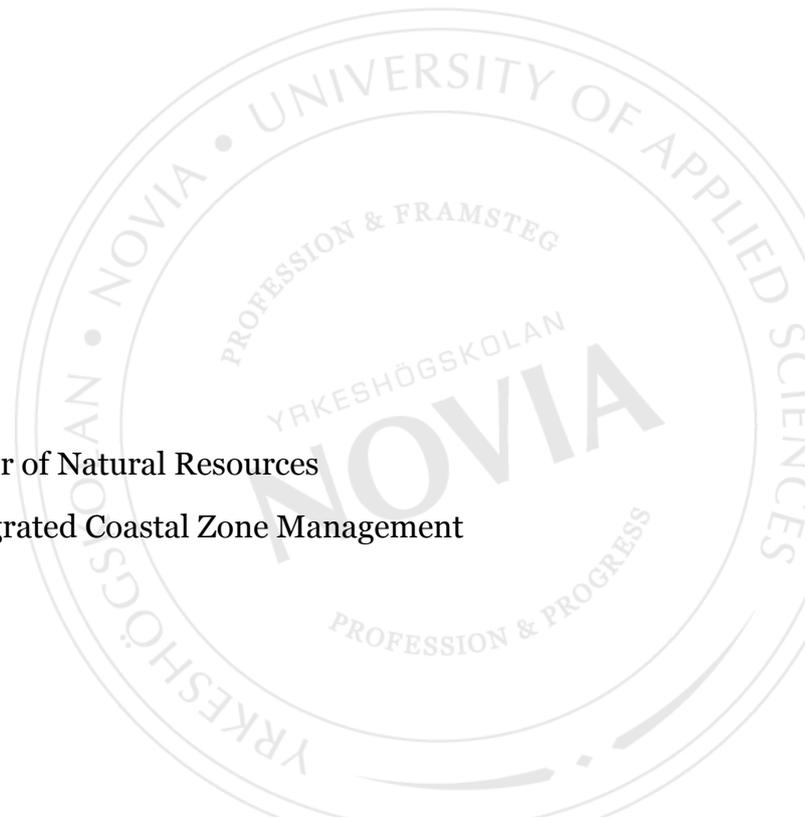




An Overview of How Municipality Representatives and Different Authorities Perceive Marine Resources Management

Veera Komulainen

Degree Thesis for a Bachelor of Natural Resources
Degree Programme in Integrated Coastal Zone Management
Raasepori 2011



BACHELOR'S THESIS

Author: Veera Komulainen

Degree Programme: Integrated Coastal Zone Management

Specialization:

Supervisors: Anna Granberg, Mikael Kilpi

Title: **An Overview of How Municipality Representatives and
Different Authorities Perceive Marine Resources
Management**

Date 30 August, 2011 Number of pages 36 Appendices 2

Summary

The Baltic Sea and its resources are being increasingly used while the condition of the sea has deteriorated. To improve the situation, different organizations have been established and contracts made, but none of them have succeeded in their goals. The EU's Marine Strategy Framework Directive has a goal of achieving good ecological status of the Baltic Sea by 2020. In Finland the directive has led to a law on Marine Resources Management (MRM) (272/2011).

The aim of the thesis is to find out by interviews how the government proposal of MRM (HE 323/2010) and its practical implementation is seen at the municipal level and by some authorities. The interviews were conducted right before the law came into force. The idea of MRM planning was new on the municipal level and practical implementation was not clear. Lack of resources was unanimously seen as the greatest problem, and inventorying the underwater marine environment, which will give important background information for MRM, was mentioned as important but time-consuming.

The terms MRM and Marine Spatial Planning (MSP) are easily confused partly because there is some MSP also involved in MRM. However, a directive of its own will most likely be issued for MSP.

Language: English

Key words: Marine Resources Management,
Marine Spatial Planning

OPINNÄYTETYÖ

Tekijä: Veera Komulainen

Koulutusohjelma ja paikkakunta: Integrated Coastal Zone Management,
Raasepori

Suuntautumisvaihtoehto/Syventävät opinnot:

Ohjaajat: Anna Granberg, Mikael Kilpi

Nimike: **An overview of how municipality representatives and
different authorities perceive Marine Resources
Management**

Päivämäärä 30.8.2011

Sivumäärä 36

Liitteet 2

Tiivistelmä

Itämeren ja sen resurssien käyttö on jatkuvassa kasvussa samalla kun meren kunto on huonontunut. Tilanteen korjaamiseksi on perustettu järjestöjä ja laadittu sopimuksia, mutta yksikään niistä ei ole toistaiseksi onnistunut tavoitteissaan. Euroopan Unionin laatima meristrategiadirektiivi on asettanut tavoitteekseen hyvän ekologisen tilan saavuttamisen Itämerellä vuoteen 2020 mennessä. Direktiivi on Suomessa johtanut lakiin vesienhoidon ja merenhoidon järjestämisestä (272/2011).

Opinnäytetyön tarkoitus on haastatteluin selvittää, miten lakia edeltänyt merenhoidon järjestämisestä tehty hallituksen esitys (HE 323/2010) ja merenhoidon käytännön toimeenpano nähdään kuntatasolla ja hallituksen esityksessä mainittujen toimeenpanosta vastaavien viranomaisten näkökannalta. Haastattelut tehtiin juuri ennen lain voimaantuloa.

Merenhoitosuunnitelman laatiminen oli kuntatasolla uusi ajatus eikä kenelläkään ollut tarkkaa tietoa käytännön toteutuksesta. Suurimpana ongelmana pidettiin yksimielisesti resurssipulaa. Tärkeäksi mutta hyvin aikaa vieväksi mainittiin myös merialueiden vedenalainen inventointityö, joka antaa tärkeitä taustatietoja merenhoidon järjestämiselle.

Termit merenhoitosuunnitelma ja merialueiden suunnittelu sotkeentuvat helposti. Asiaan vaikuttaa osaltaan se, että merenhoitosuunnitelmaan kuuluu myös merialueiden suunnittelua. Merialueiden suunnittelusta tulee kuitenkin tulevaisuudessa oma direktiivinsä.

Kieli: Englanti

Avainsanat: Marine Resources Management,
Marine Spatial Planning

EXAMENSARBETE

Författare: Veera Komulainen

Utbildningsprogram och ort: Integrated Coastal Zone Management, Raseborg

Inriktning/alternativ/Fördjupning:

Handledare: Anna Granberg, Mikael Kilpi

Titel: An overview of how municipality representatives and different authorities perceive Marine Resources Management

Datum 30.8.2011

Sidantal 36

Bilagor 2

Sammanfattning

Östersjön och dess resurser förbrukas allt mer och havets kondition har därför försämrats. För att förbättra situationen har olika organisationer grundats och avtal upprättats men ingen av dem har nått sina uppställda mål. Europeiska unionens ramdirektiv om en marin strategi har i Finland lett till en lag om havsvårdsförvaltning (272/2011).

Syftet med examensarbetet var att undersöka hur regeringens proposition om havsvårdsförvaltning och dess praktiska implementering ses på kommunnivå samt av de myndigheter som i propositionen nämns som ansvariga för implementeringen. Undersökningen gjordes genom intervjuer. Lagen trädde i kraft strax efter propositionen, men intervjuerna utfördes före det.

Planering av havsvårdsförvaltning var en ny tanke på kommunnivå och ingen hade klar uppfattning om det praktiska förverkligandet. Brist på resurser ansågs enhälligt som det största problemet. Inventering av den marina undervattensmiljön, som ger viktig bakgrundsinformation för havsvårdsplaneringen, nämndes som viktigt men mycket tidskrävande.

Begreppen havsvårdsförvaltning och havsplanering blandas lätt ihop. Detta påverkas delvis av att det i havsvårdsförvaltningen ingår också havsplanering. Det kommer dock sannolikt att ges ett eget direktiv för havsplanering.

Språk: Engelska

Nyckelord: Marine Resources Management,
Marine Spatial Planning

Table of Contents

1	Definitions	1
2	Introduction	2
2.1	Marine areas lack information and rules	3
3	Measures taken to improve the situation	4
3.1	Marine Strategy Framework Directive	5
3.2	International and EU instruments that have had an impact on Marine Resources Management	6
3.2.1	The United Nations Convention on the Law of the Sea (UNCLOS)	6
3.2.2	The International Maritime Organization (IMO)	6
3.2.3	Birds Directive	7
3.2.4	Habitats Directive	7
3.2.5	Natura 2000	8
3.2.6	Water Framework Directive (WFD)	8
4	What Finland has done so far	9
5	The new law on Marine Resources Management in Finland	11
5.1	The definition and distinction of Marine Resources Management and Marine Spatial Planning	12
5.1.1	Marine Resources Management	12
5.1.1.1	Content of the Act on Water and Marine Resources Management	12
5.1.1.2	The compiler and schedule of the plan	13
5.1.1.3	Definition of good environmental state	13
5.1.2	Marine Spatial Planning	14
6	Baseline for the research	16
7	Method used for the research	17
7.1	Semi-structured interview	18
7.1.1	Strengths and weaknesses of semi-structured interview	18
8	The respondents	19
9	The perception of Marine Resources Management planning among officials in Finland	20
9.1	The need for MRM planning	20
9.2	The responsibilities and implementation according to the legislation	21
9.3	The division of responsibilities seen by the respondents	22
9.4	Significance of MRM for the municipalities	23
9.5	Integration with land use planning	23
9.6	The schedule for the actual MRM	25
9.7	Respondents' overall thoughts of the Act on Water and Marine Resources Management	26
10	Summarizing the aspects of the respondents	28
10.1	Agreeables	28
10.2	Differences in opinions	29
11	Conclusions	30
12	Discussion	31
13	Marine Spatial Planning in Finland	33
13.1	MSP and ICZM	34
14	Outlook - An example from Gothenburg, Sweden	35

1 Definitions

The Ministry of the Environment (MoE), is the government body formulating the environmental and housing policies in Finland. The policies cover e.g. environmental protection, land use, nature conservation, construction and housing. The MoE is also responsible for the drafting of new environmental legislation in Finland as well as for international co-operation on environmental issues. (Environmental Administration, 2010).

The Centres for Economic Development, Transport and the Environment (CEDTE) function under the supervision of the MoE with the exception of tasks related to water resource use and management, which are supervised by the Ministry of Agriculture and Forestry. The centres are responsible e.g. for environmental protection, land use, guidance on construction, protection of biodiversity and its sustainable use and monitoring the state of the environment. The sphere of responsibilities also includes “the enforcement of permits in accordance with the Environmental Protection Act and the Water Act, and the enforcement of administrative measures of constraint in accordance with the Environmental Protection Act”. (Environmental Administration, 2010).

The Association of Finnish Local and Regional Authorities (AFLRA) looks after the interest of local authorities. The Association offers expert services in e.g. research and development. All Finnish towns, cities and municipalities are members of the Association. (AFLRA, 2011)

The Finnish Environment Institute (SYKE) is a research institute, which operates under the MoE with the exception of work related to water resources, which is supervised by the Ministry of Agriculture and Forestry. SYKE offers environmental expertise through research and development, monitoring and information systems and conducting administrative tasks. (SYKE, 2010).

