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# **Three faces of HELCOM – institution, organization, policy producer**

**Matilda Valman**

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ISSN 0346-6620

ISBN 978-91-7649-033-4

Printed in Sweden by US-AB, Stockholm 2014

Distributor: Department of Political Science

Graphic design: Karin Nilsson

# Abstract

Despite early initiatives during the 1960s and 1970s, and continuing efforts ever since, the Baltic Sea remains in poor condition. The Helsinki Commission (HELCOM) is the governing body tasked with protecting the marine environment from further deterioration through intergovernmental collaboration between the Baltic Sea states and the EU. In 2007, HELCOM launched a new tool – the Baltic Sea Action Plan (BSAP), of which the so-called ecosystem approach is a cornerstone. However, how and why the BSAP reform was launched, and also what consequences such management reforms can have for transboundary resource management, is unknown.

By using institutional theory, organizational theory and the advocacy coalition framework, in combination with content analysis of official documents derived from HELCOM, this thesis argues that the BSAP is the end result of a gradual process of change within institutional structures and actor beliefs. This thesis also shows that HELCOM's capacity to detect, process, and react in response to changes in its regulatory objective has not changed as a consequence of the BSAP. In contrast to earlier research, it seems HELCOM responds better to slow and opaque changes than to quick and visible ones. Finally, by comparing the HELCOM with two other similar cases, the thesis shows that HELCOM's adaptive capacity could be improved in line with the recommendations of the ecosystem approach.

This thesis illustrates the importance of studying the emergence of new tools for governing transboundary resources from several theoretical perspectives. The thesis uses an innovative quantitative content analysis and concludes that new methods might be required to enable such studies. The different perspectives used here give various explanations concerning the causes and consequences of the BSAP. In a future Baltic Sea, where environmental changes are likely to be abrupt, a multitude of understandings regarding the governance of the Baltic Sea will be crucial.

# Sammanfattning

Trots tidiga initiativ under 1960- och 70-talen samt fortsatta ansträngningar är Östersjön alltjämt i dåligt skick. Helsingforskommissionen, HELCOM, är det styrande organ, sammansatt av alla länder kring Östersjön och EU, som har till uppgift att skydda Östersjön från miljöförstöring via mellanstatligt samarbete. 2007 lanserade HELCOM ett nytt instrument för förbättrad förvaltning av Östersjöns miljö – Aktionsplan för Östersjön, i vilken den så kallade ekosystemansatsen för förvaltningen är en grundbult. Men, hur och varför aktionsplanen lanserades och vilka konsekvenser sådana reformer kan ha för gränsöverskridande resursförvaltning är oklart.

Genom att tillämpa institutionell teori, organisationsteori och teori om policyförändring (advocacy coalition framework) i kombination med en innovativ kvantitativ och kvalitativ innehållsanalys av offentliga dokument visar denna avhandling att aktionsplanen för Östersjön inte är ett resultat av institutionell förändring. Inte heller är den ett resultat av förändringar i inblandade aktörers koordinerade beteende. Snarare har långsamma förändringsprocesser påvisats i både institutionen samt bland aktörers värderingar, vilket i viss mån kan förklara HELCOM:s nya förvaltningsansats. Vidare visar denna avhandling att HELCOM:s kapacitet att upptäcka, bereda och reagera på signaler från Östersjön inte har förändrats i och med aktionsplanen. Samtidigt, i motsats till tidigare forskning om organisationers lyhördhet, svarar HELCOM bättre på långsamma förändringar än på snabba. Slutligen, genom att jämföra HELCOM med två andra fall av gränsöverskridande marin förvaltning, visar denna avhandling att HELCOM:s adaptiva förmåga på många sätt kan förbättras i linje med ekosystemansatsens rekommendationer. Exempel på förbättringsområden inom HELCOM är att intressenter ska inkluderas bättre i policyprocessen, metoder för konflikthantering, utvärdering och revidering av beslut bör utarbetas samt förbättra kommunikationen och harmoniseringen mellan de olika myndighetsnivåerna inom, men också mellan HELCOM och andra involverade organisationer.

Denna avhandling påvisar vikten av att studera framväxten av nya förvaltningsinstrument från flera teoretiska perspektiv. Avhandlingen använder sig bland annat av en innovativ kvantitativ innehållsanalys, men visar också att fler nya metoder kan behöva utvecklas för att kunna genomföra den här typen av studier. De olika perspektiven ger olika förklaringar till orsakerna och konsekvenserna av den nya aktionsplanen för Östersjön. I en framtida Östersjö, där miljöförändringar kan ske mycket snabbt, kommer en talrik förståelse för Östersjön och dess förvaltning vara avgörande.

# List of papers

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**Paper I:** Valman, Matilda (2013), 'Institutional Stability and Change in the Baltic Sea: 30 Years of Issues, Crises and Solutions', *Marine Policy*, 38:54–64.

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**Paper II:** Valman, Matilda, 'Beliefs and behavior in international policy making: longitudinal changes in the governance of the Baltic Sea', Manuscript submitted to *Environmental Policy and Governance*.

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**Paper III:** Valman, Matilda, Duit, Andreas and Blenckner, Thorsten 'HELCOM, we have a problem: Gradually unfolding crises and problem detection in international organisations', Manuscript submitted to *Public Administration*.

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**Paper IV:** Valman, Matilda, Österblom, Henrik, and Olsson, Per, 'Adaptive governance of the Baltic Sea: Lessons from elsewhere', Manuscript accepted in *International Journal of the Commons*.

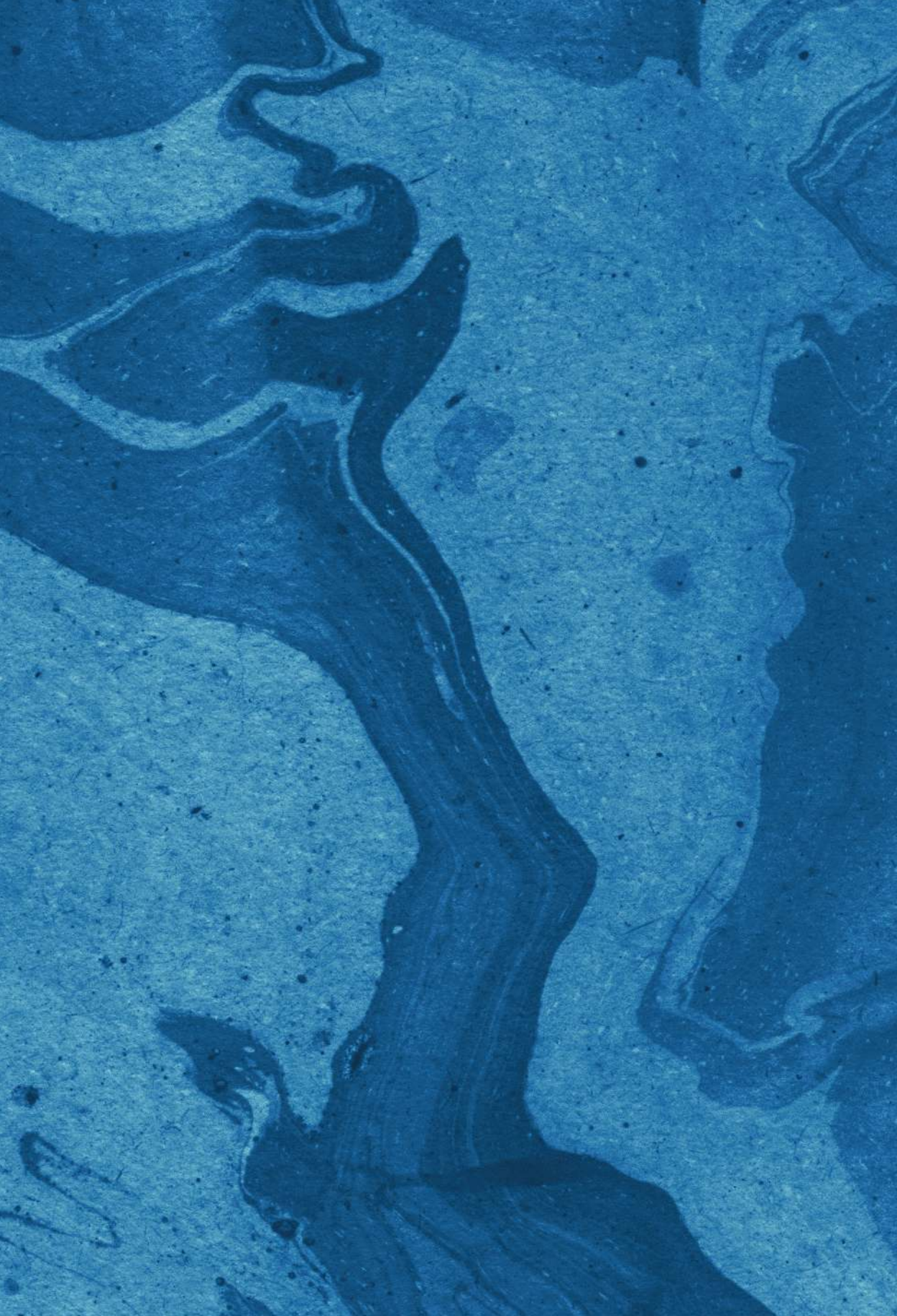
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## My contribution to the papers

In **Paper III** I was responsible for the theoretical approach and collecting the text data. Andreas Duit should be credited for co-authorship and Thorsten Blenckner for the method. I wrote approximately 50 percent of the paper. While I was the lead author and responsible for the writing process in **Paper IV**, the idea, design and analysis was developed jointly together with Henrik Österblom. He should also be credited for the results regarding the CCAMLR as well as Per Olsson for sharing results regarding the CTI-CFF. I wrote approximately 80 percent of the paper.

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# Introduction

The Baltic Sea is one of the most polluted and most studied, seas in the world (Feistel et al. 2008; Joas et al. 2008). From an ecosystem point a view, the Baltic Sea is regarded as a simple system. Few species have had time to establish themselves after the latest ice age, and even fewer have been able to survive the brackish water, a condition resulting from the fact that the Baltic Sea is almost entirely enclosed by land. In addition, an increase in human influence during the 20th century has resulted in a rising influx of nutrients and toxins into the sea. This, combined with overfishing is causing complex ecosystem degradation, including increased eutrophication, dead seabeds (deep water anoxia) and depleted fish stocks (Carstensen et al. 2014; Lindegren et al. 2009; Möllmann et al. 2009; Niiranen et al. 2013; Savchuk and Wulff 2007; Österblom et al. 2007). Anthropogenic pressure on the Baltic Sea area is so high that already during the 1970s it was considered as one of the most polluted seas in the world (Elmgren 1989; Gänzle 2011).

Initiatives to protect the Baltic Sea from further deterioration and perhaps facilitate improvement were therefore initiated as early as the 1960s and early 1970s. These initiatives resulted in the signing of the Convention on the Protection of the Marine Environment of the Baltic Sea Area in 1974 (more commonly known as the Helsinki Convention), a novel treaty at the time and an institutional success considering the challenge of achieving collaboration between eastern and western Europe (Ehlers 1994; Malgorzata Fitzmaurice 1996; Räsänen and Laakkonen 2008). The Helsinki Convention established the Baltic Marine Environment Protection Commission (commonly referred to as the Helsinki Commission or HELCOM), which is the governing body of the Convention. In HELCOM, the ten contracting parties – Denmark, Estonia, the European Community, Finland, Germany, Latvia, Lithuania, Poland, Russia, and Sweden – are represented as well as several observers, such as intergovernmental organizations (IGO) and non-governmental organizations (NGO).

