Marine Spatial Planning

From a municipal perspective

Authors
Roger Johansson
Frida Ramberg

Supervisors
Marie Stenseke
Andreas Skriver Hansen

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Department of Economy and Society
Unit for Human Geography

School of Business, Economics and Law at
University of Gothenburg

UNIVERSITY OF GOTHENBURG
SCHOOL OF BUSINESS, ECONOMICS AND LAW

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Abstract

Marine Spatial Planning (MSP) aims to, through physical planning of the marine areas, contribute to a sustainable development where various interests can get along. This master thesis concerns Marine Spatial Planning from a municipal perspective in Sweden. The aim of the thesis is to investigate how MSP is performed on a municipal level. In order to investigate this the thesis has been structured into three themes; *The work with marine spatial planning*, *Marine spatial planning and synergies between marine and terrestrial areas* and lastly, *Environment and growth in marine spatial planning*. It is important to remember that the core theme throughout the thesis; *The work with marine spatial planning* is interlinked with the other themes and that all of them permeate each other in the municipalities work with MSP.

The mixed methods applied to answer the aim in the thesis are semi-structured informant interviews with planners and project leaders of a selection of municipalities and a survey sent to all Swedish coastal municipalities.

The results show that cooperation and collaborations are an important part in the work with MSP for several municipalities. Furthermore, the results show that the politicians and enthusiasts have a crucial role in how MSP is performed and prioritized. Municipalities that often are considered as forerunners in MSP have spent a lot of time and resources gathering data, as well as they have performed their work with MSP in a participative manner to get a basis. The results also show an apparent lack of knowledge and relevant data, which occurs as challenges in the municipalities continued work with MSP, for example when planners and decision makers are to make considerations and choices in MSP.

The conclusions are that many municipalities are in a start-up phase in their work with MSP and not yet have come to the part in the process where choices between various interests must be made. The three commonly used pillars of sustainable development have all appeared as important in the work with MSP, at the same time a lack of knowledge makes it difficult to take well-grounded decisions to achieve sustainable development.

Unit for Human Geography, Department of Economy and Society
School of Business, Economics and Law at the University of Gothenburg
Viktoriagatan 13, PO Box 625, 405 30 Gothenburg, Sweden
+46 31 786 0000
es.handels.gu.se

Sammanfattning

Havsplanering – från ett kommunalt perspektiv

Författare: Frida Ramberg & Roger Johansson

Nyckelord: Havsplanering, kommuner, kunskap och hållbar utveckling

Havsplanering ämnar att genom fysisk planering av marina områden bidra till en hållbar utveckling där olika intressen kan samsas om havens resurser. Denna masteruppsats inriktar sig på havsplanering från ett kommunalt perspektiv i Sverige. Syftet med uppsatsen är att undersöka hur havsplanering utförs på kommunal nivå. För att göra detta har uppsatsen strukturerats utefter tre teman; *arbetet med havsplanering*, *havsplanering och synergier mellan land och hav och slutligen*, *miljö och tillväxt i havsplanering*. Det är viktigt att komma ihåg att det genomgående huvudtemat, *arbetet med havsplanering*, är sammanlänkat med övriga teman och att de alla genomsyrar varandra.

För att besvara syftet och frågorna i uppsatsen används mixade metoder i form av semistrukturerade informantintervjuer samt en enkät som skickats till alla Sveriges kustkommuner.

Resultatet visar på att samverkan och samarbeten är en viktig hjälp för flera kommuner. Vidare visar resultatet att politiker och enskilda entusiaster spelar en viktig roll i hur havsplaneringen utförs och prioriteras. Kommuner som ofta nämns som föregångare i havsplaneringen har arbetat mycket med datainsamling och lokalt deltagande i planeringen för att få en grund. I resultatet framgår översiktsplanen som en del i arbetet med att länka samman hav och land i planeringen. Resultatet visar även tydliga brister i kunskap och relevanta data. Detta framgår som stora utmaningar i kommunernas fortsatta arbete med havsplanering, bland annat när avvägningar mellan olika intressen ska göras.

Slutsatserna är att många kommuner är i en uppstartsfas i arbetet med havsplanering och ännu inte har kommit till den del i processen där val mellan olika intressen måste göras. De tre vanligen använda pelarna inom hållbar utveckling har alla framstått som viktiga i arbetet med havsplanering, samtidigt som kunskapsbristen gör det svårt för de ansvariga att ta välgrundade beslut för att uppnå hållbar utveckling.

Preface

Both of us have grown up along the coastline in Sweden, where we still live. Due to our experiences in life we have seen what the oceans and the marine life mean to the planet and its inhabitants. An implemented case study during the spring semester 2017 that dealt with Marine Spatial Planning and its impacts on local communities, sparked our interest in this area of research.

With our engagement for environmental questions, planning and their synergies Marine Spatial Planning was a given subject for our 45 hec master thesis in Geography. This study has attracted much commitment and manys interest. Some of these results have already been presented during workshops at SwAM's Sea & Water Forum (Havs- och vattenforum) in May 2018, while the rest is available here. We hope this study will be useful in the further work on Marine Spatial Planning in Sweden.

We want to give a big thank you to everyone that have helped us making this study possible. An extra thanks to the informants who have participated in interviews and answered our survey. We also want to express our gratitude to Adam Ramberg and Katarina Sjölin for their inputs and support during the whole work process.

Finally, we want to give a big thanks to our supervisors Marie Stenseke, Professor, and Andreas Skriver Hansen, PhD, at the University of Gothenburg, whom have always taken the time to give constructive criticism, support and a lot of inspiration throughout our work process.

Gothenburg, 2018.05.21
Roger Johansson
Frida Ramberg

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Abbreviations

CBD - *The Convention of Biological Diversity*

GES - *Good Environmental Status*

GR - *Göteborg Region Association of Local Authorities*

IMP - *Integrated Maritime Policy*

ICZM - *Integrated Coastal Zone Management*

KOMPIS - *Municipal planning in collaboration with the government (Kommunal planering i statlig samverkan)*

LONA - *Local conservation effort (Lokala naturvårdssatsningen)*

MSFD - *Maritime Strategy Framework Directive*

MSP - *Marine / Maritime Spatial Planning*

PBL - *Plan and Building Act (Plan- och bygglag)*

SDG - *Sustainable Development Goals*

SKL - *Swedish Association of Local Authorities and Regions*

SwAM - *The Swedish Agency for Marine and Water Management*

TBL - *Triple Bottom Line*

WBCSD - *World Business Council on Sustainable Development*

WCED - *World Commision of Environment and Development*

Glossary and concepts used in this study

Blue economy: *same as Blue Growth (se below) but was used as a concept before Blue Growth.*

Blue Growth: "*...is the long-term strategy to support sustainable growth in the marine and maritime sectors as a whole.*" (European Commission)

KOMPIS: a financial support for municipal MSP in collaboration with the government (Swedish Agency for Marine and Water Management, 2018).

LONA: a financial support for local conservation efforts (Swedish Environmental Protection Agency, 2018).

The Ecosystem Approach: *is "...a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way."* Convention of Biological Diversity (n.d.)

Planning indicators: *a commonly used term with the Swedish planning authorities, referring to distinct and measurable indicators needed to analyse progress in relation to desired goals in the planning process.*

1. INTRODUCTION & RESEARCH PROBLEM

"... If we fail to understand both the vulnerability and resilience of the living sea, the relatively brief history of the human species will face a tragic destiny"
(United Nations n.d.a)

In Sweden the municipalities are the ones responsible for the planning within their municipal borders, including sea areas (The National Board of Housing, 2016). *Marine Spatial Planning* (MSP) is one of, if not, the biggest physical planning process in modern history. Various interests and scales will face each other when planning marine areas, which have not happened in this structured way ever before. Many uncertainties exist and more will most likely occur during the process, the knowledge and experience is lacking, and many interests and different industries must be satisfied when both environment and growth are to be the focus in the forthcoming plans.

Due to factors such as increased population and increased tourism in many areas, land has been densely built up and there is a need of new areas for energy extraction, food production and recreation (Stojanovic & Farmer, 2013). In 2014 MSP was adopted as legislative framework in the European Union (European commission, 2017a). As a member of the EU, Sweden is required to have national marine spatial plans by 2021. The marine spatial plans should among other support growth, preservation of the marine environment and link the terrestrial planning to the marine planning (Swedish Agency for Marine and Water Management, 2018). In this study Marine Spatial Planning / Maritime Spatial Planning will be used with the same definition throughout and with the abbreviation MSP. In 2015 MSP was established as an ordinance in Sweden (SFS 2015:400). Sweden has an ongoing MSP process where The Swedish Agency for Marine and Water Management (SwAM) are responsible for coordinating the planning process on a national level. Since the Swedish municipalities are the ones responsible for their individual comprehensive plans, which include both land and waters, there are two ongoing processes which will overlap: SwAM developing a national marine spatial plan and each municipality developing their individual marine spatial plans.

It is desirable for the municipalities to develop their own marine spatial plans not only to strengthen their say when discussing considerations in the marine plans in relation to the national plan but also since it is a required by Swedish law. These plans should be linked and in concurrence with the national marine plans and take into consideration a wide variety of factors such as national interests, economic development and preservation of environment (The National Board of Housing, 2017a). Planning sea areas is not a new concept in Sweden and the municipalities have been tasked to plan their coastal zones and the waters within them since the 1980's (The National Board of Housing, 2014). In a Swedish context it is clear that input, cooperation, involvement and planning from concerned municipalities are necessary (SOU, 2010:91). The municipalities in Sweden are the most local administrative planning units in Sweden (The National Board of Housing, 2016) and planners are seen as the stakeholders with most experience and competence in planning matters (Claydon, 2006). Being tasked with MSP the municipalities are facing the complexity of marine areas without clear physical borders and more dimensions in space. Since MSP is seen as a possible way to achieve sustainable seas, the upcoming marine spatial plans encourage to use a holistic perspective (European Commission, n.d.a).

As planning moves to encompass the seas as well as the land it previously has been handling, there is a general consensus both globally and within the European Union that the planning in either the seas or land can have various effects on the other and therefore must be handled/ planned in relation to each other (Claydon, 2006). MSP clarifies the importance of taking consideration to both the marine environment and growth (European Commission, 2017a). These can go hand in hand but can also be opposites or competing when balances must be made which might create new demands for the municipalities when various interests and requirements at different scales are to be met. Coupled to the fact that the municipalities have variations in how far into the MSP-process they have come, the lack of knowledge and that they are used to work individually and now are encouraged to work regionally make it an interesting area of research. Not only to explore how the municipalities work with MSP, but also how they work to link it to terrestrial plans and how they work to combine growth and environment.

So, how is the MSP-process taking place on a local level in Sweden with the different approaches and knowledge available? And how do the coastal municipalities in Sweden deal

with the ambitions of linking the land and sea areas as well as combining different interests in MSP, aiming for a sustainable development?

1.1 AIM

The aim of the study is to map how marine spatial planning takes place on a municipal level in Sweden. Furthermore, this study aims to dig deeper in the difficulties and contradictions that comes with keeping a holistic perspective when linking land and sea areas through physical planning as well as working with preservation and growth in marine spatial planning.

1.2 RESEARCH QUESTIONS

Theme 1 - The work with Marine Spatial Planning

- How do coastal municipalities in Sweden work with Marine Spatial Planning?
- What challenges can be seen in the municipalities work with Marine Spatial Planning in Sweden?

Theme 2 - Marine Spatial Planning and synergies between marine and terrestrial areas

- How do the coastal municipalities link their Marine Spatial Planning and terrestrial planning?

Theme 3 - Environment and growth in Marine Spatial Planning

- How do the coastal municipalities work with combining environment and growth within their Marine Spatial Planning?

1.3 DISPOSITION

The study is divided into a thematic disposition in three themes: The work with marine spatial planning, Marine spatial planning and synergies between marine and terrestrial areas and Environment and growth in marine spatial planning. Due to the study's aim, which is to map how marine spatial planning takes place on a municipal level in Sweden, there is a major focus at theme one which also permeates all themes.

The next chapter in this thesis contains a background of the study's subject, which aims to give an introduction for the reader. Theories and previous research used in this study are described in the third chapter. The theoretical part is divided into two parts: *A sustainable view on planning* and *An integrated view on planning*, containing the subcategories: different scales and an ambiguous concept and weak or strong sustainability, planning approaches, linking terrestrial planning to the sea, Blue Growth, Blue Growth - from theory to practice and Blue Growth - balances among stakeholders. The fourth chapter describes the methods used in this study and closes with a methodological discussion. In chapter five the result of this study is presented. The chapter is divided into three parts which also contains subcategories. Each part starts with presenting the diagrams from the survey and the result from the interviews are presented after. Chapter six contains the analysis and discussion. It consists of three parts and the findings in the study are integrated with theory. Finally, the conclusions of the study are presented in chapter seven where also further research areas are presented.

2. BACKGROUND

In this chapter some of the background of why MSP has become a hot topic when it comes to organising and planning the sea areas not only in Sweden, but also on a European and global scale will be brought up. It will also discuss how MSP is viewed as a possible solution to the various terrestrial and marine anthropogenic activities that threatens the status of the marine environment and water quality both in the EU and on a global scale (Sumaila et.al. 2011). Furthermore, it will briefly handle the Swedish planning system and some of the relevant laws and goals on the national level. The chapter will then dive further in the importance placed on the municipalities in that system and how they should work with MSP in a local context.

2.1 GOALS AND STRATEGIES FOR A SUSTAINABLE DEVELOPMENT ON A GLOBAL SCALE

Aiming for a sustainable development for the marine areas all around the world, international organisations has been prompted to produce goals both regionally and internationally. The United Nations (UN) has produced a number of documents and plans aiming for a more sustainable future. An example of this is *Our common future* released in 1987. The report contains one of the most widely used definitions of sustainable development and also argues about the importance of using a holistic view of the human-nature relations (United Nations 1987). *The convention of biological diversity* (CBD) was accepted by the member nations of UN in December 1993 with the objectives of conservation and sustainable use of the biological diversity as well as the fair sharing of those resources among the people (United Nations n.d.b). Regarding the marine environment the CBD states that

> "There is broad recognition that the sea's face unprecedented human-induced threats from industries such as fishing and transportation, the effects of waste disposal, excess nutrients from agricultural runoff, and the introduction of exotic species" (United Nations n.d.b).

Another key document is the United Nations Sustainable Development Goals (SDGs). The SDGs are 17 different goals aiming for a sustainable development at different scales. The main goals are divided into several targets. SDG number 14, *Conserve and sustainably use the oceans, seas and marine resources,* is of specific interest in this report and targets conservation of seas as well as blue growth. Furthermore, SDG 14 aims to conserve at least 10 percent of coastal and marine areas, restore and manage marine and coastal ecosystems, provide a framework for sustainable use of the oceans and increase the economic benefits for developing

countries in order to reach the goal of sustainability in the marine environment (United Nations n.d.c). A final example of the goals and documents on the international level is the United Nations World Ocean Assessment report, which is a global marine environment review mechanism to monitor the condition of the marine areas over time. This report also stresses that the use of the seas is vital to us as humans and that in order to use the resources provided from it in a successful way an understanding of both context and activities is of importance (United Nations, 2016).

2.2 GOALS AND STRATEGIES FOR A SUSTAINABLE DEVELOPMENT ON AN EUROPEAN SCALE

On a European scale, the European Union 2000 produced the *Water Directive* as a framework to guide the member states' work with water issues. It is to a certain degree aimed at freshwater resources, but there is also an understanding of the interconnectedness between the land- and freshwater use and the effects it has on the environment of the seas. As a directive it has a clear focus on conservation and protection of water resources of Europe (European commission, 2016a). In a further effort to counter the anthropogenic effects of seas, EU in 2002 proposed a recommendation on *Integrated Coastal Zone Management* (ICZM), which aims to create a bridge between terrestrial and marine management by using a holistic perspective (European commission 2016b). With the use of a holistic planning perspective the EU has in later years ventured from having a focus of protecting the environment to having a two-parted goal including both environmental preservation and growth. This twofold ambition of increasing Blue Growth (European commission, 2017b) and conservation resulted in the *Integrated Maritime Policy* (IMP). The IMP is an overarching policy where MSP is an important approach in the process to achieve the desired goals (European commission, 2017c). The holistic perspective in this case functions as a way to include various interests and scales, analyzing them from interdisciplinary and intersectoral views where instead of looking at each aspect individually it emphasise looking at them in their context.

This first part of the chapter has been a brief background of how a general understanding of the pressure that is put on the sea areas around the globe has lead to the development of documents, goals and plans surrounding the marine environment. The aim is to aid the marine areas in moving towards a more sustainable direction where MSP can play an important role towards that aim (United Nations, 2016). Moving to the next part of this chapter we will see how the EU views MSP and what main goals MSP aims to target in the union.

2.3 MARINE SPATIAL PLANNING

Commonly used, MSP aims to through physical planning of the marine areas gathers social, ecological and economic aspects to achieve sustainable seas (Ehler & Douvere, 2007). The first use of a marine spatial plan is often credited to Australia and was implemented as a way to help protect the Great Barrier Reef in 1981 (Douvere, 2008). Today MSP is used by many nations in several areas and more countries are set to follow, as seen in figure 1.

Figure 1 - Map over countries using MSP, taken from http://msp.ioc-unesco.org/ 2017.12.18.

Blue markings represent countries that has been added to the IOC-UNESCO catalogue while the grey markings represent countries that will be added shortly.

Europe is no exception when it comes to challenges in marine environment and its administration. As in other parts of the world, Europe sees its share of challenges between various stakeholders with different interests, such as environmental, commercial and public administration (Ertör & Ortega-Cerdà, 2015). Therefore, there is a need for a more structured and ordered use of the marine areas globally, regionally and locally. With increased pressure on the environment combined with Europe's demands for growth in sea areas; a growing concern of water quality has been a known issue for some time. Within the EU there are various ways of how countries have started their MSP processes. In Germany and the Netherlands for example, the terrestrial planning is stretched out into the water and in the UK a completely new system for the seas has been produced (Gazzola et.al. 2015). The Baltic Sea is another

geographical area in where there is an ongoing marine planning process (Figure 2). Here several countries are included in a regional, cross border and cross sectoral approach to MSP with the long-term goal to achieve sustainability in the region (European commission, n.d.b; VASAB, n.d.)

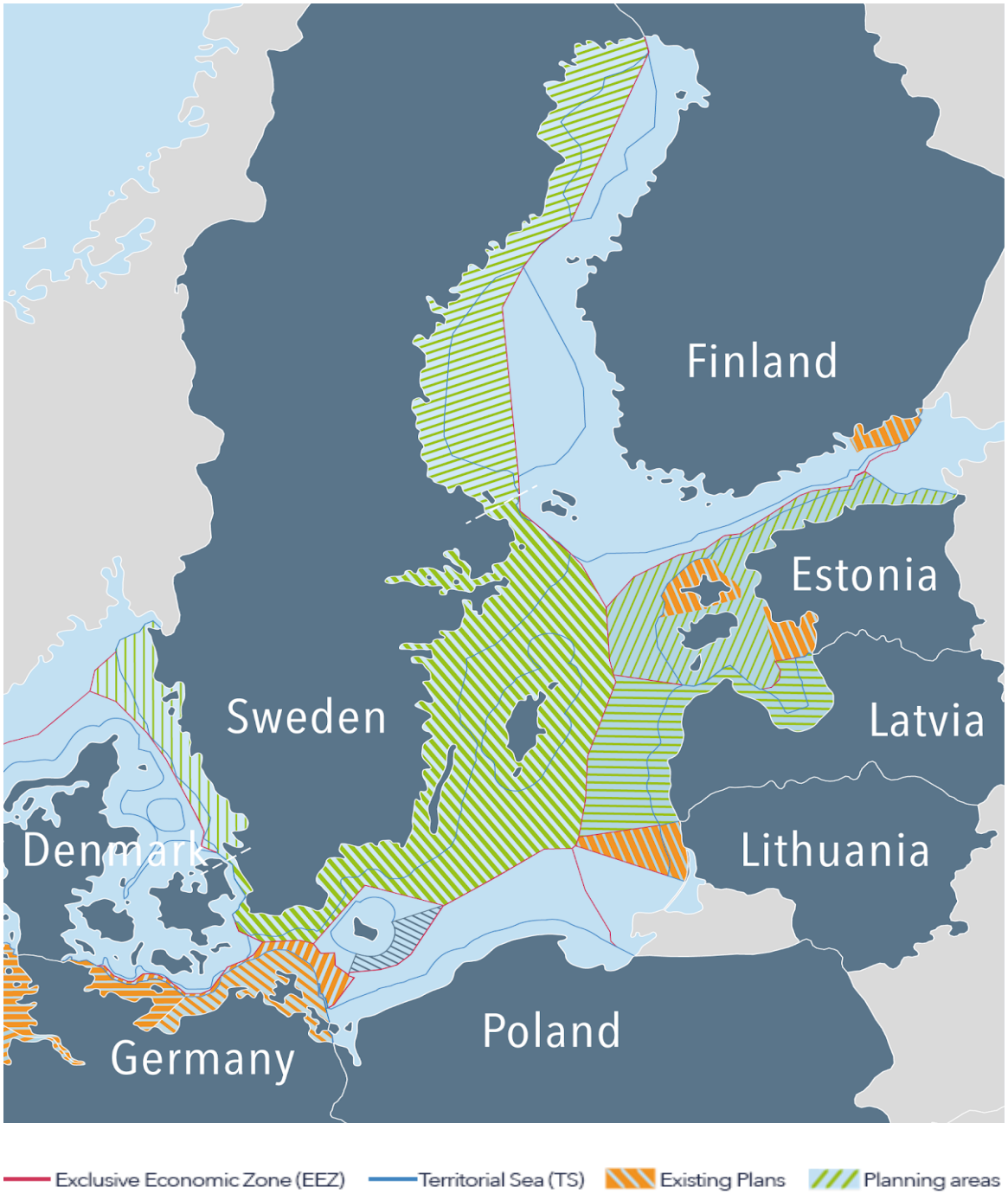

Figure 2 - MSP-areas in the Baltic Sea, taken from European Commision http://www.msp-platform.eu/sea-basins/baltic-sea-0

To minimize the aforementioned marine challenges in Europe, the European Union (EU) has come up with a directive about MSP. The directive contains a requirement for the member states to develop a marine plan for their seas by 2021 (European Commission, 2017a). At the same time as the Ecosystem Approach is an important part of MSP in EU to preserve the marine areas in a sustainable way, there is a parallel strategy of Blue Growth aiming to create economic investment and jobs at sea. Blue Growth can be described as a plan of action for a sustainable use of marine resources where both conservation and development are included (European Commission 2017a). Accomplishing the ambition of sustainable seas by balancing economic growth and the environment and doing so with a minimum of conflicts will according to the European Commission have four main beneficial outcomes. These benefits are:

“

- **Reduce conflicts** between sectors and create synergies between different activities.
- **Encourage investment** – by creating predictability, transparency and clearer rules.
- **Increase cross-border cooperation** – between EU countries to develop energy grids, shipping lanes, pipelines, submarine cables and other activities, but also to develop coherent networks of protected areas.
- **Protect the environment** – through early identification of impact and opportunities for multiple use of space.” (European Commission, 2017a)

As mentioned, in later years the EU has moved from having more of a focus of protecting the environment to a goal including both environmental preservation and growth (European commission, 2017[b]). Being such an important economic area, the seas and Blue Growth in an European context has been seen as one way for the EU to recover from its financial crisis at 2008, as well as addressing the impacts on ecosystems, greatly affected by anthropogenic activities. Those impacts can be seen in figure 3, making an argument for the importance of sustainable Blue Growth. (United Nations Environment Programme 2013, p. 12).

