations as well as the order in which the three articles were prepared and how experts and stakeholders were engaged to the process. This section of the deliverable presents a synthesis of the processes in the studied countries, while the Annexes present country specific descriptions.

2.1 Meeting the MSFD deadlines

The first task in each country after the adoption of the directive in 2008 was to transpose the MSFD into the national legislations by July 15th 2010. Out of the case study countries, Sweden was the first one to finalise the transposition, although Sweden as well as the other countries failed to finalise the transposition by the required date (see Figure 2, page 16). In Sweden the directive was implemented into the national legislation under the Marine Environmental Regulation (2010:1341) on November 18th 2010. In Finland, the transposition took place through the Water and Marine Resources Management Act (1299/2004), which was amended to include in the MSFD on April 1st 2011 (272/2011), and through the Government Decree on Marine Resources Management (980/2011), which makes the legislation more specific with respect to the MSFD. In Denmark, the MSFD was transposed into the legislation through “The Law of the Sea by 26th of May, 2010 (Lov nr. 522 af 26/05/2010) with later changes (Lov nr 580 af 18/06/2012)” in 2012. The directive is
expected to be transposed into the Polish legislation by the end of 2012 and through the Water Management Act (1229/2001) with later changes (consolidated text 145/2012 af 10/01/2012).

![Diagram showing transposition of the MSFD into national legislation in Sweden, Finland, Denmark and Poland.](image)

**Figure 2.** Transposition of the MSFD into national legislation in Sweden, Finland, Denmark and Poland.

With respect to the first phase of the national marine strategies, i.e. articles 8, 9 and 10, the MSFD requires that the phase is finalised by July 15th 2012 and that these are reported to the Commission three months later. All of the four countries failed to finalise the first phase of their national marine strategies by the given deadline (see Figures 3-6). In Denmark, the three respective articles were in the public consultation
process until the 27\textsuperscript{th} of August 2012, after which amendments were made accordingly and the final version was approved by the Minister of the Environment. Poland failed to finalise the first part of the Polish Marine Strategy by July 15\textsuperscript{th} 2012 due to the abovementioned delays in the transposition process. Poland has prepared the drafts of Articles 8 and 9, however these as well as Article 10 are not going to be finalised until after the transposition. Although Finland was able to finalise Articles 8, 9 and 10 over the summer of 2012, the finalisation of the official document and the subsequent Government approval are expected by the end of 2012. Sweden was able to finalise articles 8 and 9 by the required deadline in July, but the finalisation of article 10 is expected by December 15\textsuperscript{th} 2012. As a results of various delays encountered in Poland, Finland and Sweden, Denmark was the only country (out of the four) able report the first phase of its national marine strategy to the Commission by required date of October 15\textsuperscript{th}, 2012.

2.2 Division of responsibilities in the preparation process

In Denmark and Sweden the responsibility for the implementation of the MSFD has been given to a single agency, whereas in Poland and in Finland the responsibility is shared between three ministries and their respective administrative sectors. In Denmark the division of responsibilities are laid down by the Ministry of the Environment in the Circular on Transfer of Tasks and Authority to the Danish Nature Agency (Circular no 1411 of 08/12/2010). The Danish Nature Agency was thereby made responsible for the implementation of the MSFD in Denmark (§22).

In Poland, the Ministry of the Environment Protection in agreement with the Ministry of Agriculture and Rural Development, and the Ministry of Transport, Construction and Maritime Economy is responsible for the implementation of the MSFD. More precisely, the Chief Inspectorate for Environmental Protection is responsible for MSFD transposition, and the preparation of Articles 8 and 9, while the President of the National Water Management Authority is responsible for Article 10.

In Finland, the responsibilities of the different authorities are identified in the national legislation. The Ministry of the Environment, the Ministry of Agriculture and
Forestry, and the Ministry of Transport and Communications are responsible for the implementation of the MSFD. The Ministry of the Environment together with the Finnish Environment Institute and the Centre for Economic Development, Transport and the Environment for southwest Finland are responsible for coordinating the preparation of the national marine strategy, but other relevant authorities are also expected to participate.

In Sweden, the responsibility for implementation of the MSFD and preparation of the Swedish Marine Strategy was first given to the Swedish Environmental Protection Agency, but when the Swedish Agency for Marine and Water Management was formed in 2011 it took over most of the responsibility for issues related to sea and freshwater, and hence the overall responsibility to implement the MSFD.

2.3 The preparation process

The preparation process of articles 8, 9 and 10 and the mode of operation in each of the four countries are illustrated in Figures 3-6 below. In Denmark and Poland the preparation of Articles 8, 9 and 10 were outsourced through tendering, whereas in Finland and Sweden, the relative authorities have carried out the preparatory work as a part of their official duties.

The Danish Nature Agency outsources the preparation of articles 8, 9 and 10 to the Danish Scientific Environments (i.e. universities) and a private consultancy company. Danish Centre for Environment and Energy (University of Aarhus) was responsible for the basic analysis relating to the three articles and COWI-consulting together with the University of Southern Denmark were responsible for the socio-economic analysis of the initial assessment (Article 8). In order to integrate and coordinate the line-ministerial interests in the Danish Marine Strategy, these ministries were invited to participate in the preparatory process (via meeting and written consultations), partly to contribute to the process, and partly to safeguard stringent management solutions across ministries authority. In addition, earlier negotiations and agreements between industry and the Danish Nature Agency on limiting pollution in the marine environment have also been taken into account.
Similarly in Poland, preparatory work was outsourced through tendering. There was one tender for the general preparation of Articles 8 and 9 and a second tender for the preparation of Articles 8 and 9 with respect to ichthyofauna. The first task was given to a consortium, which included the Institute of Meteorology and Water Management (IMWM) and Maritime Institute – National Research Institute (MN-NRI). The second task was given to the National Marine Fisheries Research Institute (NMFRI). Under these institutes, three expert groups were formed, one for the general preparatory work, another for the socio-economic analysis and a third one for the ichthyofauna related analysis. Relevant authorities under the administrative sectors of the three ministries responsible for the implementation of the MSFD also participated in the preparatory process. Also a workshop for a small group of NGOs was organised.
Figure 4. Preparation process of the Polish Marine Strategy - first phase
The preparation of the Finnish Marine Strategy was carried out by the relevant authorities under the administrative sectors of the three ministries and as part of their official duties. Two formal working groups were established by the Ministry of the Environment. The preparation process was overseen by the Coordination Group (CG), which was responsible for the coordination at political level. The Expert Group (EG) prepared articles 8, 9 and 10. Under supervision of the EG, workshops on articles 9 and 10 were organised and a socio-economic sub-group was established (article 8).

External experts were invited to the three workshops, including ENGOs, stakeholders, the Provincial Government of Åland, and the Ministry of the Environment of Estonia.

4 weeks long public consultation was organised in the spring 2012. Over a hundred comments were received.

The Government approval and the subsequent reporting to the Commission are expected by the end of 2012.

Relevant authorities carried out the preparation as part of their official duties.

The Ministry of the Environment, Finnish Environment Institute and Centre for Economic Development, Transportation and Environment for Southwest Finland coordinated the preparation process.

The Ministry of the Environment, Ministry of Agriculture and Forestry, and the Ministry of Transport and Communications

Preparation of the first phase of the Finnish Marine Strategy

The products are approved by the Government

Figure 5. Preparation of the Finnish Marine Strategy - first phase

The preparation of the Finnish Marine Strategy was carried out by the relevant authorities under the administrative sectors of the three ministries and as part of their official duties. Two formal working groups were established by the Ministry of the Environment. The preparation process was overseen by the Coordination Group (CG), which was responsible for the coordination at political level. The Expert Group (EG)
was responsible for the preparation of articles 8, 9 and 10. Under supervision of the EG, workshops on articles 9 and 10 were organised and a socio-economic sub-group was established (article 8). External experts were only invited to participate in the three workshops on articles 9 and 10.

Figure 6. Preparation process of the Swedish Marine Strategy – first phase

The preparation of the Swedish Marine Strategy was carried out at Swedish Environmental Protection Agency and later the Swedish Agency for Marine and Water Management, as part of their official duties. The agency coordinated several expert groups that consisted of experts from the agency and experts from several different agencies, scientists, but also people that had been involved in implementing the water framework directive.
In all of the four countries, the relevant administrative sectors participated in the preparation process, however, wider stakeholder participation was organised only through the hearing procedure. A hearing procedure was organised in Finland and Sweden in the spring of 2012 and in Denmark over the summer of 2012. Despite of the short – only four weeks long – hearing procedures over a hundred comments were received in Finland and over seventy in Sweden. To give an example, in Finland, the hearing document was criticized by the ENGOs for lacking ambition, while the representatives of industry and commerce considered it to be too strict. In Denmark, the procedure lasted for 12 weeks and 28 comments were received. The hearing procedure will be organised in Poland after the adoption of the MSFD in to Polish legislation.

2.4 Regional cooperation

As already established above, all of the four countries participated in the working groups of HELCOM and EU. Consequently, these served as the main platforms for regional cooperation. In addition to these meetings, some of the key actors involved in the preparation processes in Finland, Sweden and Estonia have also had tripartite meetings in conjunction with international project meetings. Cooperation with third countries, such as Russia, was mainly limited to HELCOM meetings and other already existing cooperation platforms.

Although the role of HELCOM was considered important, especially as a source of data and assessments that are harmonised across the region, it was also criticised for not taking a more active role in the coordination of the preparation process in the region and not acting as a sparring partner. Whilst the aim of the HELCOM CORESET was to support the states in implementing the MSFD, it seems that none of the countries in full took into account the results of the project. One reason for this, mentioned by the interviewees, is that the states would anyhow need to refine their environmental monitoring programs and thereafter intercalibrate between each country’s data.


2.5 Interlinkages to other policies and the main focus of the national marine strategy

During the preparation of the national marine strategies, interlinkages to relevant regional and national policies and regulations were identified. The idea behind the integration is rooted in the possibility to enhance synergies and reduce trade-offs between relevant policies and regulations. Special interest was given to synergies relating to data production and reporting. The relevant policies and regulations include, e.g. Water Framework Directive, Habitats and Birds Directives, Common Fisheries Policy, EU regulation concerning the Registration, Evaluation, Authorisation and restrictions Chemicals (REACH), and Baltic Sea Action Plan. Various assessments produced by HELCOM and ICES were widely utilised.

During the preparatory work, the most important environmental issues (problems) were identified. In Denmark, reduction of eutrophication and the broader issues around “fish” were given the main focus, due to general knowledge coupled with scientific and political judgement. Their role as the most important issues has not been challenged during the process.

Sweden decided to focus on four of the 11 descriptors and their respective ecosystem services. These four descriptors are biological diversity, eutrophication, contaminants and marine litter. The rationale behind the selection of the four was based on their substantial environmental impact as well as the amount of knowledge available.

In Finland, six environmental targets, which correspond to the most significant environmental problems and pressures in the Finnish marine areas, were identified. These targets also correspond to the ones used in the BSAP and in various national protection plans. These are (in priority order): 1) reduction of nutrient input (eutrophication), 2) reduction of hazardous substances and the harmful impacts of such substances, 3) biodiversity and nature conservation, 4) developing maritime safety, 5) sustainable use of marine resources, and 6) exploitation of marine spatial planning. The last target was selected outside of the existing protection plans and is related to the upcoming Directive on marine spatial planning.
The preparatory work in Poland is still on-going, but it is expected by the experts from IMGW&IM that BSAP document would be a basis for future Polish marine strategy, especially environmental problems and targets prioritization.

2.6 Evaluation of the processes

The case studies reveal that the main problems encountered during the preparatory phase related to the lack of financial and human resources, but also lack of data (or limited access to it), methodological issues and knowledge on some of the 11 descriptors. Especially the former two imply certain challenges for the preparation of Programme of Measures and its implementation.

Another problem stems from the novelty of the preparation of national marine strategies. There were no detailed guidelines in the directive (nor its annexes) on how the strategies are supposed to be prepared. Therefore, during the preparation of the first phase of the national marine strategies, much of the time of the experts involved were spent in the different EU WG groups aiming to produce a common understanding on the requirements of the directive and how the marine strategies are to be prepared. Nevertheless, the decisions on how to pursue the preparatory work were made at national level and revised as new information about the requirements of the directive (including reporting requirements) emerged.

At this stage of the MSFD implementation process, it is not possible to draw conclusions on the effects of the mode of operation to the outcomes of the processes, however, some observations and the possible implications can be pointed out. First of all, through tendering the costs of the preparation process are fixed, which implies that the amount of effort is also fixed, whereas in the cases where the authorities participate in the process as part of their official duties, the actual costs and effort (their commitment to the process) are affected by the amount of other official duties as well as personal preferences (i.e. prioritization). Second of all, the engagement of the experts involved in the preparatory work of articles 8, 9 and 10 throughout the MSFD implementation process is most likely achieved in the case of the latter as they are obliged by the law not a fixed period contract. The participation of the same
experts in the preparation of the Programme of Measures would enhance coherence between the different phases of the MSFD implementation process.
REFERENCES


ANNEX 1.  CASE DENMARK

Author: Eva Roth, Department of Environmental Business and Economics, University of Southern Denmark

1.1 Introduction

The purpose of the task 7.3. is to describe the preparation process of the implementation of the Danish national marine strategy. Denmark has the obligation to participate in the protection of shared Seas with multiple interests, i.e. the North Sea, Kattegat, Skagerrak and the Baltic Sea.

1.2 Status of the MSFD

The MSFD were implemented in Danish law through “The Law of the Sea by 26th of May, 2010 (Lov nr. 522 af 26/05/2010) with later changes (Lov nr 580 af 18/06/2012)” in 2012. The law empowers the Minister of the Environment to implement the marine strategic framework. The legal framework follows the Danish legal tradition, as empowerment of the Minister to lay down the later Programme of Measures is common practice in the Danish legal framework. This implies an easier implementation of management measures, as the final regulations may be implemented as circulars/bylaws.