Despite all efforts made under the HELCOM framework since the 1970s, the major threat facing the Baltic Sea remains eutrophication and dead seabeds (Carstensen et al. 2014). Therefore, in an attempt to arrest and reverse the environmental degradation, the Baltic Sea states and the European Community launched the Baltic Sea Action Plan (BSAP), with

the purpose of fundamentally reforming the management of the Baltic Sea. HELCOM (2008) writes:

...further progress cannot be achieved using only the old administrative measures of equal reductions in pollution loads. A completely different approach and new tailor-made actions are required /.../ The new plan is radically different from any other plan or programme previously undertaken by HELCOM. The innovative approach is that the plan is based on a clear set of 'ecological objectives' defined to reflect a jointly agreed vision of 'a healthy marine environment...' (p. 13)

The BSAP includes a so-called 'ecosystem approach' to management meaning that new methods and targets are planned to improve the polluted environment that is the Baltic Sea's unfortunate hallmark. The BSAP is regarded as unusually ambitious, at least in comparison with HELCOM's earlier achievements and could potentially signal a shift from HELCOM's traditional command-and-control management (Backer and Leppänen 2008; Hassler et al. 2013; Österblom et al. 2010). The research community also describes the BSAP as novel: "The novelty of the approach is the aim to quantify a good ecological status of the Baltic Sea." (Backer and Leppänen 2008 p. 324). Minna Pyhälä (2012) writes:

The novelty of the approach used in the HELCOM action plan is that it puts the ecosystem at the centre, by defining the status of the sea as we want it to be in the future, and focusing management decisions on this goal as opposed to the more traditional approach of addressing the sources of pollution on a sector by sector basis, without directly linking the measures to the status of the Baltic Sea. (p. 50)

Kristine Kern (2011) writes that:

[The] action plan is remarkable for several reasons: first, it is based on an ecosystem approach, i.e. sectoral pollution-reduction approach was replaced by a cross-sectoral approach /.../ Second, the plan emphasizes a broader view on sustainable development /.../ Third, the plan is the result of the active participation of all major stakeholder groups in the region /.../ Fourth, the BSAP starts from a multi-level approach and thus distinguishes [at what level] measures can be implemented. (p. 27)

With its ecosystem approach, the BSAP represents a supposedly new and more flexible tool for transboundary resource management organizations, and embodies a break with traditional sectoral based resource management. Signed in 2007, the BSAP has come a long way compared to many similar action plans aimed at governance transformation around the globe, and it is therefore in many ways a forerunner concerning how the ecosystem approach could be implemented in international organizations (Backer and Leppänen 2008; Gänzle 2011). Nevertheless, the question still remains – how big a difference does the BSAP really encompass?

## Aim and questions

The bulk of the literature on environmental resource management has for more than two decades tried to convince managers and policy makers to take not only the social system but also the ecological system into consideration (Berkes et al. 2003; Ostrom 1990; Young 2002a). The ecosystem approach in this sense neatly follows this school of thought as it is implemented (Carollo and Reed 2010; Garcia and Cochrane 2005; Gelcich et al. 2009; Kittinger et al. 2011). However, little has been done to empirically investigate causes and consequences of management reform towards ecosystem based management in an international context. This thesis aims at filling this gap.

The thesis draws on three different literature sources – institutional theory, organizational theory and theory on policy change – in order to explain *how* and *why* the BSAP reform was launched. Moreover, it also explains *what* consequences such management reforms can have for transboundary resource management in general and the organization of HELCOM in particular.

This thesis therefore has a two-fold aim. The first is to explore the causes behind the emergence of the BSAP while the second aim focuses on the consequences of the BSAP. **Paper I** investigates the question of whether the BSAP can be explained as a result of a process of institutional change. The paper looks for both abrupt and slow institutional change by applying the method of computer assisted content analysis of official documents derived from HELCOM. By contrast, **Paper II** explores the reasons why the BSAP was launched in the

first instance. The study investigates the BSAP through policy analysis by studying actor beliefs and behavior within HELCOM and how changes within these have influenced the BSAP. **Paper III** combines text data with ecological data to study HELCOM's organizational responsiveness to ecological signals. Lastly, **Paper IV** looks outward and compares the adaptive capacity of the Baltic Sea (HELCOM) to the Southern Ocean (CCAMLR) and the Coral Triangle (CTI-CFF). All of these organizations have action plans that include the ecosystem approach, but their respective governance systems are otherwise very different. This study discusses HELCOM and its BSAP and how HELCOM could learn from these other organizations so that the ecosystem approach is implemented and complied with successfully.

## **Empirical background: The case of HELCOM and the BSAP**

This section includes an overview of the intergovernmental collaboration HELCOM and the Helsinki Convention followed by a section dedicated to the novelties of the BSAP. Earlier research on Baltic Sea governance is presented last in this section.

### **The Helsinki Convention and HELCOM**

The first Helsinki Convention was signed in 1974 by Denmark, the Federal Republic of Germany (FRG), Finland, the German Democratic Republic (GDR), Poland, the Soviet Union, and Sweden. With the Helsinki Convention, all sources of pollution to a specific sea area were for the first time made subject to a single convention. Before the Helsinki Convention, different sources of pollution – such as land-based, ship borne, and that resulting from exploration and exploitation of sea-beds – were treated in different conventions. The 1974 Helsinki Convention also addressed scientific and technological cooperation aiming at preventing marine pollution by harmful substances like oil and toxic waste (Malgorzata Fitzmaurice 1996; Poutanen 1996; Räsänen and

Laakkonen 2008). The Helsinki Convention entered into force in 1980, which also marks HELCOM's starting date. Prior to the establishment of HELCOM, the Convention had been governed by an interim commission (Malgorzata Fitzmaurice 1996; Helsinki Commission 1994).

HELCOM meets once a year. All decisions are made in unison and each contracting party has one vote (Helsinki Commission 2014f). The Chairmanship rotates between the contracting parties every two years, according to their alphabetical order in English (Helsinki Commission 2014d). There are five expert working groups within HELCOM covering pollution from ships and safe navigation (the MARITIME group), national and international response to maritime pollution (RESPONSE), land-based pollution (LAND), monitoring and environmental assessments (MONAS), and nature protection and biodiversity (HABITAT). Besides these working groups HELCOM recently initiated a working group for implementation of the ecosystem approach in the BSAP and the EU Marine Strategy Framework Directive. This group (GEAR) only includes the contracting parties that are also EU member states and hence excludes Russia (Helsinki Commission 2014a).

The staff of the HELCOM Secretariat, located in Helsinki, consists of the Executive Secretary, three Professional Secretaries, an Information Secretary, an Administrative Officer, three Assisting Professional Secretaries and four Assistants (Helsinki Commission 2014b).

The Helsinki Convention was thoroughly revised in conjunction with the breakup of the Soviet Union and the reunification of Germany. The new Convention was signed in 1992 and entered into force in 2000, after ratification (in chronological order) by the European Community, Germany, Sweden, Estonia, Finland, Denmark, Lithuania, Poland and Russia (Malgosia Fitzmaurice 1993; Helsinki Commission 2014c; Poutanen 1996). Many changes were made in the new Convention. Among these was the usage of the "ecosystem"<sup>1</sup> concept, but the most important change in the new Convention concerns the area where the Convention is applicable. As stated in Article 1, it entails the inclusion of all internal waters. The 1974 Helsinki Convention did not include internal waters, which had been a drawback since its launch in 1974. The new convention was thus expanded to include the catchment area of the contracting parties. This change made it possible for HELCOM to

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1. Compare Article 2, point 1 in the 1974 Helsinki Convention and the 1992 Helsinki Convention.

address pollution that originated from land. The first report on land-based pollution activities was published by HELCOM in 1987 (Helsinki Commission 1987) and thus influenced the new Convention signed in 1992. Besides the pollution load compilations (PLC) published approximately every five years, HELCOM also makes periodical assessments of the status of the marine environment approximately every five years. The first one was published 1981 (Helsinki Commission 1981). One of the main tasks of HELCOM has been and is to foster international collaboration and environmental monitoring, and to promote new knowledge<sup>2</sup> about the Baltic Sea environment.

Another important step made at the ministerial meeting in 1992 beside the revised Convention was the adoption of the Joint Comprehensive Environmental Action Programme (JCP). The JCP was signed in Ronneby, Sweden, in 1990 by Heads of Governments and High Political Representatives. The ministerial meeting in 1992 adopted its 20-year program of action. The development of the JCP was conducted by the Baltic Sea states, Norway, the Czech and Slovak Federal Republic, and the Commission of the European Communities. Besides those states were four multilateral financial institutions involved in the process (the European Bank for Reconstruction and Development, the European Investment Bank, the Nordic Investment Bank, and the World Bank). The Baltic Sea Declaration adopted in Ronneby defined the JCP as a tool to for implementation of the Helsinki Convention and the HELCOM Recommendations. To accomplish the implementation, 132 so-called “hot spots” were identified, where immediate actions to control pollution were to occur. Hot spots were defined as point sources of pollution such as municipal facilities and industrial plants, but also pollution from certain agricultural areas, and pollution in sensitive areas such as wetlands where special measures were needed. The hot spot list is continuously reviewed and revised. Another objective of the JCP was to ensure a stronger coordination and cooperation with similar programs and activities in order to strengthen the formal institutions and their implementation. Thanks to the financial institutions involved and the sharing of financial risks the JCP has been successful. Currently (2014), 109 of the 162 hot spots identified

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2. See Article 13 e and f, and Article 16, point 1 in the 1974 Helsinki Convention, as well as Article 20, point 1 e and f, as well as Article 24, point 1 in the 1992 Helsinki Convention.

around the Baltic Sea since 1992 have been cleaned up. Overall, the JCP has contributed to a 32 percent reduction of the total load of nitrogen and 36 percent of the total load of phosphorus. Furthermore, the JCP also led to the implementation of Annex III for the Helsinki Convention on criteria and measures of pollution from land-based sources. Since 2003 the implementation of the JCP has been transferred from a special implementation task force (PITF) to the working group LAND. The JCP was designed to end by 2012, but since several hot spots have yet to be deleted the list remains a task of HELCOM (Berbalk 1996; Helsinki Commission 1993; Helsinki Commission 2013a).

As a follow up concerning the adoption of the 1992 Helsinki Convention, 62 sites from all the Baltic Sea states were established to be protected under the new concept of “Baltic Sea Protected Areas.” Today, there are 163 sites, or 11.7 percent of the Baltic Sea, that are protected (Helsinki Commission 2013b). A first attempt to classify all marine biotopes in the Baltic Sea was made 1998. The classification and the red list developed here has since then worked as a tool for enhanced protection of marine life (Helsinki Commission 1998).