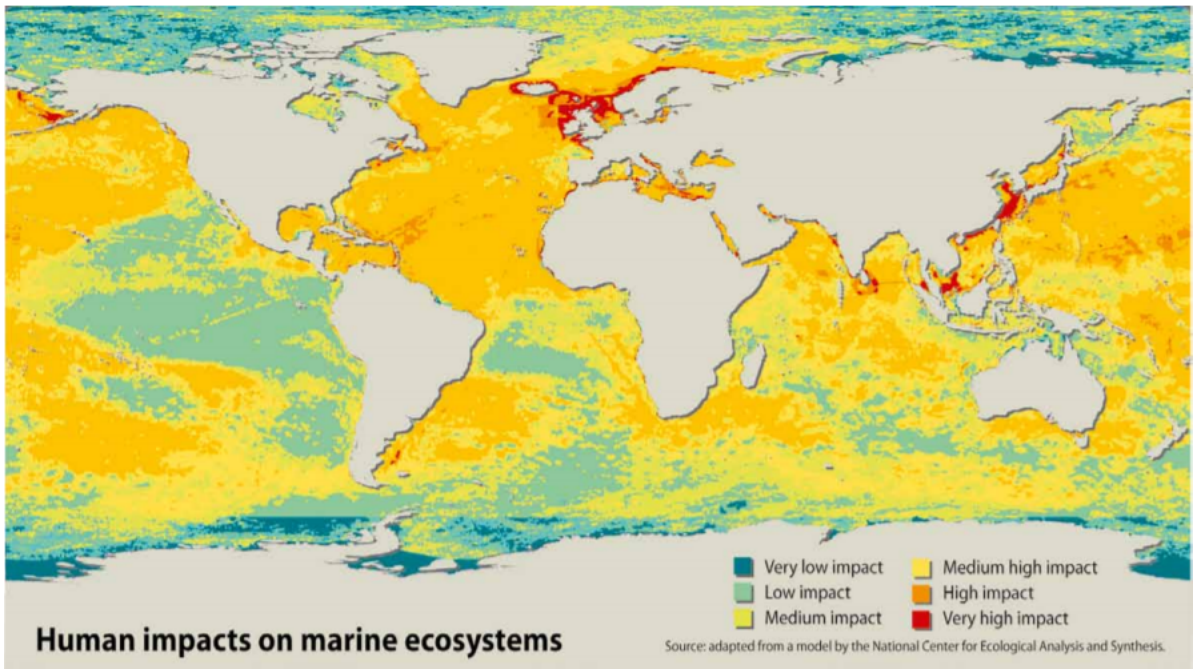

Figure 3 - Map showing the anthropogenic impacts on marine ecosystems on a global scale. Taken from: United Nations Environment Programme, 2013, p. 12.

Sweden has on a national level its own environmental goals. One of these goals is *A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos.* This goal includes both growth and preservation that should be managed in a sustainable way including different interests where MSP is seen as a tool to accomplish this goal (Swedish Environmental Protection Agency, 2016).

2.4 PLANNING IN SWEDEN

The Swedish planning system is constructed so that municipalities have the planning monopoly within their administrative borders both at land and in their sea areas (The National Board of Housing, 2014). The planning system has been relatively constant since the 1987 *Planning and Building Act* (Plan- och bygglagen, PBL). It gives the municipalities an exclusive right to decide how comprehensive and detailed planning should be carried out, not only for terrestrial areas, but also for marine areas (SFS, 1987:10). The comprehensive plans are not legally binding plans but are instead seen as guidelines for the long-term planning of various areas. Detailed plans of smaller defined areas within the municipalities are on the other hand legally binding (SFS, 1987:10).

Even though the municipal planning monopoly is used in Sweden, other Swedish laws and regulations must also be taken into consideration and might take precedence over the municipal planning monopoly. One of these laws are the Swedish system of national interests. National interests in Sweden includes a wide variety of areas such as military interests, protected areas, environmental protection, fishery, harbours and cultural important areas (SFS, 1998:808). It falls on the municipalities to interpret and demonstrate how the various national interests are to be accommodated into their comprehensive plans (The National Board of Housing, 2017b). When municipals are prioritizing different interests, national interest must always take precedence over municipal interests. Hence, the prioritisation of national interests in planning can only be in relation to other national interests (The National Board of Housing, 2016).

Another important law concerning the Swedish planning system is *The Environmental Code* (The Swedish Environmental Code, SFS, 1998:808). It says that when areas are planned they should be planned in a suitable way regarding location and where they are disposed. The overarching view of The Swedish Environmental Code is the idea that planning should be performed in a sustainable manner and aims to target the economical and ecological aspects as well as considering social pillars. An example of this can be seen in chapter three and four in The Swedish Environmental Code where protection of the environment and the livelihoods of those living from the land and water is regulated. The Swedish Environmental Code also tackles the economical aspects by saying that it should not prohibit or hinder economic activities such as tourism to get established (SFS 1998:808).

As the MSP gains momentum, there is also a need for regional planning of these areas in order for a successful outcome. For instance, when it comes to addressing issues like the spatial mismatches of ecosystems and administrative borders discussed by Crowder et.al. (2006) and to achieve the four main goals of MSP set up by the EU (European Commission, 2017a). Although regional planning has been diminishing due to the municipal planning monopoly, there are possibilities through the *Planning and Building Act* to perform regional planning in Sweden (SFS, 1987:10). One objective of PBL is to handle cross border planning issues that might arise that individual municipalities do not have the possibility to handle. One way of handling these issues through PBL is to establish a regional planning board, which so far is a rare phenomenon as there at the moment exist one regional planning board in Sweden (The National Board of Housing, 2017c). At the moment there is however a new legislative proposal about regional physical planning in Sweden (Regeringen, 2018). When and where such an organisation is to be set up is decided by the government if the involved municipalities do not have extensive objections to the decision (SFS, 2010:900). The regional thinking in Swedish planning can also be seen in that when a municipality changes its current comprehensive plan they are to confer with the responsible County Administration Board in the region (SFS, 2010:900). Regional planning could therefore prove useful when marine spatial plans now are to be produced in the sea areas of Sweden (Crowder et.al. 2006; European Commission, 2017).

2.5 MARINE SPATIAL PLANNING IN SWEDEN

Although the municipalities have been required to plan their marine areas since the 1980s (SFS, 1987:10) physical planning of the sea areas in Sweden (MSP) is a relatively new idea. This means that while the planning process and methods on land are well tried and tested, the planning of the seas in Swedish conditions is something of an unknown. The Swedish government has on a national level tasked SwAM with the physical planning of the seas in Sweden in the areas around the Swedish coastline. To carry out this implementation SwAM has divided the coastline into three parts as seen in figure 4, Gulf of Bothnia, the Baltic sea and the Western sea, by SwAM defined as the Swedish exclusive economic zone (EEZ) of Kattegat & Skagerack (SwAM, 2018).

Figure 4 - showing the areas of the three national marine plans in Sweden. Map adapted from SwAM (SwAM, 2018

Municipalities are responsible for planning the seas to their administrative borders while the state is responsible for parts of the seas outside of the municipal ones as can be seen in figure 5. There are however overlapping areas between the different plans and directives. The overlapping and the production of national marine plans by 2012 makes the planning situation even more complex for the municipalities since the national and municipal plans must be adjusted to one another. Furthermore, the municipalities, if they are to have a say in how the national marine plans are designed, has to have their own interests and plans ready. The importance of this is that having ready made municipal marine plans can work as a means for them to put forward their own arguments toward the state when prioritasions are to be made.

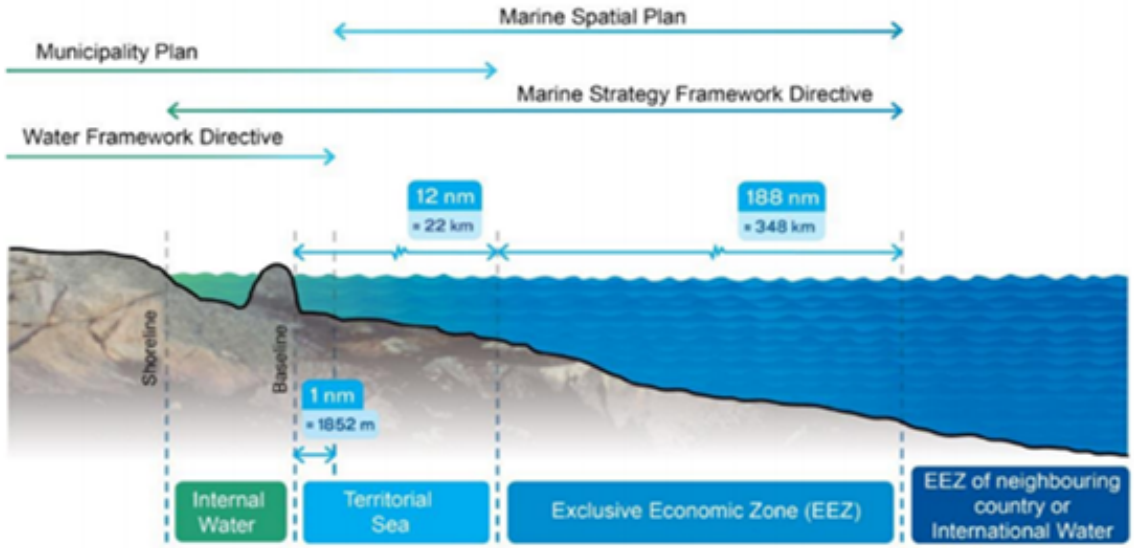

Figure 5 - Taken from SwAM 2018. https://www.havochvatten.se/hav/samordning--fakta/havsplanering/om-havsplanering/vad-ar-havsplanering.html

2.6 MARINE SPATIAL PLANNING IN A LOCAL CONTEXT

In Sweden there are several projects and strategies underway in various municipalities to approach MSP. Some municipalities have worked with MSP for several years, while others have recently started. In the northern part of Bohuslän, which is located on the Swedish west coast, four municipalities (Lysekil, Strömstad, Tanum and Sotenäs) have a long-standing collaboration called *Tillväxt Norra Bohuslän*. They work towards a common marine plan that will function as a foundation for the municipalities work with physical planning of the seas. So far, they have published a draft of a marine plan that is soon to be adopted and they are therefore seen as precursors for many other municipalities (Tillväxt Norra Bohuslän, 2017).

South of the northern part of Bohuslän there is an ongoing regional project where the Göteborg Region Association of Local Authorities (GR) coordinate the coastal municipalities included in the region (Kungsbacka, Göteborg, Kungälv, Stenungsund, Tjörn and Öckerö) as well as Orust and Uddevalla in their coastal and marine planning process. The main aim of the project is to promote increased cooperation between the municipalities and by a deepened analysis develop a regional plan of the coastal zones and marine areas which should include both growth and preservation (Göteborgsregionen, 2017). This regional plan is intended to function as a

guideline for the municipalities in their individual coastal and marine planning (Göteborgsregionen, n.d.). In the case of MSP, GR works as a project coordinator, while the responsibility to develop marine plans within the municipality still falls on the municipality itself (Göteborgsregionen, 2017).

Other municipalities have so far chosen to approach marine planning on their own. For example, Lomma municipality has worked with MSP since 2006 and adapted a marine spatial plan in 2010 (Lomma municipality, 2017; Lomma municipality, 2011). Another municipality that is approaching marine planning individually is Varberg where the process is just taking off in a more organized way (Enhus, Tano & Fyhr, 2017).

3. THEORETICAL FRAMEWORK

Geography is a discipline where there is a focus on using an integrated spatial perspective to map and study different relations and connections. Spatial planning and scales are central concepts within geography and MSP. The topic of this study is the process of planning the seas with a focus on human geography. By mapping municipal processes of MSP in Sweden this study contributes with a municipal perspective of how to work with MSP, environment and growth, how to merge terrestrial and marine planning and the use of a holistic perspective in the discussions of spatial planning.

In this chapter the theoretical perspectives deemed relevant for this study is highlighted. The theory chapter is separated into two sections: *A sustainable view on planning and An integrated view on planning*. The selected arguments around sustainable development were chosen for their ideas of the need to bring the sustainable development discussion to a more personal and/ or local level such as the municipalities, which is where the study is performed. Some opposing arguments about weak and strong sustainability are included linking the theoretical framework to the desired sustainable Blue Growth and to show yet another level of complexity for the municipalities in their efforts to achieve sustainable sea areas. Furthermore, the theories brought up in the chapter regarding planning handles areas of relevance for the study such as the difficulties the municipalities face with linking their terrestrial planning to the marine areas and the role of the planners in this process. Lastly the importance of stakeholder involvement and local participation to achieve a sustainable planning regime links back to the sustainable development discussion. Important is that the sections do not stand alone but are connected and affect each other.

3.1 A SUSTAINABLE VIEW ON PLANNING

This part of the theory will focus on how MSP can be a part of sustainable development and a way to achieve sustainable seas. Since an ambition with MSP is to achieve sustainable seas through physical planning, sustainable development as theory is a central part in this study and this chapter. One of the permeating concepts of this study and MSP is sustainable development. Sustainable development is seen as the process to achieve sustainability which in turn can be divided into both weak and strong sustainability. Connecting sustainable development to the municipalities overarching work with MSP, their understanding of the need for an integrated planning between land and sea areas and the ambitions of growth and environment to cater for the needs of different interests and locals are some of the major tasks facing the Swedish municipalities in the coming planning process.

3.1.1 A SUSTAINABLE VIEW ON PLANNING: DIFFERENT SCALES AND AN AMBIGUOUS CONCEPT

Sustainable development is included in MSP on several scales, from a global level and the SDGs where goal no 14 covers sustainable seas (United Nations n.d.c), within the European context of MSP in the MSP- directive (European commission, 2017a), on a national scale in Sweden the environmental goals and to a local level where the municipalities deals with sustainability issues in their everyday planning (Swedish Environmental Protection Agency, 2016). At a first glance, sustainability can seem a relatively straightforward concept. There are however several discussions regarding the interpretations of the concept and what should be included in it. Fowke & Prasad for instance, has identified around 80 various definitions regarding sustainable development showing the difficulty in creating an all-encompassing sustainability concept (1996, p. 61).

The most well-known definition, which is widely used nowadays is the definition by the World Commision of Environment and Development (WCED) *"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs"* (World Commission on Environment and Development, 1987). This definition was established by the Brundtland Commission in 1987 (WCED, 1987). Its overriding message is that we should strive for development without impacting the possibilities for new generations to cater their needs. The WCED definition is visualized containing three “pillars”: social, economic and environmental.

These three pillars have in turn been reformulated by Jon Elkington in 1995 as the three Ps: *People*, *Planet* and *Profit or Prosperity*, also called the *Triple Bottom Line* (TBL) (Elkington, 1999). The social pillar focuses on human resources and treating people and the relations with others well. The economic pillar in turn represents profit or prosperity, which aims for example to add value by building company brands and lower their costs as well as by protecting softer values, such as cultural and natural, to increase profits. Lastly the environmental pillar represents planet, which aims to deal with issues caused by anthropogenic activities from for example businesses, such as climate change and ecosystem depletion (Elkington, 1999; Elkington, 2013).

The TBL has been and is still, widely used by for example nations and organisations in their work with sustainability at different scales. Eco-efficiency was a term already used at the 1970's, but due to the definitions of sustainable development and the World Business Council on Sustainable Development (WBCSD) use of the term, it got a boost in the 1990's (Elkington, 2013). WBCSD's use of eco-efficiency has a perspective where work and development are ongoing but decreases the impact on natural resources. In other words, an increased amount of goods produced that are consumed with less impact and use of natural resources, leading to economic growth (Elkington, 2013; International Institute for Sustainable Development, 2013). Both WCED´s and later Elkingtons definitions of the different pillars are however debated and receives quite some criticism among both researchers and others. For example, Seghezzo, 2009; Hawkes, 2001; O´Neil, 2018 & UNESCO, 2001 raises various questions and critiques. These critiques include that the definition is anthropocentric and to a degree misses out on timescales and spatial insufficiencies (Seghezzo, 2009, p. 551).

In 2009, Lucas Seghezzo wrote *Five dimensions of sustainability,* a paper which problematize the concept and definition of sustainable development. Seghezzo argues that both the three pillars and the three P: s among other things separates human from nature, which prevents a holistic perspective (Seghezzo, 2009, p. 542). However, Seghezzo suggests a different way to approach sustainability. His triangle brings up three P: s, just like the previous model, but now with new content and meaning. Here the P: s stands for Place, Permanence and Persons. Furthermore, the corners of Seghezzo´s triangle contains the three concepts of *intra-generational justice, inter-generational justice* and *identity, happiness* (see figure 6). Firstly, the concept of intra-generational justice points to the importance of putting the sustainability into the context of where people live and through that creating a local scale justice between generations. Thereby creating a sense of belonging among the people within an area. Secondly,

the idea of inter-generational justice, taking into account the temporal aspect of how humans act today will have impacts over time. Third and lastly the identity, happiness idea which linked to people also brings sustainability to a local scale through dealing with issues like place identity, wellbeing, personal values and happiness. According to Seghezzo the three new P: s are defined as

> "... (a) Place, the three-dimensional physical and geographical, but also culturally constructed space where we live and interact, should be more adequately represented in a sustainability paradigm; (b) Permanence, the fourth, temporal dimension, has been largely neglected in the sustainability debate, in spite of the widespread recognition of the potential long-term effects of our actions, and all the inter-generational justice rhetoric; and that (c) Persons, the fifth dimension, a symbol of people as individual human beings and not as undifferentiated members of society…" (Seghezzo, 2009, p 540).

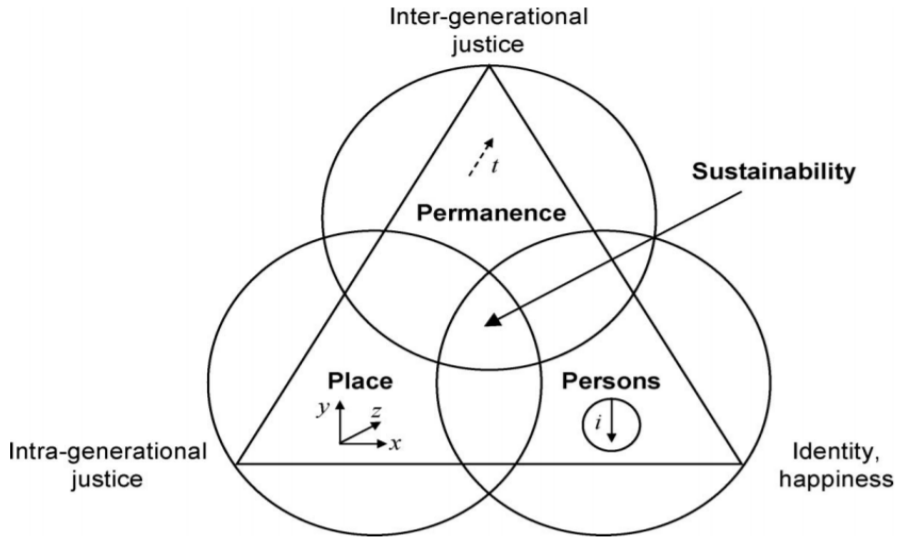

Figure 6: Taken from *Five dimensions of sustainability,* Seghezzo's suggestion of a new sustainability triangle, showing the five dimensions: Place which has three dimensions (x, y and z), Permanence and Persons (Seghezzo, 2009, p. 548).

The thoughts of Seghezzo regarding sustainable development and sustainability puts the local perspective all the way down to the individual persons in focus. In this way, his theories link to the Swedish planning system of today, in which stakeholder involvement is an important part (Morf, 2005). While Seghezzo touches on the matter through the inclusion of cultural constructed space as lacking in his critique, O´Neil takes this one step further through her thoughts around the introduction of *"Perception politics"* into the concept of sustainable development. Perception politics in this context, must not be confused with politics as such but rather consists of both the perceived, imagined and the real impacts of politics, discourse and political parties. *Perception politics*, she argues has consequences across the four categories of *society, politics, natural environment* and *businesses* and therefore on the sustainable development (2018, p. 19).

In short, within this line of thinking O´Neil defines these categories as follows: First, *Business* is defined as small or large organisations the are working outside of the governmental control but still within the rules and regulations of it. It is seen as a sector that has a great capacity to affect policies, how they are designed and such in the political area. Thereby also affecting the overall *society* and the *natural environment*. Second, *Politics* is thought of as the political parties as well as policymakers. In other words, the ones putting forward and implementing the laws and policies, thus affecting the other categories in various ways, among others, the impact on the *natural environment* by business and society. Third, *Society* is referring to the all people residing in a specific area and do not have positions within the business and/ or political categories. The category of *society* is primarily affected by the *business* and *political* categories while att the same time having an effect on these categories through responses, beliefs and activities. The *society* category also has the possibility to directly influence the category of *natural environment.* Fourth and last there is the category of *Natural environment.* This is defined by O´Neil as regions with combined interaction of flora and fauna occuring in a natural manner as well as climate and weather. The natural environment is seen as having the ability to impact all other categories as well as itself being impacted by them (2018, p. 25, 26).

The argument for this inclusion of perception politics is the profound effect, according to O´Neil, that these perception politics can have on sustainable development through increased links and connections between the different areas of sustainable development. She sees them as:

> "... imperative to improve relations and collaborations between business, politics, society and the natural environment can no longer be viewed as an optional activity, but rather, a necessity, especially in the area of sustainable development journey." (O´Neil, 2018, p. 20).

Adding further perceptive and at times immeasurable (2018, p. 33) public perception to politics makes the concept of sustainable development an even more complex concept to fully grasp.

The third and final critique this chapter brings up against the simplification of sustainable development into the three pillars comes from inter alia United Nations Educational, Scientific and Cultural Organization (UNESCO) and Jon Hawkes. Starting with UNESCO its role is to make the importance of culture permeate through the work in sustainable development for example through the SDGs and through *The UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions* (Throsby, 2012). UNESCO stresses the importance of culture and states

> "Culture is who we are and what shapes our identity. No development can be sustainable without including culture." (UNESCO n.d.[b]).

This is concurrent with Hawkes ideas where he too argues that the triple bottom line can be seen as concepts exclusively promoting an economic worldview. That a truly sustainable development must include a sustainable culture, claiming that flourishing culture and sustainable development are dependent on one another (Hawkes, 2001, p. 9). Hawkes is not seeing culture as something constant but rather something dynamic, changing and vital. As such, a living and vibrating culture can contribute to sustainable development throughout societies, much like diversity in ecosystems strengthens sustainability in the natural environment, through cultural diversity in ideas, values and perspectives (Hawkes, 2001, p. 14, 22). Hawkes view on culture as ever-changing follows Kidd & Ellis (2012) reasoning of shifts in the physical planning which can be seen in figure 7, making it an argument for culture as having impacts in the physical planning process.

3.1.2 A SUSTAINABLE VIEW ON PLANNING: WEAK OR STRONG SUSTAINABILITY

In the discussions around sustainability the terms weak and strong sustainability are two well established and highly debated concepts. Ranging from the very weak sustainability such as the one extreme put forward by Solow as

> "The world can, in effect, get along without natural resources, so exhaustion is just an event, not a catastrophe." (Solow, 1974, p. 11)

to the very strong, as Gibbs, Longhurst, & Braithwaite points out

> "Strong versions of sustainable development begin from a presumption that society cannot simply let economic activity result in a continual decline in the quality and functions of the environment, even though it may be beneficial in other ways" (Gibbs, Longhurst, & Braithwaite, 1998, p. 1352).

While the ultimate goal of the two is sustainability, the path and effects of the two approaches differs substantially, one a more anthropocentric approach (Seghezzo, 2009), while the other takes a more environmentalist way of approaching the subject (Williams & Millington, 2004).

Weak sustainability is a line of thinking around sustainability that a sustainable way forward is to incorporate the natural environment into a framework consisting economic structures (Roome, 2011). It is also an approach that to a higher degree than the strong sustainability, promotes the idea that human society in a way is separated from nature and that nature is there merely as a resource to use by human society (Williams & Millington, 2004).

An argument for weak sustainability is that the natural and human made resources to a great degree is possible to interchange (Hopwood, Mellor & O'Brien, 2005). The idea is that if a certain natural resource is depleted it can still be seen sustainable as long as the particular resource is converted in such a way it forms a surplus of another, perhaps refined resource (Dietz & Neumayer, 2007). For instance, cutting a forest to produce furniture or houses can be viewed as a form of transferring the natural to the human/ economic sphere of sustainability without using resources in an unsustainable way. Weak sustainability in this manner can be said to be a search for perfect balance between extraction of resources from the natural environment and the use of these extracted resources. This in a way that the process does not reduce the combined capital stock over time. To do so means, according to those advocating weak sustainability, a requirement of technological advances that can continue to improve the

wellbeing of humans even when depletion and damage is done to the natural environment (Bioscience, 2012).

There are suggestions that those campaigning for the weak sustainability approach are somewhat more optimistic to technological advances, possibilities and interchangeability of the natural and human areas of sustainability (Bioscience, 2012; Williams & Millington, 2004). These proponents argue that today evidence exists, which strengthens their argument of weak sustainability. The depletion of natural resources and ecosystems in many places around the world is ongoing while at the same time the human wellbeing has increased is discussed as the "environmentalist paradox" by Raudsepp-Hearne et.al. in "The Paradox Persists: How to Resolve It?" (2011).

Strong sustainability suggests that natural resources should be maintained at appropriate levels (Bioscience, 2012). As opposed to the weak sustainability approach, proponents of the strong argues that you cannot see human society as something separated from the natural world and that these two "worlds" must become integrated and complementing each other to reach true sustainability. Quite the opposite what the weak sustainability advocates, it is in the strong sustainability thought that the nature and species living there, just as humans, have rights and should be protected. There is also a strong belief that resources have a definite limit and that if we as humans do not adapt our demands or our outtake of these resources, the earth will as a result in the end become uninhabitable (Roome, 2011; Bioscience, 2012).