The specific responsibilities of implementation of the Danish Law of the Sea (MSFD) are laid down in circular no 1411 of 08/12/2010 by the Ministry of the Environment. The Danish Nature Agency is made responsible for the implementation of the MSFD (§22). In more detail may be added that the Danish Nature Agency is responsible to the Minister of the Environment with respect to all matters of implementation and coordination related to the national marine strategy. The Danish Nature Agency has a very central position in the Danish Management of the Environment covering nature protection, forests, planning, hunting and wildlife, part of protection of the marine environment, international nature protection areas, fresh water resources (not aquaculture), national parks, holiday houses and camping, just to list the most important legal frameworks managed through the Agency.
1.3 Organisation of the implementation process of Articles 8, 9 and 10

The Marine Strategy Process was coordinated by principal Torben Wallach. He was responsible for the coordination of articles 8, 9 and 10 of the Marine Strategy Framework Directive. As of the present it is actually Danish articles 6 (basic analysis), 7 (establish GES) and 8 (targets and indicators) which have been implemented, as the monitoring programme and programme of Measures are not due before 2014 and 2015. The targets were developed in house by the Danish Nature Agency with inspiration from HELCOM and OSPAR. The Agency does not have any sectoral research institutions under the Ministry of the Environment. The Danish Institutional changes in 2008 led to a merger between the Ministerial research institutions and the Universities. This changed the modus of the Agency from engaging their own scientists in their research-based management to more open competition (tendering) between private consultancy companies and Universities.

The preparation was eventually carried out through cooperation with the universities and a private consultancy company. Preparatory work was done through negotiation and finally settled through open tender. Danish Centre for Environment and Energy (DCE), led by Jesper H. Andersen, Aarhus University aided by The National Institute of Aquatic Resources were responsible for the basic analysis and COWI-consult, Christina van Breugel/Department of Environmental and Business Economics, University of Southern Denmark, Eva Roth were responsible for the socio-economic analysis.

The preparation of the basic analysis document were followed very closely by the Agency and aided by the National Institute of Aquatic Resources (NIAR). Pre 2008 DCE was part of Ministry of the Environment and NIAR had close ties to Ministry of Food, Agriculture and Fisheries. These two institutions naturally hold the necessary competencies and experience for assessing the status of the marine environment in accordance with the MSFD.

A broader group of people and institutions were engaged in the process of the social and economic assessment. Stakeholders were engaged and represented partly through line ministries, agencies and knowledge institutions during the preparation phase –
chaired by the Danish Nature Agency, who established the group and followed the process very closely. The Institutional and personal representation were the following:

**Table 1. Institutions and persons in the advisory group contributing to the socio-economic assessment 2011-12**

<table>
<thead>
<tr>
<th>Institution</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Danish Maritime Safety Administration</td>
<td>Kasper Jespersen</td>
</tr>
<tr>
<td>Danish Costal Authority</td>
<td>Hans Erik Cutoi-Toft</td>
</tr>
<tr>
<td>Danish Costal Authority</td>
<td>Lars Olsen</td>
</tr>
<tr>
<td>Danish Energy Agency (oil and gas)</td>
<td>Ulla Elm-Larsen</td>
</tr>
<tr>
<td>Danish Energy Agency (Wind turbine)</td>
<td>Rebekka Falk</td>
</tr>
<tr>
<td>Danish Maritime Authority</td>
<td>Helle Knudsen</td>
</tr>
<tr>
<td>Institute of Food and Resource Economics</td>
<td>Lars Ravensbeck</td>
</tr>
<tr>
<td>Ministry of Food, Agriculture and Fisheries</td>
<td>Kim Rægård</td>
</tr>
<tr>
<td>Institute of Food and Resource Economics</td>
<td>Max Nielsen</td>
</tr>
<tr>
<td>Danish Ministry of the Environment</td>
<td>Tage V. Andersen</td>
</tr>
<tr>
<td>Danish Ministry of the Environment</td>
<td>Jørgen Schou</td>
</tr>
<tr>
<td>Danish Nature Agency</td>
<td>Poul Erik Nielsen</td>
</tr>
<tr>
<td>Danish Nature Agency</td>
<td>Torben Wallach</td>
</tr>
</tbody>
</table>

Three meetings were held by the full group, but also individual meetings and written consultancy were part of the process.

The hearing process (12 weeks ending 27 August, 2012) is standardized in Danish public management and specified by law. National authorities has to be heard, all ministries have to be heard, a comprehensive number of interest organizations, may they be green or industrial has to be heard and in this case also all coastal municipalities have to be heard. About 100 interested parties were therefore sent the initial assessments directly and the general public may use the website and also engage in the process. Core institutions and NGO’s had well prepared and stringent comments, which were partly integrated in the final and published assessments. They counted as for interview result 28 hearing answers. The final publication of the process is available on-line in Danish. The Danish Marine Strategy is subject to approval by the Minister of the Environment.

The respective articles were in the public consultation process up to 27th of August 2012 and finalized, published and submitted to the EU by 15th of October 2012.
1.4 The main focus of marine strategy

There is a broad consensus that reduction in eutrophication and the broader issues around “fish” has the focus. The reason for this selection is the general knowledge coupled with sound scientific and political judgement. When evaluating the present level of knowledge it seems self-evident and has actually not been challenged in the process. Denmark has not identified any exceptions, as it is seen as too early in the process. This last point may be revisited when programme of measures are determined.

The consultation showed differences in value judgement for different assessment criteria. The consultation responses mirror the political interests of both green NGOs and the interest organisations tied to central industries exploiting goods and services from the sea.

Table 2. Consultation responses for the Basic Analysis 2012.

<table>
<thead>
<tr>
<th>Consultation Responses</th>
<th>No comments</th>
<th>Basic Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipalities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faxe Municipality</td>
<td>The strategy for raw material extraction (sand &amp; gravel) needs to be revised.</td>
<td></td>
</tr>
<tr>
<td>Frederikshavn Municipality</td>
<td>Port expansion and cleansing/clean-up/decontamination</td>
<td></td>
</tr>
<tr>
<td>Tønder Municipality</td>
<td></td>
<td></td>
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<tr>
<td>Green NGO’s</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Danish Outdoor Council</td>
<td>Underwater noise and maritime waste should be further investigated</td>
<td></td>
</tr>
<tr>
<td>Greenpeace</td>
<td>Fish surveillance should not only be based on the commercial side (fishery), but on fish in general. Leaks from offshore drilling should be quantifiable. NOVANA should in the future have a strategy for marine waste and &quot;microplastic&quot;.</td>
<td></td>
</tr>
<tr>
<td>The Danish Society for Nature Conservation</td>
<td>Sees the &quot;the common fisheries policy&quot; (CFP) as an independent policy area as a severe limitation - it should be part of the marine strategy. Wants to include &quot;acidification&quot; as part of the analysis.</td>
<td></td>
</tr>
<tr>
<td>Industrial NGO’s</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Danish Agriculture &amp; Food Council</td>
<td>Incorrectly concluded that heightened plankton concentrations in the Danish Belts are the sole/major cause of runoff of nutrients</td>
<td></td>
</tr>
<tr>
<td>Danish Shipowners’ Association</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Danish Operators - Offshore, Oil and Gas Operators in Denmark</td>
<td>The assumption is not true, that waste from offshore activities is released into the sea (not in accordance with ISO4001)</td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td>Response</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Danish Fishermen's Association</td>
<td>Overfishing is not as severe as the hearing states with regards to mussels. Contradictions with regard to the biodiversity of habitats (DMU report #526).</td>
<td></td>
</tr>
<tr>
<td>Danish Aqua Culture</td>
<td>Rainbow trout should not be viewed as an invasive species.</td>
<td></td>
</tr>
<tr>
<td>Danish Shipbrokers' Association</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>The DHI Group</td>
<td>Several assessments of the Danish seas are present without having made any international comparisons.</td>
<td></td>
</tr>
<tr>
<td>DONG Energy (Danish Oil and Natural Gas)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Danish Hunters' Association</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Local Authorities International Environmental Organisation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Danish Bar and Law Society</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Individual</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT-Consultant Allan Hansen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ministries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ministry of Business and Growth, Denmark</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Ministry of Defence</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Danish Ministry of Climate, Energy, and Building (Geological Survey for Denmark and Greenland)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ministry of Transport (Danish Coastal Authority)</td>
<td>Semantic changes asked for.</td>
<td></td>
</tr>
<tr>
<td>Ministry of health and prevention</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Ministry of Food, Agriculture, and Fisheries of Denmark (The Danish AgriFish Agency)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ministry for Economic Affairs and the Interior</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Ministry of Employment</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Danish Ministry of Climate, Energy, and Building (Danish Institute of Meteorology)</td>
<td>Sparse description of the physical and chemical conditions in the Danish seas in the strategy-section</td>
<td></td>
</tr>
<tr>
<td>Danish Ministry of Climate, Energy, and Building (Danish Energy Agency)</td>
<td>Semantic changes asked for.</td>
<td></td>
</tr>
</tbody>
</table>

The focal points of responses to the socio-economic analysis are presented below. In general the point of departure: the valuation of goods and services from the Sea
calculated only on existing data did give rise to response. Some responses pointed out, that the indirect economic and employment activity on land as a result of their main activity was not included.

With the use of the DPSIR framework and the present status of research, TEV could not be established for all industries, and many externalities could not be quantitatively expressed.

**Table 3. Consultation responses for the Socio-economic Analysis**

<table>
<thead>
<tr>
<th>Consultation Responses</th>
<th>No comments</th>
<th>Socio-economical Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stakeholders</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Municipalities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faxe Municipality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frederikshavn Municipality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tønder Municipality</td>
<td></td>
<td>Strategy needs to provide a basis for Rømø and Havneby to ensure growth in the offshore industry</td>
</tr>
<tr>
<td><strong>Green NGO's</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Danish Outdoor Council</td>
<td></td>
<td>Expects that the importance of using the ocean as a recreational facility will remain unchanged</td>
</tr>
<tr>
<td>Greenpeace</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Danish Society for Nature Conservation</td>
<td></td>
<td>No mention in the analysis of the tangible value of externalities.</td>
</tr>
<tr>
<td><strong>Industrial NGO's</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Danish Agriculture &amp; Food Council</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Danish Shipowners’ Association</td>
<td></td>
<td>The advantages and benefits of having the shipping industry in Denmark is underrated in the report</td>
</tr>
<tr>
<td>Danish Operators - Offshore, Oil and Gas Operators in Denmark</td>
<td></td>
<td>Would like to be part of the surveillance programs and contribute at the earliest stages possible</td>
</tr>
<tr>
<td>Danish Fishermen's Association</td>
<td></td>
<td>The negative scoring of the impact of the Danish fishing industry on the environment of the sea is unjustified.</td>
</tr>
<tr>
<td>Danish Aquaculture</td>
<td></td>
<td>The numbers from the different sectors should be present as to be able to compare which sector contributes the most.</td>
</tr>
<tr>
<td>Danish Shipbrokers'</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Association</td>
<td>The DHI Group</td>
<td></td>
</tr>
<tr>
<td>-------------</td>
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<td></td>
</tr>
<tr>
<td><strong>DONG Energy (Danish Oil and Natural Gas)</strong></td>
<td>The rules regarding underwater noises/disturbance should not be further tightened as this could severely increase the costs of building new windmill farms</td>
<td></td>
</tr>
<tr>
<td><strong>Danish Hunters’ Association</strong></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td><strong>Local Authorities International Environmental Organisation</strong></td>
<td><strong>Tourism: Contingency plans are an idea for the Danish government, should our coasts be hit by oil or chemical pollution</strong></td>
<td></td>
</tr>
<tr>
<td><strong>The Danish Bar and Law Society</strong></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td><strong>Individual</strong></td>
<td><strong>IT-Consultant Allan Hansen</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Ministries</strong></td>
<td><strong>Ministry of Business and Growth, Denmark</strong></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td><strong>Ministry of Defence</strong></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td><strong>Danish Ministry of Climate, Energy, and Building (Geological Survey for Denmark and Greenland)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Ministry of Transport (Danish Coastal Authority)</strong></td>
<td></td>
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<tr>
<td></td>
<td><strong>Ministry of health and prevention</strong></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td><strong>Ministry of Food, Agriculture, and Fisheries of Denmark (The Danish AgriFish Agency)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Ministry for Economic Affairs and the Interior</strong></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td><strong>Ministry of Employment</strong></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td><strong>Danish Ministry of</strong></td>
<td></td>
</tr>
</tbody>
</table>
As expected, the environmental goals were seen as central to the future process by the respondents to the hearing. The respondents foresee both the surveillance programme and the programme of measures as inherent in the chosen parameters.

Table 4. Consultation responses to “GES, targets and indicators”, 2012

<table>
<thead>
<tr>
<th>Consultation Responses</th>
<th>No comments</th>
<th>Environmental Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stakeholders</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Municipalities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faxe Municipality</td>
<td></td>
<td>Supports the idea of creating an artificial reef</td>
</tr>
<tr>
<td>Frederikshavn Municipality</td>
<td></td>
<td>The surveillance program, goals and indicators do not take into account the risk of accidents with regards to foreign chemicals in the sea</td>
</tr>
<tr>
<td>Tønder Municipality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green NGO’s</td>
<td></td>
<td>Not clear enough goals. Porpoise and Seals as indicators for biodiversity, creating biodiversity for the designated habitats (and appropriate sizes),</td>
</tr>
<tr>
<td>Danish Outdoor Council</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greenpeace</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Danish Society for Nature Conservation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial NGO’s</td>
<td></td>
<td>Risk definition with regards to invasive species: It is not enough to be considered invasive - they must also be able to do considerable damage</td>
</tr>
<tr>
<td>Danish Agriculture &amp; Food Council</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Danish Shipowners' Association</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Danish Operators - Offshore, Oil and Gas Operators in Denmark</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td>Recommendation / Comment</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Danish Fishermen's Association</td>
<td>No clear indicators/criteria which laid the foundation for the creation of environmental goals. Recommends to implement an assessment of consequences for the involved parties with regards to the goals.</td>
<td></td>
</tr>
<tr>
<td>Danish Aquaculture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Danish Shipbrokers' Association</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The DHI Group</td>
<td>With reference to coverage of habitats, the measurement has been bottom vegetation. Instead, biomass should be used as a tool of measurement.</td>
<td></td>
</tr>
<tr>
<td>DONG Energy (Danish Oil and Natural Gas)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Danish Hunters' Association</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local Authorities International Environmental Organisation</td>
<td>Need more goals with regards to marine waste</td>
<td></td>
</tr>
<tr>
<td>The Danish Bar and Law Society</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual</td>
<td></td>
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<tr>
<td>IT-Consultant Allan Hansen</td>
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<td></td>
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<tr>
<td>Ministries</td>
<td></td>
<td></td>
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<tr>
<td>Ministry of Business and Growth, Denmark</td>
<td></td>
<td></td>
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<tr>
<td>Ministry of Defence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Danish Ministry of Climate, Energy, and Building (Geological Survey for Denmark and Greenland)</td>
<td>Systematic mapping of habitats for EU's surveillance program</td>
<td></td>
</tr>
<tr>
<td>Ministry of Transport (Danish Coastal Authority)</td>
<td>The issue of raw material extraction (sand &amp; gravel) is very limited and should not receive the attention it does</td>
<td></td>
</tr>
<tr>
<td>Ministry of health and prevention</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ministry of Food, Agriculture, and Fisheries of Denmark (The Danish AgriFish Agency)</td>
<td>Comment on page 16 with regards to &quot;søfjersamfundet&quot; (seabirds)</td>
<td></td>
</tr>
</tbody>
</table>

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### 1.5 Regional cooperation

Special cooperation has been established between nations to coordinate the effort of implementation of the marine strategy. The so-called GES (Good Environmental Standards) groups under the auspices of the European Union, where Denmark was represented by 2 persons. Further the cooperation around the North Sea has been done in the project HARMONI managed by Denmark and the Baltic was coordinated in the ESA groups (Working Group on Economic and Social Assessment). HELCOM has participated indirectly through the project HOLAS (Holistic assessment of the Baltic marine environment, including a thematic assessment of hazardous substances (HELCOM HOLAS)) and GEAR (HELCOM Group for Implementation of Ecosystem Approach (HELCOM GEAR) for the implementation of the BSAP)), but not directly as sparring partner.