## **The BSAP and the ecosystem approach**

The Baltic Sea Action Plan (BSAP) was signed in 2007 at a ministerial meeting gathering all Ministers of Environment from the nine countries around the Baltic Sea and the European Community as a way to push further for positive environmental change in the Baltic Sea. The signing was preceded by years of preparation by the contracting parties and the HELCOM Secretariat. A new feature of the BSAP compared to previous recommendations is the so-called ecosystem approach that is embedded in all targets in the plan. The idea of an ecosystem approach to management (also known as ecosystem based management or integrated management) has been discernible for several decades in scholarly literature (Christensen et al. 1996; Grumbine 1994; Halpern et al. 2010), but it was first launched in an international policy context as it became associated with the sustainability concept during the Earth Summit in Rio de Janeiro in 1992, in parallel with the establishment and signing of the Convention on Biological Diversity (CBD). The Conference of the Parties (COP) of the CBD adopted the ecosystem approach as its

primary framework of action at its second meeting in 1995 (COP 2 1995, Decision II/8). The CBD describes the ecosystem approach as a “strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way” (COP 5 2000, Decision V/6 A1) by “[recognizing] that humans, with their cultural diversity, are an integral component of many ecosystems” (COP 5 2000, Decision V/6 A2).

12 principles for the implementation of the ecosystem approach (sometimes referred to as “the Malawi Principles”) was developed in a workshop in Malawi, and these were presented at the fourth meeting of the COP, 1998 (COP 4 1998). The principles are:

1. **Management objectives are a matter of societal choice.**
2. **Management should be decentralized to the lowest appropriate level.**
3. **Ecosystem managers should consider the effects of their activities on adjacent and other ecosystems.**
4. **For recognizing potential gains from management there is a need to understand the ecosystem in an economic context, considering e.g. mitigating market distortions, aligning incentives to promote sustainable use, and internalizing costs and benefits.**
5. **A key feature of the ecosystem approach includes conservation of ecosystem structure and functioning.**
6. **Ecosystems must be managed within the limits of their functioning.**
7. **The ecosystem approach should be undertaken at the appropriate scale.**
8. **Recognizing the varying temporal scales and lag effects that characterize ecosystem processes and objectives for ecosystem management should be set for the long term.**
9. **Management must recognize that change is inevitable.**
10. **The ecosystem approach should seek the appropriate balance between conservation and the use of biodiversity.**
11. **The ecosystem approach should consider all forms of relevant information, including scientific and indigenous and local knowledge, innovations and practices.**
12. **The ecosystem approach should involve all relevant sectors of society and scientific disciplines.**

With the Malawi Principles as a stepping stone, the ecosystem approach has become a popular tool within marine natural resource management because of its potential to create a better management response to ecosystem changes. With its prerequisites of flexibility and adaptability the ecosystem approach is believed to have the potential to create a management system that is both quicker and more accurate in terms of an institutional fit and response (Crowder and Norse 2008; Curtin and



Prellezo 2010; Halpern et al. 2010; McLeod and Leslie 2009; Pitcher et al. 2009), although the inclusion of *all* principles in the implementation process is rare. More often than not some principles are prioritized above others. Examples of implementations of the ecosystem approach in the marine context can be found in several places in the USA. In the Gulf of Mexico, they have reorganized the management structure by initiating new working groups that include several new stakeholders and organizations from different management levels. They have also initiated a new reporting and monitoring system (Carollo and Reed 2010). Knowledge about the managed ecosystem(s) are vital within the ecosystem approach, hence a new reporting and monitoring system often is key when changing the management system.

In the Northwestern Hawaiian Islands the establishment of the Papahānaumokuākea Marine National Monument meant a practical implementation of the ecosystem approach in the region. The ending of commercial fishing, together with ecosystem protection, are two major consequences of the National Monument's designation. The collaboration between different sectors and management levels that have emerged are unique in the USA (Kittinger et al. 2010; Kittinger et al. 2011). Other examples from the USA are the fisheries on the US west coast. For marine fisheries in the California Current the ecosystem approach includes the climate-driven physical and biological interactions, trophic relationships in the food web and the role of human impact (Field and Francis 2006; Lester et al. 2010). Furthermore, the Californian fisheries are one where the ecosystem approach has come the furthest in relation to legislation. The fishery management plan in the region includes 19 species of finfish and sets biological objectives that are adjusted according to available information over time (Kaufman et al. 2004; Ruckelshaus et al. 2008).

The US National Oceanic and Atmospheric Administration (NOAA) has also begun to change its management strategy. Not only are they shifting management tools and techniques, to, for instance, zoning and marine spatial planning, they are also reorienting their collaboration with other agencies and partners (C. Barnes and McFadden 2008; Burgess et al. 2005).

On the Chilean coast a shift from conventional management to flexible adaptive approaches has occurred within fisheries. New legislation, exclusive access zones and fishing quota reductions have

turned the Chilean fisheries into a more sustainable direction (Gelcich et al. 2010).

Australia has also initiated the ecosystem approach in several areas. The most well known is probably the Great Barrier Reef Marine Park. The management plan of the Great Barrier Reef explicitly emphasizes management of marine resources at the ecosystem level, combining conservation with sustainable use, public participation and performance evaluation. Management tools used are federal-state cooperation, zoning, spatial management and areas of no-take for target fish and sharks (McCook et al. 2010; Olsson et al. 2008; Ruckelshaus et al. 2008). In the southern parts of Australia, an ecosystem-based zoning policy is developed as a tool for sustainable development and use of the marine environment. A model is developed that uses ecological criteria to establish ecologically rated zones. Each zone has a series of goals and objectives that are evaluated for its goal achievement (Day et al. 2008).

The Coral Triangle Initiative (CTI) builds on an ecosystem approach for the management of fisheries and other marine resources. The CTI has developed a toolkit for the implementation of the ecosystem approach, including for example guidelines, ecosystem indicators, protected areas, and watershed management plans (Flower et al. 2013; Rosen and Olsson 2013) (see also **Paper IV**, where the ecosystem approach in fisheries management in the Southern Ocean is also discussed).

The inclusion of the ecosystem approach as an integral part of the BSAP was one of the earliest attempts in Europe (Backer et al. 2010). The ecosystem approach is also implemented within the EU in the Water Framework Directive (WFD) and the Marine Strategy Framework Directive (MSFD). In the ecosystem approach, indicators derived from the ecosystem are used to define the state of the ecosystem in order to set targets that represent a “good” ecosystem state. This state is then used to plan future management efforts in an adaptive way (Beaumont et al. 2007; Browman and Stergiou 2004; Garcia and Cochrane 2005). In the WFD the quality of the ecosystem is evaluated by several so-called biological quality objectives, whereas the MSFD has 11 descriptors that summarize a good environmental state (Borja et al. 2010). Several European countries are also starting to use marine spatial planning as a practical tool for implementing the Directives and the ecosystem approach (see e.g. Douvère and Ehler 2009; Directive 2014/89/EU; SOU 2010:91).

The decision to include the ecosystem approach in the work of HELCOM was made during the 2003 Ministerial declaration (the HELCOM Bremen Declaration) (Backer and Leppänen 2008; Pyhälä 2012). The Bremen Declaration calls for “the need to protect shared resources for the benefit of present and future generations through the implementation of an ecosystem approach” (p. 1).

The novelty of the BSAP is said to lie in its comprehensiveness as a management plan, how the targets have been set and calculated, and in its adaptable structure (Backer and Leppänen 2008; Kern 2011; Pyhälä 2012). As such, it represents a break with traditional command-and-control management. The BSAP has a mandate to address all sources of environmental degradation in the Baltic Sea and is divided into four parts – eutrophication, hazardous substances, maritime activities, and biodiversity – where individual targets are developed under each part. Drawing upon the ecosystem approach, the individual targets are based on ecological objectives derived from a common vision<sup>3</sup> of a healthy Baltic Sea. The targets set under “Eutrophication” are, for example, calculated by models that take both the biogeochemical cycles and the food web into account. In addition, anthropogenic pressures that affect nutrient loads in the Baltic Sea drainage basin from both the land and the atmosphere are included. This ecosystem model has been an important tool for the practical implementation of the ecosystem approach and has made it possible to quantify a good ecosystem state in the Baltic Sea. Earlier targets used within the HELCOM Recommendations were based on a 50 percent reduction goal and were thus not related to the actual ecological state of the Baltic Sea (Declaration on the Protection of the Environment of the Baltic Sea 1988; Backer and Leppänen 2008; Backer et al. 2010; Pyhälä 2012). The ecosystem approach within the BSAP thus enables management efforts to be directed towards specific requirements and needs, such as the state of specific fish stocks in certain areas or emissions from specific areas. In addition to being open about how individual targets are set, HELCOM

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3. The vision is stated in the HELCOM Minutes of the 27th Meeting (2006), Annex 3: “A healthy Baltic Sea environment, with diverse biological components functioning in balance, resulting in a good ecological status and supporting a wide range of sustainable human economic and social activities.”

has also instituted a process for continuous revision<sup>4</sup> of the targets and the maximum allowable nutrient inputs from respective member states of the convention. The former reduction schemes were not revisable in the same sense since there was no structure for how revisions should or could be made. The establishment of the BSAP Implementation Group (Helsinki Commission 2008, 29nd Meeting, Agenda Item 2), and later the Group for Implementation of the Ecosystem Approach (GEAR) (Helsinki Commission 2008, 33rd Meeting, Agenda Item 4), ensures implementation and revision of agreed BSAP targets. Via GEAR, HELCOM also has the possibility to initiate and strengthen actions related to the BSAP in respective countries (Helsinki Commission 2014a).

The Baltic Sea states are also required to prepare a national implementation plan for the BSAP, where they need the ability to report on which measures they are using for implementation and the cost-effectiveness of the measures taken (Helsinki Commission 2014e; Pyhälä 2012).

To fund the implementation of the BSAP, national budgets and EU structural funds are used. Additionally, a BSAP Fund was established by the Nordic Investment Bank (NIB) and the Nordic Environmental Finance Corporation (NEFCO) in 2009 to support grants for, for instance, technical assistance and support in conjunction with the implementation of the BSAP (NEFCO 2014; Pyhälä 2012). HELCOM has also requested that the respective national implementation plans of the BSAP should be complemented with financing plans (Helsinki Commission 2011, 32nd Meeting, Annex 4).

## Previous research on Baltic Sea governance

The governance of the Baltic Sea is a topic not nearly as well understood as the Baltic Sea ecosystem and its biogeochemical cycles. Only during the last decade have components of Baltic Sea governance begun to be scrutinized. Marko Joas and colleagues (2008) have made a welcome contribution through their historical description on the institutionalization of environmental concerns in the region. The

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4. In the HELCOM Copenhagen Declaration the contracting parties state (p.7): "WE RECALL and CONFIRM that there is a need for review of the nutrient reduction scheme based on best available scientific knowledge as necessary."

book offers insights into political as well as cultural and economic phenomena. Two streams within the Baltic Sea research field are otherwise clearly identifiable. One has a focus on actors within Baltic Sea governance. Here the literature zooms in on actors and actor groups that have contributed to the shift from government to governance and apply concepts such as multi-level governance and networks. The other stream focuses on how the Baltic Sea could best be managed considering complexity and environmental risks.