In strong sustainability there is, not surprisingly, a lot of criticism aimed at the weak sustainability approach. It is argued that weak sustainability paints a far to simplistic picture of the sustainability issues and that there are in fact natural resources and processes that humanity simply cannot reproduce, for example water cycle and photosynthesis. Some argues that non-human species and indeed eco-systems as a whole, have the right to exist and to do so in a manner that does not threaten them (Hopwood et.al. 2005). Additionally, there are questions raised on whether it is possible to put economic value on the services provided by the environment and how to value the cultivated forests and farmlands. Should one value human or natural capital? This last question works both ways since both weak and strong sustainability approaches assumes that economic value of some sort can be placed on everything provided within the system (Bioscience, 2012).

3.1.3 A SUSTAINABLE VIEW ON PLANNING: SUMMARY

This chapter has shown a glimpse of the complexity and debates surrounding the concept of sustainable development. There are a variety of definitions and interpretations within sustainable development itself, but also between the weak and strong sustainability approaches. One example of a definition is the most commonly used one from WCED, which is criticised for being too simplistic by among others Seghezzo (2009), who instead brings the sustainable development down to a more local level. The approaches and perspectives will be used in the analyze of how the Swedish coastal municipalities work with MSP.

3.2 AN INTEGRATED VIEW ON PLANNING

This part of the theory will focus on approaches and methods within a planning process, the link between terrestrial and marine planning and Blue Growth. In the Swedish planning process, the municipalities have monopoly when planning their land and sea areas. However, they have to take directives and the various stakeholder interests into account, such as environment, tourism and employment. Physical planning in Sweden is, among other things, seen as a tool to steer the society as a whole into a more sustainable direction (The National Board of Housing, 2017). While the methods and tools surrounding the spatial planning of terrestrial areas often has had many decades to learn, evolve, adapt and improve, MSP is still an uncharted area both for policy- and decision-makers, planners and other actors involved. Connecting the familiar terrestrial spatial planning with the newer MSP is one of the major tasks facing the Swedish municipalities in the coming planning process.

3.2.1 AN INTEGRATED VIEW ON PLANNING: PLANNING APPROACHES

> ” The fundamental task in planning is to interlink knowledge and action. How and when does the knowledge affect decisions? How should the planning process be organised to make the creation and the use of the knowledge as effective as possible? In planning there are three parts: Learning, decision-making and action.” (Khakee, 2000, p. 25).

There are several different strategies and approaches in planning. Due to norms and discourses these various methods and strategies have changed and evolved over time. These approaches are well tested in terrestrial planning, while they are relatively untested in MSP. Contrary to planning land areas, seas are without physical borders and there is therefore in MSP often a need for planning across borders and applying a regional planning perspective (European commission, 2017a).

Previous research shows that one issue in spatial planning is to find ways on how to monitor and evaluate the effects spatial planning has on the planned areas, a challenge also true for MSP where monitoring, evaluating and then adapting the plans are important feature in the process (Douvere & Ehler, 2011). In the Swedish planning process, the planning authorities sees the use of planning indicators as an important part of evaluating progress of plans in relation to the goals and aims of the comprehensive planning. By doing so, the responsible actors in the process has a system for evaluating the planning. For example, the municipality in relation to other Swedish municipalities which have various goals of sustainable development on national and local scales, both geographically and temporally (The National Board of Housing, 2017d). The importance of planning indicators is brought up also by Nystrom & Tonell (2012, p. 135, 136) as well as Ranhagen & Schylberg who points to planning indicators as a way to break down national goals to the local level and to identify conflicts, possible collaborations and synergies in the process (2004, p. 24, 33). To do so the planning indicators of a specific plan should be carefully selected and relevant for the plan (Naturvårdverket, 1999). They should contain criteria such as future physical structures and activities in the planning area, be possible to express in spatial terms related to future alternatives in the planning area and be relatable to the goals that the plan is said to aim for. Examples brought up by The National Board of Housing (2007, p. 34) is the balance between environment and built up areas, accessibility to facilities/green areas/coastline and distance to meeting places. The use of planning indicators is seen as an important help for planners and decision makers when evaluating the effects of their decisions to identify if problems such as conflicts between various goals in the planning has been resolved, unaffected or worsened by the decisions made (The National Board of Housing, Swedish Environmental Protection Agency, 2000).

Due to the fact that planning culture and political will change over time, organisational changes are important. Andrea Morf writes that there is a need to develop, create and restructure current administrative organisations in a way that makes them more suitable for the land and sea integration task at hand. She highlights the importance of local knowledge, collaborations, adaption and stakeholders' participation in planning processes (2005). It is beneficial to include local stakeholders early in the process, because of both time savings and ease of gaining knowledge and insights, resulting in fewer complaints that might hinder the planning process further down the line (Khakee, 2000, p. 34, 35). However, it is a danger that a group of stakeholders with more resources: time, money and knowledge, can dominate the planning process (Bohm, 1985). This shows the importance of a well performed stakeholder analysis,

where the responsible planning authorities investigates all stakeholder groups that might be affected by the planning and therefore can invite and encourage even the weaker groups to attend meetings, expressing their concerns, opinions and so forth (Pomeroy & Douvere, 2008; Gopnik et al. 2012).

Other issues with marine spatial planning is "spatial mismatches" where on one side the administrative scale tasked with planning with an ecosystem approach and on the other the scale of the ecosystem itself often covering vastly larger areas (Crowder et.al. 2006). Studies performed in the UK, for example Douvere & Ehler, sees the regional planning as important to counter these mismatches (2009, p. 82). Furthermore, Agardy, Di Sciara & Christie highlights that not only is regional plans important to counter spatial mismatches, but they can also be more cost effective and efficient than smaller administrative areas all planning their own part of the sea areas (2011, p. 230). This shows that MSP is also required to embrace a holistic approach not only in terms of the environmental and growth sides of the planning, but also across geographical scales since local problems and challenges might be affected by planning on larger scales (Kidd & Shaw, 2014). This is also true using a reverse perspective where planning locally might have adverse effects on much larger scales.

Another challenge of integrating or moving planning into the seas is the perceived infringement by various levels of administration on the previously "free" area of the seas, creating a sense of top-down decision making by some. On the other hand, many of the citizens of an area might not have a genuine interest in what plans are made for the sea and in such cases, there might be difficulties in conducting the communicative planning used on land (Smith et.al. 2011).

3.2.2 AN INTEGRATED VIEW ON PLANNING: LINKING TERRESTRIAL PLANNING TO THE SEA

The marine spatial planning is closely linked to the planning performed on land, not because the planning must be implemented in the same way, but how they are dependent on each other. The connections between land and sea are strong and planning just one will not be enough for a sustainable development (EU directive framework, MSP, 2014). Smith et.al choses to highlight five areas to consider when taking management into account in an integrated land-sea planning:

“

- (1) organisations and decision-making involved and related geographical scales;
- (2) the relationships between technical management tools and associated professional practice on the one hand, and spatial planning on the other;
- (3) the role of policy;
- (4) the role of strategic planning by organisations in public, private and voluntary sectors; and
- (5) the time scales involved in the evolution of national, local and supranational (European Union [EU]) based systems of spatial planning on both land and sea, out to the limits of the Exclusive Economic Zone and beyond.” - (Smith et.al. 2011, p. 300).

The MSP is in this context seen by many as a viable way to stop both the current degradation of the marine environment, as well as providing growth and development for the local societies and humans depending on the seas (Claydon, 2006). This current discourse highlights the importance of including marine areas into the physical planning. It also argues that planners working with matters of the land also can take the step into the water, bringing their knowledge and expertise of the terrestrial planning and finding new ways to use this in a marine environment (Claydon, 2006). Linking the argument for the planners to previous planning approaches in this chapter there are some traits that planners might bring to the table when planning the seas. For example, the understanding of the policy landscape, the ability to identify and include stakeholders on various levels and scales, the forward temporal thinking when planning and perhaps the most important areas linked to this study, the knowledge of how to integrate, hopefully in a sustainable way, different interests in place and space (Claydon, 2006). The same line of reasoning around the local, or in this case the national planning level regime, can also be found in Smith, Maes, Stojanovic, & Ballinger where the emergence of planning the land has become established in their various forms through the specific administrative and social context of the various countries (Smith et. al. 2011, p. 294).

According to Gazzola et.al there is also a dilemma that can arise when MSP planners draws from the terrestrial planning for progress and knowledge. This might well be more efficient to drive the process forward. However, it might also lead to that different marine areas will be planned in a way not best suitable for them, but more from a terrestrial planning perspective (2015). In the marine areas there are also, even for those used to deal with planning on an everyday basis, new and complex difficulties to consider. A direct move from land to the sea with methods, tools and knowledge might not be possible when planning the seas. MSP with its spatial land inspired thinking can here come into play as a means to encompass the seas. It

can affect both horizontal integration in policies and geographical areas affected by this new area of planning and vertical integration in different scales of planning (Claydon, 2006). From the different requirements on MSP it is also evident that MSP in various local contexts will develop in numerous diverse ways, perhaps adding to the difficulty in producing all-covering marine plans such as the one currently underway in the European Union.

Smith et. al. (2011) points towards two areas of marine planning which makes it a more difficult area to plan. First, they lift the planning complexity which arises from the fact that the marine planning adds a third dimension to planning as compared to the more two-dimensional planning performed on land (2011, p. 297). Second, they discuss the limited knowledge of how to use and preserve marine areas that responsible planners and decision makers often have access to. For example, there are difficulties in how to plan with the ecosystem services approach, an important part of MSP, without having sufficient and correct knowledge of the ecosystem in question (2011, p. 297).

Another important geographical aspect of spatial planning, whether it is performed on land or in the seas, is the one of time scales. Different economic, environmental, cultural aspects and others are affected by the spatial planning over different time scales, which complicates the process. This is argued by some as forgotten in planning until later years and is a critical factor to account for when planning. Natural processes can have a timespan of decades or more, while other, often human processes, take place a few weeks each year (Smith et. al. 2011, p. 294). In many areas these various temporal processes take place simultaneously, making the planning more complex when trying to include them, making compromises along the way.

Since marine planning is aimed at optimizing both growth and preservation activities through allocating them spatially in the most efficient way, there is also the need to incorporate and include planning activities of the land into marine planning. This is true not only because of the possibility to use and adapt already existing methods and ideas applied on land in marine areas and as a way to integrate the social sciences more in what has been largely a natural sciences area (Kidd, & Shaw 2014, p. 1535), but also because of how the marine and terrestrial areas are linked to each other. For instance, in how human activities around coastlines, rivers and indeed the whole of various catchment areas flowing into the seas are performed (Smith et. al. 2011, p 297).

One way to integrate the land and sea planning is by many seen to go through the use of the already existent Integrated Coastal Zone Management (ICZM). However, on a larger scale such

as the European, this might be problematic, in part through the fact of different countries have developed the ICZM to suit the local preferences. In a way this correlates with the mentioned importance of adapting to local needs and wishes in both the sustainability and development discussion of this chapter. However, it poses yet another challenge on the supranational scale when different ideas and interests from various stakeholders in dissimilar ICZM: s might create integration problems. Coupled to the fact that ICZM is not designed to specifically fit into either land nor sea-planning can make this problematic (Smith et.al. 2011). Kidd and Ellis (2012, p. 54) discuss how the terrestrial planning in a mere century have gone through several shifts which still influences the planning, from the stage where planning was a design process to today where it is integrative and holistic. As can be seen in figure 7, the second stage can be put in relation with the rational planning, the third step with the communicative planning and the last step is how spatial planning can take place today.

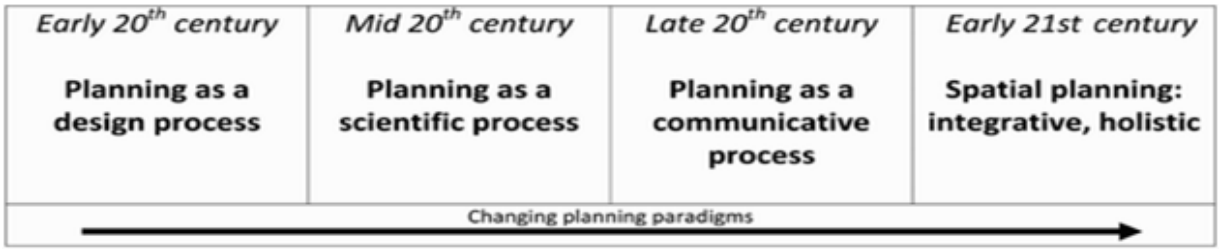

Figure 7 - Paradigm shifts in the terrestrial planning, taken from Kidd & Ellis, 2012.

It is likely that the MSP will follow a similar shifting path, if and when integrated to the land planning regimes. It can be argued that MSP already has been subject to one such shift when going from primarily an environmental preservation aim to a more growth oriented. With that in mind, there is much to learn from former methods, turns and regimes on land when planning steps into the water (Kidd & Ellis, 2012). As can be seen in figure 8 Kidd & Ellis put MSP as a more modern, quantitative approach, trying to encompass both stakeholder interests and scientific data (2012).

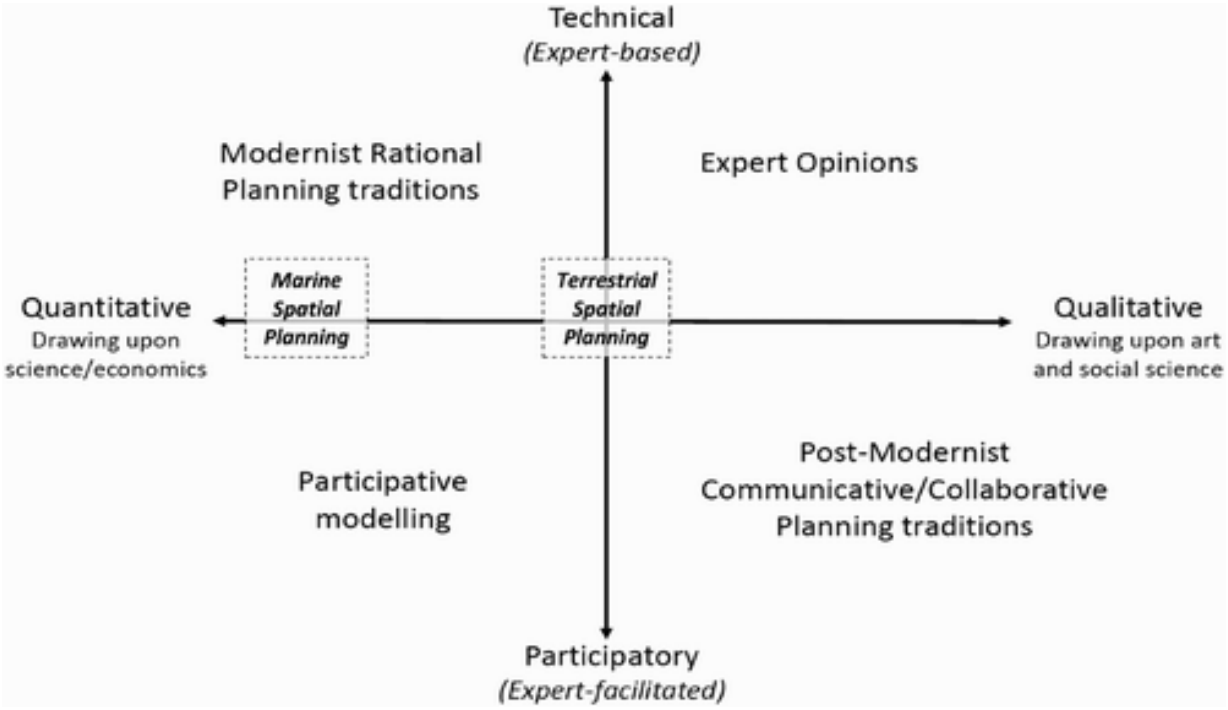

Figure 8 - MSP in relation to terrestrial planning, taken from Kidd & Ellis, 2012.

On the other hand, concerns have been raised saying that since MSP is unique, it needs to be addressed at the very least as something in need of a new conceptualisation of space (Gazzola et.al. 2015, p. 1156). There are discussions questioning if MSP should be performed or even described as traditional spatial planning but instead redefined and built from the experiences and learnings made in the sea (Jay, 2010, p. 174). Kerr, Johnson & Side doubt the possibility to fully integrate such diverse systems as land and sea (2014, p. 124) and show the many differences between the two that must be overcome, such as different dimensions and scales which can be seen in table 1 (Kerr et al. 2014).

Terrestrial environment	Marine environment
Building blocks • **Individual locations dominated by single land uses.** • **Absolute land ownership supported by law.** • **Little public land.** • **Enclosure of common land is a historic fact.** • **Private property rights held by individuals** • **Highly man modified environment**	*Building blocks* • **Multi user environment.** • **Important common rights (e.g., fish, navigation).** • **Seabed managed by state on behalf of the public.** • **Quasi-property rights being created.** • **High level of wildness**
Development control • **1943 Origins of modern planning.** • **Roots in modernist scientific approach.** • **Recent shift towards "*planning through debate*".** • **Development plans with zoning supported by planning permission and development control are the planning key tools.** • **Planning control limits the private rights of individual landowners.** • **Significant role for local authorities and local priorities to influence decisions.** • **Emerging mechanism for levering community benefits from renewable energy developments.**	*Development control* • **MSP is a recent phenomenon** • **MSP driven by competing interests of environmental protection and economic development** • **Extreme reluctance to zone areas for specific uses (in UK and US), results in case decision making** • **EIA key to decision making process.** • **Decision making power will be central driven by national priorities.** • **Limited scope for public to influence decisions** • **Less opportunity to leverage community benefits.**

Conservation	*Conservation*
• **Traditionally urban and rural planning treated separately.** • **Traditional conservation focuses on designation of small number of remaining sites which have high level of naturalness.** • **Well established network of conservation designations and sites.** • **Conservation designations driven by science.** • **Relatively well understood environment.** • **EU legislation increasingly important.**	• **Environment and development tension.** • **Difficulty identifying conservation priorities** • **Conservation interests often highly mobile or dispersed.** • **Specific locations of conservation value often impacted by off-site or transient pressures (e.g., pollution).** • **Incomplete knowledge of environment, physical processes & human impacts.** • **EU legislation increasingly important.**

Table 1: Showing differences in planning between land and sea areas: Kerr, Johnson, & Side. (2014). Planning at the edge: Integrating across the land sea divide. Marine Policy, 47, 118-125.

3.2.3 AN INTEGRATED VIEW ON PLANNING: BLUE GROWTH

Just as MSP is a relatively new concept for the seas, so is also the idea of blue growth as can be seen in this literature review performed by Mulazzani & Malorgio 2017 (figure 9), analysing how the terms blue growth or blue economy has risen in scientific literature since the invention of the concept.

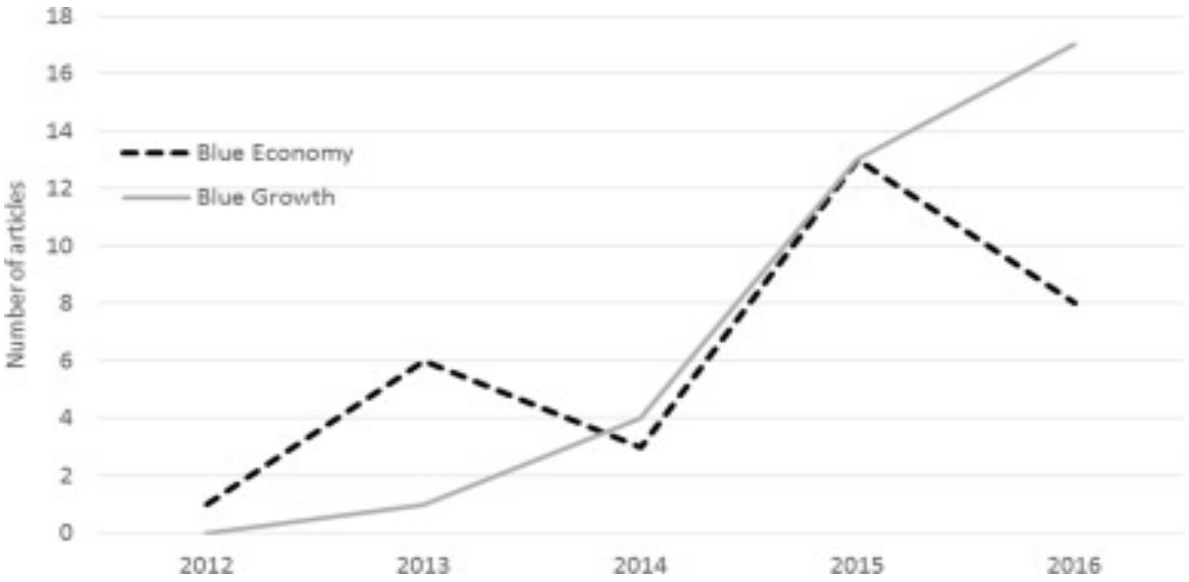

Figure 9 - Showing how the use of the concepts Blue Economy and Blue Growth has shifted since its creation. Adapted from Mulazzani & Malorgio (2017, p. 19).

Blue economy was first proposed in Rio de Janeiro 2012 at the United Nations Conference on Sustainable Development and is gradually being replaced with the term Blue growth. It has its roots in the terrestrial green economy (Soma et.al. 2018, p. 363) and advocates a use of marine resources that promotes economic growth in an environmentally and socially sustainable way. Globally, an estimated 540 million people are working in areas linked to seafood and post seafood sector. At the same time, 90 percent of the global trade moves across the seas (United Nations Environment Programme 2013, p. 10, 11) and it is believed that approximately one billion people are dependent on the seas for sustenance (Clark Howard 2018, p. 376). Moreover, an estimated 40 percent of the world's population are living within 100 kilometres from the seas, many in the large and rapidly growing cities situated directly or in close proximity to the coastline (United Nations Environment Programme 2013, p. 10). When analysing the use of these various definitions and condensing them in an attempt to put Blue Growth into something possible to measure and calculate merging them into a single one, Smith-Godfrey comes to the conclusion of having a working definition as: *"the sustainable industrialisation of the oceans to the benefit of all"* (Smith-Godfrey, 2016, p. 60). By this definition it is argued that the different sides of sustainable development can all be parts of the thinking of Blue Growth, allowing for balance between them (Smith-Godfrey, 2016, p. 63).

According to Smith-Godfrey (2016) the concept Blue Growth highlights the need of integrating conservation and sustainability in the marine management but is in need of some form of working definition. Today, Smith-Godfrey as well as Mulazzani & Malorgio (2017, p. 17) and Eikeset et.al. (2018, p. 177) has found that the concept of Blue Growth has several definitions, making the concept complex to use when linking it to the sustainability desired in the marine areas. As the Blue Growth is strongly linked to sustainability it also ties into the questions of weak and/or strong sustainability (as described in chapter 3.1.2) in how it is to prioritize between the economic growth and the challenge of good environmental status (Frazão Santos et.al. 2014, p. 61). Doing this prioritization, many of the countries now producing MSP-plans chooses the weak sustainability approach, again indicating that Blue Growth is taking precedence of preservation (Frazão Santos et. al. 2014, p. 62) & (Mulazzani, & Malorgio 2017, p. 23).

3.2.3.1 AN INTEGRATED VIEW ON PLANNING: BLUE GROWTH - FROM THEORY TO PRACTICE

Jones, Lieberknecht, & Qiu stresses the issue that MSP works differently in theory and practice. They see the economic development is taking precedence over other desired outcomes in MSP, for example when it comes to Good Environmental Status (GES). In part this can happen because of the various goals in EU policies. The Maritime Strategy Framework Directive (MSFD) aims at reaching GES through an ecosystem-based approach, while the Integrated Maritime Policy (IMP) is focused on the economic development side of MSP through Blue Growth (2016, p. 261) & (Soma et.al. 2018, p. 368). While these policies are designed to be able to integrate with each other, there are according to Jones et. al. stronger writings in IMP around the economic development making it easier for decision makers and planners to weight decisions towards Blue Growth (2016, p. 261). Jones et.al. can through case studies conclude that the two policies mentioned seemingly does not function in a synergistic way, but instead at times work as opposing each other (2016, p. 262). Meanwhile they connect their findings with those who feel that MSP has been turned to economic growth instead of environmental preservation, which it in the beginning was set out to accomplish (2016, p. 262).

Aside from the previously discussed issues of Blue Growth as being prioritised by decision makers, Soma et.al points to Blue Growth thinking as something dependent on technological advances in marine areas and that the importance of the social dimension is somewhat forgotten in blue growth discussions (2018). The social dimension consists of for example laws and regulations and social norms that might have been affected by earlier experiences with technological advances, good or bad, having effects on the technological view of a society (Soma et.al. 2018, p. 363). The EU countries are also required to perform a social analysis when planning their seas (Mulazzani, & Malorgio 2017, p. 18). Moreover, the social dimension comes into play when deciding who has the right to have access and perform blue growth in the marine areas. Whether it is the public or private sector, in what manner they are to be combined are important questions to be considered in Blue Growth (Soma et.al. 2018, p. 368).