No Danish effort has been undertaken in connection with third country nations Belarus or Russia as no common problems are foreseen.

### 1.6 The interlinkage of the MSFD to other policies

The Marine Strategy has been closely integrated with the Water Framework Directive (WFD), which of course is much further in its implementation. The experience from the WFD has been used in this initial phase of the implementation of the Marine Strategy. More specifically, the WFD is closely linked to the nutrient flow from land to Sea and contribute the decrease in influx of nutrient to the Sea – reducing the challenge of eutrophication. Nutrient loss from terrestrial activities are therefore not
included in the Marine Strategy, but solely dealt with under the WFD management and implementation.

Many Danish Industries are dependent on the Marine environment, be it oil excavation, fishery, transport, tourism etc. To integrate and coordinate the line-ministerial interests in the marine strategy, these ministries have been invited in the preparatory process, partly to inform the process, partly to safeguard stringent management solutions across ministries authority. Valuable input has been included in the assessment from the line-ministries (Ministry of Food, Ministry of Transport etc.). This also includes taking into account earlier negotiations and agreements between “Industries” and the Danish Nature Agency on limiting pollution in the marine environment (sand and gravel excavation, oil industry, fisheries management, dumping restrictions etc.)

The broader hearing process involves the industry interest organisations, the green NGOs, the coastal municipalities and any other interested party. The hearing material has been made public and the tables 2-4 above has been derived to show the parts of the assessment, which might later develop into conflicting issues, when programme of measures are to be negotiated.

In the basic Assessment it has been too early to establish benchmarking with the Baltic Sea Action Plan. The Targets and Indicators on the other hand have been influenced by the Baltic Sea Action Plan.

1.7 Summary and evaluation of the process

The status for MSFD for Denmark is an approved assessment process (base, socio econ, GES, targets and indicators). The preparatory work included the Danish knowledgebase and the regional institutions as well as the international research in the field. Changes were made as a consequence of the consultation process and the final assessments was in principle approved by the Minister of the Environment under the legal framework of ”The Law of the Sea by 26th of May, 2010 (Lov nr. 522 af 26/05/2010).
The Danish Nature Agency holds the authority for implementation of the MSFD and has in close cooperation with the Danish knowledge base in research institutions, Universities and a private consultancy company headed the process of initial assessments (IA), determination of good environmental status (GES) and finally setting environmental targets and indicators. The process has followed the normal Danish administrative process of “hearing”. The hearing results showed the strong both environmental but also commercial interest in the expectation raised by the formulation of IA, GES as well as the Setting of Environmental Targets and Indicators. In anticipation of the future Programme of Measures the Stakeholder organisations pinpointed issues which might lead to measures influencing their commercial activities – as expected.

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ANNEX 2. CASE POLAND

Authors: Iwona Psuty, Eugeniusz Andrulewicz, Wojciech Pelczarski, and Anna Luzeńczyk, NMFRI, Gdynia, Poland

2.1 Introduction

Environmental pollution of the Baltic Sea has come into the awareness of the Polish society in the early 70s. The very first research unit dedicated to marine pollution studies was established at the Sea Fisheries Institute in Gdynia in 1970 (Marine Pollution Laboratory). This laboratory started studies about the Polish river load to the Baltic Sea (nutrients, suspended matter and macro-chemical components) and developed analytical methods for determination of petroleum hydrocarbons and pesticides in marine environment (Baltic organisms, sediments and sea water). Most of the open sea research activities were carried out together with the Institute of Meteorology and Water Management - Maritime Branch in Gdynia which already had an open sea research vessel and carried out regular National Oceanographic Service programme.

After signing the “Convention on the Protection of the Marine Environment of Baltic Sea” in 1974, scientists from the Sea Fisheries Institute and the Institute of Meteorology and Water Management took part in various international meetings and calibration exercises. In 1979, HELCOM Baltic Monitoring Programme started. Execution of this programme has been delegated to the Institute of Meteorology and Water Management - Maritime Branch in Gdynia. Experts from this institute (and the Sea Fisheries Institute) took part in data collection and elaboration, including elaboration of “Periodic Assessments of the State of the Marine Environment of the Baltic Sea” (so-called HELCOM Periodic Assessments).

The Ministry of the Environment, formed to administer issues related to environment protection, water management and forestry in 1973, is responsible for the implementation of the Baltic Sea Action Plan (BSAP). However, the implementation of the BSAP tasks assigned to Poland require participation of other ministries as well as active participation of local authorities along the coast. Therefore, before
constructing the BSAP implementation programme, the Chief Inspector for Environmental Protection carried out a series of meetings with the Marshals of coastal voivodships (Szczecin, Gdańsk, Olsztyn). In 2010, “Initial National Implementation Programme for the Baltic Sea Action Plan” was prepared (The Ministry of the Environment of Poland, 2010). It describes a series of measures in the context of the reduction of eutrophication and hazardous substances, the works to be undertaken in relation to BSAP segment “Maritime Activities”, a wide range measures related to conservation of biodiversity and natural environment protection” (including fisheries management).

The Ministry of the Environment together with the other relevant ministries (mainly the Ministry of Agriculture and Rural Development, the Ministry of Transport, Construction and Maritime Economy) are responsible for the implementation of the other HELCOM obligations such as the Baltic Sea Monitoring and Assessments (HELCOM MONAS), protection of biodiversity and nature conservation (HELCOM HABITAT), maritime activities (HELCOM MARITIME and HELCOM RESPONSE) and land discharges to the Baltic Sea (HELCOM LAND). The same authorities are also responsible for the implementation of the EU “environmental” directives, including Marine Strategy Framework Directive (MSFD).

MFSD fits in all the objectives laid down in water management national politics. It is a strategic document, helpful in protecting all elements of the ecosystem, outlining specific objectives and measures, leaving the choice of methods for the responsibility of the state. In Poland, the initial assessment has revealed the need to organize relevant national law.

This report describes the implementation process of the MSFD in Poland with respect to the preparation of the first phase of the Polish Marine Strategy (i.e. Articles 8, 9 and 10 of the MSFD). The report is based on written material on MSFD process and interviews with persons involved.
2.2 Status of the MSFD

The authority responsible for the implementation of the MSFD is the Ministry of Environment Protection (MEP). The MSFD has not been transposed into the national legislation to date. The MSFD can be regarded as a continuation of Water Framework Directive (also enlarging this directive). The MSFD transposition into the national legislation has not been finalized to date. The transposition is expected to be accepted by the Council of Ministers, voted by the Parliament and finally confirmed by the President of the State by the end of 2012. The Ministry of the Environmental Protection has decided not to proceed with the marine strategy before the formal transposition.

2.3 Organisation of the implementation process of Articles 8, 9 and 10

The Ministry of the Environment Protection, in an agreement with the Ministry of Transport, Construction and Maritime Economy, and the Ministry of Agriculture and Rural Development, are responsible for the implementation of the MSFD in Poland. The Chief Inspector for Environmental Protection is responsible for the preparation and coordination of Articles 8 and 9, but in an agreement with the President of the National Water Management Authority and the appropriate Minister responsible for Maritime Affairs (Minister of Transport, Construction and Maritime Economy) and the Minister responsible for Fisheries (Minister of Agriculture and Rural Development). Preparation and coordination of the Article 10 is the responsibility of the President of the National Water Management Authority. As explained later in this chapter, three national research institutes were selected through an open tender to carry out the preparation of Articles 8, 9 and 10. The division of responsibilities is presented in Figure 1 below.
**Figure 1.** The division of responsibilities between Polish authorities in the implementation of the first phase of the MSFD.

Competencies and acronyms:

- Chief Inspector for Environmental Protection (CIEP) under the Law of Environmental Protection Inspectorate, is responsible for monitoring, evaluations and information about the state of the environment. CIEP is responsible for MSFD transposition into the national legislation, preparation of Article 8 and 9.

- President of the National Water Management Authority (NWMA) is responsible for the water management and water use that has an impact on the status of inland waters, which translates into a state of the Baltic Sea. Thus, the NWMA is responsible for Article 10 preparation. According to the draft of the Act, the development of the statement of the predominant pressures and impacts from land-based sources on marine waters, including anthropogenic pressures and impacts, is the responsibility of NWMA. NWMA prepares statement in consultation with the Minister of the Environment Protection, Minister of National Defense, Minister of Maritime Affairs,
Minister of Fisheries, the Minister of Health, the General Director of Environmental Protection and the Directors of Coastal National Parks. Prepared statement is provided to CIEP. In the absence of MSFD transposition, this procedure has not been implemented to date. The CIEP and the NWMA are central administrative bodies and entities of the Ministry for the Environmental Protection (MEP).

• Minister of Maritime Affairs (Minister of Transport, Construction and Maritime Economy – (MTCME) is responsible for the pressures and management of human activities at sea. According to the draft of the Act, the development of economic and social analysis of the use of the sea and the costs of environmental degradation of the marine environment belongs to the MTCME, which provides final analysis to the CIEP. However, in the absence of MSFD transposition, the first version of the analysis was finished by three Maritime Institute experts within the execution of the contract with the CIEP. The development of the statement of the predominant pressures and impacts from marine sources on the marine waters, including anthropogenic pressures and impacts, is the responsibility of MTCME. Ready analysis should be provided to CIEP. In the absence of MSFD transposition, this procedure has not been implemented.

• Minister of Fisheries (Minister of Agriculture and Rural Development - MARD) is responsible for the pressures and fishery management. According to the draft of the Act, the development of the statement of the predominant pressures and impacts on the marine waters stemming from fishing activities should be the responsibility of the MARD. Ready analysis provides to CIEP. In the delay of MSFD transposition, this procedure has not been implemented.

The organization of the preparation in terms of responsibilities and the mode of operation is presented in Figure 2 below.
### Preparation of the Article 8, 9 and 10 – current status

<table>
<thead>
<tr>
<th>Part of the MSFD</th>
<th>Who carried out the work?</th>
<th>Mode of preparation</th>
</tr>
</thead>
</table>
| Article 8 Initial Assessment | 1. Current status 2. Pressures and impacts | Two expert groups: first group included experts from the Institute of Meteorology and Water Management and Maritime Institute. In the second group, experts from the National Marine Fisheries Research Institute, carried out independent work on ichthyofauna status | • Each participant filled the report with respect to their field of expertise  
• These were later compiled by consortium and sent to final compilation to the Chief Inspectorate for Environmental Protection |
| Article 8 Initial Assessment | 3. Socio-economic assessment | Expert group from Maritime Institute | • A group compiled the first version of socio-economic analysis on the use of Polish Maritime Areas. It was sent to the Chief Inspectorate for Environmental Protection. |
| Article 9. Determining Good Environmental Status | | The same abovementioned expert groups. | • GES were proposed by expert groups in their reports |
| Article 10. Environmental targets and indicators | | The National Water Management Authority proceeds with the preparation of Article 10 after the MSFD has been transposed into the national legislation | |

1. Group of ~15 experts (natural scientists)  
2. Group of 6 experts (natural scientists)  
3. Group of 3 experts

**Figure 2.** Preparation of Article 8, 9 and 10 in Poland. Division of responsibilities and the mode of operation.

The Article 8 and 9 preparation was entered in the CIEP task plan. CIEP got funding from the National Fund for Environmental Protection and Water Management (central administrative body, supervised by Minister for Environmental Protection). The Public Procurement Act does not allow CIEP to make contract with institutions involved in the Baltic Sea monitoring process (CIEP held two independent open tenders: one for data acquisition descriptors status, elaboration of pressure indicators and socio-economic reports. The second tender has concerned the ichthyofauna data with “fish” indexes elaboration and appropriate descriptors status. The report from the second contract should be included into the report from the first contract. CIEP in both tenders stipulated that the methodology to build indexes for each descriptor should be consistent with HELCOM CORESET, ICES and other relevant experts groups reports.
On the basis of the first tender emerged a consortium of two Institutes – Institute of Meteorology and Water Management (IMWM) (Research Unit of Ministry for Environmental Protection) and Maritime Institute – National Research Institute (MN-NRI). That was the only offer. Subsequently, an agreement was signed (the contract ending June 30, 2012). The consortium was responsible for preparing the whole initial assessment (Article 8, GES propositions and socio-economic assessment); however, input on ichthyofauna indexes was delivered by another participant who was not involved in the work of the consortium. The tender for the fish fauna monitoring together with conducting initial assessment and GES proposition on the basis of “fish” indices was carried out separately, but coordinated by CIEP. This process was long, because in the two announced tenders nobody reported. Only after an exhausting procedure, another public tender was announced, and the contract concluded negotiations with National Marine Fisheries Research Institute (NMFRI). The end of the contract was August 31, 2012. Such separation of the preparation of the initial assessment (tender, lack of agreement in dates of deliverables), together with a low level of communication between the institutes involved, has resulted in many inconsistencies in the assessment. CIEP is responsible for the report, but has no internal experts.