DG MARE = The Directorate-General for Maritime Affairs and Fisheries is “the European Commission department responsible for the implementation of the Common Fisheries policy and the Integrated Maritime Policy”. (European Commission, Maritime Affairs and Fisheries, 2011).

EU directives set certain objectives, which every Member State must achieve. The Member States have to draw up or adapt national laws to meet the goals required by the directives. The directive specifies the date, by which this has to be done, but the way of doing the adaptation is freely decided by the Member States. The purpose of EU directives is to have the different national laws within EU Member States in line with each other. (a. European Commission, 2010).

2 Introduction

The sea has been used as a resource for food, livelihood and a means for transporting people and goods for centuries. Both the fishing industry and the maritime traffic have constantly increased and they still continue to grow. The Baltic Sea is increasingly being used also for other activities such as drawing cables and pipelines, extracting sand and gravel, dredging, building different constructions for coastal protection, for military use and building wind parks. In the future, there might be additional activities such as wave energy parks even if most likely only certain parts of the Baltic Sea are suitable for that kind of energy formation. Climate change and global warming will also bring challenges to marine areas in the future. Over 85 million people live in the Baltic Sea water catchment area (Bäck, Ollikainen, Bonsdorff, Eriksson, Hallanaro, Kuikka, Viitasalo, and Walls, 2010, p 22), which puts a lot of pressure on the sea through, for example, waste waters. Recreational use, tourism and quality of life are very important services offered by the sea. Swimming, boating, windsurfing and diving are popular activities also in the Baltic Sea. Coastal municipalities such as Hanko and Raasepori depend on the sea not only because of the port activity in Hanko, but also through tourism and by attracting people to live in these small towns.

All kinds of water activities are an increasingly popular leisure time activity. It is a mix of different sized motorboats, sailboats, canoes and water scooters. These smaller actors use partly the same water areas as cargo traffic, which is also constantly growing and bringing more and bigger ships to the Baltic Sea.

Sand and gravel extraction from the sea bottom is estimated to increase due to the fact that the extraction on land will be more strictly managed while the need for sand and gravel is still growing (Uudenmaan ympäristökeskus, 2009). Many harbours want to expand, new

housing areas are built “on water” by expanding the land area into the sea and waterways are dredged. The amount of offshore wind parks is expected to increase significantly also in Finland. It is most economic to establish a wind park in the shallow water area (Finnish Wind Technology, 2011), which is also the richest in terms of underwater habitat types and the most visible area to shore.

The more there are actors and activities in the marine area, the more there will also be negative side effects and threats such as increased risk of collisions and accidents, oil spills and contamination of other dangerous chemicals, pollution, eutrophication and invasive species. Habitat and biodiversity loss are direct results of increased human activity and use of resources.

For decades, centuries even, the sea has been perceived as a “black hole”; anything can be dumped there and the sea just takes care of it. Out of sight, out of mind – problem solved. In the inland countryside, where the sea is not an option for getting rid of waste and unwanted /unnecessary items, people used to dig holes in the ground just outside their yard and dump things there. The owner of the land is responsible for the waste even if he/she did not know that the previous owner dumped it there. A large part of the waste does not disappear anywhere, at least not within a few centuries, but in a worst case scenario it can even have a negative effect on the ground water. Waste thrown in the sea does not disappear either, but it can travel, even long distances, and might emerge on a beach far away from its origin – or it might never emerge on the surface. Solid objects can cause boating accidents and plastics are notorious for ending up in the intestines of birds and marine mammals, which often mistake plastic particles for food. (The National Oceanic and Atmospheric Administration (NOAA), 2011). Liquids might seem to “disappear” but can often turn up on our dinner table in a fish. And even if nitrates and phosphates seem to dilute in the water, we may not be able to go swimming during the warmest summer months due to excessive, and in some cases poisonous, algal bloom caused by e.g. fertilizers. (United States Environmental Protection Agency (EPA), 2011).

2.1 Marine areas lack information and rules

The current situation in the marine areas is somewhat chaotic. There is a ‘free zone’ mentality with little or no rules and regulations, which has resulted in a poor outcome

(Bäck et al., 2010, p 309). The western cultural attitude, where man has dominance over nature, is causing overuse and destruction of the very resources and space we so desperately want and need. The sector-by-sector management - meaning that there are different resources, activities, laws and agencies that do not take into account the interactions and conflicts among activities or the cumulative effects over space and time – has not been successful in protecting marine ecosystems (Dutch Maritime Network, 2005). Neither has it managed to reduce conflicts between the users of the marine environment but the current situation involves conflicts both between different human uses and the environment and among different humans (users).

People have different rights, interests, responsibilities, powers and demands for marine areas. The Baltic Sea is too small to meet all the current, let alone future, demands for use. Interactions between land and sea are also significant as land based actions have a notable effect on the marine environment.

Lack of information has also been a problem. The Land Use and Building Act and the EIA Directive require that the principle of prudence should be applied to both land and marine areas, meaning that activities are not planned on areas where the natural values are not known. However, the use of the principle in the marine use planning has been quite insufficient because the underwater nature has often been left out in the Environmental Impact Assessment (EIA) processes. (c. Ympäristöministeriö, 2010).

Maritime economy is important for Finland as well as for other coastal countries. There is a need to reduce the impacts of the human demand of marine ecological services so that the resources offered by the Baltic Sea can be utilized even in the future. In order to be able to use the marine environment in a sustainable way, “the structure, functions and processes of marine ecosystems have to be fully considered, marine species and habitats must be protected and human-induced decline of biodiversity prevented” (b. European Commission, 2010). Only the human activities can be planned and managed – not the sea.

3 Measures taken to improve the situation

There are different tools to control and reduce the pressures and impacts of human activities on marine areas, but all the legislation, policies and programmes are scattered in

several levels from regional to national, EU and international. Until now there has not existed an overall, integrated policy for marine protection at the EU level (DG Environment, 2011).

3.1 Marine Strategy Framework Directive

A new EU directive for marine areas was adopted in 2008. The aim of the European Union's Marine Strategy Framework Directive (MSFD) 2008/56/EC is to “protect, preserve and to prevent subsequent deterioration of the marine environment across Europe” (Directive 2008/56/EC). In addition to all EU's marine waters achieving good environmental status by 2020, MSFD also aims to protect the marine resources while still enabling a sustainable use of marine goods and services. (Directive 2008/56/EC). In other words, the directive strives for full economic potential of marine areas with an ecosystem-based approach to the management of human activities.

Because the conditions, problems and needs differ from area to area, also the required measures to solve the problems vary. That is why the EU requires each member state to develop its own strategies, ecosystem-based action plans, for its marine waters (Directive 2008/56/EC). According to Article 7 of MSFD (2008), “Member States shall, by 15 July 2010, for each marine region or subregion concerned, designate the authority or authorities competent for the implementation of this Directive with respect to their marine waters”.

The goal of MSFD is in line with the objectives of the European Community's Water Framework Directive (WFD, 2000/60/EC), which requires surface freshwater and ground-water bodies - lakes, streams, rivers, estuaries, and coastal waters - to be ecologically sound by 2015. The WFD, which came into effect in 2000, also states that the first review of the River Basin Management Plans should take place in 2020, the same year that marine waters should achieve good environmental status according to MSFD. Good environmental status means that the sea is ecologically diverse, dynamic, healthy and productive (Directive 2008/56/EC). Whether or not this is achieved must be determined on the basis of 11 qualitative descriptors of the marine environment, which are specified in the Marine Strategy Framework Directive (ANNEX 1).

3.2 International and EU instruments that have had an impact on Marine Resources Management

Even if the marine areas can often be seen as “free zones”, there are a number of instruments designed to help to manage human activities at sea. Some of them are drafted strictly for the marine environment while some cover both sea and land areas. The European Community has numerous directives and regulations in the field of marine environmental protection. They are not so relevant to the new Act on Marine Resources Management but can be found on EUR-Lex website (<http://eur-lex.europa.eu/en/index.htm>) where the database is updated daily and the site includes EU documents dating back to 1951.

3.2.1 The United Nations Convention on the Law of the Sea (UNCLOS)

The European Community, and through it also its member states, are all parties of UNCLOS (Treves, 2008). Many definitions and determinations used in the MSFD are in accordance with UNCLOS. (Directive 2008/56/EC). UNCLOS was signed in 1982 and it entered into force in 1994. It covers protection of the marine environment, navigational and economic rights, development and transfer of marine technology, the definitions of various sea zones and more. (Edler & Streufert, 2007). It is the most comprehensive agreement of the rights of nations in the world’s oceans. (Hollis, 2010).

3.2.2 The International Maritime Organization (IMO)

Internationally recognized rules and standards for safe shipping and maritime transport are the central issues of IMO (established 1948). These rules and standards consist of marine security, environmental concerns, legal matters and the efficiency of shipping. The London Convention Protocol introduced the precautionary principle in 2006, which meant new and more protective international rules against dumping of wastes at sea. The precautionary principle also includes the ‘polluter pays’ principle. (a. International Maritime Organization (IMO), 2011).

A convention called The International Convention for the Prevention of Pollution from Ships (MARPOL) was adopted in 1973 at the IMO. It covered pollution by oil, chemicals,

harmful substances in packaged form, sewage and garbage. MARPOL also defines certain areas as “special areas” in which “the adoption of special mandatory methods for the prevention of sea pollution is required” (a. IMO, 2011) due to the oceanographical and ecological condition of the sea and the amount and nature of sea traffic. The Baltic Sea is one of the special areas with regard to oil pollution, garbage and sulphur emissions. (b. IMO, 2011).

The Baltic Sea, with the exception of the Russian waters, was designated as a Particularly Sensitive Sea Area (PSSA) in 2005. (c. IMO, 2011). The definition for PSSA is, according to the IMO’s Revised Guidelines for the Identification of Particularly Sensitive Sea Areas, section 1.2 “an area that needs special protection through action by IMO because of its significance for recognized ecological, socio-economic, or scientific attributes where such attributes may be vulnerable to damage by international shipping activities.” To be identified as a PSSA, the sea area should meet at least one of the ecological, social, cultural and economic or scientific and educational criteria listed in the IMO’s guideline. In practice, the marine activities can be controlled in a PSSA by protective measures that are approved by the IMO. (IMO, 2005).

3.2.3 Birds Directive

This directive, which is formally called the Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds, “provides long-term protection and conservation of all bird species naturally living in the wild within the European territory of the Member States” (Summaries of EU legislation, 2008). This includes conserving, maintaining or restoring the biotopes and habitats of the birds.

3.2.4 Habitats Directive

The purpose of this directive, formally named the Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, is to “contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora” in the EU Member States. Defining a common framework for this is the main tool for the Habitats Directive. (Council Directive 92/43/EEC).