3.2.3.2 AN INTEGRATED VIEW ON PLANNING: BLUE GROWTH - BALANCES AMONG STAKEHOLDERS

The issue of who's interests, public or private, that are to be prioritized in planning the seas is something Barbesgaard highlights when discussing and comparing Blue Growth to the ongoing land grabbing. Barbesgaard problematizes Blue Growth as perhaps not being the saviour of the seas but instead a form of "ocean grabbing", a view of Blue Growth that sees big multinational corporations and other strong stakeholders as grabbing the seas resources at the expense of small scale users (2018), in such a way that they can dictate both current and future use of sea areas (Barbesgaard, 2018, p. 131). Blue Growth is therefore not seen as the answer to degrading seas, but instead just a way to move the rights and control from weaker stakeholders to the stronger ones; a blue version of the tragedy of the commons (Barbesgaard, 2018, p. 134, 145).

Stakeholders role in blue growth is, just as in the overarching work with MSP, important to the process. The importance of stakeholders is stressed as being the ones able to make or break goals set by UN, EU and other entities (Clark Howard, 2018, p. 375). This is exemplified with small scale fisheries as being overpowered by multinational companies using scale economies to compete. According to Clark Howard there is a need to gather these different stakeholders' views together in a way that can lead to understanding and to future collaboration resulting in a more sustainable blue growth. Furthermore, it is important to make the industry a part of the solution instead of a part of the problem (Clark Howard, 2018, p. 376). Another important group of stakeholders are the consumers that can affect the way the seas are used. They can influence by demanding products which are traceable, environmentally friendly and socially produced in a sustainable way (Clark Howard, 2018, p. 377). Like MSP is supposed to be carried out in a participative manner by including stakeholders, so is Blue Growth. Furthermore, in EU the integration of different uses along coastlines is encouraged to achieve blue growth and thereby promoting integration of various activities in a way similar to the ideas of MSP (Soma et.al 2018, p. 364, 365). Despite the apparent risks, diverse definitions, contradictions in policies and other mismatches brought up in this part of the chapter there are reason to believe that Blue Growth could be a useful strategy when trying to achieve good environmental status (Eikset et.al. 2018, p. 179).

3.2.4 AN INTEGRATED VIEW ON PLANNING: SUMMARY

In this part of the theoretical chapter theories of planning approaches, integrating terrestrial and marine planning and Blue Growth have been presented. When approaches to planning have been developed the value of including stakeholders and citizens in the planning process has been emphasized. The chapter has shown that doing so is thought of as a way to get their acceptance for the decisions and choices made when planning and thereby avoiding difficulties later in the process. It has also been shown that in MSP there is a need to integrate both land and sea areas in the planning using a holistic perspective. Lastly, Blue Growth has been brought up as a strategy which could function as a guideline when balances must be made.

3.3 THEORETICAL SUMMARY

The theories brought up in the chapter have been about planning approaches, the connection between land and sea areas, Blue Growth, sustainable development as concept and two of the main inputs in sustainable development: weak and strong sustainability. They will be used to analyze and discuss the collected data from interviews and the survey.

The theory of sustainable development and its various definitions is used to analyze how the municipalities aims to make their MSP sustainable and if there are any clear directions and decisions about weak or strong sustainability. The theory of approaches will be used to analyze how Swedish coastal municipalities work with MSP. Theory of integrating sea and land areas in planning will be used to analyze if, and how, the municipalities deals with that part in their planning. Blue Growth as theory is used to analyze how municipalities tackle the problems that arises when there are different interests involved and balances must be made.

The next part in the thesis is about our method, which have been chosen in relation to our theory and the thesis aim and research questions. The theoretical part has shown a glimpse of the complexity in sustainable development and the need of relevant knowledge to make decisions, which is one reason why a mixed method has been used. The theory and the method have been developed in interaction with each other during the study's work process, making abduction a relevant approach.

4. METHOD

The thesis aims to map how Swedish municipalities work with MSP. A thematic disposition into three themes was made in the beginning of the work process. The first theme deals with the municipal work processes of marine spatial planning, the second theme deals with marine spatial planning and the synergies between other marine and terrestrial areas, and the last and third theme deals with the combination of environment and growth in marine spatial planning. The methods used in this study are semi-structured interviews and survey, which are further described in this part of the thesis. Even though the methods differ depending on the theme, they are still used to various degrees in all three themes.

4.1 ABDUCTIVE APPROACH

The study is based on an abductive approach, in which the process can be said to consist of an alternating use of theory and data and as such can be described as a mixture of inductive and deductive method (Gren & Hallin, 2003, p. 36). This study uses an abductive method when obtaining information to answer the research questions. The starting point of abduction is gathering of empirical data, which later can be interpreted so that conclusions can be made, and new ideas can arise (Reichertz, 2014, p. 126). Abduction has been the prefered method for this study. A series of interviews have been made, serving as a basis for a survey that later was sent to all Swedish coastal municipalities. The interview guide was when created based on the theory of this study. The theory, interview guide and the survey have all been developed in parallel and have affected one another, as described by Esaiasson et al. (2012, p. 276). This way of working was evaluated as suitable for this kind of study, because of how data was accessible, how conclusions could be made when targeting the aim of the study, and how it offered a way of linking the methodological approach with the pragmatic approach. The alternating of theory and data of the abductive approach mixed with the openness to adapt and interpret in the pragmatic approach makes the two approaches closely related (Aliseda, 2005, p. 363, 372). In combination with the use of mixed methods discussed later in this chapter this methodological approach was seen as the best fit for the study and its challenges.

4.2 PRAGMATIC APPROACH

An abductive approach was chosen as the main methodological approach for this study. However, even in science there is sometimes a need for principles to be tempered with in order for them to be practical. Hence a pragmatic method approach is an equally important part of this thesis. The reasoning behind this decision is twofold. First, using the pragmatic method allows for the researcher, in combination with a strategic selection, to adapt the selective procedure to unforeseen circumstances when for example, trying to find the most suitable interviewees for a study (Esaiasson et al, 2012, p. 190). Regarding interviewing in social sciences, the pragmatic approach is also seen as suitable for this thesis since it uses interviews as one of its main methods. Furthermore, the pragmatic approach to research does not take a definitive stance on the true nature of the world (Hartman, 2004, p. 43). Instead, the pragmatic approach sees dialogue and discussions as a fundamental producer of knowledge (Kvale & Brinkmann, 2014, p. 75). The interviews in this study can therefore be argued to be using a pragmatic approach.

The second reason for using the pragmatic method approach in this thesis is because how it uses a mix between qualitative and quantitative methods, further discussed in the next paragraph. In a pragmatic approach, the derived mixed method data is regarded as different ways of engaging and studying the world. This without grading the data from the research, but instead seeing it as various consequences of the methods used (Biesta, 2010). Advocates of the pragmatic approach suggests the use of mixed methods in studies as a way to advance science beyond the qualitative/ quantitative paradigm conflict. It is further argued that qualitative and quantitative methods do not have to be purely hermeneutic or positivistic. It is therefore believed that it is the research questions that are the deciders of which methods should be used instead of the researcher risking getting stuck within methodological purity of a certain method (Onwuegbuzie & Leech, 2005, p. 377). Researchers using pragmatic ideas could also be said both to be less reluctant to collaboration between scientists from different philosophical schools and fields as well as combining data from different investigated scales. Making the researchers prone to the use of a more holistic scientific view (2005, p. 383). Since this study was written for the scientific field of geography, the pragmatic approach is seen as suitable because of the different natural and cultural aspects faced in a study of this kind. With the theoretical chapter in mind the pragmatic approach is also useful due to the new and uncertain situations the municipalities are facing in their work with planning their sea areas.

4.3 MIXED METHODS

The research conducted in this study takes place in a field where previously little investigation has been made. The theory has therefore played a central role in the choice of method, taking in to consideration the fact that both qualitative and quantitative methods each has their strengths and weaknesses (Johnson & Onwuegbuzie, 2004). The study being carried out using an abductive approach led to the conclusion that the use of mixed methods would be a suitable method for the study. Using mixed methods in an uninvestigated research area is useful to strengthen the overall validity of the study and to secure more stakeholders, in this case the planners, get their voices heard. The use of mixed methods contributed with primary data from various municipalities that are geographically spread, while deeper talks gave the perspective from the local planners, which in theory is seen as an important part for a sustainable development. Through the mixed methods approach a triangulation of the data collection within the study was performed in which both quantitative and qualitative methods were used. The number of responding municipalities in both of the methods can be seen in table 2 below.

Method	Number of municipalities/ projects approached	Number of participating municipalities/ projects
Survey to municipalities	82	39
Informant interviews with municipalities	14	11
Informant interviews with project leaders	2	2

Table 2 - Number of responding municipalities and projects for the quantitative and qualitative methods respectively.

The use of mixed methods has the overarching goal of countering the lack of present data, overcome weaknesses in the different methods and to make full use of the pragmatic and abductive approaches discussed earlier. This allows phenomenons otherwise impossible to measure quantitatively possible. It also allows for studying quantifiable aspects otherwise not possible to describe through qualitative methods (Feilzer, 2010, p. 8). In this study, the mixed method mainly follows the steps set up by Johnson & Onwuegbuzie as being (1) determine the research question; (2) determine whether a mixed design is appropriate; (3) select the mixed method or mixed-model research design; (4) collect the data; (5) analyze the data; (6) interpret the data; (7) legitimate the data; and (8) draw conclusions (if warranted) and write the final report (Johnson & Onwuegbuzie, 2004).

4.4 METHOD OF SURVEY

To get a deeper understanding for how the coastal municipalities work with MSP look, how the MSP includes synergies between other marine and terrestrial areas and how environment and growth are considered in the work with MSP, a survey has been sent to Sweden's coastal municipalities. Different steps in this process are described below. These processes are described in a linear form but have in some cases occurred simultaneously. The purposes of using survey as a method in this study was to get a national overview of the municipalities work with MSP, get a better understanding of the result from the interviews and a way to confirm and triangulate the data both between the different methods, but also between the responding municipalities.

4.4.1 SAMPLE

The sample for the survey is all of Sweden's 82 coastal municipalities. The purpose of this is to get broad perspective of the work processes of MSP. The survey is based on previous interviews with municipalities working in intermunicipal projects as well as individually along the west coast.

4.4.2 SURVEY IMPLEMENTATION AND RESPONSE RATE

The survey was designed both from the study's aim but also dependent on the interviewees answers in interviews that already had been conducted. As in the interview guide, a thematic disposition was made to get an understanding of the questions disposition in relation to the study's aim and research questions. Swedish regulations states that Swedish Association of

Local Authorities and Regions (Sveriges kommuner och landsting, SKL) must be contacted for a survey like this one, since universities are included in the ordinance *1982:668* (SFS, 1982:668). The purpose of this ordinance is to keep track and facilitate for the municipalities, because they get hundreds of surveys each year (SKL, 2016). The ordinance therefore works as an intermediation between authorities and the municipalities. In accordance with the ordinance 1982:668 the survey was first sent to SKL. After a few days it was returned with constructive comments and contact information to all municipalities in Sweden. Due to SKL's constructive criticism the survey was redesigned before being sent to all coastal municipalities in Sweden. At the website havet.nu (n.d.), published by Stockholm university Baltic Sea Center och Umeå marine research center at Umeå university, all coastal municipalities are listed and could then be selected in the contact form from SKL.

The survey's content was once again processed and then a digital survey was created and designed in Google Forms. After trying the survey ourselves and with other third parties, the survey and a missive letter, Appendix B & C was sent to Sweden's coastal municipalities. A reminder was then sent by email 10 days after the first link was sent. Among the 82 municipalities sent this survey, approximately 48 percent did answer and respond to it. Worth noting is that two municipalities had two replies each, where the duplicate answers were not included when calculating the response rate above. The duplicate answers were analyzed one by one to see how the answers differed within the municipality's informants. In questions where the response differed a lot, both responses were deleted, what is called an internal omission. In questions where the answers were the same or similar, one of the answers was taken into account.

4.4.3 PROCESSING OF SURVEY DATA

The collected survey data was compiled using the built-in analysis tool in Google Form, which produced the diagrams and charts presented in this study. The answers from the form were analyzed as grouped data, individually and in relation to the data gathered from the interviews. A random sample of ten municipalities among those that did not answer the survey was then selected. The aim of this selection was to rule out the possibility that they could not or had no interest in participating in the survey due to the fact that they did not work with MSP. The random sample showed no such tendencies and was therefore ruled out as an improbable cause.

4.5 METHOD OF INTERVIEWS

To get a deeper understanding for how the coastal municipalities work processes with marine planning look, how the marine planning processes includes synergies between other marine and terrestrial areas and how environment and growth are considered in marine planning processes, 13 semi-structured informant interviews and one email-interview have been implemented, covering a total of 11 municipalities and two projects. Semi-structured interviews were chosen as a suitable part of the method because of the opportunity of open answers and the possibility for the interviewer to steer the interview into relevant directions when new and/ or interesting subjects were brought up. Different steps in this process are described below. The steps are described in a linear process but have in some cases occurred simultaneously.

4.5.1 INTERVIEW GUIDE

The first stage in this process was to create an interview guide and to make sure all themes were included; therefore, a thematic disposition was made in the interview guide. The interview guide was based on literature studies and the theoretical approaches and themes deemed relevant for this study. To make sure the study's research questions were covered the interview guide was divided into three themes, which is a pattern that is reoccuring in this thesis. Questions about trade-offs, definitions, collaborations, the link between land and sea and methods on how to handle MSP have all been brought up in the interview guide. However, the interview guide was changed after the first interview because of difficulties of answering all questions related to the different themes. After a few more interviews one question was also deleted since it turned out being confusing for the respondents. The latter interview guide as seen in appendix A has however been satisfying and has resulted in good discussions with respondents.

4.5.2 SAMPLE

We have in all interviews been talking to the ones that, according to the various municipalities, were the most inserted in their municipal's MSP process. Among the municipalities that were involved in projects related to MSP, the *Tillväxt Norra Bohuslän* collaboration was selected as the group of municipalities that had reached the furthest in the process towards incorporating their marine spatial plans into their comprehensive plans. Meanwhile, the GR collaboration were the ones selected for still being in its startup phase. We also chose to investigate two municipalities that at the time of this study was working alone with their MSP process. Lomma

municipality was chosen due to its longtime work with MSP, while Varberg municipality was chosen due to their short time work with MSP. Varbergs geographical location next to Kungsbacka municipality and close to Gothenburg municipality was another factor in the choice of a single municipality in the startup phase. We are aware of that the geographical spread in interviews are concentrated along the west coast in Sweden. This choice was however made due to the possibility of meeting the informants face to face at the informants' work places when interviewing.

The second step was to contact informants, which according to Repstad, is defined as persons seen as having knowledge of the area investigated and as such being an observer capable of providing the desired information (1999). In this study the informants were staff at different coastal municipalities, but also the project coordinators for GR and *Tillväxt Norra Bohuslän*, Susanne Härenstam and Carl Dahlberg. All informants that have been interviewed are presented in table 3. There were differences in how the municipalities handled the contact information. For some of the municipalities we sent an email to their common info-address, from where our inquiry was forwarded to the person most inserted in the municipal's MSP process. Of the 14 contacted respondents (12 municipalities and the two project coordinators of GR and Tillväxt Norra Bohuslän), all 14 did reply. However, the dialog and response did vary and not all of them were available for interviews.

The ones who have participated in semi-structured interviews are presented in table 3 below.

Name	**Profession**	**Municipality/ Organisation**	**Date**
Carl Dahlberg	Process manager	Tillväxt Norra Bohuslän / Lysekil	2018.02.01
Susanne Härenstam	Project coordinator	GR	2018.02.12
Bengt Gustavsson	Planning architect	Tanum	2018.03.08

Sara Hallström	Project manager	Lysekil	2018.02.08
Cecilia Lindsten	Architect	Lysekil	2018.02.08
Cecilia Trolin	Strategic planner	Uddevalla	2018.03.02
Tove Nilsson	Planning architect	Orust	2018.03.06
Karin Löfgren	Planning architect	Tjörn	2018.02.15
Anna Aldegren	Business strategist	Tjörn	2018.02.15
Mikaela Danielsson	Planning architect	Stenungsund	2018.03.21
Daniel Mattsson	Strategic planner	Kungälv	2018.02.12
Ulf Moback	Landscape architect/ climate strategist	Göteborg	2018.02.02
Martin Knape	Environmental investigator	Göteborg	2018.03.06
Jenny Toth	Environmental investigator	Göteborg	2018.03.06
Raquel Dias Sandblad	Planning architect	Kungsbacka	2018.04.18
Rasmus Kaspersson	Ecologist	Varberg	2018.03.07
Helena Björn	Environmental director	Lomma	2018.02.14

Table 3: Shows all informants that participated in interviews.

Our aim was to implement interviews with planners, but due to how different municipalities had approached the work with MSP differently, other officials were included as well. Officials that were interviewed were for example active within the departments of development and environment. In some cases when contacting municipalities there were also recent changes to the staff, where our request was forwarded to persons who had quit at their position but were still seen as the ones most involved in the work process of MSP within the specific municipality. In our request we were open for both personal meetings and phone interviews. The interviewees got to choose what form suited him/ her/ them the best.

4.5.3 IMPLEMENTATION OF INTERVIEWS

The interviews were conducted in a semi-structured way, letting the interviewees having the opportunity to reflect and expand their answers in a way, which is not possible when interviewing in a more structured manner (Bryman, 2011, p. 467). The interview guide has functioned as a base for the talks, but due to the talk's alignment not all questions have been asked as formulated in the guide and in some interviews some questions were omitted. Furthemore, additional questions not stated in the guide were in some cases asked during the interviews. A majority of the questions were however answered during all the interviews.

There were different stages when contacting the municipalities and respondents. The first stage was before the survey was sent and the first contact to the municipalities was by email. The interviews were then implemented by personal meetings, e-mail or phone. Some of the interviews were conducted by two participants from the municipality, while others were conducted individually. The interviews were recorded and saved in digital form.

4.5.4 PROCESSING OF DATA

The fourth and last step in this process was to analyze the result. The first step at this stage was to transcribe and compile all interviews into text, which made it easier to go back for references or quotes. The compiled texts were then used as a base when analyzing the results. The analysis was made using the steps in Lichtman's analytical method (2006), see table 4, which included the process of identifying keywords and phrases to break down in different themes. The main themes used were work process, integrated planning and planning for sustainable development including growth and preservation. Within these themes there are sub themes that have emerged during the course of the study. The result is therefore presented in this way: Work processes in

MSP: approaches, ambitions and collaborations, Integrated planning: land-sea and and Planning for a marine sustainable development: Blue Growth and environment.

Step	Description of step
1. Initial coding	Enter your initial codes. Continue reading your script while entering different codes (for example a word or a phrase). Upon completion of initial coding with one transcript, select another transcript and continue the process.
2. Revisiting initial coding	Some codes are redundant, collapse these and rename codes.
3. Developing an initial list of categories or central ideas	Organize the modified codes into categories, some codes can become major while other can be grouped under a specific topic and become subsets of that topic.
4. Modifying your initial list based on additional rereading	Continues the iterative process. Some categories will now appear less important than others, while others can be combined.
5. Revisiting your categories and subcategories	Revisit your list of categories and investigate whether you can remove redundancies and identify critical elements.
6. Moving from categories into concepts (themes)	Identify key concepts that reflect the meaning you attach to the data collected.

Table 4 - Steps in Lichtman's analytical method. Adapted from Lichtman 2006.

4.6 RESEARCH ETHICS

To ensure the privacy and well being of participants in scientific studies, the benefits of new knowledge must be weighed against the potential risks when performing research (Hermerén, 2011, p. 46). This study was produced and carried out in accordance with the ethical principles suggested by Bryman & Nilsson (2011, p 131, 132) and by The Swedish Research Council (2002). These being first, the "*providing of information"* regarding the study's purpose and methods to the ones involved in questionnaires and interviews. Second, linked to the previous one, the principle of "*informed consent"* from everyone involved during the study. Lastly, connecting to the previous one, the principle *"use of data"* to ensure that the empirical information gathered during the study is used only for research purposes. The informants were sent information of when they got quoted and in which context their quotes were used. Furthemore, the informants had the ability to confirm the use of their quote / quotes.

4.7 METHODOLOGICAL DISCUSSION

The use of primary data and mixed methods strengthens this study's credibility. However, difficulties arose when collecting data and when designing the interview guide and survey. Questions are always interpreted by the informant, this means that we as interviewers might have asked questions we had designed with a specific mindset, while the informants might understand these questions in different way. In some cases, there have been a gap between our questions and where in the MSP process the municipal were in at the moment. Another factor that did become clear during the time of this study was that because municipalities had a wide range in how they prioritize and work with MSP, their knowledge of MSP differed a lot. These differences might have had an effect on the answers received, because some of the questions in both the survey and in the interviews assumed that the ones answering it were well informed about MSP, which might not always have been the case.

We are aware of that the sample of informants for the interviews put a focus on the sea areas along the west coast of Sweden. However, the survey covered all coastal municipalities in Sweden and the collected data from the survey has shown similarities irrespective of the geographical localisation.

Designing the survey was a complex part of the method. The questions had to be basic and easy to answer, but still informative enough for us to analyze. In the beginning we designed a survey containing many open answers, which we later realized would take too much time for the

municipals to answer. At the same time the questions were too broad in order to yield a satisfying result. The statistical unit at SKL helped us out when designing the survey with constructive comments and feedback. SKL also emphasized that the municipalities get several surveys each week from students and authorities, which made us realize that the design of the survey was of crucial importance in order to receive answers from the municipalities. Furthermore, the majority of the Swedish municipalities had central functions working as gatekeepers for their incoming contacts. It was up to each municipality to decide who in their staff was to participate in the survey. Therefore, there can bee variations among the participants alignments that in turn might have affected the responses. The aforementioned aspects can also be a reason why two municipalities had two responses each.

Another important aspect in this study was the language. Interviewing is an interpreting method, but also surveys are interpreted differently from the various informants. Many concepts were used, where the interpretations could have been widely spread and have varied from each individual. An example of this was the first question in the survey, where the municipality were asked if they worked with MSP (havsplanering in swedish). It was clear that the term *havsplanering,* just as when it comes to sustainable development, did have many interpretations, which was also the case for the term MSP. The same phenomenon was present regarding the concept of sustainable development.

Another aspect in this study based on the language was the translation from Swedish to English and vice versa. The survey and interviews were formed and implemented in Swedish, while the report was written in English. This means that the information and quotes in the result were translated and therefore differs from the exact words said. The translations were however made carefully, with the intention of catching the informants thoughts, use similar wording in a fair way. There are however difficulties in taking someone's thoughts, analyzing them and then writing them down on paper. The fact that some interviews were implemented by phone could mean that body language and mimics were lost, which could have had an impact on how we as authors interpreted the results. We made a choice to implement these interviews anyway, reasoning that performing an interview was better than not getting the data at all.

5. RESULTS

Due to the aim of this study, a major focus has been put on theme one, *The work with marine spatial planning*. Theme one is overarching and permeates all the other themes, meanwhile theme two, *Marine spatial planning and synergies between marine and terrestrial areas* and three, *Environment and growth in marine spatial planning*, are narrower in scope. Within each theme subcategories have emerged during the course of this study. The result is therefore presented in this way: The work with marine spatial planning: *Approaches and methods used in the work MSP, Challenges in the work with MSP, Internal and external cooperations and collaborations in the work with MSP*; Marine spatial planning and synergies between marine and terrestrial areas - The importance of an integrated planning, and lastly: Environment and growth in marine spatial planning. It is important that none of these categories stands alone but are all affected and intermittent.

A survey was sent out to all of Sweden's coastal municipalities. The map below (figure 10) shows the municipalities who got the survey, who answered it and who did not. The figure shows that there is a geographical spread among all informants. All informants from the survey and interviews were located in municipalities that in one way or another works with MSP. However, the way the municipalities work with MSP differs vastly.

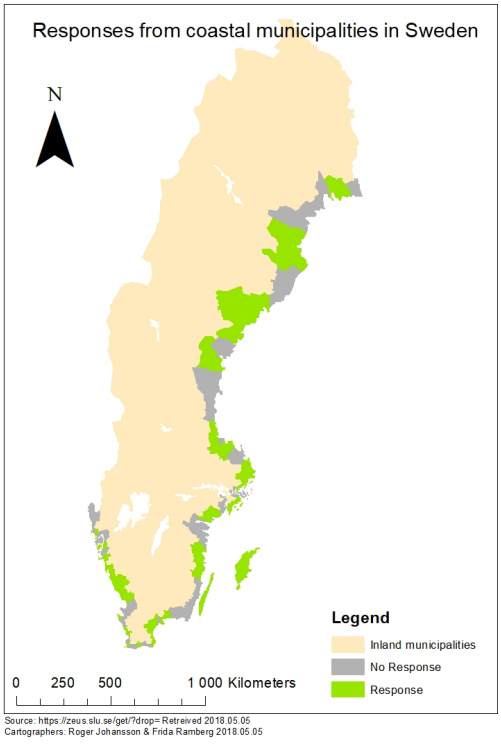

Figure 10 - Map of response/ no response among Swedish coastal communities in the survey.