The work on Articles 8 and 9 was carried out by 15 experts from IMWM&MN-NRI (current status, pressures and impacts, GES for the most of the MSFD descriptors), 6 experts from NMFRI (ichtyofauna indexes in descriptors 1, 2, 4 and 6 and the whole descriptor 3) and 3 experts from MN-NRI (socio-economic assessment). The economic assessment was created independently from pressures and impact IA report as it was written at the same time.

The report from NMFRI was compiled into IMWM&MN-NRI draft of the first phase of the Polish Marine Strategy and send to the CIEP. The next phases concerning the corrections and consultation on the document are in the responsibility of CIEP and NWMA in agreement with relevant Ministries. However, the process has stopped because of delay of MSFD transposition. The Polish Marine Strategy has not been submitted to the EU Commission yet.
Consultations on the first phase of the Polish Marine Strategy (Articles 8 and 9) were held at the administrative level between the National Water Management Authority (NWMA), the Ministry for Environmental Protection, the General Directorate for Environmental Protection (central administration entity of the Ministry for Environmental Protection, responsible for implementation of the environmental protection policy), the Minister for Maritime Affairs and the Minister for Fisheries. Representatives of these administrative bodies participated in the consultation event and were able to make comments on the document. The CIEP has also organized a conference with some ENGOs (i.e. WWF and Our Earth Foundation) in which the document was presented and information about the procedure of public consultation was provided. Public consultation will be organised after the law on MSFD comes into force in Poland. The other public hearing has not yet taken place; the document of initial assessment will be issued for consultation after the Act comes into force, and then within 21 days, anyone can propose amendments to the CIEP. These will have to be addressed and, if justified, rejected.

2.4 Regional Cooperation

Poland benefited mainly from the collaboration platform that created the HELCOM. HELCOM plays a vital role in regional cooperation. In addition to the creation of a list of indicators and methodologies, it provides access to the Baltic database.

The experts involved in the assessment process participated actively in all working groups connected to MSFD. The most important thing during the meetings was to establish a list of indicators and definition of GES for descriptors D1, 2, 4, 6, 8 and 9. Work on D3 was carried out in connection with ICES experts and an EC workshop, in addition to the HELCOM-held working meetings with Lithuania. Experts from Baltic countries conducted ongoing consultations within their specialization.

Some regional cooperation is still lacking, i.e. between Poland and Germany, even concerning water typology. The transboundary Szczecin (Odra) Lagoon in Poland is set as transitional, but in Germany as coastal water. The cooperation with Russia is limited to the HELCOM meetings.
2.5 The main focus of marine strategy and the interlinkages to other policies

Poland already has experience with Water Framework Directive, which have a similar course (management plan) method based on the diagnosis of the state, the set of objectives, the introduction of corrective action, and then afterwards, 6 years of checking whether the actions take effect, and updating all documents. When constructing a model law, the Water Act and the WFD were involved in the process, as were all bodies that in some way, control, predict and influence the effects of human activities on the environment. MSFD in Poland is a continuation of the WFD expanded on by the Polish Maritime Areas. With this in mind, changing the law on water management to MSFD formed part of what was done (e.g. monitoring and coastal transition zone) as a result of the WFD. MSFD takes into account what has been done in the framework of the Habitats Directive (92/43/EEC), the Birds Directive (76/409/EWG), Bathing Directive (Directive 2006/7/EC) and the Directive on the management of environmental information.

In 2015 and 2021, planning materials will be developed for WFD and MSFD, because the objectives of these directives must be consistent. The planning document is to be the National Marine Water Protection Program under the responsibility of the NWMA. According to the Act, this program was saved to take into account the objectives, actions already taken in the context of other initiatives.

The biggest problem in Poland was to initiate the process of MSFD transposition. It met the Government Administration Act, which caused problems with unclear division of powers between the Ministry for Environmental Protection and the Ministry of Transport, Construction and Maritime Economy. But the problem was solved. The Ministry for Environmental Protection participated from the beginning of negotiations with the EU in connection with MSFD, and implemented the necessary procedures, despite the absence of MSFD basis in national law.

Baltic Sea Action Plan (BSAP) is similarly constructed, and has similar components, but it is a soft document, which does not state the consequences of failure to comply with it. The MSFD is a hard law: if a country does not comply with its principles, it can be sued by the European Court and receive severe financial penalties. MFSD
imposes a different way of thinking and organizing things, and it is easier to implement corrective action if specific deadlines are imposed, as they must be on the finances. It is expected by experts from IMGW&IM that BSAP documents would be a basis for future Polish marine strategy, especially environmental problems and targets prioritization.

2.6 Evaluation of the process

Although MFSD has not yet entered into force, in the near future it should be very useful, as it enables you to connect the Water Management Plan with all types of water - surface water, ground water (WFD) and the Baltic Sea (MSFD).

The procedure with open tender for the Institution that would analyse the existing data and prepare the document, has resulted in restricted access to other experts in the process. Only those experts have decided about the choice of appropriate indexes and GES determination. They were strictly limited by existing monitoring data, and thus, many targets were set by the expert decision.

In the course of the initial evaluation, a problem with the data acquisition was encountered. Although, data from studies carried out with public funds in Polish maritime areas should be available, in practice, this has proved impossible. Therefore, the Articles 8 and 9 are based on data from the National Environmental Monitoring System, plus data from the institution involved in MSFD preparation. There are financial and organisational problems in launching some monitoring programs, even under WFD – i.e. coastal fish monitoring started just in 2011 (but has not continued in 2012).

Classification and assessment of the marine environment of the Polish Marine Areas was based on 11 state descriptive indicators. The basis for determining the value of a descriptive index according to a five-point scale, were the primary indicators, the number of which varied widely within each descriptive indicators. The best available data were found for pressure indicators: eutrophication (D5) and harmful substances (D8 and D9). To determine the achievement of good environmental status (GES) has
been adopted abroad scale, which is comparable to the scale used for transitional and coastal waters in the assessment in accordance with the WFD.

Analysis of IMWM&MN-NRI report states that the assessment of the status indicators (D1, D4, D6) was based on a few basic indicators, which points to a serious gap in the existing monitoring programme. The situation is different with regard to the indicators of pressure, for which there was much more data available. Practically there is no indicator for the assessment of D7, which due to lack of data, was replaced by the expert evaluation. In the case of D10 data were related only to the sea shore. There has been no preliminary assessment of the rate of pressure for descriptive indicator D2 - Alien species. Conditions estimated by the year 2012 were taken as a reference point for future assessment which is going to be made for the period 2012-2017. There is no assessment for the D1. Lack of a number of data is likely to significantly affect the final result.

The report from the IMWM&MN-NRI together with the report from the NMFRI are the basis for the creation by the CIEP the initial assessment of the environment (Article 8) and to develop a set of characteristics for good environmental status of marine waters (Article 9 - GES). On this basis, NWMA will develop a set of objectives for the marine environment and the related indicators (Article 10). Then, a monitoring programme will be developed and implemented as well as the Programme of Measures. Central authorities and local government will do play their role in environmental protection according to characteristics for good environmental status of marine waters and a set of objectives for the marine environment and in accordance with the provisions of the national marine conservation program.

The problem is a very restricted experts group. There could be a public hearing, but in the Polish case, time is too short for such long and complicated documents (only 21 days). The problem remains unresolved till now, because the scientific institutions involved in the Baltic Sea research have no financing and/or human power to more widely participate in the process and CIEP has no internal experts to coordinate and review the documents. No special supervising groups for relevant reports were set. Only one person in the CIEP takes care on the whole IE preparation.
2.7 Conclusions

The MSFD was not yet transposed into the national legislation. Article 8 MSFD - the initial assessment and Article 9 – determining Good Environmental Status, were ready on time, but they have not been delivered to the Commission. Article 10 - the set of environmental targets will be prepared by the NWMA, but only after the MSFD has been transposed to the national legislation and the Articles 8 and 9 have been officially approved.

The delay with the MSFD transposition in Poland caused problems with required deliverables from different authorities and institutions. The biggest problem was to initiate the process of MSFD transposition. While it met the Government Administration Act, then caused problems with unclear division of powers between the Ministry for Environmental Protection and the Ministry of Transport, Construction and Maritime Economy.

The assessment report at the moment has some inconsistencies that should be corrected before the end of the process, hopefully during the public hearing procedure. They are largely the result of mismatches reports prepared by Institutes involved in the preparation and very restrict participation of the other experts. The definition of GES according to some descriptors is quite weak (expert judgment), because of lack of data or low quality of data, and needs funds for monitoring need to be provided.

The added value is the change in attitudes of politicians and the public to the environment of the Baltic Sea. If it does not lead to a state of GES, the financial implications will withdraw what is now probably the only incentive for politicians to act.

References

3.1 Introduction

Finland is often considered a forerunner in the Baltic Sea protection due to its long water protection history and its active role in the international environmental politics in the Baltic Sea region. Various EU directives have been duly integrated into the national legislation after Finland’s accession to the EU in 1995, however, the requirements in the national marine (and water) protection programmes are generally more stringent than the requirements set forth by the EU (Pihlajamäki 2011). The most recent national marine protection programmes include the Finland’s Programme of the Protection of the Baltic and the related action plan, the Water Protection Policy Outlines to 2015, and the Government Report on Challenges of the Baltic Sea and Baltic Sea Policy (Ministry of the Environment of Finland, 2002; 2005; 2007, and Prime Minister’s Office Finland, 2009, respectively). The Water Resources Management Plans for the River Basin Districts (RBDs), relating to the implementation of the EU Water Framework Directive (WFD), were adopted by the Finnish Government in 2009.

The history of the environmental administration in Finland roots back to late 1800s – early 1900s, but the modern environmental administration was born in the 1980s. The Ministry of the Environment was founded in 1983 in order to carry out environmental protection at national level. Other national environmental authorities include the Finnish Environment Institute (SYKE), Centres for Economic Development, Transport and the Environment (ELY Centres), the Regional State Administrative Agencies (AVI) and municipalities. Since 1986, municipalities have been responsible

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3 Water protection history roots back to the early 1900s, but it was the 1960 Water Rights Act (264/1961) that changed water protection significantly by setting regulations on wastewater treatment and by introducing permit procedure for polluting water areas

4 Or by other international policies and programmes, and the HELCOM in particular

5 i.e. defining policies, making strategic plans and setting administrative controls and targets, developing legislation and overseeing international environmental cooperation

6 with over 3000 habitats

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for carrying out environment protection at local scale. The Finnish Environment Institute (SYKE), founded in 1995, carries out environmental research, but it also contributes to the environmental policy-making and drafting of the legislation.

Regional Environmental Centres were also established in 1995, but during the reform of regional State administration in 2010, the tasks of the Centres were transferred to the Centres for Economic Development, Transport and the Environment (ELY Centres). The responsibilities of the ELY Centres include the implementation of environmental protection measures and the observation of environmental legislation in their respective regions. During the reform, the responsibility for environmental permits was transferred to the Regional State Administrative Agencies. In Finland, various ENGOs such as WWF Finland, the John Nurminen Foundation, the Baltic Sea Action Group and the Finnish Association for Nature Conservation have also been actively involved in the Baltic Sea protection.

With respect to the implementation of the MSFD, two separate marine strategies are prepared in Finland. In addition to the one prepared for the mainland, Åland, an autonomous region of Finland, prepares its own Marine Strategy. The Marine Strategy of Åland will be appended to the Finnish strategy as its own ensemble and they are submitted to the Commission together. In this paper the focus is on the implementation of the directive and the preparation of the related Marine Strategy in mainland Finland.

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7 For more information, see www.ymparisto.fi
8 The main focus of the WWF Finland is on the prevention of eutrophication, maritime safety, oil recovery and sustainable fishing. The John Nurminen Foundation focuses on combating eutrophication by reducing phosphorus discharges and preventing oil disasters by developing tanker safety. In 2010, the Baltic Sea Action Group organised a high-level summit that brought together heads of states, companies and NGOs around the region presented their commitments (actions) to save the Baltic Sea. The WWF Finland and the Finnish Association for Nature Conservation have also been actively participating in policy-making.
9 The provincial government of the autonomous Åland Islands fulfills all the functions of the Ministry of the Environment within the Åland Islands, with the exception of international co-operation.
10 The Finnish Marine Strategy is called Marine Resources Management Plan (in Finnish: merenhoitosuunnitelma)
11 The analysis presented in this chapter is based on two expert interviews carried out between June and October 2012, relevant policy documents and reports as well as documents relating to the preparation process, including minutes from the working group meetings.
3.2 MSFD status in Finland

The first task relating to the implementation of the directive after its adoption in 2008 was to find a way to transpose it into the national legislation. The authority responsible for the law drafting process was the Ministry of the Environment. In September 2009, the Ministry commissioned a diverse working group to support the drafting process. Eight months later, the working group proposed 1) to include the directive in the same Act as the WFD, i.e. the Water Resources Management Act (1299/2004), due to the similarities and interconnections between the water and marine resources management, and 2) to amend other acts such as the Environmental Protection Act, the Water Act, the Act on the Finnish EEZ, and the Marine Protection Act accordingly. Prior to the submission of the Government Bill to the Parliament in December 2010, the relevant authorities and other stakeholders were consulted. (YM003:00/2009.) The Water and Marine Resources Management Act (272/2011, 1299/2004) was adopted by the Parliament and confirmed by the President of the Republic in March 2011 and it entered into force on April 1st 2011. Consequently, Finland failed to transpose the directive into national legislation by the deadline set in the directive, i.e. July 15th 2010.

The Act lays down the responsibilities and duties of different authorities in the implementation of the MSFD and the preparation of the Finnish Marine Strategy in particular. It also gives provisions on the general organisation of the marine resources management according to the directive and more specifically, on the assessment of the current state of the sea, the determination of GES, and the establishment of

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12 In Finland, law drafting is first done by the Ministry that is the most competent in the subject matter. The drafting consists of preliminary and principle preparation, impact assessment, consultation, continued preparation, translation, and legislative inspection. The proposal is then presented, by the Minister in charge of the preparation, to the Government (consisting of the Prime Minister and the other ministers) during a Government plenary session. After a final decision, the Government submits a Bill to the Parliament. If the Parliament passes the Bill, the Government then presents it to the President of the Republic for confirmation.