All authors in the edited volume by Joas et al. (2008) assume a break from traditional top-down decision making to a more multilevel approach in several parts of the Baltic Sea region. James Scott (2002) focuses on a process of 'Baltic Sea regionalism' and identifies a 'hybrid nature' of transnational cooperation in the Baltic Sea region. He includes intergovernmental institutions, interorganizational forums and NGO networks, regional cooperation and local initiatives. Kristine Kern and Tina Löffelsend (2004) identify three forms of governance types in the Baltic Sea region – international regimes, international policy networks and transnational networks – that have a varying degree of involvement by nation states. They conclude that the nation state is not obsolete, but governance beyond the nation state is crucial for sustainable development in the region. Kern (2011) further examines the elements of multi-level governance and shows that the Baltic Sea region has been transformed following the end of the Cold War. Through the application of the multi-level system approach she points out that the end of the Cold War triggered the development of transnational governance in the region. Numerous new organizations, such as intergovernmental organizations, non-governmental organizations and transnational networks were founded in the beginning of the 1990s. Hence, a shift occurred from primarily intergovernmental cooperation to different forms of transnational cooperation<sup>5</sup> aimed at bridging private and public actors. New organizations were established, but Kern also concludes that existing organizations were transformed. **Paper I** in this thesis looks for transformation or other forms of slow or rapid institutional change within HELCOM.

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5. Examples of transnational cooperation in the Baltic Sea region are the Baltic Sea Action Group (BSAG), established in 2007; Council of the Baltic Sea States (CBSS), established 1992; The Northern Dimension (ND), established 1999; The Union of the Baltic Cities (UBC), established 1991; Coalition Clean Baltic (CCB), established 1990; Baltic Sea 2020, established 2005; The John Nurminen Foundation, established 1992.

Stacy VanDeever (2011) uses a network approach to show the variety of collaborations in the Baltic Sea region, and demonstrates both formal and informal, intergovernmental and non-governmental collaborations. Networks are defined as groups of actors including governmental, non-governmental, international and other interested public or private actors who converge around an issue area in order to influence policies. Networks, according to this definition, therefore resemble advocacy coalitions, which in this thesis are used in **Paper II**. Marko Joas (2007) uses a hybrid network approach, involving governmental actors cooperating with non-governmental actors, to study the establishment of new governance forms. Both Joas and VanDeever demonstrate the importance in forming networks to gain influence over a specific issue area. Joas (2007) concludes that hybrid networks are better equipped to solve problems than traditional networks consisting of only governments or non-governmental actors, and that decisions taken by hybrid networks have a higher degree of legitimacy. Scott (2002) also points out that networks play an essential role in linking actors. VanDeever (2011) suggests that since problems in the Baltic Sea region are “dynamic, overlapping and nested” (p. 39), so too must the organization of the governance system be. VanDeever concludes that networked actors have been important in pushing environmental policy in the region. However, at the same time, cooperation in the region is highly institutionalized. The institutionalized cooperation of HELCOM is in this thesis explored in **Paper I** and **IV**.

Nina Tynkkynen (2013) identifies five ‘challenges’ for governance through her focus on eutrophication in the Baltic Sea. She calls for the inclusion of non-state actors in the knowledge production process needed for effective implementation of the ecosystem approach. Strategies for overcoming the traditional exclusivity of the science-policy interface are needed. The inclusion of non-state actors would also bring a more participatory style of policymaking and a move away from the top-down policymaking used in HELCOM today (this is also discussed in **Paper IV**). Furthermore, implementation of new measures like the BSAP could be facilitated by recognizing social inequalities and cultural, political and administrative differences in the region. Tynkkynen suggests that HELCOM should account for these differences but also regain the role as a facilitator of trust. To find formats for interaction among all actors at all governance levels is important for

better governance. Lastly, Tynkkynen highlights the emergence of EU dominance in the region. A fundamental challenge lays in the inclusion of Russia and Russian actors as the EU increases its influence on non-state actors as well as over nation-states.

Kern (2011), Kern and Löffelsend (2004) and Scott (2002) also point out the ‘Europeanization’ of the region, considering that all states around the Baltic Sea except for Russia are EU member states. The EU has become a strong player in the region and Kern (2011) therefore suggests that the EU should integrate its policies with other regional policies more<sup>6</sup>, while Scott (2002) suggests that the EU could potentially bridge the gaps that hinder effective cooperation in the region.

Ronnie Hjorth (1994) uses theories on epistemic communities to explain changes within HELCOM in the 1970–1980s. He shows that HELCOM is built on scientific-technological collaborations for environmental protection, where actors within HELCOM’s sub-bodies are primarily populated by national authorities and research institutes from respective member states. Hence, the scientific epistemic community within HELCOM has had a great influence on policies such as the Recommendations and the Joint Comprehensive Environmental Action Programme (JCP)<sup>7</sup>. The science-policy interface is also discussed by Oksana Udovyk and Michael Gilek (2013). They suggest, in line with Tykkynen (2013), that even though HELCOM is a ‘science-based advisory organization’ much of the science practices could be improved by recognizing uncertainties and including stakeholders in knowledge production. This thesis acknowledges that science has important impacts on HELCOM policies, but **Paper II** instead uses the advocacy coalition framework since it includes all actors within HELCOM, not only epistemic communities, in order to understand policy change.

The second school of thought in Baltic Sea governance is concerned with the Baltic Sea as a complex system filled with environmental risks. Lidskog et al. (2011) looks at oil pollution and the gas pipeline that runs through the Baltic Sea (Nord Stream) and suggests that complexity needs to be reduced, a spatial identity needs to be constructed, and

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6. This integration between EU policies and HELCOM is the objective of the HELCOM GEAR group (Helsinki Commission 2014a).

7. The JCP was initiated at the Ministerial meeting in Ronneby 1990. It was decided that serious pollution areas, so called Hot Spots, should be identified and cleaned up.

capabilities should be ascribed to actors in order to make the Baltic Sea environmental risks governable. Michael Gilek and colleagues (2011) argue that when risks are complex and multifaceted they require more sophisticated risk assessments and risk management than those offered through traditional expert-driven approaches. Gilek et al. (2011) identify several steps, using risk governance, that need to be taken in order to successfully implement the ecosystem approach in the Baltic Sea. These steps include: the identification of risks, an appropriate level of stakeholder involvement, inclusion of local knowledge, and improved sectoral integration via the evaluation of socio-economic impact and normative implications.

Björn Hassler et al. (2013) further discuss the implications of implementing the ecosystem approach (in the BSAP) using reflexive governance. Reflexive governance teaches that institutions are instrumental in eliminating uncertainties, complexities and ambivalence. These 'problems' can therefore not be 'solved,' but only handled by governing institutions. Reflexive governance theory is used by Hassler et al. to investigate organizational structures and processes that provide, for example, acknowledgement of scales, knowledge production, path dependencies, and monitoring and evaluation. Hassler et al. conclude that existing institutional structures neither include many vital parts of the ecosystem approach nor parts of the reflexive management approach (even though the BSAP includes elements of both). Lack of financing concerning the BSAP as well as the absence of adequate structures for monitoring and enforcement within the BSAP make it unlikely that governance practices will change in the near future. **Paper I, III and IV** in this thesis concern institutional and organizational structures that enable and hinder management reforms, such as the BSAP, in the Baltic Sea region.

## Theoretical base

Institutions are formal and informal rules that influence and shape human behavior. Institutions hence define the context and how we operate and interact. Institutions exist at all levels of society, but institutions, especially at the international level, are not created *de novo*,



but emerge from preexisting institutional contexts (Keohane 1988). At the international level, where HELCOM and the emergence of the BSAP occur, institutional theory can be used to explain ‘unconscious’ or ‘conscious’ (which can be both formal and informal) rules or explain how these rules constrain and enables actors’ behavior. **Paper I** in this thesis relates to this latter part of institutional analysis – behavior.

The research on international institutions is coupled to two major bodies of literature: international organizations (IOs) and regime theory. These two terms are not synonymous neither are they mutually exclusive. In many cases a regime can be accompanied by an organization whose task is to perform tasks designed by the regime. The main difference between the two terms lies in that while a regime can be understood as a special case of an international institution (rules that shape behavior) it does not have the capacity to act, whereas an organization is designed to respond to events. Another difference lies in the policy domain or issue-area related to the IO or regime. Whereas regimes are issue-specific, an IO does not need to be restricted to only one domain (Hasenclever et al. 1997; Keohane 1988). Regimes often include several IOs, while an IO only can be part of several regimes if the IO is concerned with several policy domains. Also, while the regime literature most often looks at the effects regimes have on actors, the IO literature consider IOs themselves as actors (Barkin 2013; Tang 2011).

The regime literature is in turn divided into three schools of thought (Hasenclever et al. 1997). The first two schools draw heavily on rational choice and its notion of the self-interested actor trying to maximize their own goals. The first school, the so-called power-based theory of regimes, assumes that the distribution of power between actors affects the prospects and continuity of regimes (e.g. Krasner 1991). Secondly, interest-based theories of regimes focus on actors’ preferences and emphasize regimes’ instrumental role in helping states fulfill their goals (e.g. Breitmeier et al. 2006; Keohane 1989). Thirdly, knowledge-based theories of regimes focus on the origin of actors’ interests and preferences (e.g. Haas 1992).

Regime theory is often used in relation to the management of natural resources or nature protection. In fact, a section of regime theory is dedicated to so-called ‘environmental regimes’ (e.g. Breitmeier et al. 2006; Young 1999). Stepping away from the international arena, theories on local natural resource management have been developed

by Elinor Ostrom (1990, 2005). Her framework has also been applied at the international level (Marshall 2007; Ostrom et al. 1999; Stern 2011). Both Young and Ostrom belong to the ‘interest-based theories of regimes’ school and are concerned with how to overcome problems of collective action. Ostrom (1990) has therefore developed a set of institutional design principles whereas Young and colleagues measure institutional properties and problem-solving capacity (Miles et al. 2002). This thesis uses parts of Ostrom’s design principles in **Paper IV**. The rest of the thesis is not focused on the instrumental role of regimes or on overcoming collective action problems. However, HELCOM as an IO is explored in **Paper III**.

IOs are in this thesis understood as intergovernmental organizations “created by agreement among states rather than by private individuals” (Barkin 2013 p. 1). This thesis also acknowledges that organizations are a type of cooperative arrangement, and that all types of cooperation exist in an institutional context. However, while “all organizations are institutions, /.../ not all institutions are organizations. Institutions can lack organizational form, while some organizations may have multiple institutional roles.” (Higgott 2006 p. 611).

Even though this thesis tries to differentiate between IOs and regimes, the two terms are overlapping. This becomes evident in **Paper III** and **IV**. Here the IO approach is used to understand the organization HELCOM and how HELCOM operates. Organizational effectiveness is often used within the study of organizations (e.g. Podsakoff and MacKenzie 1997; Richard et al. 2009) and is closely related to the literature on regime effectiveness (e.g. Underdal and Young 2004; Young 2002a). This thesis does not use this literature, however **Paper IV** leans on interest-based theories of regimes to explain institutional structures in three different IOs. Actor preferences and deeds are shown to be essential for understanding how HELCOM’s adaptiveness could improve.