5.1 THE WORK WITH MARINE SPATIAL PLANNING

> "A comprehensive plan should include both land and waters and there the sea will (naturally) come in" - (Ulf Moback, personal contact 02.02.2018).

For many of the municipalities, MSP has been going on for a short period of time, something that can be seen in figure 11. The graph shows that a majority of the respondents have been working with MSP from less than a year up to five years.

For how long has the municipality worked with marine spatial planning?

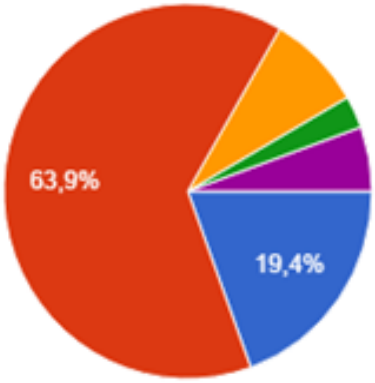

Figure 11 - *Shows how long time the municipalities have been working with marine spatial planning in the municipality. Blue = less than a year, red = more than a year, orange = approximately five years, green = approximately 10 years and purple = more than 15 years.*

A lack of manpower was an issue for Sweden's coastal municipalities working with MSP. Figure 12 derived from the survey shows that almost half of the responding municipalities had either one or two persons working with MSP. It is worth mentioning that in many cases the ones working with MSP did not do this full time, but instead had a small amount of time dedicated to MSP.

How many employees (by estimate, not including the municipal) has marine spatial planning as part of the employment? (the work tasks may vary, in this case it could apart from planning include producing inventory for the marine environment, dialogues with stakeholders etc.)

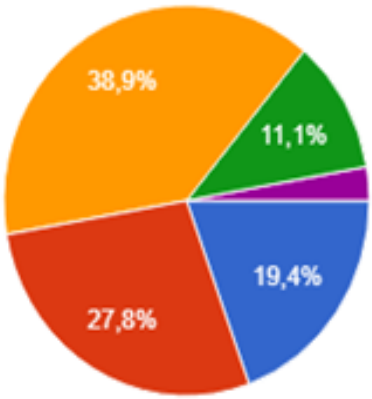

Figure 12 - Shows the number of people working with MSP in the municipalities. The number includes all working with MSP and not just full-time employees. Blue = 1, red = 2, orange = 3, green = 4 and purple = 5 or more.

Figure 13 shows that there was a broad variety of where in the MSP work process the municipalities were. However, a majority of the municipalities were either in the startup phase or in the ongoing work phase.

On a scale from 1 to 5 where 1 is just started and 5 is plan adopted: How far have the municipality come in its work with marine spatial planning?

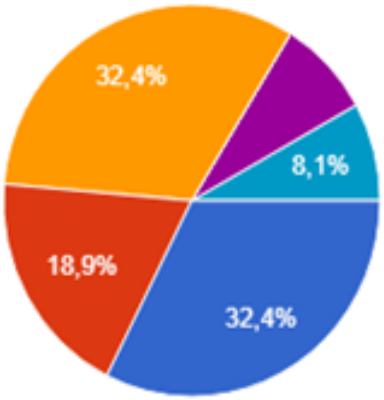

Figure 13 - Shows where in the municipal work process of MSP the municipalities are now. Blue = have just begun, red = documentions/ inventories are available, orange = planning work is ongoing, but everything is not yet determined, green = ready for decision of plan, purple = decision of plan has been taken and light blue: no opinion.

The data presented above shows that there is a wide spread among the municipalities work with MSP. The differences can be seen when it comes to for how long they have worked with MSP, the number of people that worked with it and where in the process they were at this time. An example is Northern Bohuslän that consists of four municipalities (Lysekil, Tanum, Sotenäs and Strömstad) where intermunicipal cooperation had been ongoing for many years. The planning architect in Tanum, described that it all started with an intermunicipal collaboration about tourism where it could be seen that the sea was important but was parsimoniously treated in each municipal comprehensive plan,

> "It said nothing about the sea and not really anything about leisure boating or fishery or anything. In spite of this being distinct archipelago municipalities, there was very poor links between blue growth tied to tourism and fishing, links between this and physical planning didn't exist" - (Bengt Gustavsson, personal contact 08.03.2018).

This was the start for Northern Bohuslän's work with the coastal zone and MSP. Many of the other Swedish municipalities have started with MSP in large because of the European MSP directive. Several informants agree that a reason why the sea has not been planned before is because of the complexity, but also because of the situation where land is now densely developed and pressure from various interests stresses a need to find new areas for different business areas such as energy facilities and valuable material extraction. The planning architect in Stenungsund said that one challenge with MSP is the lack of work descriptions when it comes to planning municipal sea area, which could be a reason why many municipalities only have worked with it a short period of time. She said that there most likely are few municipalities that have MSP as a part of their work description, which makes it difficult to set time aside to specifically work with MSP.

> "According to my own estimation approximately 10 percent of my employment is designated to coastal and marine planning. In my case this area is pronounced in my job description, but I would guess that this isn't the case for most of the members in the coastal zone project (GR)… and that many of us feel that they are lacking resources to dive deep into the project... clearly this new area of planning need more dedicated resources to fully grasp, but we are slowly learning" - (Mikaela Danielsson, personal contact 21.03.2018).

Tjörn municipality was also in the startup phase and for them the regional collaboration in GR was the start for their work with MSP. Before that project the municipality did not have much of a marine spatial plan, even though the sea was a part of their comprehensive plan.

> "... the most coastal (waterways etc) exists, but the perspective that the municipality can claim parts of the sea for development and so on has not been included. Which is very paradoxical really when we are an island municipality." - (Karin Löfgren, personal contact 15.02.2018.

From the interviews it has emerged that time spent working with MSP was not directly related to how far the municipalities were in their processes. For example, some municipalities stated that they had been working with MSP for 10 to 15 years, but they were still in the startup phase, while others stated that they had been working with MSP for about five years and had plans ready or out on consultation. This is also confirmed by figure 13, showing a broad variety of where in the MSP work process they were.

5.1.1 APPROACHES AND METHODS USED IN MSP

Figure 14 highlights that 41 percent of the municipalities that answered the survey had no defined goals in their work with MSP. It has also turned out that 48 percent of the municipalities that answered this question had no time frames in their work.

Do the municipality have a main goal/ aim in the work with marine spatial planning?

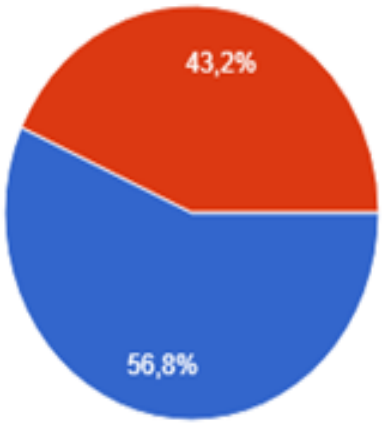

Figure 14 - Shows the percentage of the municipalities that have set goals in their work with MSP. Blue = yes, red = no.

The approaches and methods the municipalities used to handle the MSP process varied.

> "Our approach is a holistic perspective and we have produced a maritime business strategy…" - (Carl Dahlberg, personal contact 01.02.2018).

The holistic view was an approach Lomma municipality also used, not in that they assumed a maritime strategy but in that they seeked to use a holistic and including process. The environmental director of Lomma said that one important aspect in Lomma's MSP process was social sustainability. They made sure that information had been sent out early and that everyone got the same information and at the same time. To create an interest among the citizens and stakeholders they did for example offer free smorgasbord at the meetings, which resulted in well-attended meetings with various stakeholders.

From the perspective of the process manager in the Tillväxt Norra Bohuslän project, they started, like Lomma municipality, with a very wide view including stakeholders from a variety of branches such as the commercial and industrial sectors. They did so in order to give everyone the opportunity to have their wants and wishes expressed to the planners. The process manager said that from looking at the collected data, they believed that they had a well-grounded base to stand on when making decisions and considerations on what activities that should take place in which areas of the sea. This combined with an understanding from the municipalities and other stakeholders of the need to uphold their status as attractive areas for tourism had so far meant that there had not been any larger conflicts according to the process manager. The process manager also advocated for coexistence between stakeholders on the sea working across administrative borders. Furthemore, the project manager stated that even areas of national interest, such as defence, were possible to use if done in a cooperative way.

Lomma were one of the few municipalities that had been working with MSP for a long period of time. The environmental director in Lomma stated that they started working with MSP in 2006 by doing inventories for a new covering water program. At the same time there was an ongoing comprehensive planning process, so they decided to add the sea areas into their comprehensive plan. Lomma used a marine nature environment program as the basis for their comprehensive plan, which is the same process that they had used when working on other plans before that. They made program where various stakeholders, such as fishermen, surfers and leisure boat users were included and involved in discussions. The environmental director in Lomma said that this was a way to make the process transparent and easier to understand by different stakeholders which made trade offs easier.

The dialogue process was also brought up by the representatives from Lysekil. They said that the approach include stakeholders in discussions were not a new idea, but the thought of planning sea areas instead of terrestrial areas was new. The architect stated that one of the biggest differences between planning sea and land areas was that there are already established guidelines when planning terrestrial areas. Planning sea areas on the other hand was mentioned as an ongoing process where adaptations and updates to the model and method were continuously needed.

Uddevalla, like many other municipalities, was in the startup phase and had not produced actual plans where balances had been made. However, they were the only municipality that said that they used a specific method in their MSP, namely the Seascapes Character Assessment method.

The environmental director in Lomma said that in the beginning of their process there was a meeting with municipal politicians who were very committed and thought it was a great idea to produce such a plan. However, they wondered what to do with it and what use it would have? It was therefore decided that Lomma had to add MSP to their comprehensive plan instead of adding it to a separate document, in order to not make the process something that only resides in a document. The environmental director stated that marine spatial plan was part of their comprehensive planning work process and

> ” it’s not a problem, because my politicians are completely familiar with the process, it’s just part of the work we do”- (Helena Björn personal contact, 14.02.2018).

Furthermore, the environmental director stated that politicians in Lomma were counting a lot on MSP, for example when stopping kitesurfing in an area there were less push backs when MSP was in place. Lomma also did prioritize sea areas and used water management / planning as a tool to achieve their goals for the seas. She said that Lomma did invest a lot in actions to improve the marine environment, water quality and the marine life in general and for these actions, physical planning was a tool. Lomma’s main goal was that there should be a good environment in Lommabukten.

Many of the municipalities stressed there were different challenges that comes with MSP. The challenges were not seen as problems, but it was stated that extra time was demanded because of the challenges. The informant from Lomma said that there were challenges in all balances that must be made. Lomma is a very homogeneous municipality with plenty of outdoor life and that’s where their challenges and conflicts arose. An example of these complexities was to develop a plan where interests among the kitesurfers, windsurfers and boating were represented and agreed. She also said the plan was completed in 2010 and then

> “kitesurfers and windsurfers ended up making their own maps within the area they were assigned. They embraced the way we thought and thought it was pretty good.” - (Helena Björn personal contact, 14.02.2018).

5.1.2 CHALLENGES IN THE WORK WITH MSP

Figure 15 shows that many of the asked municipalities have received external assistance to counter some of their challenges in their work with MSP. This did also come up in the interviews, where the majority of interviewed municipalities did state that they have had or still have external assistance in their work with MSP.

Has the municipality used external help in the work with marine spatial planning?

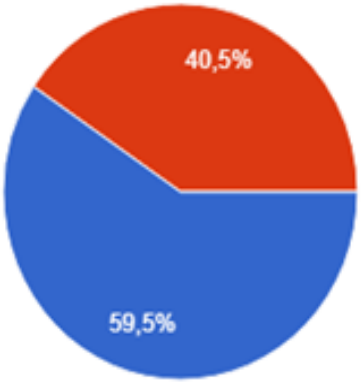

Figure 15 - Shows in percentage how many of the municipalities that answered the survey that have used/ use external assistance in their work with MSP. Blue = yes, red = no.

Putting figure 16 in correlation with the subparagraph about challenges and the figure 15 (above), it can be concluded that the external assistance mainly has contributed with advice/ knowledge and documentation/ inventory.

If so, what has the external help contributed with? (multiple answers possible)

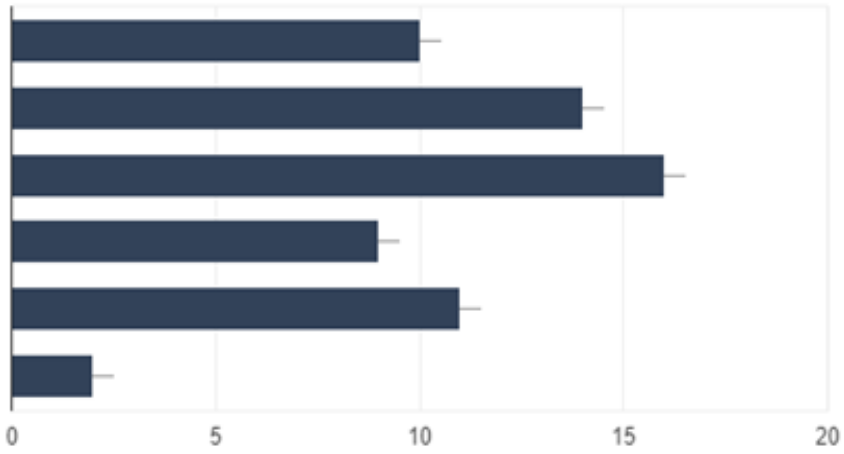

Figure 16: Shows what the external assistance has contributed with. From top: financial support, advice/ knowledge, documentation/ inventory, network, cooperation/ collaboration, other.

Even though a majority of the asked municipalities, both in interviews and in the survey, have used or still use external assistance there were an even higher percentage that answered that they still miss some kind of support (see figure 17).

Are you missing any kind of support in the work with marine spatial planning?

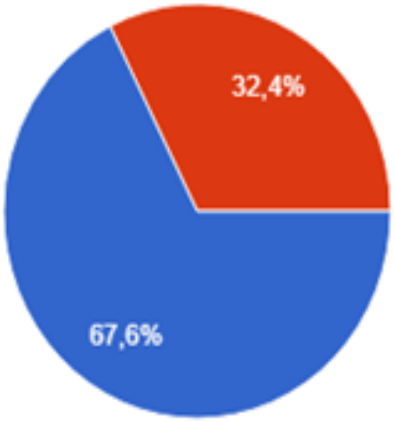

Figure 17 - Shows in percentage how many of the municipalities that answered the survey that miss some kind of support in their work with MSP. Blue = yes, red = no.

Even though external support was used, lack of knowledge was one of the main areas where municipalities struggled. According to the survey, this was still a common problem for municipalities in their work with MSP (figure 18).

If so, which kind of support is missing? (multiple answers possible)

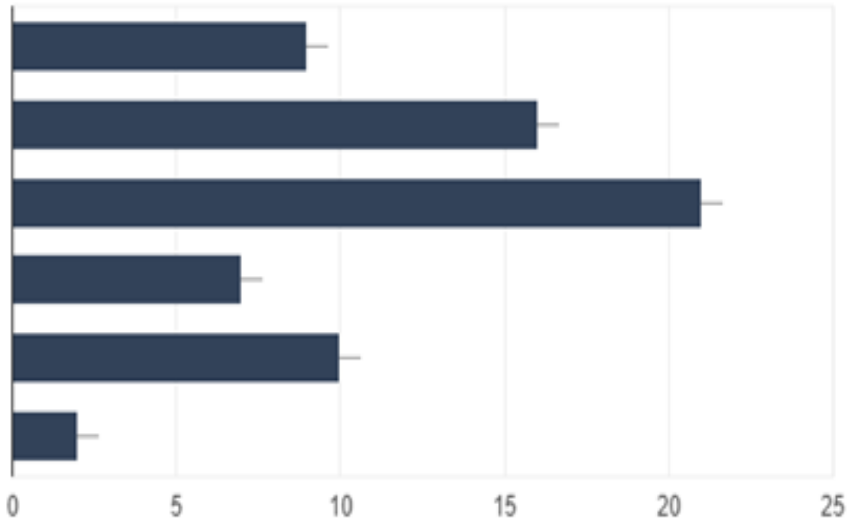

Figure 18 - Shows what support the municipalities lack. From top: financial support, advice/ knowledge, documentation/ inventory, network, cooperation/ collaboration, other.

> "It is important to have knowledge about the aquatic ecosystems. You can not be careless about that, you have to know what's under the surface."- (Helena Björn personal contact, 14.02.2018).

The knowledge and information of the marine environment and its life were stated as challenges by all municipalities, as well as the project coordinators. The lack of knowledge and a common database where information is gathered was brought up as a critical challenge by all municipalities. The project coordinator at GR said that many municipalities asked for a common database where marine geological data, knowledge and research could be stored and available for those who work with the MSP. However, there were various financial support to apply for in order to gather information. Lomma for example got the LONA-support (lokala naturvårdssatsningen/ local conservation effort), which they used to gather data about the seabed, the marine environment and the biological values.

> "It wouldn't be possible for such a small municipality to obtain a knowledge base for marine spatial planning, creating a cost of 500 000, with the only motivation that it is in the planning and building act." - (Helena Björn personal contact, 14.02.2018).

Helena Björn stated that nowadays they did have the support they needed and that the politicians understand MSP and it therefore becomes natural that the sea is a part of the municipality's physical planning. Knowledge and information were still considered a complicated matter. She elaborated that a seabed will most likely be more or less the same (soft or hard), while the marine life, such as seagrass beds, could be greatly and quickly affected by for example an autumn storm.

Most of the municipalities involved in the GR cooperation highlighted that the project was of importance for them. Interactions between the municipalities became easier as they had time to meet in common through the project. The municipalities in the project did go through and analyzed the data and information available, its shortcomings and the lack of data. The planner from Kungälv said that their municipality, like the GR cooperation, used Tillväxt Norra Bohuslän as a role model and therefore focused a lot on the national interests. He confirmed the other interviewees responses about the importance of knowledge but also said that

> "I have also come somewhat of a conclusion that, if you wait for the perfect foundation of data, you will never come anywhere. Instead, it is more important that you of course try to get the most necessary documentation and the best possible, but if we should have the perfect foundation of data before starting with sea planning then it would never happen." - (Daniel Mattsson personal contact, 12.02.2018).

However, he stated that it is important with a transparent process, something which was also brought up by the process manager of Northern Bohuslän and the environmental director of Lomma.

The responsible planner in Kungälv also stressed the importance of thorough documentation of the basis on which the various decisions should be produced. For example, questions on where lines were drawn and why, what balances were made and why were seen as essential. Likewise, it was of importance that these documents were timed and linked to metadata, and that shortcomings were identified. This made it possible for Kungälv to in the future order better data. The planner continued saying that one must be aware planning is never possible to get 100 percent, but instead one should do the best one can under the circumstances. An example of this is when the comprehensive plan in Kungälv was formed in 2010. At the time there was

even less data available to the planners, however it does contain some kind of simplified MSP. However, as the knowledge of the marine areas was weak in that plan and as he said:

> "...actually, it was largely reported to only the national interest, no compromises were made and quite a lot of new basic data, material and facts have been reported for the sea and coastal zone. So, I think it would be possible to make a much more extensive sea and coastal zone planning for the municipality than the one was made at that point." - (Daniel Mattsson, personal contact 12.02.2018).

The lack and shortage of knowledge among the municipalities was a recurrent subject among the informants in the study. This lack of knowledge had lead to weaknesses in planning the municipal sea areas, which was exemplified by Kungälv in the paragraph above. As stated before, the support that lacked the most was documentation/ inventory (figure 18), which was also brought up by several interviewed municipalities as a great challenge in the work with MSP. However, some of the interviewed municipalities did not apply or had any external assistance. Gothenburg was one of these municipalities where they already had the knowledge and wanted to keep that knowledge inhouse,

> "I don't believe that we have sought outside help to a larger degree, a little bit of LONA and such... ... It is good to do things in house because in that way, knowledge stays in a different way" - (Ulf Moback personal contact 02.02.2018).

Lysekil pointed out that they had challenges putting in the time and effort to keep interest among the municipal decision makers. They also stated that the time it took from a proposal being presented until a decision slowed down their process. Furthermore, various municipalities had their own way of handling their comprehensive plans, which made it harder for them to fit them all into a more overarching marine plan. Another challenge brought up by the interviewed municipalities in Northern Bohuslän was the fact that they had four different city councils with different agendas all making their own decisions. This slowed down the process taking common decisions, which resulted in a lot of wait. On the contrary, Northern Bohuslän's success was according to their process manager due to the fact that an existing and stable political organisation was in place before the planning started. The well established political organisation was according to informant at Tanum exemplified in that changes in political elections had less of an impact on their process then it otherwise would have had. This stability coupled with a will and a habit of cooperation between the Northern Bohusläns municipalities was seen as the reasons for its success.

5.1.3 INTERNAL AND EXTERNAL COOPERATIONS AND COLLABORATIONS IN THE WORK WITH MSP

As can be seen in figure 19 from the survey, the majority of the responding municipalities followed the advice from EU and the Swedish government and worked with other municipalities when it comes to MSP on a municipal scale. Furthermore, the result shows that it was more common with working relationships between neighbouring municipalities than between those not adjacent to one's municipality.

On a scale from 1 to 3 where 1 is non-existent and 3 excellent, how extensive is the collaboration between your municipality and other municipalities in the work with marine spatial planning?

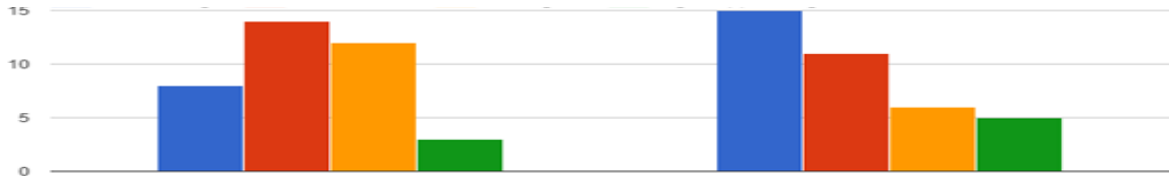

Figure 19 - Shows how the extent of cooperation between the responding municipality and other municipalities. To the left are neighbouring municipalities and to the right are non-neighbouring municipalities. Blue = non-existent, red = okay, orange = excellent and green = no opinion.

The result shown in figure 20 relates to the previous questions. It showed that while many of the municipalities did work with others, there were still around one fifth of the responding municipalities who were not involved with others even though they would want to be.

Do you have collaborations with other municipalities in the work with marine spatial planning?

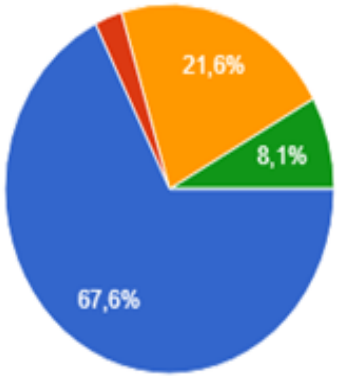

Figure 20 - Shows if the responding municipal has cooperation with one/ other municipalities in the work with MSP. Blue = yes, red = not yet, but it is planned to start, orange = no but would like to and green = no.

Collaboration between external administrative entities and municipalities can be found in figure 21. A majority of the municipalities answered that they lacked collaboration with The National Board of Housing and one third had non-existing collaboration with SwAM. In the survey the responsible County Administrative Boards fared better with the majority of the respondents answering that they had adequate or excellent collaboration with them.

On a scale from 1 to 3 where 1 is non-existent and 3 is excellent, how extensive are the collaborations between the municipality and other administrative scales in the municipal work with marine spatial planning?

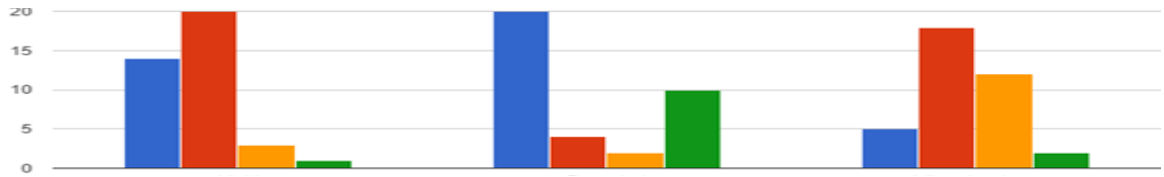

Figure 21 - Shows how the extent of cooperation between the responding municipality and other authorities. To the left is SwAM, in the middle is The National Board of Housing and to the right is the County Administrative Board. Blue = non-existent, red = okay, orange = excellent and green = no opinion.