13 The working group members included representatives from the Ministry of the Environment, the Ministry of Agriculture and Forestry, the Ministry of Finance, the Ministry of Transport and Communications, WWF Finland, the Finnish Environment Institute, Confederation of Finnish Industries (EK) and Uusimaa Regional Environment Centre, and experts from the Ministry of Justice and the University of Helsinki (Valtioneuvoston hankerekisteri, 2012)
environmental targets (26 c § - 26 d §) as well as on international cooperation and public participation and consultation (26 i § - 26 j §). In order to ensure and strengthen the cooperation and commitment between the different administrative sectors, the Act provides that the Marine Strategy and the related implementation plan are approved by the Government (28 §). Furthermore, the Act requires that Government Decree\textsuperscript{14}, which makes the legislation more specific with respect to the MSFD (26 l §), is prepared.

The drafting process of the Decree was similar to the drafting of the Act. In February 2011, the Ministry of the Environment commissioned a Decree Group to prepare a proposal for the Decree. The participants of the Decree Group included, in addition to the most relevant ministries, various state agencies and institutes as well as regional authorities and an ENGO\textsuperscript{15}. Before finalizing the proposal, a consultation was requested from the relevant stakeholders\textsuperscript{16}. The Government Decree on Marine Resources Management (980/2011) was adopted (by the Minister of the Environment) in August 2011 and it entered into force in September 2011.

The Decree provides a more specific division between the respective duties of the various authorities and agencies in the implementation of the MSFD and in the related communication to the public (Chapter 2 and 3, 18 §). The requirements presented in the directive and its annexes for the preparation of the articles 8, 9 and 10 are also included in the Decree\textsuperscript{17}.

The final products of the MSFD implementation process (including articles 8, 9 and 10) are approved by the Finnish Government as a political decision. In practise, the three Ministries responsible for the implementation of the MSFD (see 3.3.1) compile

\textsuperscript{14} Decrees are also drafted by the relevant ministry. The President of the Republic, the Government and a ministry may issue decrees based on an act adopted by the Parliament

\textsuperscript{15} i.e. the Ministry of the Environment, the Ministry of Agriculture and Forestry, the Ministry of Transportation and Communications, The Finnish Environment Centre (SYKE), the Finnish Meteorological Institute (FMI), The Finnish Game and Fisheries Research Institute (FGFRI), the Geological Survey of Finland (GTK), Metsähallitus (forest agency that administers state-owned land and water areas), Centres for Economic Development, Transport and Environment, and WWF Finland

\textsuperscript{16} i.e. ministries, national and regional authorities, universities, interest groups and ENGOs

\textsuperscript{17} Annexes 1 and 2 of the Decree are mostly based on Tables 1 and 2 of the Annex III of the Directive (i.e. indicative list of characteristics, pressures and impacts); Annex 3 of the Decree corresponds to the 11 qualitative descriptors for determining good environmental status in the Annex I of the Directive
the final documents, which are then deliberated upon and accepted (or rejected) at the Government plenary session. In June 2012, the Ministry of the Environment notified the Commission that Finland was not going to be able to finalise the Marine Strategy by July 15th 2012. The first phase of the Finnish Marine Strategy is expected to be finalised by the end of 2012.

3.3 Organisation of the MSFD implementation process

3.3.1 Responsibilities

As mentioned above, the responsibilities of different authorities have been identified in the national legislation (Figure 1.). The Ministry of the Environment in cooperation with the Ministry of Agriculture and Forestry\(^{18}\), and the Ministry of Transport and Communication are responsible for preparing the Marine Strategy. The Ministry of the Environment together with the Finnish Environment Institute and the coordinating ELY Centre\(^{19}\) are responsible for coordinating the preparation of the Marine Strategy. The Ministry of the Environment is also responsible for coordinating international cooperation and, together with the ELY Centres, for the organisation of the public consultation. The ELY Centres are responsible for the preparation of the strategy and the implementation plan regarding their respective regions.

\(^{18}\) These two ministries (i.e. the Ministry of the Environment and the Ministry of Agriculture and Forestry) are also responsible for the control and monitoring the Water and Marine Resources Management Act.

\(^{19}\) 6 ELY Centres out of the total 15 are directly involved in the implementation of the Directive. These are ELY Centres for South Ostrobothnia, Ostrobothnia, North Ostrobothnia, Uusimaa, Southwest Finland, and Southeast Finland. The ELY Centre for Southwest Finland (Varsinais-Suomen ELY-keskus/ VARELY) is the coordinating ELY Centre.
Various agencies and institutes under the administrative sectors of the three ministries\(^2\) were also given responsibilities in the legislation. For example, the Finnish Meteorological Institute (FMI), The Finnish Game and Fisheries Research Institute (FGFRI), Metsähallitus (forest agency that administers state-owned land and water areas), Finnish Transport Safety Agency (Trafi), Finnish Transport Agency, Finnish Wildlife Agency, and Finnish Food Safety Authority (Evira) are responsible for data production, compilation and communication as well as for the

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\(^2\) The environmental authorities include the **Ministry of the Environment**, the Finnish Environment Institute (SYKE), Centres for economic, development, transport and the environment (ELY Centres), the Regional State Administrative Agencies (AVI) and municipalities. Although SYKE operates under the auspices of the Ministry of the Environment, the **Ministry of Agriculture and Forestry** supervises the Institute’s work related to water resources. Other agencies and institutes in the administrative sector of the Ministry of Agriculture and Forestry include the Finnish Agency for Rural Affairs (Mavi), the Finnish Food Safety Authority (Evira), Finnish Geodetic Institute, Agrifood Research Finland (MTT), National Land Survey of Finland, Finnish Wildlife Agency, Metsähallitus, Finnish Forestry Centre, Finnish Forest Research Institute (Metsa), Finnish Game and Fisheries Research Institute (FGFRI), Forestry Development Centre Tapio, and Information Centre of the Ministry of Agriculture and Forestry (TIKE). The administrative sector of the **Ministry of Transport and Communications** includes four agencies: the Finnish Meteorological Institute (FMI), the Finnish Transport Agency, the Finnish Transport Safety Agency (Trafi), and the Finnish Communications Regulatory Authority, and three majority state-owned companies.
implementation of the strategy regarding their respective fields. In addition, all other state and municipal authorities are required to participate in the marine resources management with respect to their spheres of operation when requested by the Ministry, SYKE or ELY Centres.

Consequently, in Finland, the tasks relating to the implementation of the directive are carried out as a part of the official duties of the authorities involved. The funding for the implementation comes from the existing budgets of the authorities involved. The Ministry of Finance pointed out that the authorities responsible for the planning of the national marine strategy should take into consideration that no additional funding from the Government budget has been envisaged for this purpose (The Ministry of Finance: comment during the hearing procedure).

3.3.2 Working Groups

As set in the legislation, the Ministry of the Environment together with the Finnish Environment Institute and the coordinating ELY Centre are responsible for coordinating the preparation of the Finnish Marine Strategy. The transposition of the directive into the national legislation and the Marine Strategy preparation were partly parallel processes. In January 2011, the Ministry of the Environment established two working groups, the Coordination Group and the Expert Group\(^{21}\), to execute the actual preparation between 2011 and 2015. The Ministry contracted\(^{22}\) two experts from SYKE to form the Secretariat of the Expert Group (i.e. the Chairman and the Secretary). The tasks of the Secretariat have been to draw a plan for the Marine Strategy preparation process in cooperation with the Ministry and the Coordinating ELY Centre, to carry out the practical coordination of the process and to participate in it as well as in the international cooperation.

\(^{21}\) Prior to the establishment of these two working groups, the Ministry of the Environment commissioned a working group to compile a summary of the projects that support the implementation of the Directive, to develop the definitions of the state of the sea, the environmental targets and the related indicators according to the Directive, and to make suggestions on how to develop monitoring. The group met between 2009 and 2010. The final report was presented to the Expert Group in March 2011 (Fleming-Lehtinen and Heiskanen 2011).

\(^{22}\) The Ministry of the Environment has given the Finnish Environment Institute some additional funding to carry out the practical coordination of the implementation process.
During the first phase, the main tasks of the Expert Group were to prepare the assessment of the current status of the sea, to determine the GES, and to set the environmental targets and indicators for the Finnish Marine Strategy. The group met 15 times between February 2011 and August 2012. The Expert Group participants consisted of 20 experts, who represented mainly various state agencies and institutes under the three administrative sectors\(^{23}\), but also the Ministry of the Environment, the Ministry of Agriculture and Forestry\(^ {24}\), and the relevant ELY Centres were represented in the group.

The 12 members of the Coordination Group include representatives from the three ministries and Directors from the ELY Centres for Uusimaa, Southwest Finland and Southeast Finland, FGFRI, SYKE, and Metsähallitus\(^ {25}\). The Director General of the Ministry of the Environment acted as the Chairman of the group. The group met 6 times between April 2011 and August 2012. The main task of the Coordination Group has been to prepare a common administrative outline for the Marine Strategy and to ensure harmonisation between the Marine Strategy, the Water Resources Management Plan and other relative policies such as Habitats Directive, Birds Directive, Floods Directive, Common Fisheries Policy, and the Baltic Sea Action Plan (YM057:00/2010, Minutes from the 1st Coordination Group meeting). The Group coordinates the preparation work at the political level and oversees the work done in the Expert Group. Therefore, throughout the preparation process, there has been timely information exchange between the Coordination Group and the Expert Group. This has been done by including the Chair of the Expert Group in the Coordination Group as its Secretary. In addition, the Government Counsellor from the Ministry of the Environment, who is in charge of the preparation process, also attended the meetings of the both working groups. Couple of experts who are involved in the implementation of the Water Framework Directive, also participated in the Expert and Coordination Group meetings.

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23 FGFRI, SYKE, GTK, FMI, MTT, Metsähallitus, Finnish Transport Agency and Trafi
24 There was no Ministry of Transport and Communications representative in the Expert Group
25 Directors of the ELY Centres, research director from FGFRI, the director of the Marine Research Centre (SYKE), and the director of the Natural Heritage Services (Metsähallitus)
3.3.3 The Finnish Marine Strategy preparation process

Corresponding to the directive, the Act on Water and Marine Resources Management, and the Government Decree on the Marine Resources Management, the preparation process of the first phase of the Finnish Marine Strategy can be divided into five steps: 1) preparation of the initial assessment, 2) determination of good ecological status and determination of environmental targets and indicators, 3) public hearing procedure, 4) preparation of the proposal for the Government, and 5) the Government decision. The processes relating to the first two steps in terms of who carried out the preparation and the mode of operation are presented in the Figure 2 on the following page.

The Expert Group was in charge of the first two abovementioned steps. First, the secretariat drafted a table of contents for the IA according to the requirements presented in the directive and then identified and invited relevant experts (natural scientists) and expert institutes to participate in the preparation process. These experts formed a so-called "Virtual Expert Group" that compiled the first two parts of the IA (i.e. a) essential features and characteristics, and the analysis on the current state; and b) pressures and impacts caused by human activity, under the supervision of the Expert Group). (Interview #1.) These parts of the IA are based on previous national and international assessments as well as on scientific articles and literacy, partly due to the tight schedule of the preparation process, which did not allow reanalysing of the existing material, but also because the use of international and regional assessments provides consistency and comparability between the Baltic Sea countries (Leppänen et al. 2012). Thus the assessments prepared during the implementation of, for example the Water Framework Directive, Habitats and Birds Directives, as well as the HELCOM assessments and ICES fish stock assessment were used (Minutes from the 2nd Expert Group meeting). During the preparation process it was acknowledged that the various assessments might be conflicting, in which case the worst assessment of the state of the sea should be selected (Minutes from the 3rd Coordination Group meeting).

26 More specifically, the essential features and characteristics, and the analysis on the current state were outlined according to Table 1 of Annex III and the pressures and impacts caused by human activity according to Table 2 in Annex III.
<table>
<thead>
<tr>
<th>Part of the MSFD</th>
<th>Who carried out the work?</th>
<th>Mode of preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Article 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Current Status</td>
<td>Expert Group and Virtual Expert Group</td>
<td>• Each participant filled in IA document with respect to their field of expertise. These were later discussed at the Expert Group meetings</td>
</tr>
<tr>
<td>2. Pressures and impacts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Article 9 and 10</td>
<td>Expert Group and external experts</td>
<td>• Three workshops were organised by the Expert Group • Finalisation at the Expert Group meetings</td>
</tr>
<tr>
<td>3. Socio-economic assessment</td>
<td>Socio-economic Expert Group (under the supervision of the Expert Group)</td>
<td>• An Expert compiled the socio-economic analysis on the use of Finnish marine waters under the supervision of the Socio-economic Expert Group • The analysis on the costs of degradation was based on the results of the BalticSUN project carried out within the BalticStern Network</td>
</tr>
</tbody>
</table>

1. The 12 members of the group included representatives from the three relevant ministries (Ministry of the Environment, Ministry of Agriculture and Forestry, Ministry of Transport and Communication) and directors from the most relevant regional authorities, and government institutes and agencies
2. The 20 members of the group included mainly natural scientists from various state agencies and institutes under the three administrative sectors, but the Ministry of the Environment as well as the Ministry of Agriculture and Forestry were also represented in the group.
3. Virtual Expert Group included in addition to the Expert Group member a number of external experts from the relevant state agencies and institutes
4. This unofficial working group included environmental economists and social scientists from relevant state agencies and institutes
5. These experts included ENGOs, few stakeholders, the Provincial Government of Åland, and the Ministry of the Environment of Estonia

Figure 2. Preparation of the first phase of the Finnish Marine Strategy – the mode of operation and the participants

The economic and social analysis of the use of those waters and of the cost of degradation of the marine environment (i.e. part 3 of the IA) was carried out separately, but also under the supervision of the Expert Group (Interview #1). The
coordination of the socio-economic assessment was given to the Finnish representative in the EU WG ESA (see Introduction, page 12). In order to support the preparation process, an "unofficial working group" was formed, which included environmental economists and social scientists27 (Draft Minutes from the 1st meeting of the socio-economic expert group). The socio-economic analysis of the use of the Finnish marine waters leans on the guidelines provided by the EU WG ESA (European Commission 2010b). For the analysis, the marine water accounts approach was used and a master's student was hired to compile the assessment. (Interview #2.)