3.2.5 Natura 2000

Birds and Habitats Directives are part of a network of protected sites stretching across Europe, which is called Natura 2000. This network is the centrepiece of EU's nature and biodiversity policy with the aim of assuring "the long-term survival of Europe's most valuable and threatened species and habitats" (European Commission, 2011). Natura 2000 includes Special Areas of Conservation (SAC) for the protection of habitats and species of European importance and Special Protection Areas (SPAs) for the protection of rare, vulnerable and regularly occurring migratory birds. In addition to these there are also sites of community importance (SCIs). The sites apply both to the terrestrial and marine environment and each member country suggests them on their own territory. (Ympäristöministeriö, 2009).

3.2.6 Water Framework Directive (WFD)

The previous objectives set by European water legislation were to protect particular uses of the water environment from the effects of pollution and to protect the water environment itself from especially dangerous chemical substances produced and/or used in Europe. (a. European Commission, 2011). One of the first water related Directives to be adopted was the Directive 76/464/EEC of May 1976 on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community. It covered discharges to inland surface waters, territorial waters, inland coastal waters and ground water. In addition Urban Waste Water Treatment Directive (UWWT or the Council Directive 91/271/EEC), Nitrates Directive (Council Directive 91/676/EEC), the Drinking Water Directive (DWD or the Council Directive 98/83/EC) all aimed at protecting the water quality. (a. European Commission, 2011).

WFD (or Directive 2000/60/EC), which entered into force in 2000, differs from these by introducing new, broader ecological objectives designed to protect and restore the structure and function of aquatic ecosystems including inland surface waters, transitional and coastal waters as well as groundwater. (WFD, 2000). It also introduced the River Basin Management System, which required each member state to implement regional management plans for its river basins. The objectives of WFD include improving aquatic ecosystems and promoting sustainable water usage, but the most important one is to achieve good ecological and chemical status for all EC waters by 2015. (Europa, 2010). The river basin management plans are meant to provide a mechanism for the future

management of both water use and activities affecting water status. (Directive 2000/60/EC).

4 What Finland has done so far

Finland has already implemented a number of rules, regulations and agreements in order to look after its marine areas. For example, Finland has committed itself to developing a net of marine protected areas before the year 2012. Marine protected areas have been established near the coast and new ones are being planned to the open sea area. (c. Ympäristöministeriö, 2010).

Approximately one-fourth, in other words 1.4 million hectares, of Finland's Natura 2000 sites are water areas. 97% of all Finnish Natura 2000 areas were previously nature reserves or part of national conservation programmes or otherwise protected. Over 50% of the 98 Natura sites located in the area of Uusimaa Regional Environment Centre are water areas. (b. Ympäristöministeriö, 2010).

The implementation of WFD has been done through the Act on Water Resources Management (1299/2004), the Decree on River Basin Districts (1303/2004), the Decree on Water Resources Management (1040/2006) and the Decree on Hazardous and Harmful Substance on Aquatic Environment (1022/2006). In addition, some amendments have been made both in the Environmental Protection Act (86/2000) and the Water Act (19.5.1961/264). (The Ministry of the Environment, 2010). As a result, Finland has five domestic river basin districts and two international ones, of which one is shared with Norway and the other one with Sweden. In addition, Ahvenanmaa is implementing the directive independently. The programme for these districts includes examining the water quality status and the pressures in each region, presenting goals and actions required to achieve them and also identifying different responsibilities in implementing the plans. (Ympäristöministeriö, 2011).

Finland is a Party of the Convention on Environmental Impact Assessment in a Transboundary Context (the "Espoo Convention"), which was adopted in 1991 and came into force in 1997. The Convention concentrates on environmental threats that can cross national borders. The main points of the Convention are assessing the environmental

impacts of different activities, and keeping other member states up to date on projects that can have a negative environmental impact across national borders. (United Nations Economic Commission for Europe, w.y.).

Finland is also committed to the national implementation of Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki Convention or HELCOM) that entered into force in 2000, as well as in HELCOM's Baltic Sea Action Plan from the year 2007. The aim is to achieve a good ecological status for the Baltic Sea by 2021 and the main issues to concentrate on are eutrophication, hazardous substances, marine traffic and protection of biodiversity. The implementation will be done through different programmes, actions plans and legislative measures. (a. Ympäristöministeriö, 2010).

The Finnish Inventory Programme for the Underwater Marine Environment, VELMU, is a co-operational programme between seven Ministries (Internal Affairs, Defence, Education, Communication, Agriculture and Forestry, Trade and Industry and the Ministry of the Environment). VELMU collects data on the diversity of underwater marine biotopes and species. The inventories are being conducted in the Archipelago Sea, Quark area, Gulf of Finland, Bothnian Bay and the Bothnian Sea during 2004-2014. The gathered information will give important background information for implementing the Marine Resource Management. The information will also be used in Environmental Impact Assessments and in Integrated Coastal Zone Management. (Finnish Environment Institute, 2010).

The borders of Finnish coastal municipalities reach all the way to the outer border of the territorial sea, which means that the municipalities are responsible also for the marine use planning. Finland established an Exclusive Economic Zone (EEZ) in 2005, but the national planning does not concern that area even though Finland has the opportunity to, e.g., regulate fishing in the EEZ. (a. Ympäristöministeriö, 2010).

In 2006, Finland submitted a national report with an Integrated Coastal Zone Management (ICZM) Strategy section in which the current land-use planning system was seen as the suitable tool for ICZM implementation. The Strategy states that regional plans strive for the ecologically sustainable use of the coastal areas and consideration of the natural values of the coast, and that the municipalities try to take the needs for sustainable use of the coastal area into consideration in the general plan, detailed plan and detailed shore plan. Different activities should be directed to areas where they have minimal negative impact

and the coastal areas will be developed in such a way that they preserve their attraction and increase the vitality of the area. The ICZM policy programmes will especially look into the ways to improve the cooperation between the different regional authorities in order to improve the sustainable use and management of the coastal areas. In order to draft the strategy and policy programme for ICZM, information about the environmental protection, business life, different leisure activities, cultural environment and other, for the coastal area significant, projects need to be gathered and brought up to date. (Suomen rannikkostrategia, 2006)

5 The new law on Marine Resources Management in Finland

In order for Finland to fulfil the requirements given by MSFD, a law proposal (HE 323/2010) was given in December 2010 regarding national marine strategy on Finland's marine areas. This strategy is called Marine Resources Management. The proposal included alterations to six Acts; the Water Resources Management Act, the Environmental Protection Act, the Water Act, the Act on Finland's Exclusive Economic Zone, the Sea Protection Act, and the Act on the Environmental Impact Assessment of Plans and Programs. The Water Resources Management Act is one of the tools used to implement the Water Framework Directive. Marine resources management is combined with water resources management into the same Act. (HE 323/2010).

Finland received a warning from the European Commission at the end of January 2011 over failing "to inform the Commission about the transposition of the Marine Strategy Framework Directive, which should have been in place by 15 July 2010" (b. European Commission, 2011). The Commission gave Finland (and Estonia, Greece and Malta who also received the same warning) two months to inform the measures taken to comply with the requirements of MSFD. If that deadline was not met the case could be referred to the European Court of Justice. (b. European Commission, 2011). The law proposal HE 323/2010 was accepted and the Act on Water and Marine Resources Management¹ (272/2011) came into force on April 1st, 2011.

1.1.1 ¹ An unofficial translation of "Laki vesienhoidon ja merenhoidon järjestämisestä"

5.1 The definition and distinction of Marine Resources Management and Marine Spatial Planning

5.1.1 Marine Resources Management

The EU's Marine Strategy Framework Directive (MSFD, 2008/56/EC) aims to protect the marine nature in order to ensure the economic and social activities, which are dependent on the marine nature. The goal of MSFD is healthy marine waters by 2020. The directive obligates each EU member country to draft a national marine strategy for the country's marine area. (Directive 2008/56/EC). In Finland this strategy is called Marine Resources Management (MRM) on which a new law (the Act on Water and Marine Resources Management, 272/2011) was implemented on April 1, 2011.

According to the new Act on Water and Marine Resources Management, MRM is adapting an ecosystem-based approach in controlling the pressure and effects that human activities are causing on the marine environment. The aim is to achieve a good status for the marine environment, to sustain a marine ecosystem's ability to react to changes and to enable the sustainable use of marine commodities and services. (Laki vesienhoidon ja merenhoidon järjestämisestä, 272/2011, 1 §).

5.1.1.1 Content of the Act on Water and Marine Resources Management

MRM includes an assessment of the state of the marine environment, the targets for the state, indicators describing the state and establishing monitoring programmes. The purpose is to draft one MRM plan for Finland's entire sea area and that plan will apply to many different administrative sectors. The plan has to include preventing and minimizing all negative effects on the sea and securing the biodiversity. The planned measures should contribute to maintaining the marine ecosystems, human health and comfort as well as legal use of the sea. The MRM plan also has to take into consideration significant cross-border effects and it has to be compatible with the environmental targets set by national, EU and international agreements. The measurements needed for implementing the MRM plan should try to be coordinated with all the countries surrounding the Baltic Sea and belonging to its water catchment area. (272/2011, chapter 4).

The overall goal of MRM is to protect, improve and re-establish the Baltic Sea so that the state of the sea will not deteriorate but it will be at least good. MRM is linked together with the Act on Water Resources Management (30.12.2004/1299), which implements EU's Water Framework Directive (2000/60/EC) with the aim of achieving good qualitative and quantitative status of all surface and groundwaters by 2015. "All surface waters" include also marine coastal waters. (Laki vesienhoidon ja merenhoidon järjestämisestä, 30.12.2004/1299).

5.1.1.2 The compiler and schedule of the plan

The responsible authorities for drafting the MRM plan are the Ministry of the Environment (MoE) in cooperation with the Ministry of Agriculture and Forestry and the Ministry of Transport and Communications. The MRM plan will cover Finland's territorial waters and the Exclusive Economic Zone, which extends up to 200 nautical miles from the coast (The Encyclopedia of Earth, 2008). The designated Centre for Economic Development, Transport and the Environment will together with the Finnish Environment Institute (SYKE) and the MoE be responsible for coordinating the regional MRM's as well as combining the new plan with water resources management. (HE 323/2010).

According to the MRM plan, a preliminary estimate of the marine state has to be done by July 15, 2012. Monitoring programmes must be started by 2014 and the policy programme implemented by 2016 at the latest. The evaluation of the state of the marine environment needs to be ongoing and the MRM plan has to be revised every six years. The follow-up programmes need to be coordinated with similar kinds of programmes done by other countries as well as the monitoring programmes of the river basin districts' coastal areas. (HE 323/2010).

5.1.1.3 Definition of good environmental state

The state of the marine environment is determined as 'good' when the sea is ecologically diverse and balanced, dynamic, clean in its natural conditions, healthy and productive. In addition, the use of a marine environment needs to be sustainable in order for the future generations to be able to use and enjoy it. (272/2011, 26 c §).