As this thesis wants to explain how and why the ecosystem approach was launched, a historical investigation of HELCOM was required. HELCOM is in this thesis explored through the IO literature (**Paper III**) but also briefly through the regime literature (**Paper IV**). Changes *within* HELCOM are explored through theories of institutional change (**Paper I**) and policy change (**Paper II**).

## Institutional change

**Paper I** investigates the question *if* the BSAP can be explained as a result of a process of institutional change within HELCOM. The paper looks for both abrupt and slow institutional change.

Traditionally, the main focus of institutionalism has been on understanding how institutions generate stability in the political world. Less effort has been invested in understanding processes of institutional change (Hall and Taylor 1996; March and Olsen 2006; Peters 2005). In fact, several scholars (Campbell 2004; P. Pierson 2000; Streeck and Thelen 2005a; Tang 2011) have argued that all varieties of institutional theory have problems explaining processes of institutional change. Causes, forms, and consequences of institutional change have received comparatively little scholarly attention in this respect. This can to a large extent be explained by the fact that the analytic purpose of many institutionalists is not to analyze change but rather to explain outcomes from a particular institution or an institutional setting. Change is therefore regarded as exogenous to the model. This thesis, on the other hand, has a specific aim to study institutional change in HELCOM and if such changes precipitated the launch of the BSAP.

When change processes are considered within the different institutionalisms, they focus on the specific circumstances when change can occur, such as after or as a result of exogenous shocks, in the form of critical junctures (Collier and Collier 1991), as threshold effects or as punctuated equilibriums (Baumgartner and Jones 2009). The punctuated equilibrium theory denotes that institutions are stable states that are changed through phases of rapid reorganization, caused by some form of crisis, and followed by a long period of stasis. These crises can be either internal or external. During the rapid reorganization phase new institutional structures are formed. Genuine institutional change can only occur if the 'old' institution is discarded and a new institution replaces the old one (Krasner 1984).

In response to the gaps that exist with respect to explaining institutional change processes, some researchers have been motivated to also assess gradual or more evolutionary-like institutional change, trying to explain change that occurs despite an absence of external perturbations, shocks and rapid change in the surrounding context (Breitmeier et al. 2006; Holsti 2004; Mahoney and Thelen 2010; Paul

Pierson 2004; Streeck and Thelen 2005b; Tang 2011). **Paper I**, besides looking for abrupt institutional change therefore also addresses gradual change within HELCOM.

Many studies, if not focused on particular changing events, are focused on the particular settings of an institution that have undergone change, such as: as informal rules and ideas (Acharya 2004; Schmidt 2010), formal rules (Bates and Block 2013; H eritier 2012; Remmer 2008) and actor participation (Nielsen and Vedsmand 1999; Pattberg 2005).

Within environmental management, institutional change is often discussed in relation to adaptation (Armitage et al. 2008; Folke et al. 2005) or institutional design (Ostrom 2005). Many studies also rely on an institutional framework to explore organizational changes (Greenwood et al. 2002; Hoffman 1999), which are discussed below (see ‘Organizational responsiveness’). Adaptation is often included in institutional designs as a mechanism for institutions to be able to change. Adaptation is, however, only one type of institutional change and thus does not provide sufficient guidance for how institutional changes within HELCOM could be identified. Wolfgang Streeck and Kathleen Thelen (2005a), and later James Mahoney and Kathleen Thelen (2010), have proposed five different types of institutional change: displacement, layering, drift, conversion and exhaustion. These types of changes correspond fairly well with Kalevi Holsti’s (2004) six types of institutional change – novelty/replacement, transformation, obsolescence, addition/subtraction, increased/decreased complexity, and reversion– where novelty/replacement, transformation and obsolescence are very similar to ‘displacement’, addition/subtraction and increased or decreased complexity are reminiscent of ‘layering’, and reversion could be either ‘drift’ or ‘conversion.’

This thesis, however, uses four of Streeck and Thelen’s (2005a) types of institutional change in order to assess the change processes within HELCOM. The fifth type of institutional change – exhaustion – is excluded in this thesis since this type suggests institutional breakup rather than change. Mahoney and Thelen describe their five types of institutional change in a context of gradual or more evolutionary-like processes. This thesis finds it important to emphasize that the four chosen change processes that are assessed in HELCOM in **Paper I** can occur both in a fast or a slow manner. That is, ‘displacement’ – new rules replacing the existing rules – can occur both relatively fast but also

very slowly. Displacement can furthermore be a consequence of either internal disturbances/changes within the institution or as a result of external perturbations (Quack and Djelic 2005). ‘Layering’ involves a process whereby new rules are introduced within an institution alongside already existing rules. A “layering effect” is created where both new and old rules are intertwined. Serious changes of the institution can be seen below the immediate surface (Feindt and Flynn 2009; Vogel 2005). The layering effect is in this thesis regarded as a slow institutional change process, even though layering could potentially cause rapid change equal to a ‘critical juncture’ (see Collier and Collier 1991). It should be noted that a slow change phase, as layering, could be followed by *another* change phase that could be rapid. These two phases should, however, not be confused, but be regarded as two *different* change phases. ‘Drift’ and ‘Conversion’ are two sides of the same coin. Both include the proposition that the consequences of rules are interpreted in new ways due to changes in the institutional context. The difference between the terms lies in that new interpretations of rules are more deliberate in ‘Conversion’ than in ‘Drift.’ Both processes can occur in rapid as well as gradual forms. For example, can exogenous shocks, such as rapid depletion of resources, cause a forcing of new behavior among actors within an institution and hence, a new interpretation of existing rules akin to ‘Drift’ (J. Barnes 2008)? Actors could also deliberately re-interpret old rules in a new way that causes rapid changes (conversion) (Levy 2005).

This thesis wants to underline the argument that institutional change can be either fast or slow, and that a slow phase can be followed by a rapid change phase and vice versa, and that neither fast nor slow change is mutually exclusive. Gérard Roland (2004) also suggests a combination of slow and fast moving institutions for understanding how institutions work. He expresses the view that several parallel institutions are needed for understanding institutional interaction. **Paper I** contributes empirically to Roland’s suggestion and concludes that HELCOM consists of multiple institutional layers where each layer changes differently. However, by using Streek and Thelen’s (2005a) framework, the study suggests that one institution can move both fast and slow, just not at the same time. This is in contradiction to Roland (2004) who argues that different *types* of institutions change differently (e.g. is culture a slow-moving institution).

Furthermore, in contrast to institutionalism's focus on rapid change, this thesis questions the notion of stable institutional phases (see e.g. Kingdon 2003) and argues that institutions seldom stand still but instead are constantly moving. What at first sight might look like stability should most often be considered as displacement, layering, drift or conversion. With this follows the prerequisite that institutional change should only be studied if the empirical data covers a longer period of analysis in order to capture both slow and fast variables.

## The advocacy coalition framework

While **Paper I** focuses on the BSAP as a consequence of institutional change, **Paper II** instead asks if the BSAP can be understood as a case of policy change. The study investigates the BSAP through policy analysis by studying actor beliefs and behavior within HELCOM and how changes within these have influenced the BSAP.

To study policy change, Paul Sabatier and Hank Jenkins-Smith developed the advocacy coalition framework (ACF) (Sabatier 1988; Sabatier and Jenkins-Smith 1993). The ACF has gone from being a critique of the policy process literature during the late 1980s to be one of the most used approaches in the study of policies, policy development and policy change. The ACF's main focus is to explain policy change over time by studying interactions of competing advocacy coalitions within a policy subsystem. An *advocacy coalition* consists of aggregated groups of actors from all policy sectors at all management levels in a specific policy domain who share a set of beliefs and who collaborate over time. An advocacy coalition has coordinated behavior and works as a unit. If the internal composition or the means of an advocacy coalition change over time, this would be an indicator for greater policy change (Sabatier 1988; Sabatier and Jenkins-Smith 1993; Sabatier 1998, 1999).

Even though Sabatier and Jenkins-Smith make it clear that advocacy coalitions should be measured by considering both beliefs and coordinated behavior, few studies do (Weible et al. 2009). **Paper II** in this thesis therefore aims at contributing to the ACF literature by including both coordinated behavior *and* beliefs over time among the identified actors in the Baltic Sea policy subsystem.

The ACF literature is also, 20 years after its development, lagging

behind in looking at policy changes at the international level. The ACF originates from the political system found in the USA and is usually used in these settings (Weible et al. 2009), but starting with Sabatier (1998) the ACF is today used equally in European systems. During the last decade, the scope of the ACF has widened to also include several countries other than North American and west European countries, such as countries in Asia and Africa (see e.g. Ainuson 2009; Albright 2011; Hsu 2005; Weible et al. 2009).

Most ACF studies have been performed at the national level of policy making where voting systems and easy-identifiable political parties can be found. On the international level, where unanimity rules are often in place, and policy subsystems can be hard to identify, new problems arise when using the ACF. Focusing on decision making in international organizations where unanimity rules would lead to the conclusion that all involved actors share the same beliefs and behavior, since the decisions taken are always taken in common. In **Paper II** of this thesis the unanimity rule in HELCOM is handled by instead focusing on negotiations rather than counting votes at a specific decision point. Negotiations reveal actor behavior and beliefs at the international level. In addition, the combination of negotiations and voting procedures reveal behavior and beliefs and the domestic level of policy making.

Mark Rhinard (2010) and Geoffrey Dudley and Jeremy Richardson (1999) use the ACF at the EU level. By recognizing the openness of the EU's policy process and hence the inclusion of several actors beyond the state level in advocacy coalitions, they are able to identify multiple advocacy coalitions over time in the European Commission and within EU steel policy, respectively. Dudley and Richardson (1999) also draw attention to the possibility of 'power sharing' among coalitions, "analogous to a 'grand coalition' in parliamentary systems or the tradition of consensus negotiations" (Sabatier 1998 p. 119), which occurred at the EU steel policy from 1975 until the late 1980s. This policy process within the EU very much resembles the policy process preceding the BSAP, which is why **Paper II**, besides searching for advocacy coalitions, also includes the possibility that a stalemate as a result of negotiations within a 'grand coalition' occurred inside HELCOM.

The problem with defining a policy subsystem at the international level is discussed by Karen Farquharson (2003), Karen Litfin (2000) and Granville Sewell (2005). Farquharson (2003) argues that a policy

subsystem at the international level is actually made up of several subsystems. Litfin (2000) and Sewell (2005) discuss a blurring process concerning the subsystems caused by the fact that subsystems at the international level are also parts of other subsystems external to the one that is being studied. Problems with the subsystem definition, Sewell (2005) argues, have consequences for defining actors involved and how beliefs are transferred between actors in a subsystem. Sewell demonstrates that different policy subsystems in the Framework Convention on Climate Change are interconnected, both horizontally and vertically, and that transmission of beliefs in this complex network of subsystems is of great importance for achieving policy change. Sewell hence argues that the definition of a subsystem should start with defining the actors, and secondarily focus on what he calls a certain “organizational residue,” which includes several bodies of the organization of interest. This thesis acknowledges that several potential subsystems make up HELCOM and that HELCOM is in turn part of other policy subsystems. **Paper II**, however, focuses on the “entire” policy subsystem (including, for instance, both eutrophication and hazardous substances) of HELCOM and narrows the scope to only include one body of HELCOM – the decision making body where the Heads of Delegations and Environmental Ministers are found. This limitation is, at the expense of covering all actors at all levels, involved in policy making in the Baltic Sea. However, the limitation, by its narrow scope, demonstrates how advocacy coalitions form and function at the highest level of policy making, which provides insight into belief transference and the coordination of behavior among actors advocating for international policy change.