The second part of the socio-economic analysis, the analysis on the cost of degradation, is based on the BalticSUN project (Baltic Sea Study of Use and Non-use Values) carried out within the BalticStern network28. The project examines the benefits of reducing eutrophication in the Baltic Sea (Ahtiainen et al. 2012).

However, this part of the socio-economic analysis was not finalised on time for the hearing procedure (see below) and therefore only preliminary results were included in the hearing document. Nevertheless, the three parts of the IA were combined into an extensive over 400 page IA document (Leppänen et al. 2012).

The second task of the Expert Group was to determine the GES of the Finnish marine areas and to establish environmental targets and the related indicators (Articles 9 and 10). For this purpose, the Expert Group organised three workshops to which experts outside of the group were also invited29. The Good Environmental Status of the Finnish marine waters in 2020 was determined according to the 11 descriptors provided by the Annex 1 of the MSFD and the Commission's decision on the criteria and methodological standards on good environmental status of marine waters (2010/477/EU). The Expert Group identified over 130 indicators to monitor the development towards the good environmental status. Most of these correspond to the ones already in use to monitor other plans and directives (e.g. WFD, Birds and

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27 Agrifood Research Finland (MTT), SYKE, FGFRI, and Statistic Finland
28 In Finland, the data was collected through the ProBaps project (Protection of the Baltic Sea: Benefits, Costs and Policy Instrument. Funded through the Advisory Board for Sectoral Research: Subcommittee of Sustainable development)
29 These experts included, to name a few, the Finnish Association for Nature Conservation (SLL), the WWF Finland, the Baltic Sea Action Group (BSAG), the Provincial Government of Åland, the Ministry of the Environment of Estonia. Monivesi OY, and Novia (University of Applied Sciences)
Habitats Directives etc.), but some of the selected indicators are currently under development\(^{30}\).

The decision-making during the Expert (and Coordination) Group meetings was eased by the existing requirements and guidelines provided by the MSFD and its annexes, the national legislation, and by the common understandings achieved through various EC working groups (ESA, DIKE and GES) (Interview #1). The assessments and the selection of environmental targets and indicators for the Finnish Marine Strategy were affected first and foremost by the existing information, but the Commissions reporting requirements were also taken into consideration (Interview #1).

The third phase of the preparation process, the public hearing procedure, was organised by the Ministry of the Environment and the coordinating ELY Centre between April 16\(^{th}\) and May 15\(^{th}\) 2012. Germany was the first country to finalise their hearing document due to the long national hearing procedure set in their national legislation and therefore, the same outline for the hearing document was used in Finland (Interview #1). The Finnish hearing document included: 1) Introduction, 2) Baltic Sea and human activities, 3) The current state of the Baltic Sea and the good environmental status, 4) General and operational environmental targets (leading to the GES), 5) Environmental impact assessment of the Marine Strategy\(^{31}\). The hearing document was made available for the public to see and to comment on, on the webpage's of the Ministry and the coastal ELY Centres\(^{32}\). In addition, the Ministry of the Environment and the participating ELY Centres requested comments to the document from various state and municipal authorities, respectively, as well as from the relevant interest groups and ENGOs. Over a hundred comments were received and these were taken into consideration accordingly by the Expert and Coordination Groups.

During the fourth phase, which is currently on-going, the Ministry of the Environment prepares the Marine Strategy document for the Government. A common agreement on the Finnish Marine Strategy between the three ministries is considered a prerequisite for submitting the document to the Government for approval, as it enhances the

\(^{30}\) Only the ones currently available were included in the Government Decision document

\(^{31}\) Available at: http://www.ymparisto.fi/download.asp?contentid=135749&lan=fi

\(^{32}\) Municipalities within the regions covered by the ELY Centres participating in the implementation of the Directive, had also printed hearing documents available for the public
commitment of the three administrative sectors and helps the Government decision-making process (i.e. the fifth phase).

3.4 Regional Cooperation

The main idea behind regional cooperation is to ensure the coherence and comparability between the national marine strategies. To meet this requirement, as described in the previous chapter, the existing international assessments have been utilised. Finnish experts have actively participated in the EU working groups (EU WG GES, ESA, DIKE), and in the related sub-groups, for example in the sub-group led by Germany, which aimed to achieve a common view on the initial assessment, GES and the environmental targets (the result: Claussen et al. 2011). Finnish experts have also been active in the HELCOM work relating to the implementation of the MSFD and the setting of environmental targets and the related indicators in particular. In addition, Finland has had tripartite meetings with Sweden and Estonia in order to achieve a common interpretation on the requirements of the Directive (Åland has also participated in these meetings). (Draft Minutes of the Coordination Group and Expert Group meetings).

Regional cooperation has been organised mainly through existing cooperation platforms, such as HELCOM, but also in conjunction with international and regional projects, for example the GES-REG project meetings. Information exchange has been the core of the cooperation between Finland and other Baltic Sea countries. Cooperation with third countries, Russia in particular, has been organised through HELCOM, but also other cooperation platforms have been recognised such as the Year of the Gulf of Finland 2014 (Suomenlahtivuosi 2014), which is a tripartite cooperation between Russia, Estonia and Finland. The Ministry of the Environment is responsible for coordinating regional cooperation, but in practise the aim has been that in addition to the Ministry, SYKE and the coordinating ELY Centre also attend the international meetings. However, the participation of the coordinating ELY Centre

33 Central Baltic INTERRG IV programme is funding GES-REG project (Good environmental status through regional coordination and capacity building). The project examines and contributes to the implementation and regional cooperation of the MSFD and BSAP.
in these meetings has not been possible due to lack of financial resources (Draft Minutes from the 2\textsuperscript{nd} Coordination Group meeting).

In addition to its function as a cooperation platform, the HELCOM has influenced the Finnish Marine Strategy preparation process by providing various assessments as well as setting and developing environmental indicators. HELCOM has coordinated the development of these products, but besides them, HELCOM has not taken a significant role in the preparation process of the first phase of the Marine Strategies in the Baltic Sea region (Interview #1 and #2).

3.5 The main focus of the Marine Strategy and the integration of policies

Based on the Initial Assessment on the current status of the sea, the Expert Group identified six environmental targets, which correspond to the most significant environmental problems and pressures in the Finnish marine areas (Interview #1). These targets also correspond to the ones used in the HELCOM Baltic Sea Action Plan and in the various national marine and water protection plans (e.g. Government Report on the Challenges of the Baltic Sea and on Baltic Sea Policy (2009); Finnish Government decision-in-principle on Water Protection Policy Outline to 2015 (2007)). These are (in priority order): 1) reduction of nutrient input (eutrophication), 2) reduction of hazardous substances and the harmful impacts of such substances, 3) biodiversity and nature conservation, 4) developing maritime safety, 5) sustainable use of marine resources, and 6) exploitation of marine spatial planning. The last target was selected outside of the existing protection plans and is related to the upcoming Directive on marine spatial planning.

Given that the selected (most important) environmental targets have been identified previously and they are widely used and well-known, it is perhaps not a surprise that the suggestions to use these targets in the Marine Strategy as well, did not face any objections; instead there was a consensus on the issues to be included (Interview #1). However, during the hearing procedure, the plan was criticised by the ENGOs for lacking ambition whereas industry and commerce criticised it for being too strict. Many of the comments received concentrated on what was not included in the document (bearing in mind that the IA presented in the document was summarised
from the original over 400 page document) or on issues that were not covered by the Strategy, but which are covered by the Water Resources Management Plan. (Minutes from 13th Expert Group meeting and the supporting document on the comments.)

The aim during the whole preparation process has been to utilise the interlinkages between the Marine Strategy and other policies and regulations (mainly) within the environmental sector\(^34\) by increasing cooperation between the different policies, and by harmonising and synchronising the assessments, monitoring, hearing and reporting procedures. The aim has also been to carry out the implementation of the MSFD through the already existing administrative structures instead of building new ones. (Minutes from 2nd Expert Group meeting, 25 March 2011, Minutes from 1st Coordination Group meeting 8 April 2011.) The linkages to other policy sectors is also enhanced by the legislation, which requires that the state and municipal authorities must take into consideration the Marine Strategy in their respective operations (§28). In practice this means, for example, that the Marine Strategy and its implementation plan are taken into account during permit procedures.

3.6 Evaluation of the process and conclusions

There have been no major difficulties during the Marine Strategy preparation process in Finland. The challenges encountered are related mainly to the relatively tight schedule for preparing the Marine Strategy and the lack of financial and human resources, neither of which have had any major consequences to the first phase of the preparation process (unless we consider the failure to finalise the plan by July 15th 2012 to be a major consequence). The tightness of the schedule was first and foremost due to the time lag between the adoption of the directive and the beginning of the actual implementation process in Finland. The directive was adopted in June 2008, but it was not until 2011 that the national legislation entered into force. Consequently, the work in the Expert and the Coordination Groups did not start until 2011, leaving the Finnish authorities just over a year to finalise the national Marine Strategy in order to meet the deadline of July 2012. The hearing procedure was also criticised for being

\(^34\) E.g. WFD, BSAP, Habitats Directive, Birds Directive, Floods Directive, and the Common Fisheries Policy
too short and lacking information. Considering that the stakeholder participation was organised only through the hearing procedure, the manner in which the procedure was organised affects participation. Furthermore, the actual finalisation of the Strategy after the hearing procedure has taken longer than originally anticipated.

The question of financial resources has affected the preparation process by, for example, restricting the coordinating ELY Centre's participation possibilities at the international meetings. Furthermore, the various agencies and institutes obligated by the legislation to participate, have to carry out the tasks as part of their official duties and, at least for the most part, without additional human resources. According to the participant lists included in the Draft Minutes of the Expert and Coordination Group meetings, the participation activity between the different agencies and institutes as well as ministries varies. Given that the preparation process is only one of the many official duties of the respective authorities, a full commitment to the process is difficult, and instead, the authorities need to prioritize between their respective duties. The lack of resources, both human and financial, especially considering that there is no additional funding readily available for the implementation of the MSFD from neither the Government nor the EC\textsuperscript{35}, may have an effect on the preparation of the Programme of Measures and more to the point, its implementation. The lack of stakeholder participation during the first phase of the Marine Strategy preparation process might also make the preparation of the Programme of Measures and its implementation challenging. These latter phases are most likely going to be affected by the lack of resources as well.

The adoption and implementation of the MSFD has met far less interest across sectors and also within the environmental sector than its "counterpart" the WFD (Interview #1). The reasons for this might be, on the one hand, in the obliviousness regarding the added-value of the directive, which no doubt is caused by lack of information given to the public and also, and the number of already existing policies and regulations aiming to improve the state of the Baltic Sea, and on the other hand, the unclear distinction between WFD and MSFD in the eyes of those not involved in the preparation work. If successful, the cooperation between the different sectors during the implementation of the Directive and thereby in the Baltic Sea protection, could be

\textsuperscript{35} According to the Directive, the European Community financing is limited to the existing financial instruments
the added-value. Substance vice (i.e. what is not yet included in the existing policies and regulations) the added-value of the Directive is the marine spatial planning (Interview #1), but this will also be covered by the planned Directive.

To conclude, the MSFD was transposed into the national legislation in 2011. The preparation of the national Marine Strategy started in the same year. The preparation process is characterized by cross-sectoral cooperation, which has taken place regularly through various working groups. Apart from the public hearing procedure, different stakeholders have not participated in the process; instead the work has been carried out as a part of the official duties of the relevant authorities. Cooperation between the different sectors has been enforced by the national legislation, in which the responsibilities of the relevant authorities in the preparation process are identified. Therefore, the delegation of the Marine Strategy preparation to the Government institutes and agencies was the only option.

Regional cooperation was organized mainly through the existing cooperation platforms such as the EU working groups, HELCOM and international research projects. The Finnish Marine Strategy is based on the requirements of the Directive as well as the guidelines provided by the EU working groups. The Finnish Marine Strategy is based on existing assessments, environmental targets and indicators. The use of international assessments such as the ones done by HELCOM and ICES, and the indicators used in the implementation of other Community directives enhances coherence between the national marine strategies and other water and marine policies and regulation. Despite of the efforts, the Finnish Marine Strategy was not finalised on time.
References


Working Group documents:

Draft Minutes from the 1st Coordination Group meeting, 8 April 2011

Draft Minutes from 2nd Coordination Group meeting, 13 October 2011

Draft Minutes from the 3rd Coordination Group meeting, 19 January 2012

Draft Minutes from the 2nd Expert Group meeting, 25 March 2011

Draft Minutes from 13th Expert Group meeting 28 May 2012 and supporting document on the comments

Draft Minutes from meeting of the MSFD initial assessment socio-economical analysis expert group, 28 April 2011
ANNEX 4. CASE SWEDEN

Authors: Marmar Nekoro, Baltic Nest Institute, Stockholm University, and Matilda Valman Baltic Nest Institute and Department of Political Science, Stockholm University

4.1 Introduction

Sweden has a long history of environmental management (see Appendix, Table 1 on Milestones in Swedish Nature Conservation); already during the 15\textsuperscript{th} century the Swedish king ordered preservation of certain trees in Swedish forest, and the following centuries of environmental management are recognized by the protection of different goods and services. The strongest level of protection of nature was however not established until 1909 through the National Parks Act, which was passed by the Swedish parliament, establishing nine National Parks (SEPA 2009, SEPA 2012a).