5.1.2 Marine Spatial Planning

Marine Resources Management is closely related to Marine Spatial Planning (MSP), which also has the same aim of improving the marine environment. While MRM concentrates on the environment and ecological aspects, MSP has more emphasis on the economical issues even if it also takes the environment into account. Marine Resources Management includes some marine spatial planning as well as a practical planning tool for working all the different activities into the management plan. Even so, MSP is a term of its own and it will most likely be a law of its own. The European Commission will propose further action on MSP during 2011. (c. European Commission, 2010).

EC's Roadmap for Maritime Spatial Planning: Achieving Common Principles in the EU (Communication from the Commission, 2008) sets out ten key principles for Marine Spatial Planning. MSP (which is also called Maritime Spatial Planning) is a tool for improved decision-making and implementing Integrated Maritime Policy (IMP) adopted by the European Commission for the EU. It is an element of sea use management aiming to help to coordinate and optimise all the different human activities and the use of marine space in a sustainable and beneficial way. (Communication from the Commission, 2008). The short-term goal of MSP is avoiding conflicts in maritime use, while optimising the use of marine space to benefit economic development is the most important long-term goal of MSP. (Nordic Council of Ministers, 2009). These goals are in line with the land use planning in Finland, which mentions promoting ecologically, economically, socially and culturally sustainable development as its goal. (Maankäyttö ja rakennuslaki, 132/1999, 1 §). Two of the key principles of MSP are transparency and stakeholder participation. (Communication from the Commission, 2008).

UNESCO has defined MSP as follows:

“Marine spatial planning is a public process of analyzing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic and social objectives that have been specified through a political process. It is a practical way to create and establish a more rational use of marine space and the interactions between its uses, to balance demands for development with the need to protect the environment, and to achieve social and economic objectives in an open and planned way.” (The UNESCO MSP Initiative, 2010).

When looking at the definition, the word ‘planning’ means focusing on the future. It is “the act or process of making or carrying out plans; establishment of goals, policies, and

procedures” (Encyclopedia Britannica, 2011). Planning enables people to prepare for changes in the future. ‘Spatial and temporal distribution of human activities’ is also mentioned in UNESCO’s definition and it means the human uses of the marine environment in four different dimensions: on the surface, in the water column, on the seabed and also over time. (Communication from the Commission, 2008).

MSP needs – just like MRM - a detailed, comprehensive map of the marine area in question, identifying where and how the area is used by humans as well as what and where the natural resources and habitats exist. (ScienceDaily, 2010, Mar. 3). MSP is not necessarily equivalent to ocean zoning, which deals with shipping lanes, wind parks and other individual human uses, but zoning is a tool for implementing spatial planning (Carter, 2009).

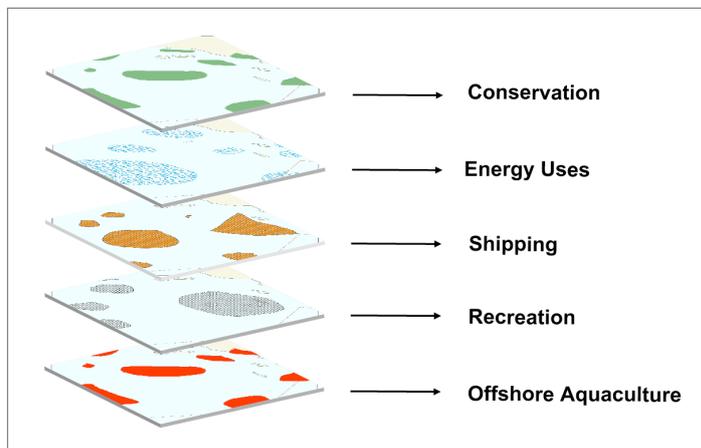


Figure 1 *Comprehensive mapping is the basis for MSP.*
 Source: Ocean Conservancy, 2011

According to EC’s Roadmap for MSP (2008), Marine Spatial Planning reduces costs for investors and operators, helps promoting investments and creating growth and jobs. All and all, growth and sustainability are the main issues that MSP are meant to deal with.

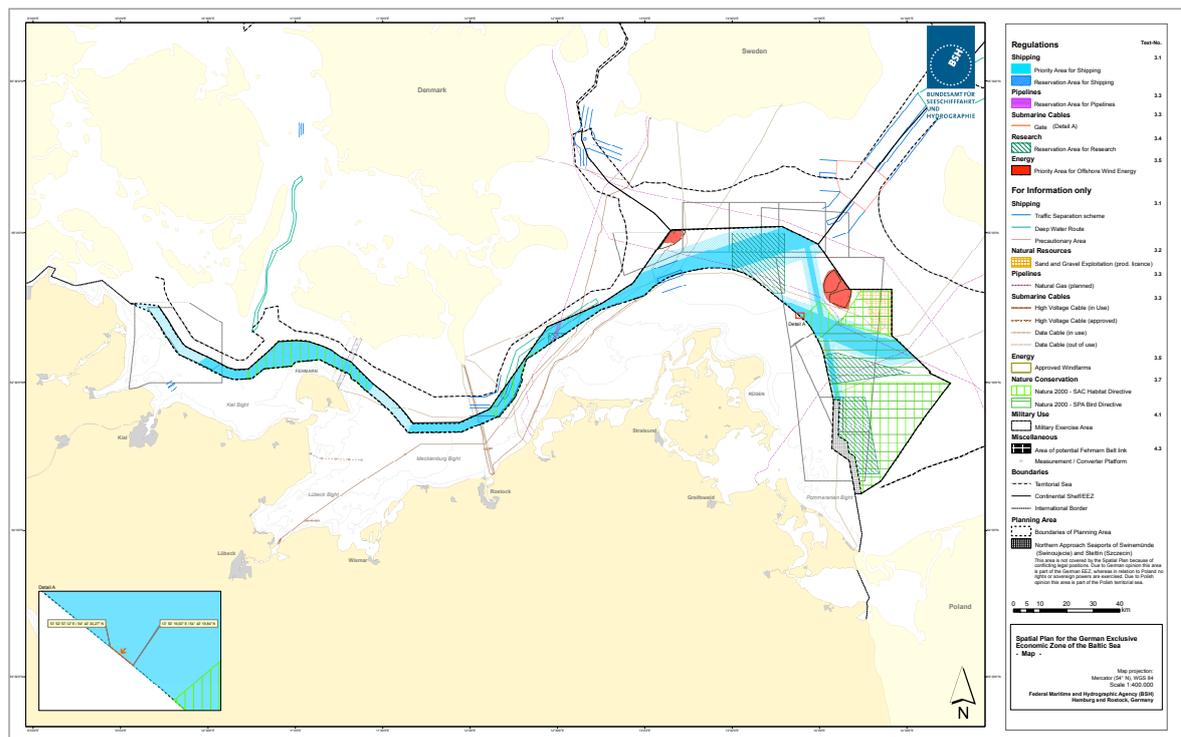


Figure 2 A map showing Marine Spatial Planning for the German EEZ.
 Source: Bundesamt für Seeschifffahrt und Hydrographie, 2011

Scientific American Magazine chose MSP as one of “20 World Changing Ideas” in 2009. According to them society needs more from the oceans, “more energy, more food, and better resilience to coastal development and climate change” (Simpson, 2009), which is why spatial planning for the marine areas will be needed. This thesis focuses on MRM, but it is important to make a distinction between MSP and MRM, since they are based on different directives, yet they are also linked with each other. It was also noticeable during the research for this thesis that there seems to be some confusion as to whether or not they are the same matters with just separate names.

6 Baseline for the research

Marine issues are very topical at the moment. Additional information is continuously received and meetings and projects are taking place at an increasing rate. The novelty of Marine Resources Management causes some uncertainty among people on, for example, what the MRM plan means in practice.

According to a Swedish report (Regeringskansliet, 2009), the input of authorities within marine environments is steered by different goals. Several authorities and other actors deal with questions related to the marine environment in different ways, leading to different interpretations. There is a lack of an authority that has a clear responsibility of the whole, while cooperation is not very highly prioritized even if there is a need for it. The problem is usually lack of resources. (Hafström, Nilsson, Askman & Larsson, 2010). The same situation and problem seem to be familiar also in Finland.

The purpose of this research is to find out what the thoughts and ideas regarding the law proposal of MRM are among different authorities dealing with environmental and marine issues in Finland - whether or not the thoughts differ from each other, the law proposal is interpreted in the same way at the different levels and what the overall attitude towards it is. The pre-prepared questions were similar to all of the respondents. (ANNEX 2) The main aspect is that of the municipalities; what kind of an effect will the law have on municipalities, how is the role of municipalities seen in this matter and how are the resources seen. The municipalities were chosen as the study object because of their importance in the final implementation of the Marine Resources Management plan. There is a strong local governance in Finland and the municipalities have the autonomy to decide e.g. on the detailed plans (Suomen rannikkostrategia, 2006), that also steer the usage of the sea areas.

7 Method used for the research

Of the two research methods – qualitative and quantitative – this research was done using the first one. In the qualitative research method the researcher may only know roughly in advance what he/she is looking for. The researcher's task is to “observe, describe and interpret the received information while maintaining so-called emphatic neutrality” (Hoepfl, 1997). The purpose of the research can be, in addition to gaining information on a new subject, to find understanding or a new perspective on already known things and to find out how individuals experiencing certain events actually experience them. (Hoepfl, 1997).

Qualitative research explores attitudes, behaviour and experiences. It is more subjective than the objective quantitative research, which deals with numbers and statistics. Of the

qualitative research methods, a structured, semi-structured or unstructured interview is one of the popular ones for collecting data. In an interview a subject is being discussed with the respondent or a group of respondents. (Grants and Evaluation Office Imperial COE, 2006).

7.1 Semi-structured interview

The research for this thesis was done using semi-structured interviews. An interview is like a conversation; the questions are open-ended and some new questions may arise during the interview. The respondent has the time and scope to talk about his/her opinions on the given subject. (Sociology Central, w.y.). The interviews, which were conducted in Finnish, were tape recorded and then transcribed and translated.

The focus of the interviews in this case was Marine Resources Management and the new legislation regarding it. The objective was to know and understand the respondent's point of view. There were five pre-prepared questions (ANNEX 2), which all of the respondents wanted to receive beforehand by email. In most cases the interview prompted a few additional questions, which became part of the discussion. The interviews were conducted in Finnish.

7.1.1 Strengths and weaknesses of semi-structured interview

When wanting to obtain data also about facts that cannot be easily observed, such as feelings and emotions, the semi-structured interview is a simple, efficient and practical tool. It usually gives high validity since people are able to talk about the subject in detail and in depth. The meanings behind an action may be revealed because the interviewee is able to speak for him/herself with little direction from the interviewer. Questions and issues can be discussed and clarified and the interviewer is directing the interview only a little through a few pre-set questions. (Sociology Central, w.y.). Strengths also include the fact that an interview is easy to record, which allows all the given information to be saved and studied also after the actual interview situation.

As for weaknesses, interviews are labour intensive and time consuming. In addition to the actual interview situation also trips to meet the respondents take time. The reliability might suffer due to small samples and, like in this case, a very new topic that was not yet well

known by most of the respondents. The interviewer does not really have a way of knowing if the respondent is telling the truth. This research method is often criticized for the difficulties in analyzing the data precisely. Also the lack of reproducibility, and that the findings are possibly not applicable to other settings, have been mentioned as a weakness. (Peninsula RDSU, w.y.).