## Organizational responsiveness

Compared with **Paper I**, which uses institutionalism to understand HELCOM and the BSAP, **Paper III** and **IV** use organizational performance to explore potential effects caused by the BSAP. **Paper III** combines text data with ecological data to study HELCOM’s organizational responsiveness to ecological signals and discusses how responsiveness could be improved. **Paper IV** looks outward and compares the adaptive capacity in HELCOM to the CCAMLR and the CTI-CFF.



The substance of how organizations perform is often concerned with: legitimacy (Bernstein and Cashore 2007; Dowling and Pfeffer 1975), openness (Tallberg et al. 2013) or effectiveness (compare with regime effectiveness, e.g. Young 2001; Young 2002b). Whereas several scholars use the terms organizational performance and effectiveness interchangeably (e.g. March and Sutton 1997), this thesis distinguishes between organizational performance on the one hand and organizational effectiveness on the other. A uniform definition of organizational performance is surprisingly hard to come by as several different interpretations of the concept are used within management research. Pierre Richard and colleagues (2009) have reviewed three years of publications in five different management journals and found 207 different measures of performance in 213 papers. These measures encompass three specific areas of outcomes – financial performance, product market performance, and shareholder returns (Richard et al. 2009). None of these measures are of interest when studying an intergovernmental organization such as HELCOM. Organizational effectiveness is broader and captures both the measures of performance but also outcomes related to organizational operations (Richard et al. 2009).

Organizational effectiveness is at the heart of organizational studies as improved effectiveness is desired in organizational development studies as well as within studies of organizational design (Quinn and Rohrbaugh 1983). As with the definition of performance, the criteria for effectiveness are debated. Effectiveness can be related to goal achievement, compliance, behavioral change, or effects within the institutional context (Barkin 2013).

One criterion for organizational effectiveness is responsiveness – the rate and size of organizational response to signals from the organization's governed object. This is studied in **Paper III**.

Andrew Jordan and colleagues (1999) and Richard Alfred (1984) study barriers to responsiveness. Both discuss actors within the organization that potentially hamper responsiveness. Jordan et al. (1999) suggest that responsive policy-making is often obstructed by reluctant or slow actors involved in the process and Alfred (1984) discusses leadership and how many organizational leaders are often occupied with strategic development and administration rather than making responses more accurate. Jerry Goodstein (1994) focus on the size, visibility and legitimacy of the organization. He argues that these qualities determine

the responsiveness of an organization. Others discuss the specific designs of the decision making process within an organization. Manfred Elsig (2010) argues that consensus based organizations, such as HELCOM, often lead to negotiation deadlocks, which can delay the response rate (compare with ‘policy stalemate’ in the ACF, discussed in **Paper II**).

**Paper III** explores the organizational responsiveness of HELCOM but does not specifically look for possible barriers to effective responsiveness.

To enhance an IO’s performance Kenneth Abbott and Duncan Snidal (2010) suggests what they call ‘IO orchestration.’ This includes the development of a global network of public and private, mixed institutions, steered by IOs. They further suggest that by implementing non-legally-binding standards, orchestrated by the IOs for regulating behavior applicable directly to private actors, a more effective governance system can be achieved. Information is also vital to improve IO performance, both regarding ongoing processes within the IO but also concerning achieved outcomes. However, the exact content of information that is needed for the IO to improve their performance is still debated (Elsig, 2010). **Paper IV** discusses potential barriers and ways to enhance the performance of HELCOM in light of its adaptive capacity and how this capacity could be improved within HELCOM.

## Material and methods

The studies performed in this thesis rest on three methodological pillars. **Paper I** and **III** rest solely on content analysis performed on documents derived from HELCOM and its working groups. **Paper I** gathered a unique “HELCOM corpus” of 574 documents representing all meeting minutes, reports, recommendations and declarations adopted 1980–2011. Selected parts of this corpus were then reused in **Paper III** together with corresponding documents from the years 2011–2013. **Paper II** rests on the content analysis of 170 statements made by representatives at the yearly HELCOM meetings. The findings here are further verified by interviews made with HELCOM Heads of Delegation from Sweden, Finland, Poland, Germany, World Wide Fund for Nature (WWF) and the Coalition Clean Baltic (CCB). Lastly, **Paper IV** uses secondary data and reuses some of the HELCOM documents gathered in **Paper I**.

## Content analysis

Content analysis is a fast growing field, particularly in the field of quantitative computer assisted content analysis (Duriau et al. 2007; Kabanoff 1997; Neuendorf 2002). Nevertheless, assistance from software can also be utilized in qualitative content analysis (Lewins and Silver 2007). This thesis balances both quantitative and qualitative content analysis by using word frequencies, co-occurrences of words (collocation) and automatic coding using WordSmith Tools 5 (M. Scott 2008) (**Paper I and III**), in addition to qualitative in-depth reading and hand-coding of statements and interviews using NVivo 10 (2012) (**Paper II**) in the study of policy, institutional and organizational change in HELCOM.

A limitation with content analysis is that it is often only descriptive. The method rarely goes beyond describing what is there and reveals little about the underlying motives and descriptions for observed patterns. By combining the content analysis with theories of institutional, organizational and policy change this thesis tries to go beyond only answering the ‘what’ to also include explanatory questions of ‘how’ and ‘why.’

By using content analysis, the meanings of the texts analyzed are recognized and displayed. This can be done at two levels: At one level, the manifest contents of the text can be revealed by using, for instance, word frequencies and other quantitative tools. At the other level, the latent contents of the text are of interest, which are often revealed through qualitative interpretations (Duriau et al. 2007). The meaning of a text is never inherent, but interpreted by anyone who reads it. Furthermore, a word can mean anything depending on the time and context in which it appears. It is therefore important for the analyst to guide the secondary readers on how the analyst has interpreted the analyzed words, the texts and their meaning (Krippendorff 2013; Neuendorf 2002; John Scott 2006).

Since the analyzed material in **Paper I–III** are official documents written with the purpose of enabling decision-making and reporting on the political process preceding a decision within HELCOM in a way that is both public and transparent, the analyzed documents reflect the institution, institutional settings and policy developments well. Content analysis on HELCOM documents here enables the study of change processes over longer periods that would not have been possible using

only interviews. As such, content analysis is especially useful in analyzing historical material and to research trends over time (Krippendorff 2013; Strøm and Leipart 1993).

Furthermore, content analysis provides insight into changes *within* the studied object (HELCOM) rather than studying the context wherein HELCOM is situated. The documents could also be used to study discourses within HELCOM; discourses in the sense of socially and context sensitive constructions of reality (Ritchie and Lewis 2003). Of course, there exist discourses in HELCOM, but by using content analysis on the material the focus in this study is on the texts themselves and the institutional characteristics that they reproduce, whereas discourse analysis focuses on texts' relation to a context, to its producer, or to its consumer (Hardy et al. 2004). This thesis therefore recognizes that the meeting minutes from HELCOM are short versions of the actual meeting and do not include discussions that may have occurred during the meetings. The meeting minutes are primarily a document for decisions taken during the meeting and do not include how and why a decision was made. Likewise, the statements used in **Paper II** are made during HELCOM meetings and represent actors' priorities, achievements and goals. However, the statements do not necessarily represent *all* aspects of a specific actor's will and intentions, but given that the actors only have a few minutes to make a statement at each meeting it is likely that the actor chose to state things that are of importance for them or the member state they represent. Thus, a limitation with content analysis is that it is dependent on the availability and richness of the analyzed documents. This thesis is fortunate in analyzing *all* meeting minutes and their included appendixes from all working groups and also *all* recommendations and declarations 1980–2013 (**Paper I** and **III**). Also, *all* reports published under HELCOM's 'Baltic Sea Environment Proceedings' series 1980–2010 are used in this thesis (**Paper I**). However, so-called working documents from the different working groups of HELCOM could also have been included in the corpus used in **Paper I**. Nevertheless, considering the already dense material it is unlikely that the results would change.

**Paper I** uses content analysis to track institutional changes within HELCOM. Content analysis is often used to track ideas and ideologies (Benoit and Laver 2007; Klüver 2009; Laver and Benoit 2002; van Atteveldt et al. 2008) but is not so common to use when tracing

institutional settings and change processes. Paul Upham et al. (2013) uses a combination of content analysis and elite interviews to study path dependencies in the transport sector in the UK and Finland; Boris Kabanoff et al. (1995) uses content analysis to explore a set of values to discuss organizational change. While **Paper I** uses institutional change types as described by James Mahoney and Kathleen Thelen (2010), Kabanoff et al. (1995) look for change correlating search terms related to 'change' (e.g. change, revise, vary and alter) with other content (e.g. goals, means, failure). To search for change in this manner does not necessarily capture different types of change processes. This is why using content analysis on parlance over time, as in **Paper I**, gives a better picture of overall institutional changes. The change processes are then in **Paper I** categorized into institutional change types called displacement, layering, drift, or conversion as described by Mahoney and Thelen (2010). By studying frequencies of words, a completely changed parlance over time would, for example, indicate 'displacement,' while a partially changed parlance indicates 'layering.'

John Petrocik (1996) and Maxwell and Jules Boykoff (2004) both study ideas or ideological changes. While Petrocik (1996) is concerned with US voters' perceived issue ownership via presidential campaigns, Boykoff and Boykoff (2004) discusses US press coverage of global warming. Ideas and ideologies are tracked by Petrocik (1996) by coding newspapers and surveys, and Boykoff and Boykoff (2004) also code newspapers. Petrocik (1996) has included the coding scheme in an appendix, while Boykoff and Boykoff (2004) offer little insight into how their coding procedure has taken place. **Paper I** constructed a coding frame by identifying characteristics for a changed institution (displacement, layering, drift and conversion) using word frequencies<sup>8</sup>

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8. Word frequency lists were created by comparing five year periods of HELCOM documents with three different corpuses. The first corpus consists of all 574 documents (6.1 million words) derived from the HELCOM. The second corpus consists of all documents except the documents from the period analyzed; for example, when the period 1990–1994 is analyzed the corpus consists of documents between 1980–1989 and 1995–2011. The last corpus used to explore institutional characteristics within the HELCOM is the Corpus of Contemporary American English (COCA), consisting of 425 million words from magazines, newspapers, academic journals, fiction, and spoken word from 1990–2011 (Davies 2008).

and collocations<sup>9</sup> on HELCOM documents. The study then traces fast and slow changes in parlance by comparing word usage over time. First qualitatively identifying the words used in the collocation analysis<sup>(8)</sup> and then performing the collocation is a good way to analyze “the meaning” of a text since the context of a specific word becomes visible when using collocation. The meaning is often neglected in quantitative content analysis, thus by analyzing the co-occurring words of a search term the context and “the meaning” of a search term is made visible.