However, compared to terrestrial protection, marine protection and conservation does not have as long and impressive history. Attempts to protect the marine environment, which had major consequences for water and marine resources, were for example the first sewers that were built in the late 19\textsuperscript{th} century. Around the same period, in 1897, the first sewage treatment plant was built in the small town of Skara in southern Sweden. It would however take a couple of decades until the first treatment plan was built in Stockholm in 1934 (Johansson and Ahlbom 2002). Another initiative that positively affected the marine environment was the adoption of the Shoreline Protection Act in 1952, which protects the shoreline and the coastal scenery from exploitation. Acts covering the protection of the sea outside the Swedish north-east border had traditionally been made in collaboration with Finland. Finally the countries signed an agreement regarding the delimitation of the continental shelf in the Gulf of Bothnia, the Bothnian Sea, the Åland Sea and the Northern parts of the Baltic Sea in 1972 (UN 2012). Sweden and the Soviet Union also made several treaties regarding the Baltic Sea, such as the 1974 Agreement on scientific and technological cooperation and the 1977 agreement on mutual relations in fisheries (Ginsburgs 1987).
During the 1960s worldwide attempts were made to acknowledge environmental problems at the international level. The United Nations Conference on the Human Environment, held in Stockholm in 1972 (the Stockholm Conference), can be viewed as a milestone in this regard. The Stockholm Conference recognized that there are many environmental problems that are not limited to national borders, and hence took environmental policy making and politics to a new level. Before the conference environmental problems, whether they were of national character or not, had been considered as national concerns. An important outcome of the conference was thus that it paved the way for the establishment of the United Nations Environment Programme (UNEP), and several intergovernmental environmental co-operations. One example is the cooperation between the Baltic Sea states, which in 1974 jointly signed the Convention on the Protection of the Marine Environment of the Baltic Sea Area (the Helsinki Convention) (Elliott 2004; Hjorth 1994). The Helsinki Convention also established the Helsinki Commission (HELCOM) which is the governing body of the convention, and aims to “protect the marine environment of the Baltic Sea from all sources of pollution through intergovernmental co-operation between Denmark, Estonia, the European Community, Finland, Germany, Latvia, Lithuania, Poland, Russia and Sweden” (HELCOM 2012a). Sweden is also part of Oslo and Paris Commission (OSPAR), the governing body of the OSPAR Convention, which is the current “legal instrument guiding international co-operation on the protection of the marine environment of the North-East Atlantic” (OSPAR 2012).

To address the rapid environmental degradation during the first half of the 20th century, Sweden established the Swedish Environmental Protection Agency (SEPA) in 1967, today operating under the Swedish Ministry of the Environment (Naturvårdsverket 2009). In 2011 a new government authority, the Swedish Agency

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36 SEPA works on behalf of the Swedish Government (when it was first founded it was placed under the Ministry of Agriculture, and subsequently under the Ministry of Environment upon the Ministry’s establishment in 1987) with the aim to meet Sweden’s environmental objectives, aiming to promote sustainable development. SEPA is responsible for overviews regarding the environment and progress in environmental policy, as well as for coordinating, monitoring and evaluation of the environment.
for Marine and Water Management (SwAM), was formed\textsuperscript{37}, taking over most of the responsibility for issues related to sea and freshwater from the SEPA (SEPA 2012b).

When Sweden entered the EU in 1995 various directives, laws and regulations concerning water and marine protection was implemented and integrated in the Swedish legislation, including establishing Natura 2000 sites in Sweden. Today there are over 4000 Natura 2000 sites in Sweden, of which 544 (12\%) cover marine areas. (EU COM 2012)

4.1.1 Method

This country report is based on printed material from different national and international agencies, as well as expert interviews with three civil servants involved in Sweden’s Initial Assessment (IA). The authors of Case Sweden conducted all interviews jointly. The interviews were structured and open-ended. A questionnaire was prepared in advanced and the same questions were asked to all interviewees. The questions where ordered thematically covering everything from the organisation of the Swedish IA preparation process to regional cooperation to evaluation of the process (Kvale and Brinkmann, 2009). The interviewees only answered the questions which they considered themselves being knowledgeable about, which lead to an uneven response rate and level of detail. Additionally, the questionnaires were sent out prior the interviews.

Unless otherwise indicated (through references) this country report is based on the expert interviews. The results and discussions under heading 4.6 – Evaluation of the process – solely reflects the views of the interviewees.

\textsuperscript{37} SwAM was formed on 1 July 2011, along with the dissolution of the Swedish Board of Fisheries, whereby a change in the division of responsibilities took place between Sweden’s various authorities. SwAM took over most of the responsibilities from SEPA regarding issues related to sea and freshwater, with the aim to fulfil three of the 16 Environmental Quality Objectives adopted by the Swedish Parliament, “Zero Eutrophication”, “Flourishing Lakes and Streams”, and “A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos”.
4.2 Status of the MSFD

The EU Commission (EU COM) adopted the Marine Strategy Framework Directive (MSFD) (2008/56/EC) in 2008. It was the Swedish Ministry of Environment that was responsible for negotiating the MSFD with the EU COM. The Ministry of Environment subsequently implemented the MSFD into national legislation under the Marine Environmental Regulation (MER) (2010:1341)38 18 November 2010. The MER is part of the strategy for ecosystem-based management and sustainable use of the marine environment referred to in the EU directive on marine environmental policy. The regulation aims to maintain or achieve good environmental status in the marine environment with respect to ecosystem structure, function and processes, natural physiographic, geographic, biological, geological and climatic factors, as well as natural or human activities affecting the physical, acoustic and chemical conditions (§ 4). According to MER § 6, the regulation includes two administrative districts: the North Sea and the Baltic Sea.

Under the Marine Environmental Regulation (MER), the responsibility for implementation of the MSFD was first given to the Swedish Environmental Protection Agency (SEPA), and when the Swedish Agency for Marine and Water Management (SwAM) was formed in 2011 it took over most of the responsibility for issues related to sea and freshwater (SEPA 2012), including the responsibility for marine environmental management according to MER § 7.

According to MER § 9, implementation of Sweden’s commitments under the MSFD will be carried out in management periods of six years. The first six-year period covers 2010-2016, and the tasks 1-3 described below should have been completed by 15 July 2012.

For each six-year period the following tasks should be performed:
1) Carrying out an initial assessment (IA) (MSFD Article 8)
2) Determining Good Environmental Status (GES) (Article 9)
3) Setting environmental targets and indicators (Article 10)

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38 Marine Environmental Regulation is in Swedish called Havmiljöförordningen
4) Developing and implementing a program of monitoring, ensuring that environmental quality standards are followed (Article 11), and
5) Developing and implementing a Programme of Measures to be taken in order to maintain or achieve a good environmental status (Article 13).

SwAM is responsible for implementing the above mentioned commitments, and according to MER § 10 shall plan its work in order to enable and encourage participation from all those involved in marine environmental management. In addition, SwAM is the official body of referral and shall thus consult with the relevant authorities, municipalities, sectors, organisations, businesses and other individuals (MER § 10).

Under MSFD Article 9, 11 descriptors for GES have been determined, and each country is responsible for establishing environmental targets and indicators for each descriptor. For the descriptors, Sweden has selected a number of indicators and some of these are in turn selected as environmental norms, which are legally binding according to chapter 5 in the Swedish Environmental Code (1998:808). The environmental norms are coupled to the following environmental quality standards: loads to the marine environment from eutrophication, pollution, invasive species and physical damage to the bottoms and marine debris (HVMFS 2012:18). On October 15 2012, these were complemented by two environmental quality standards for fish: size of the fish stocks and the role of fish in the ecosystem (HVMFS 2012:29). The new environmental quality standards developed under the MER include indicators which take into account loads and impacts on the environment. For the standard “loads to the marine environment from eutrophication” indicators include e.g. concentrations of nutrients, chlorophyll $a$ and Secchi depth. These standards and the indicators coupled to them have been developed by national experts involved in Sweden’s Initial Assessment (see 4.3).

4.2.1 Preparatory work

In 2005, the concept of a Baltic Sea Action Plan (BSAP) was launched by HELCOM (HELCOM 2012b). The ambition was to agree on a common vision of a healthy Baltic by implementing a new environmental strategy to restore the Baltic Sea. All HELCOM countries signed the BSAP in 2007, agreeing to restore the good ecological
status of the Baltic marine environment by 2021. The BSAP and the MSFD thus share the target to reach Good Ecological Status/Good Environmental Status (GES) (by 2021 and 2020 respectively), and in order to assist the harmonized implementation of BSAP and the MSFD, HELCOM launched the HOLAS-project (HELCOM 2012c) in order to provide a holistic assessment of the Baltic marine environment, including a thematic assessment of hazardous substances. HELCOM HOLAS and its work with spatial descriptions of different types of environmental stress have been a basis for the Swedish Agency for Marine and Water Management’s (SwAM) work on the IA.

Sweden contributed to the HOLAS status assessment, which was published in 2010 (HELCOM 2010). HELCOM also initiated a project, HELCOM CORESET, to develop a set of core indicators for following the effectiveness of the implementation of the BSAP. As Sweden felt this work was important also for the commitments to the MSFD, they funded a position within CORESET so that the project could be better coordinated. The project (2010-2013) will thus support the EU Member States in the Baltic Sea region in implementing the MSFD, and the work particularly focuses on core indicators related to biodiversity and hazardous substances. Overall, the indicators will describe the status or pressures on the scale of the entire sea area, they have a scientific basis and will reflect anthropogenic pressures, and thus enable improvement of status by management measures on land or at sea. (HELCOM 2012d) The idea was that this work would lead to more detailed descriptors compared with those that were developed in HOLAS. Similar work was initiated within OSPAR through the ICG COBAM-project.49

4.2.2 Legal status of the Swedish Marine Strategy

Sweden’s work with the national Marine Strategy was scheduled to be completed by 15 July 2012 in order to follow the timeline for the implementation of the MSFD. The majority of the work was completed on time; article 9 and 10 were completed and norms and regulations were decided upon on July 15, with the exception that environmental quality standards for fish was added on 12 October 2012. Both article 9 and 10 were sent to the EU COM by October 15. Due to lack of human resources

49 ICG COBAM is the Intersessional Correspondence Group on Coordination of Biodiversity Assessment and Monitoring
there is a delay in the completion of the referral version of the report “Good marine environment in 2020 – part 1” (SwAM 2012b). The changes received during the consultation period will be completed by 26 November when the final version of the document should be ready. The Swedish IA (article 8) will thus be sent to the EU COM by December 15.

The Swedish Agency for Marine and Water Management SwAM have competency to set prescriptions such as steering documents, for example Programmes of Measures, after consulting the Swedish Environmental Code. However, in case of special circumstances regarding the Programmes of Measures, it is specified in MER § 27 that these can be raised to the Government for consideration. Since the regulation is adopted the issue does not need to be taken up by parliament. According to Article 14 of the MSFD, Member States can report exceptions to fulfilment of the Good Environmental Status (GES). If Sweden deems it necessary she has the possibility to apply for such an exception (see MER §§ 29-30) during the development of the Programme of Measures when the technical, economic and scientific basis has been developed. It is the responsibility of SwAM to control and govern what other agencies should do regarding implementation of the MER.

4.3 Organisation of the implementation process of Articles 8, 9 and 10

Sweden’s organisation of the initial assessment (IA) (Article 8) was done by the SEPA/SwAM (Swedish Environmental Protection Agency/Swedish Agency for Marine and Water Management); ten working groups were established covering the 11 descriptors (in essence one group per descriptor). The working groups were comprised of 5-10 persons, appointed by the SEPA. Different authorities and provincial governments could also nominate participants. The group consisted of scientific experts (providing expertise regarding all descriptors), and representatives of agencies and administrative boards. The experts included researchers from the Universities in Lund, Gothenburg, Stockholm, Umeå and the Swedish University of Agricultural Sciences, Swedish Institute for the Marine Environment, Museum of Natural History, Swedish Meteorological and Hydrological Institute (SMHI), as well as the Swedish Defence Research Agency (FOI). Several of these had previously been
involved in the work with the Water Framework Directive (WFD) (Directive 2000/60/EC), thus being acquainted with similar policy processes. The chairs of each group were also invited to participate in the CORESET work. The aim of this was to facilitate the harmonization of the BSAP, the MSFD and other directives with the ambition that the Swedish Marine Strategy would be done in a similar manner for the entire Baltic Sea and the North Sea, and that the Good Environmental Status (GES) indicators would be the same in all Baltic Sea countries so that these could more easily be compared between countries. An additional wish was to create a common vision for how to reach a healthier marine environment.

4.3.1 Stakeholder participation

In the initial phase of the IA, stakeholders were not consulted as the SEPA/SwAM felt they did not have sufficient information for such discussions. After the summer of 2010, when the ten working groups had gathered information and closed some of the knowledge gaps, stakeholders were invited to participate and were consulted. The consulted stakeholder group, with approximately 50 participants, consisted of representatives from a number of agencies, relevant sectors and organisations, which were engaged to continuously take part of, and comment on, the IA. The referral process was done through leaving comments on the background material, but also through meetings, where on average 25 participants attended.

Information regarding Sweden's commitments and responsibilities under the MSFD was also available to the public through the SEPA website. Certain information, such as national negotiations, was however not publicly available. In addition, public presentations, for example during the annual “Water Days”\(^\text{40}\) (Limnologerna 2012) were also held.

4.3.2 Referral process

The IA referral process was structured into the following phases; 1) Continuous meetings for the respective descriptor (through the working groups) were held, as

\(^{40}\) “Water days” – Vattendagarna is an annual Swedish conference regarding different topics related to limnic and marine environments, gathering experts and practitioners from academia and local/regional/national authorities.
were negotiations with other Member States and the EU COM. 2) The IA draft was sent out for referral 19 March 2012 and the invited referral organisations (including the stakeholder group mentioned above) were offered to submit comments and observations until 16 April 2012. The IA draft was sent out to 155 organisations, of which 73 responded (see table 1 on distribution of referral responses). The comments received mainly concerned the Good Environmental Status (GES) indicators, limits to achieve GES and lack of method for appraisal of GES.

<table>
<thead>
<tr>
<th>Referral organisation</th>
<th>Distribution of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>National authorities</td>
<td>16</td>
</tr>
<tr>
<td>Business sectors</td>
<td>12</td>
</tr>
<tr>
<td>County Administrative Boards</td>
<td>11</td>
</tr>
<tr>
<td>Research</td>
<td>10</td>
</tr>
<tr>
<td>Municipalities</td>
<td>8</td>
</tr>
<tr>
<td>Environmental NGOs</td>
<td>5</td>
</tr>
<tr>
<td>Water councils</td>
<td>4</td>
</tr>
<tr>
<td>Others</td>
<td>7</td>
</tr>
</tbody>
</table>

4.4 Regional Cooperation

In order to fulfil the common vision of a healthier marine environment, and to ensure harmonization between BSAP and MSFD, Sweden has cooperated with states bordering its territory and the two administrative districts of the Marine Environmental Regulation (MER): the North Sea and the Baltic Sea (see MER § 34). Sweden has thus had an active role in the regional marine convention: HELCOM and its different subsidiary bodies and working groups (e.g. HOLAS and CORESET as mentioned above), as well as OSPAR (e.g. in the COBAM project), in order to exchange experiences and views on the work of the IA. Cooperation and coordinated activities with countries outside of EU, such as Russia and Norway, have mainly been carried out within HELCOM and OSPAR.
Sweden has also been involved in several working groups initiated by the EU, such as the Working Group on Economic and Social Assessment (WG ESA), the Working Group on Good Environmental Status (WG GES), the Working Group on Data, Information and Knowledge Exchange (WG DIKE), as well as the Technical Subgroups on Marine Litter (TSG ML) and Noise (TSG NOISE) respectively.