8 The respondents

The interviewees consisted of respondents selected based on their position, knowledge and accessibility. All of the authorities - the Ministry of the Environment (MoE), the Centre for Economic Development, Transport and Environment (CEDTE) and the municipalities, which in this case was represented by the Association of Finnish Local and Regional Authorities (AFLRA) and the Environmental Protection Manager from the Municipality of Hanko – are mentioned as implementers in the new legislation. These representatives were selected in different ways: in the case of the Municipalities of Hanko and Raasepori there was only one option since only one person is responsible for environmental matters (even though the views of the representative of Raasepori were not obtained for this thesis), while in other cases the persons selected had already been active in the subject and therefore their names came up in the documents that were read during the background information search. AFLRA's Director of the Department of Community, Technology and Environment chose the respondents from the Association.

The respondents were first contacted by phone followed by an email with the questionnaire. All and all, seven officials from five different sectors, representing all different levels regarding the Marine Resources Management, were interviewed about their view regarding the subject in question. The interviews were conducted during March-April 2011 just before the new law came into force. A Senior Adviser from CEDTE was interviewed on March 8, while a Senior Architect and a Lawyer from AFLRA were interviewed on March 17. A Counsellor, who works with managing regional planning in Finland and national land use guidelines for the MoE / Department of Built Environment, Land Use unit was interviewed on March 23. In addition, the Environmental Protection Manager from the Municipality of Hanko answered the questions per e-mail on March 1 as did a Senior Adviser and the Ministerial Counsellor from the MoE / Department of the Natural Environment, Marine Protection unit on April 1. The Environmental Manager of

Raasepori was also contacted by phone and e-mail, but his opinions were not received for this thesis.

9 The perception of Marine Resources Management planning among officials in Finland

The conducted interviews consisted of questions about the respondents' view on Marine Resources Management (MRM) and the law proposal HE 323/2010. Also Marine Spatial Planning was mentioned because, due to the different terminology in Finnish, the preliminary assumption was that the law proposal was about Marine Spatial Planning.

The questions discussed included the need for Marine Resources Management, the practical implementation of it, whether it can be integrated in land use planning, what the time frame for the implementation could be and what kind of overall thoughts the MRM and law proposal awakens.

9.1 The need for MRM planning

The respondents from CEDTE as well as from the MoE saw Marine Resources Management as very important. *“Everything that is done on land affects also the water. When making a land use plan in coastal areas it would be vital to know more about the marine environment to be able to estimate what the possible effects of activities in the coastal zone will be”* (SA from CEDTE, 2011). The respondent added that so far there has not existed a tool to know, for example, what the best and worst building sites would be. All the interviewees from the MoE stated that the different uses of the sea are increasing the pressure on the environment and nature. Information on what there are in the sea is needed in order to be able to plan these different uses. *“A marine area planning with an ecosystem-based approach will allow the use of the sea and its ecosystem services in a sustainable way”* (SA and MC from the MoE, 2011). The marine planning was seen as a tool for directing the use of ecosystem services to areas where the need for protection is not great, while at the same time finding and protecting the most vulnerable areas. *“It is mostly about coordinating/harmonizing the marine nature and human activities. It includes the thought of coordinating all the different activities”* (Counsellor from the MoE, 2011).

The thoughts in AFLRA were a bit more reserved and the current planning system based on the Land Use and Building Act was regarded as good and sufficient while the need for marine planning was questioned. The respondents did see a possible need for coordinating different activities as well as some coordination between land and water.

The respondent from the Municipality of Hanko wrote that the Baltic Sea and its well-being are very important for Hanko through different activities - such as boating, fishing and swimming – that are valued by the local people. Tourism and the harbour activity are also important to the municipality. The respondent mentioned that there are many endangered species and valuable habitat types on the shores and that they should be protected. Due to the municipality's central location in the Baltic Sea, the respondent would like to see Hanko taken into account when Finland is planning the national oil spill management strategies and reserving funding for it.

9.2 The responsibilities and implementation according to the legislation

The wider planning of an area usage is done by the state. In the case of MRM the responsible organ will be the Ministry of the Environment. According to the new law (272/2011), “The Ministry of the Environment will draw up, in cooperation with the Ministry of Agriculture and Forestry as well as the Ministry of Transport and Communications, the marine management plan for Finnish territorial waters and the EEZ.”

In practice, however, there are a number of different actors mentioned in the law and already in the law proposal. The Act on Water and Marine Resources Management (2011) mentions the MoE and the designated CEDTE office as the responsible ones of harmonizing the organized area marine management and coordinating marine and water management. The Finnish Environment Institute, the Finnish Meteorological Institute, the Finnish Game and Fisheries Research Institute, the Centres for Economic Development, Transport and Environment and the Forestry Commission are also mentioned as responsible ones for the follow-up and other tasks regarding marine management within their fields. In addition, other state and municipal officials active in the river basin district and in marine waters should participate in the Water and Marine Resources Management. (272/2011).

9.3 The division of responsibilities seen by the respondents

Aspects regarding the practical implementation of the MRM plan differed somewhat among the respondents, who still were unanimous regarding the fact that the MoE will be mainly responsible for the implementation of the law. All of the respondents also saw that collecting the needed information from the marine environment will be laborious and time consuming. In addition, especially the municipal officials were worried about the lack of resources.

The SA from CEDTE said that in the end the practical work would probably be done in the regional administration and the municipalities. She did not find it possible that in the CEDTE they would, at least at the early stage, have complete data to offer even if it would be the ideal situation. However, in practice some reporting obligations will most likely be left also to the municipalities according to her.

The respondent from Hanko, on the other hand, wrote that there are not enough resources within the municipality and that the responsibility on a municipality level should not increase from the current level. She expressed concern about the signs seen after the regional administration reform, which has led to tasks being passed on from CEDTE to the municipal officials. Even if the respondent saw very little direct effects resulting from the new law on her job, she mentioned that Hanko is lacking environmental regulations and that one of her future tasks will most likely be the drafting of environmental regulations.

Respondents from AFLRA were adamant that the municipalities are not to get any additional responsibilities. They saw the Act on MRM as a basis for other planning in the same way as the Act on Water Resources Management has been. According to them, the Land Use and Building Act exists already but outside the municipality's water district the planning responsibilities will belong to someone else. They also thought that the government would need new resources for implementing the law.

9.4 Significance of MRM for the municipalities

According to respondents from AFLRA, the government will be responsible for the project, municipalities will only have to sit in meetings and state their demands of what should be researched: *“The municipalities will not do anything, it is someone else’s job!”* They also pointed out that the land use plan has clear legal effects and that the government cannot come into the municipality’s water area and decide what the municipality can and cannot do. The respondents pondered if the Finnish Regional Councils could possibly have a bigger role in the planning, but the discussion came back to the fact, that municipalities are only interested in planning the water areas to the extent that it is necessary for the traffic and other vital systems in the municipalities for it to function well. The Lawyer from AFLRA said she has a hard time understanding the need for planning the marine areas since land use planning already has to take into consideration harbours, water traffic and conservation areas, and the gravel and sand extraction is included in the regional plan. The SA from AFLRA came to the conclusion that the information gathered through inventories might bring up factors that could result in showing that there is some need for amendments, for example, in the regional plan.

Both respondents from the MoE saw the new law as a likely advantage for the municipalities through congruent practices. CEDTE’s respondent thought that the law could even be a clarifying tool provided that it will cover things that now have to be taken into consideration from many different regulations. But she also said that because the municipalities work mainly sector wise, the law can be seen as a complicating issue with regard to communication between different officials and parties, especially in the beginning. As to permit applications, she saw the new law mainly affecting dredging and other functions regarding building activity along the coast by possibly providing a more coherent policy. Now there is not enough information about the water area, what there is underneath the surface, and deciding what can and cannot be done is often more or less based on guessing.

9.5 Integration with land use planning

All the respondents saw linking MRM to land use planning as possible and desirable. One of the main prerequisites is that the same underwater inventory information should be

available to everyone, also to the ones doing land use planning. The EPM from Hanko saw an advantage in the fact that when the marine area is inventoried and an area is found to be especially vulnerable, this information can be used in land use planning, for example, by giving special regulations about wastewater treatments.

According to the SA from CEDTE, there have been discussions in both Hanko and Raasepori about taking the underwater nature into consideration in land use planning. The questions discussed have included facts like how it could be done and at what level, who will pay for it, who will do the researching, what kind of researching should be done and if something is found, how will it affect the land use plan. CEDTE's respondent pointed out the Nannut project (Nature and Nurture of the Northern Baltic Sea²) saying that it is in a way a pilot project trying to combine underwater nature and land use planning projects in Raasepori. Nannut serves both MRM and the management of Natura areas when we know what there is in those areas.

The EPM from Hanko hoped that it will be required as mandatory to conduct underwater nature research and to find out the nature values of marine areas especially if land use planning includes directing wastewater to the sea or building docks or harbours. If some water areas are found to be especially vulnerable, it could result in separate orders for the planning process in case of e.g. wastewater handling.

AFLRA's respondents thought that the integration would demand very advanced cooperation processes because there are two separate actors doing the planning; the municipality is planning the land area and possibly parts of the coastal area while someone else is planning the marine area. A land use plan made by the municipality can also include parts of the marine area depending on if it is in the interest of the municipality. According to AFLRA's SA, it would have to be so that the border of the land use plan made by the municipality is in the water at a certain distance from the shoreline. Someone else will plan from there onwards and then these plans will be integrated through negotiations and statement procedures. She also stated that municipalities have different interests that they want to fulfil, such as building houses or cottages on the coast. It is not in the municipalities' interest what there is in the water which means they can let someone else plan the water area. But if a municipality wants to have fisheries on its waters, then the land use plan will be drawn all the way out in the water area. In the respondent's opinion a

² Information on the Nannut project can be found on the project's website <http://www.nannut.fi/>

situation where the land use plan overlaps the MRM plan will be solved by looking at the inventory information and then deciding whether or not the plan for e.g. fisheries is possible. She also pointed out that the municipality has the right of appeal. Overall she still thinks that the integration is very possible, the plans can be separate from each other or overlapping each other.

9.6 The schedule for the actual MRM

All the respondents predicted that inventorying the marine areas is a long and time-consuming process. Since the information gathered through inventories is the basis of the MRM plan, estimates for the practical realization of the plan differ from “*little by little in small parts*” (EPM from Hanko) to “*too difficult to estimate*” (CEDTE’s respondents). The Senior Adviser and the Ministerial Counsellor from the MoE reminded that in addition to the information regarding underwater nature, the plan also needs information about all the activities happening in the sea, and that this information should be in a GIS form in order to be able to use it in the planning. On the other, hand they pointed out, that the planning should be done very soon because the utilization of the marine areas is increasing at a very fast rate. According to MSFD, maintaining good environmental status in all marine waters should be achieved by 2020. And according to MRM, the time limit for a preliminary estimation of the state of the marine environment, determining the good environmental status, and determining targets and indicators, is July 15, 2012. The respondents from the MoE wrote in their response that the first MRM plan should be finished by 2012, a monitoring programme by July 15, 2014 and the policy programme by 2015.