In contrast to **Paper I**, **Paper II** uses content analysis to explore how the BSAP can be understood as a case of policy change by studying actors within HELCOM. Content analysis is a good tool to understand priorities among actors in the policy process (Iannantuono and Eyles 1997; Jones and Baumgartner 2005). Jeffrey Segal and Harold Spaeth (1996) use content analysis on voting patterns to determine whether judges are influenced by judicial precedent. This is similar to the coding of actor behavior<sup>10</sup> used in **Paper II**. Kate Urwin and Andrew Jordan (2008) explore policy positions related to climate adaptation via the content analysis of policy documents. This procedure is reminiscent of the coding of actor beliefs in **Paper II**. To understand policy change, **Paper II** studies both actors’ beliefs and actor behavior over time by using content analysis on actor statements and interviews made with Heads of Delegations in HELCOM. Urwin and Jordan (2008) also complement their content analysis with interviews. A disadvantage with content analysis is that words easily are misinterpreted, that is to say that synonyms are neglected and homonyms are included.

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9. Two different collocate analyses were made to explore what is defined as “HELCOM crises” and “HELCOM solutions.” Crises were used to explore which words were used together with the search terms *concern, critical, crucial, essential, important, significant, and urgent*. The search terms *vital, decisive, pressing, crisis and credible* were also used but were later removed because the number of co-occurring words with these search terms were too few to obtain any reliable results. The second collocate analysis on “Helcom solutions” used *apply, consequence, develop, improve, intent, plan, program, react, reform, respond, solution and solve* to explore terms that were used in association with descriptions of new plans within the Helcom.

10. Actors’ behavior was coded manually according to how the actors made reservations. The proofreading of the reservations ensures that two actors that are making the same reservation are in fact making the same reservation but with different purposes. All reservations made have an explanatory note attached to them in the analyzed documents where the actor states why they are making the reservation. This note is the basis for the reservation coding scheme.

The coding frame used in **Paper II** was constructed inductively and manually on a random selection of statements made in HELCOM. The rest of the statements were thereafter automatically coded. Therefore, to avoid misinterpretations, *all* codes used in **Paper II** and **III** have been thoroughly and manually reviewed to ensure that no coding mistakes were made – such as the inclusion of homonyms – during the later automated coding process. This is done by the inclusion of the context (e.g. a paragraph) where a coded word appears. The context reveals the word's meaning, which in turn exposes homonyms.

**Paper III** uses word frequencies to track organizational response within two areas of eutrophication. The two ecological change processes (phytoplankton biomass and anoxia) are assessed by the search term 'eutrophication'<sup>11</sup>. The frequency analysis is also performed at three different levels in HELCOM: at the subgroup level, where experts meet to draft proposals to the Commission, at the Commission itself and the meetings of the Heads of Delegations (HOD), where decisions and recommendations and declarations which are the substance of the actual decisions are made. Content analysis on these three organizational levels shows the policy process through HELCOM and how a specific issue (such as eutrophication) moves through the organization.

What quantitative content analysis lacks in validity it gains in reliability. In the same way, qualitative content analysis lacks reliability but has a high degree of validity. Hence, the validity of word frequencies, word co-occurrences and automatic coding is complemented with the reliability of the manually coded documents. By using both qualitative and quantitative content analysis in parallel, this thesis questions the usefulness of dividing content analysis into the two silos of quantitative and qualitative research. It seems evident that the content analysis field requires both qualitative and quantitative aspects to ensure both validity and reliability (Grimmer and Stewart 2013; Hopkins and King 2010; Klüver 2009). Michael Laver and John Garry (2000) look at political texts and estimate policy positions from these. They use both hand-coded and computer-coded methods for validation purposes. They conclude that there is a high degree of cross validation in using both

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11. The search term is widened to also include synonyms that are used within HELCOM. The search terms used to create a frequency list for eutrophication are: eutrophication, nutrient, N, nitrogen, P, and phosphorous. The lists created from each search term have been manually reviewed to exclude homonyms.

methods. Furthermore, by using both methods on the same material they suggest that computer-coded texts also derive reliable and valid estimates of policy positions. This thesis sees content analysis as one method rather than two, where the quantitative and qualitative parts are different steps on the way to analyzing a chosen text. **Paper II** in particular uses both hand-coding and computer-coding procedures. Klaus Krippendorff (2013 p. 22) further suggests that “Ultimately, all reading of texts is qualitative, even when certain characteristics of a text are later converted into numbers.” This quote highlights why it would be unfair to only reference a quantitative method without mentioning the qualitative components performed in this thesis.

## Interviews

24 different actors were identified in **Paper II** as they made statements at the yearly HELCOM meetings. These actors represent all contracting parties but also 14 observers in HELCOM. Interviewing all of these actors would have provided additional information about what goes on ‘beyond the scenes’ of the official documents produced by HELCOM. However, the purpose of **Paper II** was not to write about specific actor achievements, but rather to explain the reasons behind the launch of the BSAP from an actor point a view. The main method for studying the historical policy process preceding the BSAP was content analysis of official documents, and therefore only six of the actors were interviewed. The purpose with these interviews was to validate the findings from the content analysis rather than to expand the research question and the results.

Thus, in addition to the documents, six semi-structured expert interviews with Heads of Delegations and NGO representatives were conducted with the purpose to expose some of the debate held within HELCOM that is otherwise not visible or could be made visible with the content analysis of the analyzed documents. Also, the interviews complement the actor statements used in **Paper II** by adding to the different actors’ perspectives on the BSAP policy process. The interviews demonstrate a more nuanced picture of the actors than many of the statements reveal.

The interviews with Sweden’s Head of Delegation and the representatives from WWF were made face to face, whereas the rest of the



interviews (with the Heads of Delegation from Finland, Poland, Germany and representatives of CCB) were made using Skype. All interviews were recorded. They were then transcribed, coded and analyzed using NVivo 10 (2012).

## Summary of article results

### Paper I

The Baltic Sea Action Plan (BSAP) includes a new type of management form – the ecosystem approach – for a healthier Baltic Sea. This approach involves new flexible targets and new ecosystem models that are quite different from the equal reduction targets that were used before. However, the question as to whether the BSAP also constitutes institutional change remains unclear. This study demonstrates that the BSAP is not an effect of, nor does it constitute, rapid institutional change. Rather, slow moving institutional processes preceding the BSAP have occurred within the institution. An innovative quantitative text analysis shows that general discussions within HELCOM have undergone ‘displacement,’ which means that the parlance representing the institution during the 2000s has changed drastically and replaced the HELCOM institution existing in the beginning of the 1980s. The problem definition within HELCOM has simultaneously had a ‘layering’ effect. This means that new problems are introduced in HELCOM but the old identified problems still remain, which results in an ever increasing number of problems that HELCOM needs to address. It is interesting that the analysis of solutions that HELCOM uses to address problems shows no change. Even though the numbers of problems are rising and the parlance in HELCOM is changing, the suite of proposed solutions seems to be stable.

This study shows the value of researching both rapid and gradual institutional change and suggests that these two change processes, rather than being contradictory, could be considered complementary. Slow institutional change in a particular phase of institutional development

does not exclude the possibility of rapid change in the same institution at either another level of the institution or at another point in time. Finally, the study concludes by saying that the identified slow and uneven institutional change processes will complicate the ability to formulate and execute a rapid institutional response in response to future unpredictable changes in the Baltic Sea ecosystem.

## Paper II

Policy change is often described as a response to changes within an institution or perturbations in an institutional context. Actors involved in a policy process can also affect policies as a consequence of altered beliefs and changed behavior. The BSAP is an example of such a policy change in an international context. Yet, the reasons behind this policy change are unknown. With inspiration from the advocacy coalition framework (ACF), this study shows that the BSAP was triggered by altered beliefs among all actors. Beliefs have shifted from being primarily concerned with pollution to a broader set of concerns from pollution to biodiversity to nature protection. A change in beliefs often occurs among some of the actors in a policy subsystem, who then try to affect policy in a direction that aligns with their beliefs. This study shows that beliefs have altered among *all* actors as if they were all in one big coalition.

However, the actors' behavior has remained uncoordinated during the entire analyzed period. The behavior is measured by studying shared reservations (that is, concerns raised) at the annual HELCOM meetings, but little or no support was found in this study for actors making the same reservations over time.

Policy changes such as the BSAP are, according to the ACF, caused by policy-oriented learning, external or internal perturbations, or as a result of a negotiated agreement. The reasons behind the change in beliefs found in this study could either be related to policy-oriented learning or caused by negotiation processes equal to a stalemate situation. The study ends by suggesting that the relationship between these two and the causes of the learning remains unexplored and offers a fruitful area of future research.

## Paper III

The Baltic Sea is considered to be one of the most polluted seas in the world. Since 1979, HELCOM-run monitoring programs and research projects have mapped and modeled ecosystem dynamics as well as different types of pollution loads. This has generated a huge amount of detailed and near real-time information about the state of the Baltic Sea. Yet, how and to what degree an international environmental organization is able to detect, process, and react in response to changes in its regulatory objectives has so far received little scholarly attention. This study exemplifies using the case of HELCOM the degree, as well as the rate, of organizational response. By studying changes in the Baltic Sea environment – eutrophication (anoxic areas and summer algae blooms) – at three organizational levels, this study shows no organizational response towards algal blooms whereas responses to anoxic areas could be found in the lower organizational levels of HELCOM. The results also show that besides the degree of response, the response is also quicker in the lower levels than in the higher organizational levels of HELCOM. Recommendations and declarations produced by HELCOM rarely, if ever, respond to ecosystem changes, whereas such changes are detected and processed within the subsidiary bodies of HELCOM. The study also includes if responsiveness has improved in conjunction with the BSAP reform. The results show improved response effects for HELCOM over time, but the increased response rate cannot be coupled to the launch of the BSAP.

The overall findings support earlier research saying that lower levels in hierarchical structured organizations are more responsive than higher levels. At the same time, this study shows, contrary to what was hypothesized, that organizations might find it easier to respond to slow moving changes than to rapid ones.

## Paper IV

Resource management is thought to be enhanced by the implementation of the so-called ecosystem approach to management. An important feature of the ecosystem approach is the adaptive function of the decisions taken and the managing organization itself. However, the

requirements for an international environmental organization to govern and maintain an ecosystem approach remain unclear. This study uses three of Ostrom's design principles that are said to be of extra importance at the international level of policymaking coupled with five governance requirements, and it develops an ideal type for adaptive governance at larger scales. By comparing HELCOM with the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF), and the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), the study shows that none of the organizations fulfills all the requirements the ideal type suggests. To improve its adaptive capacity, it is therefore argued that HELCOM should involve a mixture of actors in both information sharing processes and decision making. A structure for evaluation and revision of decisions needs to be developed, as well as the development of conflict resolution mechanisms if conflicts occur between actors that are not contracting parties. Also, communication and harmonization between different levels of authority would facilitate the implementation of the BSAP in the Baltic Sea region.

## Conclusions and contributions

This thesis set out to explore the emergence of the BSAP and the ecosystem approach but also the consequences that such a management reform has had for the HELCOM organization. These two aims were thus explored by asking the three questions how, why, and what. These types of questions are not unique in policy and organizational studies. The uniqueness of this thesis lies in the combination of a novel method, a rich empirical material, and the diversity of theoretical frameworks used to study just one case – the launch of the BSAP within the intergovernmental collaboration HELCOM.