As can be seen in figure 22 there were different opinions among the respondents in the survey about collaboration between them and other actors. 23 municipalities answered that they had non-existent contact with the universities and 18 of the responding municipalities lacked contact with other scientific sources.

On a scale from 1 to 3 where 1 is non-existent and 3 is excellent, how extensive are the collaborations between the municipality and other actors in the municipal work with marine spatial planning?

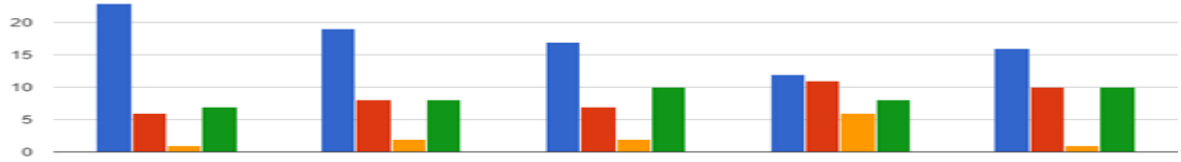

Figure 22 - Shows how the extent of cooperation between the responding municipality and other interests. To the left is Universities, second left is Other research/ science, in the middle is NGOs, to the second right is environmental consultants and to the right is business/ commerce. Blue = non-existent, red = okay, orange = excellent and green = no opinion.

Figure 23 shows that internal cooperation varied between municipalities from non-existent to excellent. Most of the informants answered that they had satisfactory cooperation with the politicians, their head of departments as well as within the departments in the municipality. However, some municipalities actually had non-existent cooperation with their head of departments.

On a scale from 1 to 3 where 1 is non-existent and 3 is excellent, how extensive is the collaboration between the municipality and others within the municipality in the municipal work with marine spatial planning?

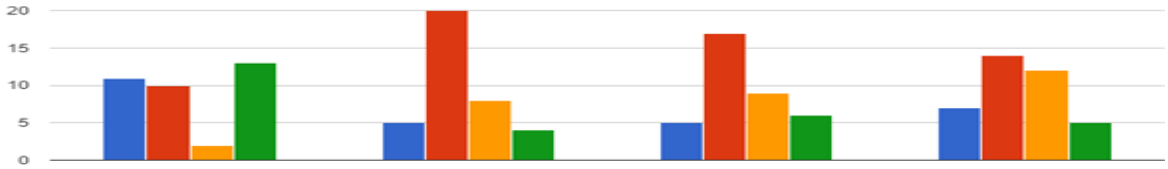

Figure 23 - Showing the internal collaborations between responsible planners and from the left the municipal board, the municipal, supervisors and finally other divisions within the municipality. Blue = non-existent, red = okay, orange = excellent and green = no opinion.

The results from the survey indicated that internal collaboration was an issue, which was also supported by several interviewees. Several interviewees claimed that the lack of collaboration was not due to a lack of interest, but instead a lack of knowledge among various stakeholders. A great example was that the politicians often worked with politics in their spare time, and because of that needed a lot of time and information to get up to speed. The business strategist at Tjörn stated that

> "You have to give them (the politicians) the chance to understand the process as a whole…. ...and to give them an understanding of what their decisions means..." - (Anna Aldegren personal contact, 15.02.2018).

Furthermore, the interviews showed that a top down perspective sometimes caused problems in internal collaborations within the municipalities. Those problems often stemmed from the lack of communication between different municipal sectors when orders came from higher up in the organisations which resulted in that individual planners found themselves in the middle of conflicting municipal interests. The County Administrative Boards did however receive praise, from both the survey and from interviews, for their ability to collaborate and for the positive influence they had on the municipalities' processes.

When it came to the aspect of knowledge the result clearly showed the importance of external collaboration. The planner in Kungälv mentioned that they gained knowledge by collaborating outside the municipality with for example County Administrative Boards, the Geological Survey of Sweden (SGU) and GR. Furthermore, since Kungälv were not far in their process they mentioned that they were planning to use further external help in the future. According to the informant at Uddevalla, the collaborations outside of the municipality was a fundamental condition for their municipal marine planning. In her view, there were so many groupings and networks regarding the sea that it was hard to remember what the purpose of each of their collaborations were. Both informants from Tjörn municipality did also bring up the cross-border collaborations as an important way for the municipalities to get access to a large amount of knowledge at a cost far less than if the municipality had to acquire that information by themselves.

In addition to the GR-projekt, Tjörn together with neighbouring municipality Orust had a collaboration funded by KOMPIS (Orust municipality, 2017). This project was separated from GR and was an example of an intermunicipal cooperation as a means to save money. They also mentioned the possibilities and advantages of cross-border collaborations when it came to localization of various activities in the sea areas. They thought that previously there had been a tendency to see localizations in the sea as single occurrences while they currently saw it from a holistic perspective and planned to continue to do so in the future. When using this view, they elaborated that certain activities, like aquaculture, might not even take place in the municipality that receives the application. Through collaboration such activities could be moved between municipal administrative border to the location that deems most suitable.

Another aspect brought up by several interviewees regarding collaborations was the importance of mixed competences in the process, to not to be solely dependent on planners and to include different perspectives in the process. The informant from Tanum mentioned the County Administrative Board as a needed source of help, knowledge and enthusiasm to their process. Moreover, he said that the County Administrative Board had been helpful when connecting the Tillväxt Norra Bohuslän project to municipalities in southern Bohuslän where yet another intermunicipal project exists in the form of 8-fjordar (Eight Fjords). The County Administrative Board was used as a way to share knowledge and experience from Northern Bohuslän to others.

Sharing of knowledge from Northern Bohuslän was also something the project coordinator of GR talked about as helpful for the GR cooperation in their process. The project coordinator believed that the collaborations with other administrative actors such as SwAM, County Administrative Boards, SKL, The National Board of Housing and Trafikverket worked well. Even if there was a wish for more guidance from The National Board of Housing they were mentioned as a helpful actor in the GR project. On the other hand, some mentioned that there had issues working with Sjöfartsverket since they were unwilling to release their data on the grounds of national security and because Sjöfartsverket is organized more as a business than an organization. According to the project coordinator, this issue was discussed on a national level since it hindered the municipalities in their work with MSP. Another issue brought up by among others Lysekil, Northern Bohuslän and GR was that working in collaborations between municipalities sometimes became cumbersome because of the amount of parties involved in a new way of working. However, they all also argued that the pros of working together were much greater than the cons of working alone. This because they could pool resources, share knowledge and gain input from one another.

The result from the survey showed that the respondents had diverse opinions on internal collaborations within the municipalities when it came to work between the different boards, committees and politicians as shown by figure 23. There were some municipalities that had no collaboration at all with their head of departments and / or the municipal politicians. This was something that many of the informants in the interviews stressed as important. The informant at Kungälv said this about the issue

> "...you are not alone in any question here and you are not supposed to be, but instead it is important that everybody is involved and that it (the planning) gets firmly established in administration, politics and society." - (Daniel Mattsson personal contact, 12.02.2018).

5.2 MARINE SPATIAL PLANNING AND SYNERGIES BETWEEN MARINE AND TERRESTRIAL AREAS: THE IMPORTANCE OF AN INTEGRATED PLANNING

"The coastal zone is somehow the area where everything should be synced and fit together and function…" - (Cecilia Lindsten, personal contact 08.02.2018).

When it came to include marine spatial plans in the municipalities' terrestrial comprehensive plans a majority of the municipalities had not reached that stage in their process yet (figure 24).

Is the marine spatial planning a part of the comprehensive plan as of today?

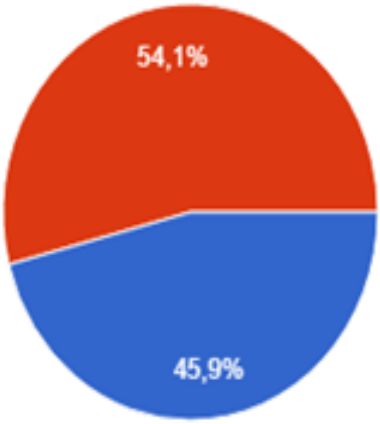

Figure 24 - Shows in percentage how many of the municipalities that answered the survey that has MSP as a part of their comprehensive plan. Blue = yes, red = no.

Even though many municipalities did not currently include their MSP in their comprehensive plan, figure 25 shows that a majority of the municipalities aims to include it in the future.

If no, from today's status, is the idea that the marine spatial planning will become part of the comprehensive plan?

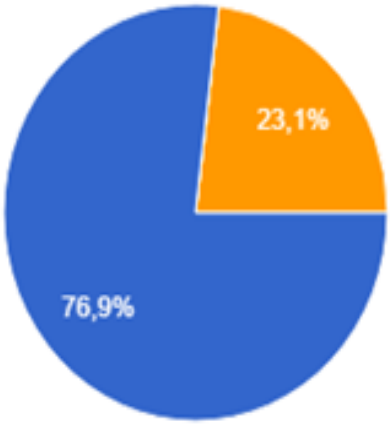

Figure 25 - Shows in percentage how many of the municipalities that answered the survey that aim to have MSP as a part of their comprehensive plan. Blue = yes and orange = do not know yet.

Dimensions seemed to be the biggest difference between terrestrial planning and MSP according to most of the municipalities included in this study. All municipalities except Lomma mentioned a three-dimensional aspect in MSP: the surface, under the surface and the seabed. On the other hand, Lomma claimed that it is instead a four-dimensional aspect to consider, where they added time as the fourth dimension. The time dimension was also brought up by the process manager in Northern Bohuslän, stating that the time aspect with the temporal is an important aspect to consider when working with MSP. An example of this was that water in a specific area is moving in a certain direction but can this direction can change over time. Linked to this, more than one informant lifted that traditional planning methods might have difficulties dealing with MSP since currents, materia and conditions change over time and are dependent on seasons.

Another aspect of planning that aims to link terrestrial and marine areas brought up by informants was the place identity that made people, planners and decision makers look at the sea as something related to the land in natural way. The process manager in the Northern Bohuslän project talked about how many of the livelihoods for people living in Northern Bohuslän was connected to the sea. The process manager linked these livelihoods with similar terrestrial counterparts, such as fishery at the sea linked to the process of plants on land and trade and transport at sea linked to refineries and economy on land. This was collaborated by the architect in Lysekil who thought that one of the most important aspects of this was the ports. She explained that ports are positioned so that one can not distinguish between land and sea. She continued that in the municipalities

> "...there are also in-depth comprehensive plans that partly go out in water and then there are comprehensive plans that are a bit outdated and have to be redone and so on. So, you end up in a position where you have to sync it together." - (Cecilia Lindsten personal contact, 08.02.2018).

These same thoughts were also shared by the informant from Tanum who talked about the fishery as still being an important factor in the making of identity among coastal communities and their municipalities. He said:

> "In Sotenäs, they market themselves as the municipality of the sea... and if you want to live up to that epithet it is of course good if you take an interest in planning." (Bengt Gustavsson personal contact 08.03.2018).

Even if natural links between land and sea was apparent in Tanum, being a part Northern Bohuslän, terrestrial planning had still been prioritized. Another aspect brought up in the interview with Lysekil municipality was that even though they have an intermunicipal cooperation with MSP, they still had individual comprehensive plans. As an example, they brought up Tanum that has a recently adopted comprehensive plan, but still stressed that the MSP should not interfere with their terrestrial planning.

The municipal prioritization where land takes precedence in the allocation of resources over municipal sea areas is collaborated by several municipalities, for example, Orust, Gothenburg, Kungsbacka and Varberg in the study interviews. Prioritization of land planning in the municipalities can according to the informants take place in both manpower, time and other prioritasional aspects. However, in Northern Bohuslän there was an earlier cooperation between municipalities which included not only questions on marine matters but the planning of

municipalities as a whole, which made it easier to work with land and sea links in their current marine planning. Aside from land planning being a well-known subject the planning architect from Tanum thought that it might be quicker and easier to grasp terrestrial planning than sea planning for politicians and the public. It was mentioned that it was easier to see the advantages of a company establishing on land, creating jobs, than planning in the sea, where benefits often takes longer time to be established. The informant from Tanum also argued that a mistake was made back in the 1970s when the Swedish planning system to a high degree left regional planning in an attempt to strengthen the municipalities. He speculated that that regional view on planning would have been a useful tool today.

While GR as a project is more of a basis for decisions among the participant municipalities it was also clear that planning to bridge the land and sea areas was of importance. GR's planning basis for decisions stretched from the outer region of the land areas through the coastal zone and to the territorial border of Sweden. The project coordinator at GR talked about how questions regarding sea links to land and land infrastructure was discussed within the GR project.

In Tjörn there was no MSP before the GR project. One of the informants here believed that one of the reasons of this was that before they joined the GR project it was hard to do planning without any knowledge and understanding of what work had already been done by others. For example, Tjörn and Varberg lacked planning of sea areas in their comprehensive plan maps because of their prior lack of knowledge and understanding. In Orust municipality there were according to the municipality informant a process aimed at having both terrestrial and sea areas to a high degree included in their comprehensive plan and to use the outcomes from the GR-project as a basis. She brought up the constant considerations that had to be done in this planning when aiming for an all encompassing municipal planning providing both the wants and needs of the inhabitants and the businesses as well as protecting nature areas, tourism and outdoor life.

Varberg on their part had, like many others, not yet decided how to approach the question of linking land and sea areas. The informant at Varberg municipality said that Varbergs comprehensive plan was due to be revised during the next length of office and that it would probably be decided then if the marine plan was to be a part of their comprehensive plan. The informant elaborated that a likely situation was that some parts of the coastal area will be included in their comprehensive plan, while others will not. The parts that might not be in their

comprehensive plan might instead end up in a separate plan. Just as in Tjörn, the maps of Varbergs comprehensive plan were missing parts of the sea areas, which indicated to the informant that there previously had been a lack of focus on them. Like several others he pointed to the problem with lack of knowledge, not just as a problem in the working process, but also as hindering how the linking of the planning on land was to be carried out in the municipality. On land he said, it is relatively easy to evaluate the natural value of a certain area as opposed to the sea, especially regarding the cumulative effects.

Another aspect the informant in Varberg brought up was that the definition of which stakeholders that were affected of decisions on land were more understandable than the more difficult task of defining stakeholders in specific sea areas. This made it hard to know were natural connections could or should be made between the two. All in all, Varberg as a coastal municipality with a high influx of tourism during the summer period prioritized the coastal areas, which made it important for them to plan for both growth and preservation. In Varberg, he believed, they were too early in their process of marine plans to make all required decisions just yet even though they aim to do so in time. Just as Varberg, Uddevalla was in the middle of a learning process regarding the sea areas. The strategic planner at Uddevalla said that in practice, land and sea areas in the municipality were not on the same level when it comes to how it is prioritized. However, she believed that there was interest within the municipality for questions around the sea, many of which were very important for the municipality and that the discrepancy when prioritizing was more derived from lack of understanding, habit and knowledge than lack of will. She concluded that they currently need to train in thinking around the sea areas in new ways than before.

In Lysekil, one of the informants said that the marine areas were highly prioritized and that, because Northern Bohuslän were among the first that started planning in the sea areas, they had also received help from the political sector. This had given energy to keep working and meant that they felt the planning of the sea was prioritized. However, she continued saying that it was a matter of resources and that it was hard to find time to work with the marine planning. In Gothenburg on the other hand, one informant talked about how the sea areas were prioritized very low compared to the land. However, there were very few sea areas outside of Gothenburg that were not already claimed for national interests in the form of defense or waterways to and from Gothenburg harbour. He also said that the interest among the politicians in Gothenburg were not be very high and that in combination with resources directed in other directions and the prioritization of terrestrial areas made the seas less interesting for the municipality. The

other informants in Gothenburg had similar views but added that there had been rising interest in the sea areas overall over the last decade or so and that they both thought it can make marine areas more prioritized in the future.

Like as Gothenburg, Stenungsund has a lot of protected areas in the form of natural reserves and national interests. In Stenungsund municipality, there were an understanding of the links between land and sea and how they stretch into each other. The planning architect exemplified this by highlighting the current planning of an inland preschool in the municipality located by a small stream. The planning architect stated that this stream was used by trout for reproduction and if care was not taken to protect the stream from the new localization of the preschool and other activities in that area it might well have an effect on the trouts. In the long run this can run affect the number of trouts coming out to the sea and possibly disturbing the ecosystem of which the trout is part of. She argued that they had got a better understanding of these processes during recent years although she admitted that there were always areas that one knows very little about. However, she also reflected on how in spite of the growing knowledge of the complex interactions between those areas, the priority is on the terrestrial areas of the municipality. This she stated was because of old habits and knowledge and that there was already value put on the various areas on land, making them easier to plan and and to motivate for politicians and public why the planning choices in different areas was made. She believed that a change in how they think about the marine areas is needed in order to prioritize them in planning and politics and further points to how the Board of Agriculture had since the 1980s been working with trying to change the perception of the sea and its link to the land. An example of this was that they had changed the wording of activities in the sea areas so that they resemble similar wordings when planning on land, eg use aquaculture in order to associate fisheries and other marine activities with agriculture.

5.3 ENVIRONMENT AND GROWTH IN MARINE SPATIAL PLANNING

As figure 26 shows, around 47 percent of the responding municipalities worked with Blue Growth in their MSP. In figure 27 it can be seen that almost 95 percent of the responding municipalities worked with environment/ ecology in their MSP.

Do you work with Blue Growth in the planning of the municipal sea areas?

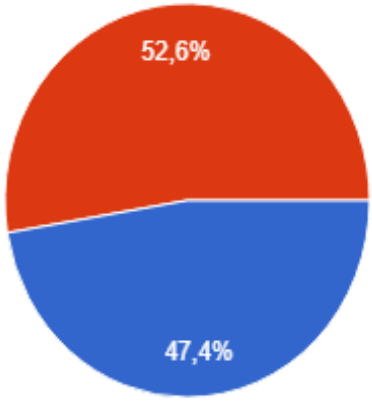

Figure 26 - Shows the percentage of the municipalities working with Blue Growth in their MSP. Blue = yes, red = no.

Do you work with environment/ecology in the planning of the municipal sea areas?

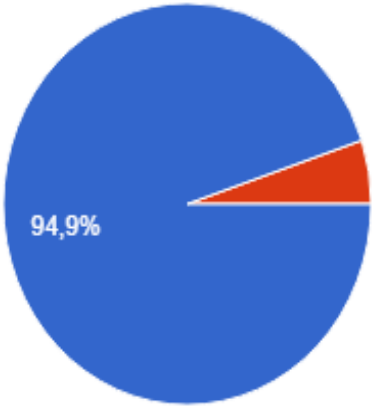

Figure 27 - Shows the percentage of the municipalities working with environment/ ecology in their MSP. Blue = yes, red = no.

Figure 28 shows how various interests and stakeholders such as fishery, aquaculture and outdoor life were prioritised by the municipalities in their planning. There was a high degree of survey takers answering "*no opinion"* (light blue). According to the comments made in the survey, as well as responses from the interviews, it is clear that a majority of the municipalities had not yet reached the planning phase where such considerations and prioritizations are made.

On a scale from 1 to 5 where 1 is the lowest and 5 the highest, how is various interests prioritised within the municipal marine spatial planning?

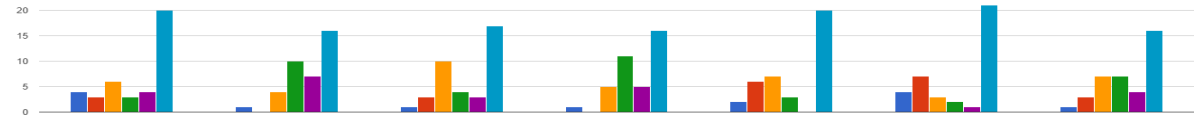

Figure 28 showing how the municipalities prioritise different interests in their marine planning. From the left, industrial facilities, outdoor life, cultural environment, natural preservation, aquaculture, valuable materials, fishery. Where blue (1) is the lowest priority and purple (5) the highest and the column to the far right are responses where municipalities had no opinion.

Figure 29 shows how the cooperation between the municipality and other stakeholders (citizens and the national interests) work in symbiosis with MSP. The informants did, like in the previous figure, to a high degree answer with "*no opinion"* (green). According to comments made in the survey, as well as responses from the interviews, it can be seen that a majority of the municipalities had not yet reached the planning phase where such considerations and prioritizations are made.

On a scale from 1 to 3 where 1 is non-existent and 3 excellent, how extensive is the collaboration between your department, citizens and other national interests various in the work with marine spatial planning?

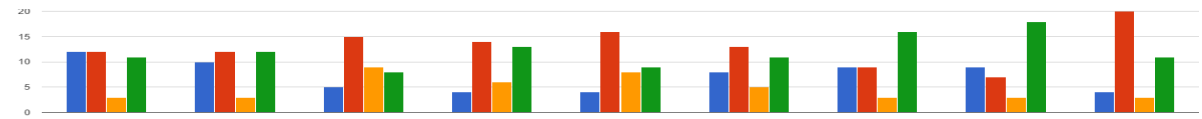

Figure 29 showing how the municipalities prioritise different national interests in their marine planning. From the left, citizens, industrial facilities, outdoor life, cultural environment, natural preservation, defense, aquaculture, valuable materials, fishery. Where blue = non-existent, red = satisfactory, yellow = excellent and green = No opinion.

From the perspective of the project coordinator in GR she saw many different views from the various interests in the marine areas. The interests varied from environmentalistic views with a main focus on preservation, to economic views, for example politicians with an interest in tax income. Each municipality and GR were faced with the task to balance these different interests. The process coordinator of Tillväxt Northern Bohuslän, said that the combination between growth and environment is complex, but important. Northern Bohuslän have worked with MSP for a long time and he said that this kind of thinking around tradeoffs were well integrated in the process. This well working integration in the Northern Bohuslän area was due to that the local geography attracted a lot of tourists combined with that large areas are bound to national interests. This had led to the insight that there had been a need to have an accessible and protected environment along the coastline. Thereby affecting the decisions to be made when it comes to blue growth and environment among the Northern Bohuslän municipalities, having to weigh the economic advantages with tourism with the need to protect the environment from the wear and tear from that tourism itself creates. He also said that the inhabitants of the Northern Bohuslän area in general accepts the relatively large share of tourists traveling to and in Northern Bohuslän each year since there was a common view that this was a possibility rather than a problem. In terms of economic development, tourism during the summer period kept the value of properties in the area high and sustained the local population all year long.

The informant from Tanum municipality talked about Kosterhavet national park as an example of combining protection of the environment with growth. The choice was made to exclude the inhabited islands from the national park level protection as well as permitting hunting and fishing inside the parks borders. This was seen as a way to protect the area without putting a stop for further growth among those still living on the islands in the park. He also pointed to the importance of putting in the work when trying to find the right level of protection and growth, this by interviewing various stakeholders about their wants and wishes and then weighing them against rules, regulations and directives from the County Administrative Boards.

Another problem in how to weigh different interests that was brought up in the interviews are that the definitions of sustainability, since people comes from various backgrounds and viewpoints, can vary between municipalities. This results in creating discrepancies in the understanding of the concept when trying to create inter-municipal plans. A point that the

informant from Orust made was how this was problematic in their process of creating an accessible coastline.

> "It was clear in the process when we talked about sustainability and so on, but we had not really defined what we meant and talked about accessibility to the coast, that there should be good accessibility. But what does accessibility mean and from which perspective? Is it socially or economically or ecologically? You must see it as a whole. So, it is a very important first step, to really define what we mean with the various concepts so that we don't get stuck and don't understand each other" - (Tove Nilsson personal contact, 06.03.2018).

She also said that in Orust municipality the MSP process was not at the stage of doing the considerations between environment and growth yet but were instead identifying how things currently were in order to progress in the future.

Uddevalla had yet to produce actual plans with considerations to growth and environment. They were however the only municipality that answered that they have a designated and defined method, Seascape character assessment, to map valuable environmental areas and human activities with the aim to find existing and future conflicts between them

> "… it is what Seascape character assessment to a part is used for, to show what valuable environments exists in the municipality and at the same time put that in perspective to how people live and work and than we can find the conflicts. So the thinking is that it will show up in the process..." - (Cecilia Trolin, personal contact 02.03.2018).

The responsible planner said that while the question of weighing various interests were discussed in the municipality, there were at this point in time not enough data and clear directions to make decisions. In Stenungsund municipality, the informant highlighted how the municipality had good pre-conditions for sustainable Blue growth, but the issue was that here it was a question for the head of business and development rather than for the planner. Environmental protection on the other hand was something that was strong in Stenungsund and was worked a lot with according to the informant from Stenungsund municipality. This great work with environmental protection was a result yielded through the 8-fjords project and the GR projects. She also elaborated on how it might be a good thing that the marine spatial planning was not carried out until recently, much because of how the planning discourse had changed and evolved over time. Furthermore, she stated that today it was a process where

decision makers as well as planners had to take into account the sustainability, culture, economy, food and production.