Until the MRM plan is made and implemented the municipalities will continue to make land use plans that in one way or another also touch the marine area. According to the SA from AFLRA, the municipalities will have to do also the research of the marine area in connection with the planning. This is also how the Counsellor from the MoE sees it; all projects cannot be put on ice indefinitely before the inventory is finished and there is comprehensive information on marine areas to be used. Instead, the project owners will have to do research on certain issues, such as the effects on the fish, according to environmental impact assessment (EIA) obligations.

9.7 Respondents' overall thoughts of the Act on Water and Marine Resources Management

The attitudes towards MRM differed from cautious, somewhat sceptical even to positive and quite optimistic. The respondent from CEDTE emphasized the need for the new law. She said that the landowners' rights are relatively strong and it is often thought that building houses along the coast does not affect the water area. Usually a landowner also wants to remove reeds from the shore and replace them with sand and a jetty. These changes to the waterline are often possible even if the land use plan has marked the area as a pristine zone, since these kinds of actions usually require only a notification to the municipality unless the area is protected. The respondent continued that the best thing that she hopes this law will bring is clarity to these situations and, above all, more information about the underwater nature, because you cannot take into consideration things you are not aware of. She also pointed out that the inventory information should be gathered and put together in a format, which truly allows the access and use of that information for everyone working with land use planning. The biggest problem, according to her, is the lack of resources, both in the form of manpower and knowledge. This thought was also the general view of all the respondents.

Of the current ways that the municipalities are taking marine areas into consideration, CEDTE's respondent mentioned the environmental protection regulations, in which many municipalities have set e.g. what can and cannot be emitted into the water, how the storm water is taken care of, and other matters that have an effect on water areas. All in all, the respondent looks forward to one day having a regional plan, which covers the land area as well as the water area. She has found it surprising that until now there have not been any national information about Finland's water areas and water nature.

The EPM from Hanko sees the MRM plan as a good but challenging and somewhat abstract matter. She noted that Hanko is already carrying out marine protective measures through issues presented in the water protection programme. As examples she mentioned overseeing/guiding/advising people with wastewater treatment issues in the scattered settlement area and by encouraging landowners to establish voluntary wetlands.

Acquiring information about the underwater nature is very important according to the MoE Counsellor, who has seen the trend shifting from the 1980's more and more towards

increasingly utilizing the coast and the archipelago. When thinking of the Earth's resources she sees it important to find out what there really is in the marine areas, since the seas will probably have an even increasing importance as a source of food and energy and as a fairway.

For AFLRA's respondents the new law on MRM did not really awaken any special thoughts, but they were very concerned about the municipalities ending up with more work especially regarding Marine Spatial Planning. According to them, the municipalities do not have any interest in MSP. It is enough that they plan some of the coastal areas if needed – not even that is always necessary. The Senior Architect said that the central viewpoint of municipalities is industrial policy and a functioning everyday life for the residents. Other issues are more of the government's responsibility. A wise municipality takes all kinds of conservation issues into account, but the focus of interest is a bit different. The respondent's viewpoint was that it is not in the municipality's interest to even know what there is in the sea, because if the municipality is not going to use a particular area it does not make any difference what there is underneath the surface.

The regional plan came up several times during the interview with the respondents from AFLRA. Both respondents pointed out that, for example, the regional plan for Uusimaa already contains Natura 2000 areas and waterways. It also has markings on the sea for areas suitable for wind parks, shooting area for the Army, conservation and recreational areas, archipelago zones, underwater relics as well as cultural landscapes and biotopes (in the archipelago). The nationally and regionally significant land use areas are defined in the regional plan but the plan does not include matters of the lower, i.e. municipal level. According to the Counsellor of the MoE, the division of archipelago zones as well as conservation areas is taken into account also in the master plans and shore area plans.

Fisheries are rather complex according to the MoE Counsellor. She said that fisheries need all kinds of permits but the permits are hardly ever marked in land use plans. They are not conformable to the Land Use and Building Act because no buildings are constructed. On the other hand, fisheries often involve dredging for passages. The Ministry of Agriculture and Forestry and the MoE are currently organizing locational guidance for fisheries and the fishing industry.

10 Summarizing the aspects of the respondents

There were noticeable differences in how well the subject of Marine Resources Management is known. At the time of the interviews, there was only a relatively new law proposal and it was unclear when the law would come into force. The law proposal was well known mainly by the respondents from the Ministry of the Environment and the Centres for Economic Development, Transport and the Environment, where there were also working groups and projects already planning the matter further on a practical level. On the municipal level, however, there seemed to have been very little knowledge of the subject and the level of interest was noticeably lower.

The content of Marine Resources Management planning was also interpreted differently. All the respondents from the Ministry of the Environment said that Marine Spatial Planning would naturally be a part of Marine Resources Management planning whereas especially the Association of Finnish Local and Regional Authorities saw them as two completely separate issues and that the new law does not include any Marine Spatial Planning.

The practical implementation of the new law seemed unclear. Municipality representatives were concerned that at least some of the work load would be given to the municipalities even though everyone named the Ministry of the Environment as the responsible one for the implementation. Another seemingly unclear subject was the “ranking” of the different laws and regulations; what overlaps what, how much will the Marine Resources Management planning have to be taken into account in permit applications and during city planning.

10.1 Agreeables

All the respondents, except for the ones from AFLRA, stated that there is a need for Marine Resources Management planning and that acquiring information about the marine environment and nature is already long over-due. AFLRA’s respondents were not convinced about the need, but even they agreed that if the law results in congruent, good practices, it would be useful also for the municipalities by clarifying permit applications

and planning processes. It was equally agreed upon that Finland already has many tools to use for planning and that the principles for cooperation are good.

It was a common wish that the inventory data should be put together in GIS format and that it would be available for everyone working with land use planning, permit applications and different projects concerning the sea in one way or another. Integrating land use and marine planning was also largely agreed upon. The common perception seemed to be that integrating these two is very possible if it is done well. All respondents noted that activities on land have an impact on sea and many activities on the sea are also connected to land areas.

A unanimous perception was that MRM planning and especially the preceding information gathering is an ambitious, demanding and time-consuming task. Lack of resources was seen as one of the main problems.

10.2 Differences in opinions

The clearly disagreeable issues seemed to be related to whether or not it is possible to have the municipalities to do work for the MRM planning. Opinions on MRM's importance or usefulness for municipalities also differed.

The respondents from AFLRA were in particular against any additional work load that MRM planning might cause to the municipalities. They thought that everything needed is already taken into consideration in current planning and permit applications and they did not see the need for MRM (let alone MSP).

Other respondents saw MRM planning as a good thing also for the municipalities. They thought there are some conflicts in the current systems between the land use planning and taking care of the marine environment. There are tools to integrate these two but they are not working properly mainly because the lack of information about the marine environment often also means lack of grounds to e.g. reject permit applications.

Table 1 *A summary of the issues that the respondents agreed and disagreed on.*

AGREEABLES	DISAGREEABLES
There is a need for information about the underwater nature and the use of the marine area	The role of municipalities in the practical implementation of MRM
If done well, the new law could clarify permit applications and planning processes	The need/importance/ usefulness of MRM (and MSP) for municipalities
Finland has many tools for planning and good principles for cooperation	Currently conflicts between the land use planning and the marine environment
Inventory data should be compiled in GIS format and available to everyone involved in planning processes and permit applications	
Integrating marine and land use planning is possible	
Activities on land have an impact on sea and many activities on sea are also connected to land areas	
MRM planning is ambitious, demanding and time-consuming	
Lack of resources (manpower, knowledge) is the biggest concern	
The Ministry of the Environment is mainly responsible for the MRM planning	

11 Conclusions

The Baltic Sea has always provided people living around it with food, recreational possibilities and a connection to other parts of the world. Now the sea is in a poor condition and services we want and need are jeopardized. None of the many agreements and organizations aiming at protecting the Baltic Sea has succeeded as the Baltic Sea countries have failed to implement actions aiming at minimizing the negative effects of human action on the sea. The lack of political will and the different cultures and governances are some of the main causes for poor results. (Bäck et al., 2010, p 308).

MSFD is one of EU's main tools for gaining a uniform strategy with the end result of a healthy Baltic Sea by 2020. In Finland the strategy is adopted in MRM, but the implementation is still largely at a theoretical level. The law of MRM came soon after the law proposal and the topic has not yet received a wide publicity even among the municipal authorities, which has left also the role of municipalities unclear. According to the

discussions with the respondents for this thesis, municipalities have a cautiously positive attitude towards MRM but do not see it having any significant effects on them. Municipalities are, however, concerned that the law will cause an additional work load for them, which, according to the SA from CEDTE, does seem likely to some extent, especially in the beginning of implementing MRM. Lack of resources is the main concern of all the parties that were interviewed. For example, according to the EPM of Hanko, the municipality's Environmental Protection Department has only one person employed, which means that the current human resources are very scarce.

The respondents from different authorities were cautiously optimistic regarding the thought that, in the best case, the new law could simplify communication between different officials/authorities as well as between officials and stakeholders. That requires, however, that the MRM plan will include and comprehensively combine other effectual laws and regulations concerning the sea area as well as current and future uses of the area.

There are some differences in how the new law is interpreted. In addition to the practical implementation also the "ranking" of different laws is not completely clear. Whether MRM will be strong enough to have an actual impact, or if the old laws are the ones prevailing even in the future, is still unclear.

12 Discussion

The state of the Baltic Sea is of great concern. The use of the marine area and its resources is increasing while the condition of the sea is deteriorating. Overusing resources, ducking responsibilities and blaming others seem to have been the dominant trends in all of the countries around the Baltic Sea.

Marine Resources Management has the potential of being a good tool for a sustainable use of the marine area, minimizing conflicts among different stakeholders and helping the Baltic Sea to become healthier. It requires, however, that the planning and implementing are done properly with good background information and including stakeholders in the process. MRM also has to be powerful enough in comparison to other laws and regulations. A successful implementation of the new law requires the input of all the actors in and around the sea, not least that of the municipalities.

The topic of MRM was not yet very familiar among most of the respondents interviewed for the thesis, which also most likely affected the somewhat cautious attitudes. However, in order for MRM to succeed, it requires some attitude changes especially within the Association of Finnish Local and Regional Authorities, whose main task is to look after the interest of the municipalities. It became apparent during the discussions that municipalities are not interested in MRM unless it somehow benefits them. AFLRA is now quite determinedly against any additional work load for municipalities and is not interested in the idea of MRM. If their attitude is negative, there is little chance that municipalities, who are looking for support and advice from AFLRA, will see MRM as a positive factor. Municipalities have autonomy according to Finland's constitutional law and so getting them aboard on implementing MRM is very important. At the moment, it does not seem to be apparent for municipalities how a clean, healthy and usable water area benefits them also economically. Hanko and Raasepori are good examples of small municipalities that are largely defined by their location as coastal municipalities. In addition to the awareness of the importance of the Baltic Sea also the sufficient human and economic resources are currently lacking. Finding a solution to these problems will be one of the indicators of just how seriously MRM is taken and how devoted Finland is to implementing it.