The WG ESA was an informal working group consisting of experts and stakeholders representing the EU Member States, EU COM, European Environment Agency, UNEP, Regional Conventions (e.g. HELCOM and OSPAR) and stakeholder organisations (e.g. Central Dredging Organisation, European Bureau for Conservation and Development and Marine Strategy Navigation Group). The aim with WG ESA was to “create an active network of marine policy-makers and economists and the means to exchange views and experience during the implementation process” (EU COM 2010, p. 7). The WG GES works, in relation to the development of criteria and methodological standards for Good Environmental Status (GES), to ensure the EU Member States’ development of the required technical elements including discussing and giving feedback on the national Good Environmental Status processes. In addition, the WG GES also assists the commission in developing proposals on GES descriptor criteria and methodological standards (EU COM 2009a). The WG DIKE was a group set up to develop and lead the WISE-Marine implementation plan, converge marine environmental indicators and detect knowledge gaps and needs related to the MSFD implementation (EU COM 2009b).

Additionally, Sweden is active in the International Council for the Exploration of the Seas (ICES) and was active in the project HARMONY, which aimed to develop and demonstrate tools for harmonization of the Swedish Marine Strategy in the eastern part of the Greater North Sea sub-region. The HARMONY partnership was originally initiated by Sweden and Denmark and consisted of agencies and research institutes from Sweden (through the SEPA/SwAM and SMHI), Norway, Denmark and Germany. One tool used both within the HARMONY project and the HELCOM

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41 2007 the EU COM launched the Water Information System for Europe (WISE). The WISE Marine is a vision to include all marine waters in the existing information system.

42 HARMONY started in September 2010 and ended in February 2012. The overall objective was to develop and demonstrate MSFD tools for harmonization of the initial assessment in the eastern parts of the Greater North Sea sub-region.
HOLAS was the so-called HELCOM Eutrophication Assessment Tool (HEAT) (HARMONY 2012, HELCOM 2006). Coordination of work within HELCOM and OSPAR were coordinated by the respective organisations.

Sweden views regional cooperation as a valuable asset in its own work with the Swedish Marine Strategy, and thus the regional marine conventions are good platforms for this work. The implementation and review of the BSAP and its National Implementation Plans\(^\text{43}\) have been done in parallel with Sweden’s IA, and have also been viewed as forming a basis for the MSFD Programme of Measures\(^\text{44}\). BSAP has served as one of many foundations in terms of load descriptions and descriptions of the state of the marine environment. The HEAT tool, together with Marine Spatial Planning (MSP) and the development of scenarios, are suggested tools in this regional cooperation. In Sweden there is not yet a clear responsibility for who should lead the work with MSP, but it has been suggested that, the Swedish Agency for Marine and Water Management (SwAM) should coordinate this work.

4.5 The main focus of the Swedish Marine Strategy and the interlinkages to other policies

Initially Sweden’s ambition was to identify national indicators for all 11 MSFD descriptors through the ten SEPA/SwAM working groups previously described (section 5.3), with the aim to harmonize with other policies. Sweden has tried to integrate the Marine Environmental Regulation (MER) with other relevant national and EU legislation and with regard to the regional seas conventions and other environmental agreements, such as the BSAP, WFD, European Union regulation concerning the Registration, Evaluation, Authorisation and restriction of Chemicals (REACH) (EC 1907/2006) and the EU Common Fisheries Policy (CFP). As regards the monitoring programme, it should be consistent with assessments and monitoring carried out under the conditions/regulations for protected areas, implementing the Habitats and Birds Directives. The Programme’s of Measures shall comply with the

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\(^{43}\) The National Implementation Plans (NIP) are national plans developed to describe the actions the member state have agreed to implement as part of the HELCOM BSAP.

\(^{44}\) Many of the experts (researchers and civil servants) have been involved in both the BSAP and MSFD processes.
regulations regarding protection of water through implementing the WFD, where the indicators have been extrapolated and adjusted to fit the MSFD, the Waste Water Directive (WWD) (91/271/EEC), the Bathing Water Directive (76/160/EEC) and the Directive on Environmental Quality Standards (2008/105/EC). The Programme’s of Measures should also be compatible with the regulations on the protection of areas that implement the Habitats Directive, Birds Directive, the Regional Seas Conventions and other international environmental agreements.

During the harmonization process it became apparent that the amount of knowledge available differed between areas for the respective descriptors (e.g. less knowledge was available for marine litter and underwater noise). Sweden decided to focus on four of the 11 descriptors and the ecosystem services related to those (Table 2). This choice was based on their substantial environmental impact as well as the amount of knowledge available.

<table>
<thead>
<tr>
<th>Descriptor</th>
<th>Ecosystem service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological diversity</td>
<td>x</td>
</tr>
<tr>
<td>Non-indigenous species</td>
<td></td>
</tr>
<tr>
<td>Population of commercial fish and shell fish</td>
<td></td>
</tr>
<tr>
<td>Elements of marine food webs</td>
<td></td>
</tr>
<tr>
<td>Eutrophication</td>
<td>x</td>
</tr>
<tr>
<td>Sea floor integrity</td>
<td></td>
</tr>
<tr>
<td>Alteration of hydrographical conditions</td>
<td></td>
</tr>
<tr>
<td>Contaminants</td>
<td>x</td>
</tr>
<tr>
<td>Contaminants in fish and sea-food for human consumption</td>
<td></td>
</tr>
<tr>
<td>Marine litter</td>
<td>x</td>
</tr>
<tr>
<td>Introduction of energy, including underwater noise</td>
<td></td>
</tr>
</tbody>
</table>

4.6 Summary and evaluation of the process

The Marine Strategy Framework Directive was implemented into national legislation under the Marine Environmental Regulation in November 2010. The Swedish Agency for Marine and Water Management have competency to set prescriptions such as Programme’s of Measures based on the Marine Environmental Regulation MER. The
process of conducting the Initial Assessment consisted of cooperation on multiple levels (e.g. local, regional, national and international) in order to facilitate the harmonization with other national and international directives.

Based on the environmental impact and available knowledge, Sweden has selected four out of the 11 descriptors under Article 9. Based on these a number of indicators have been selected and developed. Some of these have in turn been selected as environmental norms, which are legally binding.

Upon completion of the IA draft, it was sent out on referral to 155 organisations representing agencies, relevant businesses and organisations. 73 of these submitted comments and observations between March and April. The IA report (Article 8) is under finalisation and will be sent to the EU COM by 15 December 2012. The report regarding Good Environmental Status (GES) and environmental quality (Article 9) was completed and approved 15 July 2012 and sent to EU COM 15 October 2012, while the report regarding environmental targets and indicators (Article 10) was finalised and sent to the EU COM 15 October 2012.

4.6.1 Evaluation of the process
According to the expert interviews\(^\text{45}\) the process of preparation and formulation of Sweden’s initial assessment (IA) is seen as a novel way to achieve good environmental status in the two administrative districts of the Marine Environmental Regulation (MER): the North Sea and the Baltic Sea. By harmonizing the IA with other national and international legislations and policies, Sweden aims to concretize this ambition and develop measures for a better marine environment. The environmental problems affecting the Sea are in the MSFD described in terms of 11 descriptors. Sweden has in turn focused on four of these, in order to clarify which environmental problems are seen as most relevant to combat in Swedish waters. When indicators for each descriptor were developed, Sweden’s goal was to effectively monitor the effects of actions to improve the environmental state (through the future Programmes of Measures to be implemented in 2014). The process of identifying indicators also highlighted existing knowledge gaps regarding the relationships between impact and state of the environment. These knowledge gaps, pointing to the need of future research and knowledge acquisition, are included in the IA. Sweden’s

\(^{45}\) Interviews; 1 October 2012, 5 October 2012, 8 October 2012.
IA describes the linkages between driving forces (e.g. actors and activities) and loads (e.g. supply of nutrients and toxins), and the subsequent impact on the state of the environment. Furthermore, a connection is made between the effects on the environment and the effects on welfare as a result of environmental changes. This connection is an important part of future stages of the MSFD and the Programme of Measures, when Sweden will propose economically justified measures and instruments to environmental problems.

Due to political compromises, some of the interviewees view the MSFD as not being optimally designed; IA and Good Environmental Status (GES) definition should have been done in parallel or even in reverse order, instead of starting with GES and a few years later conduct the IA. And with regards to the preparatory process, some view the MSFD as being less bureaucratic compared to the WFD. The regional cooperation has been seen as difficult, as different countries have varying degrees and levels of ambition regarding IA and the Programme of Measures. Some of the civil servants involved in the IA requested that the IA should be done in cooperation with other Baltic Sea states, and although meetings to explore this were held with for example Denmark, this was not realised. Other problems raised regarding problems encountered during the development of the MER is lack of knowledge for many of the descriptors, and that the Swedish IA was not sufficiently harmonized with the results of the HELCOM CORESET. Despite problems with harmonization, the IA-process has added value in the sense of it having evoked collaborations in the national and international governance, for example between different Ministries (both nationally and internationally). This collaboration includes relevant experts and civil servants exchanging knowledge and practices, avoiding double work between decision makers. This exchange promotes a more holistic understanding and approach, hopefully leading to more efficient management of our common Sea through holistic and adaptive governance.

The MSFD is seen by the interviewees’ as more comprehensive compared to the WFD, adding important elements to the Swedish marine policy by creating a vision for our Seas that are common with that of the EU, and thus advocating an ecosystem approach. This naturally adds value to the work with achieving a good environmental

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46 This is based on the interviewee’s argument that it would be more logical to first determine what constitutes GES, and thereafter perform the IA.
status and a healthy Baltic Sea. Compared to the HELCOM BSAP, which is a non-legally binding agreement, the MSFD is part of EU-legislation with its more far-reaching sanctioning system, and thus individual Member States can be fined for not fulfilling the agreed goals. The implementation of MSFD into the Swedish MER thus brings greater impact for marine governance than the HELCOM BSAP.

4.6.2 Discussion

During the interviews different opinions regarding Sweden’s work during the Initial Assessment (IA) were expressed. These cover aspects regarding harmonization and regional cooperation, as well as how the process of the MSFD, and thus the national implementation, was designed.

Whilst the aim of the HELCOM CORESET was to support the states in implementing the MSFD, by identifying joint management measures based on the identified core indicators describing the status and pressures, it seems that none of the countries in full took into account the results of the project. One reason for this, mentioned by the interviewee’s, is that the states would anyhow need to refine their environmental monitoring programs and thereafter intercalibrate between each country’s data. However, HELCOM’s work and the CORESET project is still seen as a basis for the Swedish IA. There have even been suggestions that in order to ensure better coordination and harmonization, the MSFD and the WFD should be combined. Although there was consensus regarding which descriptors to prioritize, there may be renegotiations with regards to priority when the Programme of Measures are implemented.

The MSFD in Sweden, and corresponding national implementation in other Baltic Sea countries, provides a legal framework that makes it possible to achieve relevant parts of the measures indicated in the BSAP, and thus adds important new elements to marine governance in Sweden. Based on the MSFD there may be an opportunity to highlight the benefits we receive from the Baltic Sea, even those that have no market prices, and thus provide better decision support in order to protect and improve the state of the Baltic Sea.
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Havsmiljöförordningen (2010:1341)

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Appendix 1

Table 3. Milestones in Swedish Nature Conservation (modified from Naturvårdsverket 2009, with additional information from OSPAR 2012)

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1909</td>
<td>The National Parks Act is passed establishing nine National Parks.</td>
</tr>
<tr>
<td>1942</td>
<td>Six new national parks are established between 1918 and 1942.</td>
</tr>
<tr>
<td>1952</td>
<td>The Shoreline Protection Act is established.</td>
</tr>
<tr>
<td>1962</td>
<td>A parliamentarian report is made proposing new legislation for nature conservation. The report also states that nature is an important resource for man and possesses an intrinsic value.</td>
</tr>
<tr>
<td>1963</td>
<td>The first appointments to nature conservation are appointed at the county administrative board.</td>
</tr>
<tr>
<td>1964</td>
<td>The Environmental Protection Act is enacted, after which it became possible to establish nature reserves.</td>
</tr>
<tr>
<td>1967</td>
<td>The Environmental Protection Agency is established.</td>
</tr>
<tr>
<td>1972</td>
<td>The first UN environmental conference is held in Stockholm. Sweden signs the Oslo Convention on dumping of hazardous waste in the North-East Atlantic. The first national physical plans and municipal plans are made.</td>
</tr>
<tr>
<td>1987</td>
<td>The Natural Resource Act and the Planning and Building Act is enacted.</td>
</tr>
<tr>
<td>1989</td>
<td>The National Parks’ Plan is adopted.</td>
</tr>
<tr>
<td>1992</td>
<td>Sweden signs the Convention on Biological Diversity (CBD). Biodiversity is the dominating argument for nature conservation during the 1990s. Sweden signs the OSPAR Convention for the Protection of the Marine Environment of the North-East Atlantic.</td>
</tr>
<tr>
<td>1995</td>
<td>Sweden joins the EU. The work with establishing Swedish Natura 2000 sites begins.</td>
</tr>
<tr>
<td>1999</td>
<td>The Environmental Code is enacted. It replaces a large number of environmental laws. The Parliament adopts 15 environmental objectives that shall guide all environmental politics and policies.</td>
</tr>
<tr>
<td>2001</td>
<td>The Parliament adopts a coherent policy for predatory animals.</td>
</tr>
<tr>
<td>2002</td>
<td>The Parliament raises the appropriation for the state nature conservation.</td>
</tr>
<tr>
<td>2005</td>
<td>The Parliament revises the environmental objectives; there are now 16 environmental objectives.</td>
</tr>
<tr>
<td>2009</td>
<td>The first Swedish marine national park is established – Kosterhavet National Park.</td>
</tr>
</tbody>
</table>