> "In one way I would say it is rather lucky that we haven't turned our planning eye towards the ocean until now… as we planers are just in the process of starting to grasp the impact and values involved in sustainable marine planning… and might have destroyed more sustainable planning opportunities due to lack of knowledge." - (Mikaela Danielsson, personal contact 21.03.2018).

Varberg was a municipality that for several years, had been in an expansive phase around their coastal areas. Like in Stenungsund, questions of growth were a matter for the head of business and development rather than for the planners, but as far as the informant from Varberg knew there were not a lot of Blue Growth projects currently underway or planned in Varberg. He also talked about the many discussions around how to develop coastal areas linked to the protected areas were ongoing. The discussion included for example the indirect effects increased boat use and piers can have on the environment and how to combine surfers and ornithologists.

Politically, in his work, the ecologist in Varberg had mostly come across marine protection issues linked to the professional fishery that still existed as an important part in some of the smaller coastal communities in the municipality. While Varberg had many natural marine areas deemed as worth protecting, as far as he knew, there were currently no ongoing work regarding sustainability. There were however discussions about protecting natural areas, but those were mainly centered on the terrestrial areas within the municipality. The idea was to try out different forms of protection on land as a way to probe the political will and ambitions around the protection of larger natural areas. After that stage, he said, it became possible to try it out in the marine areas as well.

> "I feel that you need to start on land and then after that take the step below the surface, it does not come as natural i think." (Rasmus Kaspersson, personal contact 07.03.2018).

The informant in Varberg said that it is an interesting challenge to combine the continued expansion and development of Varberg and at the same time seeing the value in the natural environment. Here the County Administrative Board were also working with protection of certain areas and came into play as an important actor to work with to achieve best possible result regarding protecting areas in the municipality. One aspect he brought up was how the discussion also had to take into account what type of protective areas that were to be created. There was a difference he said in for example Natura 2000 areas and national reserves. In part

what were allowed within them but also what you could plan outside the borders, something that adds to the complexity in the process when planning for growth and environment. In Varberg there were established goals for achieving growth, but considerations had to be made about how to reach those goals and at the same time to do so with a minimal impact on the environment. On these grounds, one has to find compromises and common ground he said.

The Business strategist in Tjörn talked about how they have had a lot of discussion on sustainable development and the different pillars of it and how various interests put different values on them, as was the case in many of the other municipalities. The Business strategist continued saying that in her view there were currently a trend towards more focus on the social pillar. The planning architect in Tjörn municipality said that from her point of view it might be a good thing that people's definitions of sustainable development were diverse. She believed that it is by the discussion and thinking about this from different viewpoints that the concept will evolve, just as long as there are those arguing for all sides of the concept. However, the foundation for sustainable development in Tjörn were stated in AGENDA 21. Tjörns Business strategist said that from her perspective a sustainable development in the municipality focuses on small-scale development. They would not want big factories on the island and they had the same opinion about the development in marine areas. Something the planning architect agreed with, saying that small scale and an easily accessible region for the citizens was important as well as finding ways to prolong the torúrism season and finding "new" seasons for visitors and citizens alike. They both discussed how the municipality even if it wanted, would have a hard time taking in more people in the few short summer weeks. The Business strategist said:

> "Linked to sustainability. What you can see here, for example the six most intense weeks, we can not exploit much more here during those six weeks even if there would be a market for it. We can't because there is no space and we do not want more stress on the environment but then if you want to be able to make a living from your business without bringing in another thousand customers during those six weeks, we have to find other times over the year when these thousand people come here. There is definitely sustainability thinking in that." - (Anna Aldegren personal contact, 15.02.2018).

Just as other interviewees the strategic planner in Kungälv said that the most interesting areas were located closer to the coastline for example in questions regarding visitors in the archipelago. Kungälv wanted to increase and develop their tourism and doing so in a sustainable way. He said, like the informant in Varberg, that he does not see the work with MSP as a challenge, but instead sees an exciting and fun project with lots of possibilities. In Kungälv

there were today no definition of Blue Growth. Kungälvs Strategic planner however thought of Blue Growth as something to be used when creating opportunities for small scale fisheries and sea-based wind power in order to keep coastal communities alive. He also believed that Blue Growth was something that will advance during the coming years since new up and coming businesses that can take place in the marine areas, mentioning biofuel and fertilizer from ascidians as some examples. He highlighted one aspect that he believed has been somewhat forgotten in the discussions on Blue Growth and protection, the issue of how authorities prepare when something happens at sea when economic interests such as transports cross over sensitive protected areas.

In Gothenburg all three informants agreed that the main focus on growth when it came to the sea areas was Gothenburg harbour and that its waterways to and from the harbour were of vital importance. It was mentioned that this was also a national interest making it a priority for the state as well as the municipality. They said that the municipality do not work much with Blue Growth and that a lot more work could be done. When it comes to conservation much of the coastline in the municipality consists of national interests and protected areas like for example Natura 2000. When it comes to growth and development the work was often directed towards inland expansion. Gothenburg municipality did not work with the marine areas separately but worked with the municipality as a whole and then prioritized from that. The consequence was often that marine areas outside of the immediate coastal areas did not get much attention. However, Gothenburg municipality were not under the same pressure or threat as other areas. They also shared the same view of the informant at Varberg's municipality regarding that the County Administrative Boards and their protection programme were an important actor to work with. Both environmental investigators thought that they politicians listened to them regarding conservation of areas. At the time of the interview there were some extra resources available dedicated for creating natural reserves, but the focus was not on their marine environments. Furthermore, Gothenburg municipality kept a list of how to prioritize the areas in need of protection, but the sea areas on that list were not highly ranked.

Blue Growth was not a term used in Lysekil. There were however ongoing discussions at the municipality's department for sustainability around defining Blue Growth, sustainable development and sustainability. The project manager in Lysekil said that they already had well working definitions and ideas regarding market economy, but that Blue Growth might require them to rethink those ideas. The informant agreed and elaborated that there were four different municipalities in Tillväxt Norra Bohuslän that were currently looking at definitions for

preservation and growth, and what they had come up with so far might cause future problems. They both agreed that new technology can affect the conditions for planning and could greatly influence how planning is made in the future. In Lysekil, the informants stated that it was hard to weigh the different interests against each other. The representants of Lysekil municipality said that in the beginning they pointed out separate areas for different priorities. It had however changed during the process since it had caused misinterpretations during the planning of the sea areas. The current aim was to do more than one activity in one area without creating conflicts among those using the area and without depleting its natural values. Connecting the work process to growth and environment, Cecilia in Lysekil lifted the importance of the process in the planning of marine areas and said

> "In this process, I have more than ever before when it comes to working with planning felt that the process is the most important. What kind of plan it becomes is a little less important, but to have a dialogue between the fishing industry and tourism and maritime shipping and so on is extremely important and something that has not been the case as much before." - (Cecilia Lindsten personal contact, 08.02.2018).

5.4 SUMMARY OF RESULTS

Many municipalities have not come far in their MSP and are still in the startup phase. There was a wide spread among the municipalities on where in the process they are reaching from the ones who just have begun working with MSP to the ones that already have adopted marine spatial plans for their municipality. How the municipalities chose to approach MSP varied. Some municipalities worked individually, while some were collaborating through projects and other forms. One municipality had chosen to approach MSP with a specific method, Seascapes character assessment, while others did not have a specific method. One difficulty with MSP commonly mentioned was the almost complete absence of processes and methods available specifically aimed at gathering knowledge for planning sea areas and for the general planning process. The lack of knowledge, availability of data and lack of manpower did also emerge as major challenges in the municipalities' work with MSP.

When it comes to collaborations the picture was divided, while some possessed good external and internal collaborations, others lacked both. Worth noting was the absence of connections and collaboration between the municipalities and the academia, which made it more difficult for the municipalities to gain access to the latest research. Many informants were of the opinion that collaborations between municipalities and other authorities was lacking and that the

municipalities often received mixed messages from the authorities, for example in what were be prioritized in their plans.

The informants saw the connections between land and sea areas and understood that terrestrial planning and MSP affects one another. Most of the municipalities aimed to produce all encompassing comprehensive plans, including and covering both land and sea areas. To make the marine spatial plan part of the comprehensive plan was one way that municipalities integrated their plans of land and sea areas. There were a few municipalities that at the time of this study had worked in an organized way to achieve this.

In this study approximately, 50 percent of the municipalities answered that they were working with Blue Growth. 95 percent answered that environment and ecology was an important aspect in their MSP. A commonly reported problem when working with both Blue Growth and environmental protection mainly focussing on ecological aspects, was the lack of definitions of terms and lack of indicators on how to achieve these goals. The fact that some of the municipalities had large sea areas covered by various national interests was also a contributing factor to why they did not work with Blue Growth. Mainly as it was felt like those areas was more of a matter for the state and in some cases military areas which were often seen as completely of limits by the municipalities. The various results from this chapter will be further discussed in the chapter *Analysis & Discussion*.

6. ANALYSIS AND DISCUSSION

In this chapter we discuss our findings in relation to the study's aim, research questions and the theories used in this study. The study provides a foundation in how the coastal municipalities in Sweden work with MSP and have digged deeper into questions about the integration between terrestrial planning and marine spatial planning, as well as the work with combining growth and environment. Planning theories, land and sea integration, Blue Growth and sustainable development, including weak and strong sustainability, are therefore used to analyze how the work with MSP take place on a municipal level in Sweden. The discussion is presented through the three themes used in this study: *The work with marine spatial planning, Marine spatial planning and synergies between marine and terrestrial areas* and *Environment and growth in marine spatial planning.* Due to the study's aim, which is to map how marine spatial planning takes place on a municipal level in Sweden, there is a major focus at theme one. Even though the three themes are separated in the text, they are interlinked and should be seen as a whole.

6.1 THE MUNICIPAL WORK WITH MARINE SPATIAL PLANNING

The municipalities in Sweden tasked with MSP have a broad range in geographical size, sea use, population, economic strength and other resources, which can lead to differences in how they approach the task and issues of MSP. Consequently, these differences can create discrepancies in the planning, which later can complicate an already complex area of municipal responsibility.

The interviews did show that there were challenges in questions of staff and turnovers. As mentioned in the result there were a few people in each municipality or project that worked with MSP, which caused vulnerable situations. If and when someone quits, it is not only the person itself that disappears but also their knowledge and contacts. In the interviews it did emerge that the planners experienced pressure from different directions, which made them feel overwhelmed. At the same time as resources and knowledge were lacking, the planners are still considered to be the professionals in the municipalities work with MSP, taking decisions and motivating the choices made as discussed by Claydon (2006).

6.1.1 THE MUNICIPAL WORK WITH MARINE SPATIAL PLANNING: KNOWLEDGE

Lack of knowledge and investigation was one of the major challenges for the municipalities working with MSP. The importance of valid and available data is also stressed by Smith et. al. (2011) and was brought up in all interviews, as well as the answers in the survey, which confirms that that was what the municipals missed the most. Without updated data, one can only imagine the pressure of making balances and developing a marine spatial plan. This fact puts the planner in a crucial role, where people push them in different directions. The planners also have to take laws and restrictions into consideration when making balances in their plans. As presented in the result complicated situations arose when different authorities came with directives that contradicted each other. The planners are supposed to follow the directives, laws, the municipality's policies and at the same time satisfy various stakeholders and citizens, which can make MSP a complex and slow process where qualified decisions are hard to make or where decisions are taken precipitously.

The marine spatial plans are supposed to be based on knowledge and collected data, but at the same time it was mentioned as a crucial part to be able to take decisions and make balances. It is however interesting that documentation/inventory and advice/ knowledge are the ones the municipalities lack the most when it simultaneously can be seen that a majority of the municipalities have non-existent cooperation with universities or other research institutions. The result clearly shows that the lack of knowledge made it difficult and almost impossible to make informed decisions, which in turn might lead to a complicated situation in a transparent process. Many informants highlighted that they see the consultation (the consultation that SwAM organize about their national marine spatial plans) as their chance to express their opinions about SwAM's marine spatial plans. In a way, it can seem a bit contradictory that municipalities are supposed to come with arguments and opinions, without having sufficient data. It is not unlikely that these opinions can be more about what one thinks instead of opinions based on facts and recent data of the current marine environment. This also shows the importance of having a transparent process where even SwAM are open and are motivating decisions and suggestions made in their plans. This is also consistent with Smith et.al (2011), who points out that without correct knowledge it is difficult, if not even impossible, to make a plan with decisions that are well founded and motivated.

A suggestion this study makes and that has emerged during the course of this study, is that it would be helpful if government agencies collected the needed data in a centralized manner, rather than putting the task of finding GIS-layers and other data on each of the 82 different municipalities. On the other hand, the municipalities have had the responsibility of planning their sea areas since the 80s and it still has not been made by more than a few municipalities in this structured way before. Still, sea areas might not have been planned due to its context in time and it is also only in recent years the techniques and demands of using ocean space have emerged and become developed. Historically the planning mainly revolved around shipping, the defense, fairways and commercial fishing.

From the planners' perspective, it has become clear that politicians and other decision makers had a lot to say about what direction their municipality shall take. This is shown both in the survey and have appeared in interviews where many have stressed the importance of an active and engaged municipal board. Several planners said the municipal board often contains part time politicians, which might not have the sea as their most important focus area. Even among the ones knowledgeable in the work, the part time politicians might not have the knowledge needed for informed decisions regarding MSP. The accumulated effects, first from the planners that have to make planning considerations and putting forward plans based on lacking data and other aforementioned circumstances, and secondly from the politicians that in turn are required to make political decisions based on those plans and their own lack of knowledge can result in flawed plans which can affect future plans, both on land and sea, for long periods of time. Furthermore, those plans and planning decisions must by Swedish law also be presented for the public, which can create additional challenges when planners and decision makers have to explain the considerations and plans made without having the data to back those decisions up. At the same time as this communicative process can complicate the planning process through the added number of stakeholders and the added time that is required, it is still in the Swedish *Plan och bygglag* 7th chapter 8§ a requirement in the planning process. However, it is also a way to include local citizens, gather local knowledge and contribute to a more socially sustainable plan. In turn, this contributes to a transparent planning process where citizens feel included and get the opportunity to express their wishes and wants, which hopefully will result in fewer conflicts along the process. For example, Lomma, which is one of the municipalities that had worked with MSP for a relative long period of time and had an adopted plan, had used a transparent process where participation was an important part.

6.1.2 THE MUNICIPAL WORK WITH MARINE SPATIAL PLANNING: PARTICIPATION AND STAKEHOLDER ENGAGEMENT

Tillväxt Norra Bohuslän and Lomma were seen as role models by many of the other interviewed municipalities who often referred to them and got inspired by their work. Both Tillväxt Norra Bohuslän and Lomma have worked a lot with citizens and stakeholder's participation, dialogues, gathering knowledge (both research and local) and obtained a basis for the marine spatial plans. It is considered being an appropriate method (Khakee, 2000, p. 34-35; Morf, 2005) and can be a way forward to develop sustainable marine spatial plans. Even though Tillväxt Norra Bohuslän and Lomma are seen as role models it is important to understand their work behind their plans and drafts. They have spent plenty of time and resources to obtain the data needed, which means making a marine spatial plan is not a quick-fix. A municipality have to see to its own situation and conditions and put its plan in that context.

As have emerged during the course of the study, there were several municipalities that had individuals or small groups of enthusiasts who were an important part of moving the work with MSP forward. It has in the result also appeared that politicians and individual enthusiasts played important roles in which direction MSP took in different municipalities as well as how they acquired resources in form of for example time and financial support. While it is important with enthusiasts, those municipalities not having them in the process should, in regard to the Swedish planning process, be able to function regardless of those enthusiasts. In many ways the public participation desired in the Swedish planning process might be hard to achieve at sea. The process is rather extended and when being performed at sea also more abstract and less apparent than on land. It can make it hard for planners and decision makers to keep the public interested over time, especially if the proposed plans, which are often larger in scale than the single municipality, do not appear as something that affect the local, which can lead to less interest from the public (Morf, 2005). Additionally, it is important that the local political power shows commitment to the marine planning, showing enthusiasm, arguing for it and be knowledgeable, much in the same way as in projects on land.

6.1.3 THE MUNICIPAL WORK WITH MARINE SPATIAL PLANNING: COLLABORATIONS

As planning and MSP research often encourages a holistic approach (Morf, 2005; Khakee, 2000, p. 34-35; Pomeroy & Douvere, 2008; Gopnik et al. 2012) where considerations are taken to growth and environment and a work process where various stakeholders as well as citizens have participated, it is worth noting that the result showed that many lacked both internal and external cooperation. The lack of cooperation may constitute a stagnation for the aim of cross border intentions in MSP. Furthermore, a crucial question for the municipalities work with MSP is, where to start? Some say one first have to get financial support to gather data of the marine areas to make the sea as important as land, while others say one have to gather the data first to show the importance of sea areas for politicians, to then get financial support. No matter what, it is understood that there is a need of financial support, but we will also stress the importance of actually integrate the sea as a natural part in a municipal planning system, so municipalities in the future can handle MSP even without getting external financial means.

As have been presented in the result there are several municipalities having cooperation with other municipalities, both adjoining as well as non-contiguous. The importance of cooperation for a sustainable development were highlighted by both municipalities and previous research (Crowder et.al. 2006; SOU 2010:91). Even SwAM and the County Administrative Board stresses the importance of regional and intermunicipal cooperation. As an example of external financial support that is open for the municipalities to apply for is KOMPIS. KOMPIS encourage cross-border cooperation as a way to promote a broader participation. It can be anticipated that financial support like KOMPIS is a way of a top-down politic where the municipalities are steered to cooperate. At the same time as cooperation is seen as a method to facilitate for municipalities and to influence decisions. It is therefore even more interesting and positive due to the recommendations that regional cooperation have resulted in other cooperations between municipals within those regions, for example between Orust and Tjörn. In one way this can confirm the importance GR has in their project where they have actually made many of the coastal municipalities in the area work with MSP, both individually but also in a regional context where cross border cooperation exists. Cooperation could be discussed as a successful method, not only intermunicipal cooperation but also cooperation between different sectors and administrative borders in a municipality. As an example, Lomma did work individually with their marine spatial plan, but they did also use a participant kind of method when including citizens, stakeholders and politicians. The inclusion of theses various interests

did in turn lead to further cooperation among the stakeholders, as example the various surfers brought up in the result.

There are several collaborations and social networks in the municipalities work with MSP, but an overall picture of how everything is connected is missing. This can mean that many municipalities have to do extra work on a problem already solved by another municipality. In the survey it can be seen that some municipalities were not involved in a project even though they wanted to. According to Agardy et.al. (2011) and Kidd & Shaw (2014) as well as authorities on a national level in Sweden (SOU 2010:91) who stress the importance of cooperation, it can be seen as a failure that municipalities who want to collaborate still only work individually. At the same time this result can be an indicator that there are more possible collaborations to be found. If there were to exist a common national database of MSP the work would likely flow more easily. As previously mentioned, a common database could function as a helper in the municipalities' MSP. Information could be gathered and available for municipalities and others concerned, as well as it could be clear where in the process municipalities are, what they need, if they are working in a project, etc.

In general, the Swedish municipalities tend to work individually in many questions in their terrestrial planning, while MSP requires more of a regional cooperation. In the GR project the aim was, as mentioned in the result, to develop a deepened structural picture which stretches to areas on land too. Even though they are not finished with the plan yet, they had so far chosen to approach MSP with intermunicipal collaboration and had project groups containing participants with mixed knowledge. The importance of regional planning is something that can be seen on a higher administrative level, for example within the Swedish government and their new proposal that recommends a more extensive use of regional planning (Regeringskansliet, 2018).

6.2 MARINE SPATIAL PLANNING AND SYNERGIES BETWEEN MARINE AND TERRESTRIAL AREAS

One discussion brought up by the municipalities revolves around the degree of connectedness between the terrestrial- and marine spatial plans. That discussion covers how it should be done and on what scales, such as the administrative and geographical, which varies with the context these connections exists in. These discussions are relevant and applicable to the conditions for the various municipalities in Sweden, which varies in for example sizes, population and main industries. Even though it in the 3rd chapter 1§ *Plan och bygglag* (SFS 2010:900) says that each municipality should plan their areas, both land and sea, this has not been the case in Sweden so far.

As has appeared in the result a great majority of the Swedish municipalities aim to integrate the plans of land and sea areas. The result also shows that there are municipalities that yet do not have their sea areas pointed out in their comprehensive plans, one can therefore see that planning sea areas have not been prioritized, not even for island municipalities. The comprehensive plan is however seen as a good way to make the marine spatial plans valid in the municipalities, as well as it can function as a way to integrate land and sea areas in physical planning. As mentioned above, GR aims to develop a deepened structural picture that stretches to areas on land too. As a regional coordinator GR can not produce the municipalities individual comprehensive plans. Instead the deepened structural picture can encourage the individual municipalities to integrate both land and sea areas in their plans. According to the result it is interesting that for example Varberg municipality had not yet decided if the marine spatial plan will be a part of their comprehensive plan or if it will be a separate document, while Lomma who did establish a marine spatial plan made it a part of their comprehensive plan from the beginning and actively chose not to have it as a separate document.

Previous research shows the importance of integrating the terrestrial and marine spatial plans where the cumulative effects from different anthropogenic activities and natural processes are taken into account (Smith et.al. 2011). For example, the dependence on the sea from coastal communities and rising sea-levels that affects both land and sea make solid cases for the integration of land and sea areas into coherent plans (Smith et.al. 2011, p. 298). In the European and Swedish context, it also means that the integration of land and sea plans should be performed not only on the local level such as the individual Swedish municipalities, but on a larger regional scale where various interests in and on the seas are not limited within the borders of a single municipality. The importance of linking the land and sea planning is therefore

strongly argued by Smith et.al. (2011) and planning just one won't be enough to achieve sustainability (MSP, 2014).

6.2.1 MARINE SPATIAL PLANNING AND SYNERGIES BETWEEN MARINE AND TERRESTRIAL AREAS: DIMENSIONS & METHODS

Many municipalities have in their work with MSP considered three dimensions: the surface, below the surface and the seabed, there are a few that have considered a fourth dimension: time. The study's result has shown that the aspect of dimensions is important in MSP and time is also an important aspect to take into consideration. One reason for this is because of the planning actions performed today, often likely result in long-term effects. Another reason is that knowledge which in the result has been brought up as ever-changing. From the result it can be seen that time had somewhat been neglected, just as Seghezzo stresses (2009). An example of where time has affected the thinking of how planning should be performed is the use of ICZM some years ago to today's MSP. The ICZM turned out to not be enough in the work for sustainable seas as well as new technology and knowledge change the use of marine resources, where MSP now cover bigger areas. However, the ICZM is still used today and is by many seen as a bridge between land and sea areas, since it is not designed specifically for either land or sea (Smith et.al. 2011). Just as the challenges of the added dimension and knowledge gaps in MSP this poses other dilemmas such as when the, in Europe and Sweden at least, well developed terrestrial planning methods are to be linked to the new and in many ways different MSP.

It is clear that the Swedish municipalities face challenges in their work with MSP. At least in part, there is a need for different methods and tools other than the ones used for terrestrial planning. Several municipalities did talk about the difficulties in using the same planning methods in their sea areas as they use on land, elaborating how perhaps new methods and tools needs to be developed for a new planning environment such as the municipal sea areas. These municipal thoughts are in concurrence with the theories regarding the need for new approaches in MSP brought forward by the likes of Jay (2010) & Kerr et. al. (2014) who see the planners as the ones that are supposed to drive the process forward in the most efficient way, something Gazzola et.al. (2015) sees as important to consider when various administrations decide on how to approach MSP in the most practical and suitable way.

A majority of the municipalities had troubles answering questions about trade-offs, which was a result of their current position in their work with MSP. Most of them had not come far in their process yielding that trade-offs were not part of their current discussion. The lack of knowledge was one challenge in the early stages of the planning. To make well-founded decisions knowledge is required and important to analyze how Blue Growth has taken stamp in other places, even though they still have to put it in their own context.

Even though many of the municipalities had not come that far in their process, it is nowadays in their interest to plan their sea areas. Historically various activities and interests such as leisure and commercial fishing, transports, defense and recreation in the sea areas were to a high degree seen as isolated from each other. This could be a reason why municipalities have not seen the relevance of developing marine spatial plans like the ones that are requested today. Nowadays there are new innovations for resource extraction and knowledge gathering, which according to several informants made it possible for them to perform more than one activity in the same geographical area. This puts planning of sea areas in a more interesting position than before.