There is a need for increased communication between the different authorities. It seems like everyone is now waiting for someone else to take the first step and coordinating (or even executing) the implementation of MRM. The fact that the topic was so unfamiliar to some also indicates a lack of open discussion and cooperation. Of the actual law, the term "when applicable", which is usually found in the legislations, seems to be interpreted occasionally as a way of not having to do what the law says. Also "ranking" the different laws and regulations, in other words, having a clear picture of which one is the overlapping one, and to what extent the MRM planning will have to be taken into account in permit applications and during city planning was not unequivocally clear for the respondents. It would be interesting to interview the same persons again now that the law has entered into force and the topic of MRM has undoubtedly been more of current interest than what it was during the interviews in spring 2011.

The difference and relationship between MRM and MSP seems somewhat unclear. Even the supposition in the beginning of this thesis was that the law proposal (HE 323/2010) was mostly about Marine Spatial Planning although if it was not called that. Even the

interviewer realized this only after sending the respondents the pre-prepared questions. Because of that, and the fact that one of the respondents works with MSP, a further look at MSP and its outlook in Finland is included in this thesis.

13 Marine Spatial Planning in Finland

During the research some information about a project group working with Marine Spatial Planning came up and one of the persons actively involved in the project, a Counsellor from the Ministry of the Environment, gave an interview on the subject. She pointed out that the law proposal on MRM planning includes also some MSP, the viewpoint is just a bit different from the MSP she is currently working with.

DG MARE is responsible for the implementation of the Integrated Maritime Policy (2007) in which MPS was identified as “a fundamental tool for the sustainable development of marine areas and coastal regions” (An Integrated Maritime Policy for the European Union, 2007, section 3.2.2.). According to the Counsellor from the MoE, the idea is that EU member states will make their own national maritime policies in which the different activities at sea should be harmonized. Finland does not have its own maritime policy or strategy but The Prime Minister's Office has established a Maritime Policy Committee. The Committee includes a smaller group in which Ministers are represented, and a somewhat larger group in which also stakeholders are included. The task of this Committee is to coordinate EU's Maritime Policy and MSP in Finland.

The Counsellor from the MoE continued that the Roadmap on MSP (COM(2008) 0791), which the European Commission formed as part of the Maritime Policy, includes key principles for MSP. Four workshops were held in 2009 to discuss these principles and to share best practices. A follow-up report (COM(2010) 771) on the achievements and future development was published in December 2010 by the EC. Marine policy is also partly leaning on MSFD from where the environmental objects come. “Both MSP and MSFD depend on sound data and knowledge. There is also a link between the spatial measures of the MSFD and the implementation of the Birds and Habitats Directives in coastal and marine areas” (c. European Commission, 2010, section 5.2.).

The EU countries are not required to carry out MSP even though EC recommends it. According to the Counsellor from the MoE, two different options were mentioned in developing MSP in the December Communication from the European Commission; non-binding and legislative options. However, the latest information was that the Commission is currently writing a Directive on MSP. This is just verbal information and nothing is yet officially on paper, but if a new Directive comes into force, it means that there will most likely be a law on MSP in Finland within the next 2-4 years. The Counsellor continued that it would probably concern mostly the Exclusive Economic Zone (EEZ) since that zone has currently no planning systems whatsoever.

The final role of MSP is still somewhat unclear. The respondent's opinion was that the first thing to do is to see to what extent our current tools, such as EEZ legislation, Espoo Convention and regional plans, are sufficient and whether there is some need to change or renew them or maybe draft completely new tools. There is currently a project group called the Plan Bothnia testing a transboundary MSP in the Bothnian Sea. HELCOM is the leading partner of the project, which is funded by the EU Commission DG Mare and running until June 2012. The partners of the project include also the international organizations of VASAB 2010 and Nordregio as well as the Finnish Environment Institute (SYKE) and the Centre for Maritime Studies from Finland and the Swedish Board of Fisheries and Swedish National Board of Housing, Building and Planning from Sweden. (Plan Bothnia, 2011)

13.1 MSP and ICZM

Only maritime activities and activities in coastal waters are managed by MSP. However, terrestrial spatial planning should be coordinated with MSP because land-based impacts from, for example, agriculture often have a direct impact on marine areas, which in turn also affects MSP. The transitional space from land to sea needs special attention and the spatial strategy for that area is part of the Integrated Coastal Zone Management (ICZM) process. (Ehler & Douvere, 2009).

The aim of ICZM is a sustainable management of the coast by using an integrated approach, regarding all aspects of the coastal zone, trying to improve the economic, social and environmental well being of them and to develop their full potential. ICZM has

focused more on land and the immediate shore vicinity partly because it does not have the adequate means of cooperation and coordination of the different interests nor enough information on the marine side (The Final Report of Interreg III B BaltCoast Project, 2005, p 37). ICZM faces other challenges as well. The Counsellor from the MoE commented that ICZM has not really been able to land in the EU because every country has different systems, nature and administration. MSP, on the other hand, has focused on the allocation of space and achieving a balance of spatial uses in marine areas. ICZM and MSP are closely linked, there are similarities in stakeholder involvement and these two processes should support each other. The Final Report of Interreg III B BaltCoast Project (2005) suggests that taking the sectoral interests as well as the inshore marine areas into account when planning coastal zones would help to prevent conflicts.

14 Outlook - An example from Gothenburg, Sweden

Sweden has a completely new marine legislation, and a new Government agency for marine and water environment issues will start its operation in Gothenburg in July 2011. The new agency will have approximately 400 employees and it will take over the majority of the tasks of the Swedish Board of Fisheries as well as the water related tasks of the Swedish Environmental Protection Agency. (Axlid, 2010) The responsibilities of this new agency include e.g. working for the preservation and sustainable utilization of marine and water environments, being collectively responsible for the introducing, implementing and developing MSP in Sweden, having the overall responsibility for environmental targets such as having a living coast and archipelago and the sea in balance, and being responsible for the implementation of both EU's common fisheries policy and the national fisheries policy. (Börjesson and Ramnerö, 2011).

The municipalities will be important partners for the new agency especially in MSP. They will also be participants in other national networks that deal with water related issues. The new authority should consider and adapt the forms of cooperation with the municipalities. This applies especially to developing and anchoring measures where the municipalities are estimated to be important actors or the matter at hand otherwise concerns them. (Hafström, Nilsson, Askman and Larsson, 2010).

In Finland, there are no plans for new agencies for MRM planning, but there are some

similarities with Sweden in current planning and attitudes in the municipalities. According to the Counsellor from the MoE, the municipalities' interest of the marine area does not reach very far out from the shoreline but the interest lies in the government. The same applies to Swedish municipalities, which is why the municipalities there will only be responsible for the area reaching one nautical mile from the mid intertidal zone while the government is responsible for the remaining water areas. Municipalities will have the opportunity to actively participate in the planning process. They will also see to it that it becomes clear how the master plan is coordinated with the MSP. (Börjesson and Ramnerö, 2011).

Works Cited

Axlid, H. (2010). *New Government agency for marine and water environment issues opening in Gothenburg*. University of Gothenburg.
http://www.ckk.chalmers.se/english/about_the_university/current/?languageId=100001&contentId=916167&disableRedirect=true&returnUrl=http%3A%2F%2Fwww.ckk.chalmers.se%2Fomuniversitetet%2Faktuellt%2Fnyheter%2Fnyheterdetalj%2F%2Fny-myndighet-for-havs--och-vattenmiljoplaceras-i-goteborg.cid916167 (retrieved 1.4.2011)

The Association of Finnish Local and Regional Authorities (AFLRA). (2011).
<http://www.kunnat.net/fi/Sivut/default.aspx> (retrieved 11.4.2011)

BaltCoast. (2005). *The Interreg III B BaltCoast Project – Final Report*.
http://www.plancoast.eu/files/baltcoast_final_report.pdf (retrieved 7.4.2011)

Bundesamt für Seeschifffahrt und Hydrographie. (2011).
http://www.bsh.de/en/Marine_uses/Spatial_Planning_in_the_German_EEZ/documents2/MSP_DE_BalticSea_Dec2009.pdf

Bäck, S., Ollikainen, M., Bonsdorff, E., Eriksson, A., Hallanaro, E-L., Kuikka, S., Viitasalo, M. & Walls, M. (2010). *Itämeren tulevaisuus*. Helsinki: Gaudeamus.

Börjesson, C. & Ramnerö, A-M. (2011). *Havsplaneringsutredningens betänkande "Planering på djupet – fysisk planering av havet"*. SOU 2010:91.
[http://www5.goteborg.se/prod/Intraservice/Namndhandlingar/SamrumPortal.nsf/93ec9160f537fa30c12572aa004b6c1a/0dedae84f9568047c125782c0044f61f/\\$FILE/10.pdf](http://www5.goteborg.se/prod/Intraservice/Namndhandlingar/SamrumPortal.nsf/93ec9160f537fa30c12572aa004b6c1a/0dedae84f9568047c125782c0044f61f/$FILE/10.pdf) (retrieved 13.4.2011)

Carter, J. (2009). Session 2: What is Marine Spatial Planning? *Washington Forum on Marine Spatial Planning*. <http://www.ecy.wa.gov/programs/sea/msp/pdf/GraysHarborForum.pdf> (retrieved 11.4.2011)

Communication from the Commission. *Roadmap for Maritime Spatial Planning: Achieving Common Principles in the EU*. COM (2008) 791. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0791:FIN:EN:PDF> (retrieved 9.4.2011)

Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:1992:206:0007:0050:EN:PDF> (retrieved 10.4.2011)

Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (Water Framework Directive, WFD). (retrieved 10.4.2011)

Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive, MSFD). (retrieved 10.4.2011)

Dutch Maritime Network. (2005). *European Maritime Policy Conference*. ISBN: 90-407-2620-5
<http://www.european-network-of-maritime-clusters.eu/publications/4.pdf> (retrieved 10.6.2011)

Edler, J. & Streufert, U. (2007). *The Baltic Seas Environmental Protection Law and ICZM*. Coastline Reports 8. ISSN 0928-2734, ISBN 978-3-9811839-0-0. pages 99-109.
http://databases.eucc-d.de/files/documents/00000258_Artikel10_Edler_Streufert.pdf (retrieved 6.5.2011)

Ehler, C. & Douvere, F. (2009). *Marine Spatial Planning: a step-by-step approach toward ecosystem-based management*. Intergovernmental Oceanographic Commission and Man and the Biosphere Programme. IOC Manual and Guides No. 53, ICAM Dossier No. 6. Paris: UNESCO

Encyclopedia Britannica. (2011). www.eb.com (retrieved 14.4.2011)

The Encyclopedia of Earth. (2008).
[http://www.eoearth.org/article/Exclusive_economic_zone_\(EEZ\)](http://www.eoearth.org/article/Exclusive_economic_zone_(EEZ)) (retrieved 14.4.2011)

Environmental Administration. (2010). *Finland's environmental administration*.
<http://www.environment.fi/default.asp?contentid=16971&lan=en> (retrieved 11.4.2011)

EUR-Lex. <http://eur-lex.europa.eu/en/index.htm> (retrieved 10.4.2011)

a. European Commission. (2010). *Application of EU Law*.
http://ec.europa.eu/eu_law/directives/directives_en.htm (retrieved 28.6.2011)

b. European Commission. (2010). *Europe's seas: Commission sets out criteria for good environmental status*. IP/10/1084. Press releases RAPID.
<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/1084&format=HTML&aged=0&language=EN&guiLanguage=en> (retrieved 14.5.2011)

c. European Commission. (2010). *Maritime Spatial Planning in the EU – Achievements and Future Development*. COM (2010) 771. http://ec.europa.eu/maritimeaffairs/pdf/com_2010_771_en.pdf (retrieved 24.3.2011)

a. European Commission. (2011). *Directorate-General for Maritime Affairs and Fisheries*.
http://ec.europa.eu/dgs/maritimeaffairs_fisheries/index_en.htm (retrieved 9.4.2011)

b. European Commission. (2011). *Environment: Estonia, Greece, Finland and Malta warned over failures to protect their seas*. IP/11/90. Press releases RAPID.
<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/11/90&format=HTML> (retrieved 1.4.2011)

Finnish Environment Institute. (2010). *The Finnish Inventory Programme for the Underwater Marine Environment, VELMU*. <http://www.ymparisto.fi/default.asp?node=14055&lan=en> (retrieved 14.5.2011)

Finnish Wind Technology. (2011). *Rakentamisen perusteet*.
http://www.suomentuulienergia.fi/perustietoa_2.html (retrieved 11.7.2011)

Grants and Evaluation Office Imperial COE. (2006). *Qualitative and Quantitative research*.
http://www.icoe.org/webfm_send/1936 (retrieved 19.4.2011)

Hafström, M., Nilsson, T., Askman, P. & Larsson, F.K. (2010). *Betänkande av Utredningen om en myndighet för havs- och vattenmiljöfrågor*. SOU 2010:8. 6.2. Samverkan med kommunerna ISBN 978-91-38-23347-4. Stockholm: Elanders Sverige AB.
<http://www.regeringen.se/content/1/c6/13/90/25/073cd30a.pdf> (retrieved 26.3.2011)

HE 323/2010. Hallituksen esitys eduskunnalle laeiksi vesienhoidon järjestämisestä annetun lain ja eräiden siihen liittyvien lakien muuttamisesta. (2010).

Hoepfl, M.C. (1997). Choosing Qualitative Research: A Primer for Technology Education Researchers. *Journal of Technology Education*. Volume 9, Number 1.
<http://scholar.lib.vt.edu/ejournals/JTE/v9n1/hoepfl.html> (retrieved 14.4.2011)

Hollis, D.J. (2010). United Nations Convention on Law of the Sea (UNCLOS), 1982. *The Encyclopedia of Earth*.
[http://www.eoearth.org/article/United_Nations_Convention_on_Law_of_the_Sea_\(UNCLOS\),_1982](http://www.eoearth.org/article/United_Nations_Convention_on_Law_of_the_Sea_(UNCLOS),_1982) (retrieved 10.4.2011)

a. International Maritime Organization (IMO). (2011). *Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter*.
<http://www.imo.org/About/Conventions/ListOfConventions/Pages/Convention-on-the-Prevention-of-Marine-Pollution-by-Dumping-of-Wastes-and-Other-Matter.aspx> (retrieved 14.5.2011)

b. International Maritime Organization (IMO). (2011). *Special Areas under MARPOL*.
<http://www.imo.org/OurWork/Environment/PollutionPrevention/SpecialAreasUnderMARPOL/Pages/Default.aspx> (retrieved 29.5.2011)

c. International Maritime Organization (IMO). 2011. *Particularly Sensitive Sea Areas*.
<http://www.imo.org/OurWork/Environment/PollutionPrevention/PSSAs/Pages/Default.aspx> (retrieved 17.11.2011)

International Maritime Organization (IMO). (2005). *Revised Guidelines for the Identification of Particularly Sensitive Sea Areas. Resolution A.982(24)*.
http://www.imo.org/blast/blastDataHelper.asp?data_id=14373&filename=982.pdf (retrieved 17.11.2011)

An Integrated Maritime Policy for the European Union. COM (2007) 575 final. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52007DC0575:EN:NOT> (retrieved 9.4.2011)

Laki vesienhoidon ja merenhoidon järjestämisestä (The Act on Water and Marine Resources Management) 25.3. 272/2011 and 30.12.2004/1299

Maankäyttö- ja rakennuslaki (Land Use and Building Act) 5.2.1999/132

The Ministry of the Environment (MoE). (2010). *Planning and co-operation in river basin districts*. <http://www.ymparisto.fi/default.asp?node=17794&lan=en> (retrieved 3.4.2011)

The National Oceanic and Atmospheric Administration (NOAA). (2011). NOAA Marine Debris Program. <http://marinedebris.noaa.gov/> (retrieved 29.5.2011)

Ocean Conservancy. (2011). <http://www.oceanconservancy.org/our-work/marine-spatial-planning/>

Peninsula Research & Development Support Unit (RDSU). (w.y.). *Helpsheet 9, Qualitative Research Methods*. <http://projects.exeter.ac.uk/prdsu/helpsheets/Helpsheet09-May03-Unlocked.pdf> (retrieved 17.4.2011)

Plan Bothnia. (2011). <http://planbothnia.org/about/> (retrieved 14.5.2011)

Regeringskansliet. (2009). *En sammanhållen svensk havspolitik*. Regeringens proposition 2008/09:170. Pages. 13 and 21

<http://www.ambstockholm.um.dk/NR/rdonlyres/718C499E-DC94-4F77-AD96-2AFA521247EF/0/Ensammenh%C3%A5llensvenskhavspolitik.pdf> (retrieved 11.7.2011)

Science Daily. (2010, Mar. 3). *Marine Spatial Planning: A More Balanced Approach to Ocean Management*. www.sciencedaily.com/releases/2010/02/100220184333.htm (retrieved 4.2.2011)

Simpson, S. (2009, Dec). Ocean Overhaul. *Scientific American Magazine*. <http://www.scientificamerican.com/article.cfm?id=world-changing-ideas&page=4> (retrieved 4.2.2011)

Sociology Central. (w.y.). *Sociological Research Skills, Research methods*. <http://www.sociology.org.uk/methfi.pdf> (retrieved 16.4.2011)

Summaries of EU legislation. (2008). *Conservation of wild birds*. http://europa.eu/legislation_summaries/environment/nature_and_biodiversity/l28046_en.htm (retrieved 14.5.2011)

Suomen rannikkostrategia. (2006). <http://ec.europa.eu/environment/iczm/evaluation/iczmdownloads/suomen.pdf> (retrieved 14.5.2011)

Suomen Ympäristökeskus (SYKE). (2010). *SYKE:n esittely*. <http://www.ymparisto.fi/default.asp?node=24410&lan=FI> (retrieved 23.4.2011)

UNESCO. (2010). *Marine Spatial Planning Initiative*. http://www.unesco-ioc-marinesp.be/marine_spatial_planning_msp (retrieved 11.4.2011)

United Nations Economic Commission for Europe. (w.y.). *Convention on Environmental Impact Assessment in a Transboundary Context (Espoo, 1991) - the 'Espoo (EIA) Convention'*. <http://www.unece.org/env/eia/eia.htm> (retrieved 10.4.2011)

United States Environmental Protection Agency (EPA). 2011. *Effects on Nitrogen and Phosphorus Pollution*. <http://water.epa.gov/scitech/swguidance/standards/criteria/nutrients/effects.cfm> (retrieved 28.5.2011)

Uudenmaan ympäristökeskus. (2009). *Maa-ainesten otto*. <http://www.ymparisto.fi/default.asp?node=8365&lan=fi> (retrieved 10.4.2011)

Treves, T. (2008). *The United Nations Convention on the Law of the Sea, Montego Bay, 10 December 1982*. Audiovisual Library of International Law. United Nations. <http://untreaty.un.org/cod/avl/ha/uncls/uncls.html> (retrieved 14.5.2011)

Ympäristöministeriö. (2009). *Natura 2000 –verkosto*.
<http://www.ymparisto.fi/default.asp?contentid=79440> (retrieved 10.4.2011)

a. Ympäristöministeriö. (2010). *HELCOMin Itämeren suojelun toimenpideohjelman BSAP:n toimeenpano Suomessa, Tilannekatsaus 17.5.2010*.
[www.itameriportaali.fi/fi/suojelu/.../BSAP_suomi_FINAL%20\(2\).pdf](http://www.itameriportaali.fi/fi/suojelu/.../BSAP_suomi_FINAL%20(2).pdf) (retrieved 28.5.2011)

b. Ympäristöministeriö (2010). *Suomen Natura 2000 –alueet*.
<http://www.ymparisto.fi/default.asp?contentid=33947> (retrieved 28.5.2011)

c. Ympäristöministeriö. (2010, Dec 15). *Toimintasuunnitelma uhanalaisten luontotyyppien tilan parantamiseksi*. (p 39). <http://www.ymparisto.fi/download.asp?contentid=123401&lan=fi>
(retrieved 11.3.2011)

Ympäristöministeriö. (2011). *Vesienhoitoalueet*.
<http://www.environment.fi/default.asp?contentid=179775&lan=fi> (retrieved 6.5.2011)

ANNEX I

Qualitative descriptors for determining good environmental status

(referred to in Articles 3(5), 9(1), 9(3) and 24)

- (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 minimised, 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.

To determine the characteristics of good environmental status in a marine region or subregion as provided for in Article 9(1), Member States shall consider each of the qualitative descriptors listed in this Annex in order to identify those descriptors which are to be used to determine good environmental status for that marine region or subregion. When a Member State considers that it is not appropriate to use one or more of those descriptors, it shall provide the Commission with a justification in the framework of the notification made pursuant to Article 9(2).

(Source: the official Annex I from MSFD 2008/56/EC)

Questions regarding Marine Spatial Planning (MSP) / Marine Resources Management

Government proposal for the Parliament of a law proposal regarding changing the Act on Water Resources Management and certain laws related to it (HE 323/2010)
<http://www.finlex.fi/fi/esitykset/he/2010/20100323>

1. In your opinion, is there a need for MSP (MRM)? Why do you think there is/ is not?

2. When the law reform comes into effect, how do you see the implementation of MSP (MRM) in Finland? (Is there enough resources; who will have the main responsibility of practical work; what will be the effect on communication between different authorities/officials and with stakeholder groups; what will be the effect on decision making, permit applications etc.)

3. Do you think MSP (MRM) can be integrated in land use planning?

4. In your opinion, what is the possible time frame for practical implementation of MSP (MRM)?

5. What kind of thoughts do the law proposal awake in you?