These innovations, however, have their basis in the weak sustainability where new techniques and innovations have been produced so human can keep on their behaviour as usual. Kosterhavet National Park have been brought up as an example where a balance between prevention (national park) and growth (tourism and islands without the status of national park). Even though the intention is good, it can still be difficult to define what interests that are fine to exploit on the islands where the prevention a national park gives are not valid. MSP can therefore be seen as something that is done for humans, but if one is aware of its limitations and use them to develop MSP it can protect the environment too.

As brought up previously the municipalities faced difficulties when balances had to be made. MSP however aims at optimizing both growth and preservation activities through allocating them spatially in the most efficient way. Sustainable development assumes that a value can be put on a certain area. However, who can decide the value of an eelgrass bed or the recreational value of unrestricted sea views? Should the human or natural capital be valued the most and in what context? (Hopwood et.al. 2005; Bioscience, 2012). A further discussion includes how sea areas have been subject to a shift where it first was a focus on preservation when the finance was on top, while at the time of financial crisis the focus shifted to a more growth-oriented perspective, showing the influence policymakers have on alignments as discussed by Kidd &

Ellis (2012). There is however, as always, a need to think about how sustainable MSP really is and for whom it is performed. As the definition of sustainable development is criticized being anthropocentric by for instance Williams & Millington (2004) and the municipalities all work with sustainable development without having definitions, it can be argued that the weak sustainability is the one that are valued the most. What sustainable development means is however decided by humans who have the power. To summarize, the question if development is going to be of weak or strong sustainability is up to policymakers.

6.3.1 ENVIRONMENT AND GROWTH IN MARINE SPATIAL PLANNING: DEFINITIONS AND SET GOALS

As have been presented in the result it can be seen that a lower percentage, 49 percent, said they worked with Blue Growth in their MSP, compared to the 95 percent that said they worked with environment and ecology in their MSP. In the interviews it has however turned out that all interviewed municipalities worked with Blue Growth, even though they did not use the concept itself. For example, the tourism industry has been highlighted as important by a majority of the informants, as well as the commercial fishing industry were seen as an important stakeholder. As can be seen in the theory the concept of Blue Growth has changed over time and Blue Growth itself is new (Soma et.al. 2018, p 363). It is therefore assumed that the municipalities work with Blue Growth, without necessarily being involved in the concepts definition. Another interpretation made from this is that the commercial fishing is a natural part of a, often smaller, coastal society where it is seen as a culture, identity and something that creates attraction for tourism rather than industry.

Definitions have been a complex part of this study during the whole process. MSP itself has several definitions so as Blue Growth, while sustainable development has a wide spread definition but many interpretations, as is discussed by Fowke & Prasad (1996, p. 61). With or without having a definition of sustainable development, it is however important for the municipality to analyze what the definition means to their context. From the collected data it can be seen that there were only a few, if any, municipalities that had clear definitions and set goals of how to work for a sustainable development, including both growth and preservation in MSP. Clear goals and indicators on what should be achieved have been brought up as desirable in interviews and several planners expressed that difficulties arose in their work without set definitions and goals and indicators. For example, when balances must be made, the planners

experienced themselves as caught between many interests where at the same time knowledge and information was lacking.

The lack of clear definitions and goals could mean that a marine spatial plan can be directed more towards financial interests than environmental or vice versa, depending on the municipal's direction. As an example, by using the word industrialization in a definition of sustainable development it can indirectly be said that the economic side of sustainability is being the focus of the blue growth. So, when a municipality express that it plans for a sustainable development and that it should permeate every decision taken, it is necessary to gain specific definitions as well as set goals and indicators. The importance of clear goals and indicators as a way to support, in this case the planners, is strengthened by several authorities and organisations (The National Board of Housing, 2007; Swedish Environmental Protection Agency, 1999; Nystrom & Tonell, 2012; Ranhagen & Schylberg, 2004). A contradictory opinion in the result is that there is no need for a definition, it is better to keep an open discussion which in turn can drive the work forward. Of course, that is another aspect, but it might also lead to a development where the ones that raises their voices are to be heard the most (Bohm, 1985; Barbesgaard, 2018, p. 134, 145).

6.3.2 ENVIRONMENT AND GROWTH IN MARINE SPATIAL PLANNING: A LOCAL DEVELOPMENT

It is clear that many municipalities stressed the local society and local industries as important when making marine spatial plans, which was identified as place identity. For instance, the fishery was by several municipalities not only seen as a source of income or livelihood, but as something highly connected to the social and cultural aspects of the local society as it contributed to a flourishing society. The model Seghezzo advocates, which is brought up in the theoretical chapter, bring the sustainable development down to a more local level than the more recognized definition made by Brundtland. For example, Seghezzo (2009, p. 540) points out the importance of place and persons, which can be put in relation to what many of the interviewed planners have brought up, a local development. The local scale justice between generations as is pointed out, can be put in relation to what a smaller municipality can experience with local epistemology. The importance to consider these local, social and cultural aspects are also brought up by Hawkes (2001) and UNESCO (n.d.). An internal discussion about the wanted development of an area, before taking decisions can therefore be a step in the direction of sustainable development.

7. CONCLUSIONS

The study's aim has been to investigate how marine spatial planning takes place on a municipal level in Sweden. To investigate these two more focused questions have been used, which is one reason a thematic disposition into three themes was made. The first theme: *the work with MSP*, permeates the other themes, as well as being the major theme. The second theme: *Marine spatial planning and synergies between marine and terrestrial areas* have focused on how the municipalities work to link their land and sea areas through physical planning. The third and last theme: *Environment and growth in marine spatial planning* have focused on how various interests are taken into account in the municipals MSP.

7.1 CONCLUSION: THE WORK WITH MSP

The first research question on how the coastal municipalities in Sweden work with MSP has shown that many of the coastal municipalities in this study have not yet progressed far in the work process. It has turned out that the municipalities take on MSP in various ways: individually, using external consultants, in collaborations or a mix of all these methods. In general, the municipalities that have worked for a longer time have used a participant method and had spent much time and resources on collecting data to design a basis. For example, they have taken their time to implement interviews with local stakeholders and by doing so their work with MSP had been more anchored in the local society.

According to the second research question it has been clear that the municipalities face several challenges in their work with MSP. Challenges that have been brought up are lack of knowledge and available data, lack of cooperation, lack of manpower and the lack of MSP in their (the planners') work descriptions. The complexity of planning sea areas and the various dimensions was another challenge brought up by the informants. All these challenges hindered the municipalities work with MSP, while the lack of knowledge and available data were the major ones.

A pattern that was seen was that the lack of knowledge includes municipalities that both were in the start-up phase as well as the ones that were further in the process and was one of the most important barriers to overcome. It has also been clear that documentation / data, participation from stakeholders and a transparent process was a common thread among the municipalities that worked as role models for the others (Lomma and Tillväxt Norra Bohuslän). A difference among these municipalities though, was that Lomma had integrated their MSP in their

comprehensive plan from the beginning, while Tillväxt Norra Bohuslän did not. All municipalities did however express that the sea was important and that they struggled to continue with their MSP, even though it sometimes was hard to know where to begin.

7.2 CONCLUSION: MARINE SPATIAL PLANNING AND SYNERGIES BETWEEN MARINE AND TERRESTRIAL AREAS

In theme two and in the third research question, it was shown how the coastal municipalities worked to link their MSP and terrestrial planning. It can be seen that a great majority of the municipalities aimed to link these plans by making the MSP a part of the comprehensive plan, even though some still did not know how they would link these plans. GR as a project group has drawn a line by high-exploited coast which to some extent has made land areas included in their work with the blue structure. Tillväxt Norra Bohuslän consisted of four municipalities developing a common marine spatial plan and had, due to each municipality's individual comprehensive plan, not really decided how to integrate land and sea areas. Lomma municipality had on the other hand already made the marine spatial plan a part of their comprehensive plan. All interviewees did however stress the importance of integrated planning.

7.3 CONCLUSION: ENVIRONMENT AND GROWTH IN MARINE SPATIAL PLANNING

Theme three and the fourth research question handles the coastal municipalities work with combining environment and growth in MSP. As mentioned in the conclusion for question one it has been clear that the municipalities that have been, or are, further in the process advocates the importance of using a participatory method. Using the local knowledge and input when planning and incorporate the citizens, organisations and businesses wishes and wants in the plans had according to them produced a better and, in the local society, more grounded plan. A useful approach when balances between environment and growth were made, strengthens the argument for and being in concurrence with the Swedish planning systems wish for participatory planning. Many municipalities did not come to that point in the process where they had discussed how to combine these interests. It however turned out that at the same time as the lack of knowledge and available data were major challenges in the municipalities' work with MSP, knowledge was needed to be able to take well grounded decisions. The environment, stakeholder's participation and local industries, both in terrestrial and marine areas have been stated as important parts in the municipal planning, which shows that MSP can be a useful part to achieve sustainable seas.

7.4 FURTHER RESEARCH

During the course of this study it has become abundantly clear that there has been little research done on a municipal scale in the area of MSP in Sweden.

Two areas where further research is recommended are, first, research about the knowledge gaps. To make it possible to achieve and strive for a sustainable development on a local as well as regional scale, accessibility to knowledge and updated data is crucial. There is a need to investigate what knowledge that is missing and the relevance of the available data. As recommended before, a common database consisting relevant data and accessible for the municipalities and other concerned would simplify the work with MSP for the municipalities.

Secondly, it has turned out that decisions taken from a top-down perspective have great impacts on the municipalities work with MSP and the resources available for them. There is a need to investigate how politicians and decision-makers position affect the work with MSP as well as the creation of internal and external collaborations in the process. Further research about top-down decisions and decision-makers role in the work with MSP is therefore recommended.

Some of this result has already been presented during workshops at the Sea & Water Forum (Havs- och vattenforum) in May 2018, while the rest is available in this report. We hope this study will be useful in the further work on MSP in Sweden.

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APPENDIX

APPENDIX A

Interview guide (Intervjuguide)

(Presenterar oss, uppsatsen och dess syfte. Syftet med intervjuerna, forskningsetik, hantering av data, definitioner etc.)

- Vilken nämnd/ avdelning ansvarar för kommunens fysiska planering av hav?
    - *Vad ingår? (kust, land, bara hav etc)*
- Hur många arbetar med fysisk planering av hav hos er och i vilken omfattning? (tjänster, uppgifter, uppskattningsvis: heltid, halvtid etc)

För kommuner i projektgrupp:

- Hur kom det sig att ni valde att arbeta i projektgrupp?
  - Hur arbetar ni i projektgruppen?
  (ansvar, tid, resurser etc.)
  - Vilka från kommunerna är delaktiga i gruppen?
  (planerare, förvaltare, ekonomer etc.)
- Finns det utmaningar i själva processen med att arbeta i en projektgrupp? (Målkonflikter, kunskapsluckor, beslutsfattande osv).
  - I så fall, vilka?
- Finns det möjligheter i själva processen med att arbeta i en projektgrupp? (Samarbete, kunskapsutbyte, kompetensutveckling, resurser osv.)
  - I så fall, vilka?

För kommuner utanför projektgrupp:

- Hur fungerar det för er som enskild kommun att arbeta med att planera havet?
- Andra kommuner samarbetar, ser ni några för och nackdelar med att jobba själva istället för att samarbeta? (ex. att hänsyn behöver tas till kringliggande kommuner, resursbrist osv.)
  - I så fall, vilka?

Tema 1: Hur arbetar kommunerna med havsplanering?

- Hur arbetar ni med fysisk planering av hav?
  - Hur länge har ni arbetat med havsplanering?
  - Vart i processen är ni i nuläget?

- Har ni uppsatta mål, i så fall vilka?
  - Hur mäts de?
  - Tidsaspekten?

- Finns det utmaningar i ert arbete med fysisk planering av hav?
  - I så fall, vilka?
  - Och, i så fall, hur tar sig dessa uttryck?

- Får ni någon form av stöd för att genomföra er fysiska planering av havet?
  - I så fall, vad och är det tillräckligt?
  - Om inte, vad hade ni behövt?

- Har ni i kommunen tagit in extern hjälp i ert arbete med fysisk planering av hav?

  - I så fall vilken?
  - Om ja, av vilken anledning?
  - Om inte, av vilken anledning?

- Finns det intresse/engagemang för fysisk planering av hav i kommunen, dvs är det ett prioriterat område för kommunen? (politiker, planerare, medborgare etc.)

  - I så fall, hur ser det ut?
  - Och, i så fall, hur påverkar det ert arbete med den fysiska planeringen av havet?
  - Om inte, hur påverkar det ert arbete med den fysiska planeringen av havet?

- Hur fungerar dialogen mellan kommunen och andra aktörer?
  (Ex kommun-medborgare, kommun-kommun, kommun-länsstyrelse, kommun-stat kommun-intressenter såsom miljöorganisationer, näringsliv osv. - Brister, styrkor, utmaningar etc.)

- Finns det någon form av samarbete mellan kommunen och andra administrativa nivåer gällande den fysiska planeringen av havet? (ex HaV)
  - I så fall, med vilka?
  - I så fall, hur ser samarbetet ut?

- Hur ser kunskapsinhämtningen ut kring den marina planeringen? (vetenskap, lokal, myndigheter, ad hoc)

- Om kunskap hämtas in, vilken typ av kunskap är det?

- Finns det någon metod som används för att värdera bästa tillgängliga kunskap (ex vid beslut och fortsatt arbetsprocess)?
  - I så fall, vem bestämmer detta och hur följs den?
  - Om inte, hur värderas kunskap vid ex besultsfattande?

Tema 2: Hur arbetar kommunerna för att kombinera land och havsplanerna?

- Kommuner har lång erfarenhet av planering på land – hur är havsplanering i jämförelse med det? (Skillnader/ likheter, resurser, engagemang dels på kommunal nivå men även gällande den statliga processen)

- Finns det någon form av samordning mellan kommunens planering av land och kustzonen vs planeringen av havet? (för att knyta samman planerna etc.)
  - Hur ser det isåfall ut?
  - Om inte, varför?

- Hur arbetar ni kring att jämka samman statliga havsplaner i förhållande till kommunala havsplaner? (möjligheter/svårigheter)

- Använder ni metoder som andra kommuner arbetar med kring "bryggan" hav-landplanering eller använder ni en egen metod för detta?
  - I så fall vilka metoder "lånas", vilka/vilken är "egen"?
  - Om inte, hur arbetar ni för att jämka dessa?

- Hur prioriteras olika planer för land och hav inom er kommun? (exv genom att planering av land ges mer resurser/tid osv i förhållande till fysisk planering av hav, statlig vs kommunal plan osv)?

Tema 3: Hur arbetar kommunerna med att kombinera EU-direktiven tillväxt och hållbarhet?

- Arbetar ni inom kommunen med blå tillväxt/ regional utveckling?
  - Isåfall, hur och vilken definition använder ni er av? (Ex finns mätbara mål)

- Vilken/vilka metoder arbetar ni med för att nå blå tillväxt/ regional utveckling i den fysiska planeringen av havet? (Konsulter, inom kommunen, i projektgrupp, BID, cultural planning, andra myndigheter etc)

- Arbetar ni med hållbar utveckling av havet inom kommunen? (dvs finns ett aktivt hållbarhetstänk runt havet på samma sätt som på land)
  - Isåfall, hur och vilken definition (perspektiv) använder ni er av? (Ex finns mätbara mål)

- Vilken/ vilka metoder arbetar ni med för att nå hållbar användning av havets resurser i den fysiska planeringen av havet? (Konsulter, inom kommunen, i projektgrupp, BID, cultural planning, andra myndigheter, krav på näringar etc)

- Hur diskuterar ni på kommunen kring avvägningar mellan blå tillväxt/regional utveckling och hållbar användning av havets resurser i den fysiska planeringen av havet?
  - I så fall, Hur värderas olika planeringsintressen inom den fysiska planeringen av havet i er kommun? Varför? (ex. havsaktiviteter, hållbarhet, tillväxt etc.

- Finns det skillnader gällande synen på fysisk planering av hav mellan olika intressenter? (näringar, planerare, beslutsfattare etc.)
  - *I så fall, vilka perspektiv gäller det i huvudsak och mellan vilka parter?*

Övrigt

- Tips till andra kommuner?
- Kan vi kontakta er igen?
- Vill ni ha en upplaga av uppsatsen när den är klar?

Missivbrev

Hej,

Våra namn är Frida Ramberg och Roger Johansson och vi läser för närvarande masterprogrammet i geografi på Göteborgs universitet. Vi har nu påbörjat vår masteruppsats där vi skriver om havsplanering från ett kommunalt perspektiv. Syftet med uppsatsen är att undersöka och kartlägga hur Sveriges kustkommuner arbetar med havsplanering.

Enligt den tidsplan vi har hade vi gärna sett att enkätsvaren varit oss tillhanda senast den 29:e mars för att kunna sammanställas och sedan presenteras tillsammans med intervjusvar i uppsatsen i slutet av maj. Målgruppen för enkäten är de som kan sägas vara ansvariga/ involverade för planeringen av respektive kommuns havsområden i alla Sveriges kustkommuner.

Medverkan i undersökningen är frivillig och resultaten kommer som tidigare nämnts att användas i vår masteruppsats tillsammans med insamlade data från intervjuer.

Länk till enkät: https://goo.gl/forms/OhqP5E5BImFDcfPA2

Har ni frågor om något får ni gärna kontakta någon av oss:
Frida: email, gusramfr@student.gu.se
Telefon: 07xx xx xx xx

Roger: email, gusrogerjo@student.gu.se
Telefon: 07xx xx xx xx

Tack på förhand!
Allt gott, Frida & Roger

Survey sent to the coastal municipalities of Sweden:

https://goo.gl/forms/OhqP5E5BImFDcfPA2

Survey (Enkät)

Tack för att du besvarar denna enkät! Enkäten är uppdelad i olika rubriker: *Inledande frågor, arbetsprocess, samverkan* och *tillväxt & miljö* och den beräknas ta max 10 min att fylla i.

I enkäten är det flera frågor där *havsplanering* nämns. Havsplanering syftar i detta fall till definitionen ovan, det vill säga kommunens fysiska planering av havet som sker från respektive kommuns baslinje ut till territorialhav-gränsen.

Inledande frågor

Arbetar ni med havsplanering inom kommunen?

Ja	**Nej**

Om nej, varför inte?

Svar:

Om ja, fortsätt besvara enkäten nedan:

Arbetsprocess

Hur länge har ni i kommunen arbetat med havsplanering inom kommunen?

<=1 år	1 år	5 år	10 år	>=15 år

Vilken nämnd/ avdelning ansvarar för kommunens fysiska planering av hav?

Svar:

I hur många tjänster (uppskattningsvis, kommunstyrelsen ej inräknat) inom kommunen ingår arbete med havsplanering som en del av arbetsuppgifterna*?

1	2	3	4	>=5

**** - Arbetsuppgifterna kan variera, i detta fall kan det bland annat vara att ta fram underlag för havsmiljö, dialoger med näringar etc.***

Vilken inriktning på utbildning har de som arbetar med kommunens havsplanering? (Flera val möjliga)

Samhällsvetare	Ekonomisk	Naturvetare	Miljövetare	Teknisk	Annan

Har kommunen något uppsatt huvudmål i arbetet med havsplanering?

Ja	Nej

Om ja, finns det en tidsaspekt för huvudmålet?

Ja	**Nej**

Har kommunen något/ några uppsatta delmål för att nå huvudmålet?

Ja	**Nej**

Om ja, finns det i så fall uppsatta tidsaspekter för att uppnå delmålen?

Ja	**Nej**

På en skala från 1 till 5, där 1 är precis påbörjat och 5 är beslut tagits om plan: hur långt har ni kommit i kommunens arbete med havsplanering?

1	**2**	**3**	**4**	**5**	**6**
Har precis börjat	**Underlag finns**	**Planeringsarbete är pågående, men allt är ej fastställt**	**Redo för beslut om plan**	**Beslut har tagits om plan**	**Ingen uppfattning**

Har ni i kommunen tagit in extern hjälp i ert arbete med havsplanering?

Ja	**Nej**

Om ja, vad har den externa hjälpen bidragit med? (flera svar möjliga)

Ekonomiskt stöd	Rådgivning/ kunskap	Underlag/ inventering	Nätverk	Samverkan/ samarbeten	Annat

Saknar ni något stöd i arbetet med havsplanering?

Ja	Nej

Om ja, vad vilket stöd saknas? (flera svar möjliga)

Ekonomiskt stöd	Rådgivning/ kunskap	Underlag/ inventering	Nätverk	Samverkan/ samarbeten	Annat

Är havsplaneringen en separat process inom kommunen i dagsläget?

Ja	Nej

Är havsplaneringen i kommunen en del av översiktsplanen i dagsläget?

Ja	Nej

Om nej, utifrån dagsläget, är tanken att havsplaneringen ska bli en del av översiktsplanen?

Ja	Nej	Vet ej ännu

Samverkan

I detta avsnitt följer frågor om samverkan, vilket i denna kontext definieras som det samarbete och den samverkan som sker i olika skalor och avseenden både internt i kommunen och mellan kommunen och andra aktörer. Detta kan exempelvis vara dialog vid enskilda tillfällen, kontinuerlig dialog, liksom ett projekt över tid.

Har ni en samverkan med annan/ andra kommun/ kommuner i arbetet med havsplaneringen?

Ja	Inte än, men det är planerat att påbörjas	Nej, men hade gärna haft det	Nej

På en skala från 1 till 3 där 1 är obefintlig och 3 fullgod, hur omfattande är samverkan mellan kommunen och andra administrativa nivåer i kommunens arbete med havsplanering?

	1 **Obefintlig**	**2** **Bra**	**3** **Fullgod**	**4** **Ingen uppfattning**
HaV				
The National Board of Housing				
Länsstyrelsen				

På en skala från 1 till 3 där 1 är obefintlig och 3 fullgod, hur omfattande är samverkan mellan er kommun och annan/ andra kommuner i arbetet med havsplanering?

	1 **Obefintlig**	**2** **Bra**	**3** **Fullgod**	**4** **Ingen uppfattning**
Angränsande kommun/ kommuner				
Ej angränsande kommun/ kommuner				

På en skala från 1 till 3 där 1 är obefintlig och 3 fullgod, hur omfattande är samverkan mellan er avdelning och andra enheter inom kommunen i arbetet med havsplanering?

	1 **Obefintlig**	**2** **Bra**	**3** **Fullgod**	**4** **Ingen uppfattning**
Kommunstyrelse				
Chefer				
Avdelningar				

På en skala från 1 till 3 där 1 är obefintlig och 3 fullgod, hur omfattande är samverkan mellan er avdelning och andra avdelningar på kommunen i arbetet med havsplanering?

	1 **Obefintlig**	**2** **Bra**	**3** **Fullgod**	**4** **Ingen uppfattning**
Miljö				
Samhällsbyggnad/Plan/Bygg				
Näringsliv				
Övriga				

På en skala från 1 till 3 där 1 är obefintlig och 3 fullgod, hur omfattande är samverkan mellan kommunen och andra externa aktörer i kommunens arbete med havsplanering?

	1 **Obefintlig**	**2** **Bra**	**3** **Fullgod**	**4** **Ingen uppfattning**
Universitet/Högskolor				
Övrig vetenskap/forskning				
NGO's				
Miljökonsulter				
Näringslivsorganisationer &/ bolag				

På en skala från 1 till 3 där 1 är obefintlig och 3 fullgod, hur omfattande är samverkan mellan er avdelning och medborgare, samt övriga riksintressen kopplade till havet i arbetet med havsplanering?

	1 **Obefintlig**	**2** **Bra**	**3** **Fullgod**	**4** **Ingen uppfattning**
Medborgare				
Anläggningar för industriell produktion (inkl energiproduktion/-distribution, sjöfart)				
Friluftsliv				
Kulturmiljövård				
Naturvård				
Totalförsvaret				
Vattenbruk				
Värdefulla ämnen eller material				
Yrkesfiske				

Tillväxt & miljö

Arbetar ni med Blå Tillväxt i planeringen av kommunens havsområden?

Ja	Nej

Arbetar ni med miljö/ekologi i planeringen av kommunens havsområden?

Ja	Nej

På en skala från 1–5 där 1 är lägst och 5 högst, hur prioriteras olika intressen inom kommunens havsplanering?

	1 Lägst	2	3	4	5 Högst	6 Ingen uppfatt-ning
Anläggningar för industriell produktion (inkl energiproduktion/-distribution, sjöfart)						
Friluftsliv						
Kulturmiljövård						

Naturvård						
Vattenbruk						
Värdefulla ämnen eller material						
Yrkesfiske						

Avslutande frågor

Övriga kommentarer:

Finns det möjlighet till att kontakta er igen ifall frågor uppkommer?

Ja	**Nej**

Namn:

Kommun:

Avdelning:

Kontaktuppgifter (tel. eller email):

Tack för din medverkan!