HELCOM, depending on theoretical framework, is here understood as several different things. HELCOM is understood as a regime (**Paper IV**), and a regime is understood as a special case of an international institution that is issue-specific with a focus on the regime's effects on *other* actors. HELCOM is also understood as an organization (**Paper III–IV**), where an organization in this thesis is considered to be an actor

not restricted to only one policy domain. Furthermore, HELCOM is understood as an actor (**Paper III–IV**) and as an international institution (**Paper I**). The BSAP in this thesis is, in turn, described as a policy (**Paper II**) but also a goal and a tool for managing the Baltic Sea (**Paper III and IV**). This multitude of explanations reflects how diversified our understanding of transboundary resource management can be.

## Empirical conclusions

The questions *how* and *why* the ecosystem approach was launched are answered by **Paper I–II** in this thesis. **Paper I** suggests that the ecosystem approach was implemented in the BSAP as a consequence of gradual institutional change processes that were stirred up after the revising of the Helsinki Convention in 1992. This means that institutional changes occurred before the launch of the BSAP and were not a consequence of the BSAP. In line with Kern (2011), **Paper I** confirms that institutional changes within HELCOM suggest a ‘belief change’ during the latter half of the 1990s. However, **Paper I** does not, as Kern concludes, claim that there has been a transformation of the governance in the Baltic Sea. Many institutional “habits” and organizational structures of HELCOM still linger from the 1980s. A rather slow moving process of change was triggered by the revision of the Helsinki Convention.

The belief change that occurred, as discussed in **Paper I**, is confirmed by the results in **Paper II**, which finds a type of ‘ideological shift’ among the actor group within HELCOM caused by policy-oriented learning and/or policy negotiation processes. VanDeever (2011) and Joas (2007) use a network approach to showcase different collaboration in the region. **Paper II** instead uses the advocacy coalition framework to focus on actors specifically within HELCOM. Since HELCOM is the governing body of the Helsinki Convention, their actions have great influence on the policymaking in the region. By studying the actors within HELCOM, **Paper II** contributes to the understanding of policymaking within HELCOM specifically and policymaking in the Baltic Sea region generally; **Paper II** shows that the implementation of new ideas was hampered by the fact that actors within HELCOM are uncoordinated. VanDeever (2011) suggests that networked actors have been important in pushing environmental policy in the region. **Paper II** instead suggests

that by not forming advocacy coalitions, that is actors sharing beliefs *and* coordinated behavior, actors within HELCOM have not in a structured way been able to implement new beliefs in policies. New beliefs within HELCOM have a tendency to slowly spread among all actors to finally emerge as a new policy. This slow change process might be problematic if future environmental changes need fast responses. The organization of HELCOM and its responsiveness (**Paper III**) and adaptiveness (**Paper IV**) is therefore further discussed below, since this thesis also asks *what* consequences the ecosystem approach has had for the HELCOM organization.

By the establishment of the HELCOM Group for Implementation of the Ecosystem Approach (GEAR), the BSAP to some degree has changed the formal structure of how HELCOM operates. GEAR aims to strengthen and coordinate actions related to the implementation of the BSAP (Helsinki Commission 2014a). However, even though the BSAP is the fruit of institutional and belief changes within HELCOM, it cannot be ruled out that these changes would not have been picked up within the different parts of HELCOM in the absence of the BSAP. The ecosystem approach “thinking” has with an impressive result been applied within all parts of HELCOM. It is, however, uncertain if this is caused by the BSAP reform. Paper I and II show how the parlance has changed in line with the ecosystem approach within the institution and among the actors over time. Today, holistic management approaches have replaced selected and isolated measures within HELCOM. The closure of the JCP and its Hot Spots program in 2012 symbolizes an end of how HELCOM has traditionally managed the Baltic Sea (Berbalk 1996; Helsinki Commission 1993; Helsinki Commission 2013a). However, there is a difference between “thinking” and doing. Little of the ecosystem approach “thinking” has resulted in practical organizational changes this far. In accordance, **Paper III** shows that the organizational response tends to be faster at lower levels of HELCOM than in higher levels of the organization, which indicates that hierarchical and sector-based structures are still important parts of the HELCOM organization. **Paper III** also shows that no effect in response can be identified as a result of the BSAP reform.

If the goal is to fully implement the ecosystem approach, the HELCOM organization and management methods could potentially be changed much more than what has hitherto been done. The ecosystem

approach allows for a complete reorganization of management structures and procedures. As the ecosystem approach calls for integrated management of land, water, living resources, humans, and sector-based management, the division between the working groups of HELCOM should in the future be abandoned, or the strict boundaries between the working groups should at least be relaxed, to implement the ecosystem approach in full. Furthermore, the eutrophication target of the BSAP is by far the most developed target. The other targets, concerning hazardous substances in maritime activities, and biodiversity, also need to be fully assessed – especially concerning setting interim targets, collecting background data, and modeling. It is also important to integrate the four targets of the BSAP so that actions in one area do not hamper actions in another area. Moreover, it is vital to also make sure that goals between the targets are not contradictory. To keep the sector-by-sector format of the BSAP – which the targets represent – could potentially counteract the purpose of the ecosystem approach within the same policy.

The ecosystem approach also requires flexibility and adaptability, which in **Paper III–IV** is suggested to be missing within HELCOM. **Paper III** looks at HELCOM responsiveness and suggests that HELCOM does not respond to all changes caused by eutrophication in the Baltic Sea. Slow changes (anoxic areas) are fairly well detected by HELCOM, whereas fast changes (summer phytoplankton blooms) occurs without a systematic response. To further study HELCOM and the decision making processes (Cohen et al. 1972; Shapira 1997) and predict future responses (Oliver 1991) is important since the environmental status of the Baltic Sea remains uncertain. To be predictable in the sense that it can rely on a response that at the same time is adaptable and flexible should be a top priority within HELCOM. **Paper III** shows that HELCOM is better at responding to slow changes than faster environmental changes, but further research is needed to confirm if this is also true for policy problems other than eutrophication. Both adaptability and flexibility within HELCOM needs to be improved in order to fully claim that the ecosystem approach is used.

**Paper IV** compares HELCOM with two other international organizations where the ecosystem approach has to some degree been implemented more successfully. The comparison suggests that HELCOM, like the CCAMLR, needs structures for organizational and performance

evaluation followed by revisions of rules and recommendations to better implement the ecosystem approach. The ecosystem approach further includes empowerment and the inclusion of stakeholders in the decision-making process (COP 4 1998, Malawi Principles No. 12; COP 5, Decision V/6, Principles of the ecosystem approach). Lessons from the CTI-CFF show the importance of including all interested parties in information sharing and in decision making processes. Tynkkynen (2013) also argues that non-state actors should be given more power, such as being involved in decision making, in the governance of the Baltic Sea. While the public sector, science and environmental NGOs are active participants, the private sector is not well represented within HELCOM.

Strong commitments by the contracting states were made when launching the BSAP. As conflicts between different stakeholders are not systematically addressed within HELCOM, future collaborations within but also outside HELCOM could be jeopardized. Structures for addressing discontents and injustices, similar to how this is addressed within the CCAMLR are in **Paper IV** suggested to strengthen HELCOM.

## Methodological conclusions

This thesis uses an innovative combination of quantitative and qualitative content analysis on a unique set of text data derived from HELCOM – a HELCOM corpus consisting of all meeting minutes, recommendations and declarations between 1980–2013, but also reports published by HELCOM 1980–2010.

Even though computerized content analysis has come a long way, computers can only go as far as directed. The papers in this thesis therefore combine computerized content analysis with qualitative validation processes, such as manual coding and concordance analysis. As Grimmer and Stewart (2013), Hopkins and King (2010), and Klüver (2009) suggest, without the manual processes the validation of the quantitative results would have been very uncertain. Also, the concordance analyses often show inclusions of homonyms, which is why this thesis concludes that the qualitative measures used cannot be separated from the quantitative analysis.

This thesis describes fairly recent events and developments within HELCOM. Content analysis is here proven to be a very good tool when



analyzing history, as conscious and unconscious neglect of certain events is not made within documents (but can be made by interviewees). The documents are time specific, which is why this thesis makes no attempt in describing the history beyond what has been described within the analyzed HELCOM corpus. Content analysis always relies on the analyzed documents, which is why conclusions beyond these (such as conclusions about context) cannot be made. Furthermore, the meaning of content is never inherent, which is why this thesis accompanies the content analysis with theories of institutional, organizational and policy change. The documents analyzed in this thesis – meeting minutes, statements, and reports – are policy relevant for and within HELCOM, which is why they also are compatible with the chosen theoretical frameworks. The theories are used to understand and interpret the content, and depending on which part of the HELCOM corpus has been analyzed, conclusions are drawn about the institution (**Paper I**), the organization (**Paper III–IV**), and origins of policy change (**Paper II**).

## Theoretical conclusions and future research

Organizations often have problems concerning parallel change processes, incoherence among actors, and misfits between the governing body and the governed object (Boin et al. 2005; Jordan et al. 1999; Milliken and Martins 1996; Reischl 2012).

**Paper I** looks at institutional changes within HELCOM and finds that institutional changes within HELCOM are gradual. Drawing on the empirical conclusions outlined above, this thesis however suggests that institutional changes within organizations can occur both gradually and abruptly but not at the same time in the same space. This means that different parts of an institution can change at different speeds. **Paper I** discusses institutional ‘layers’ and finds that one layer over time can change both gradually and abrupt. Knowing that change can take place both gradually and abrupt, all institutional change processes should be studied unconditionally, to ensure that different types of change patterns are included in the study. Studies over longer time periods can also reveal that what at first looks like institutional stability is actually gradual institutional change. Based on the findings in **Paper I**, this thesis concludes that it is hard to study gradual institutional changes if the

data covers less than a decade. This also applies in the study of policy processes, which many times spans over several decades (Sabatier 2007). An example of such a long policy process is found in **Paper II**, which suggests that the policy and belief changes in the beginning of the 1990s were monumental for the launch of the BSAP, making the BSAP policy process span over at least 17 years.

Policy processes at the international level also seem to follow more complex patterns in comparison to the usual domestic policy process. Actor composition, structure and mobility are more flexible at the international level (**Paper II**), which is why international collaborations potentially suffer from incoherence and lack of ‘institutional memory.’ In HELCOM, the contracting parties as such have been stable over time, except for the addition of new parties in conjunction with the breakup of the Soviet Union and the reunification of Germany. Nevertheless, the actual representatives from the respective states have been replaced numerous times. In addition, many of the observers in HELCOM come and go. The instability of actor participation and how this has influenced the organization and organizational outputs would therefore be of interest in future research endeavors.

Communication between organizational levels within international organizations is at least as complicated as on the domestic level (**Paper III** and **IV**). Organizational hierarchies are, in contrast to the intention with the ecosystem approach, still present within HELCOM, which complicates, depending on the policy problem, an accurate (**Paper III**) but still adaptive organizational response (**Paper IV**). A clear hierarchical structure often makes the decision-making process easier and more effective. An organization’s ability to act is, however, also dependent on its internal resources – both monetary resources but also staff – as well as what type of mandate the organization has received from its member states. Whether an organization is intergovernmental or supranational has a significant influence regarding how decisions are made and delegated (Shapira 1997). HELCOM seems to have problems communicating between the organizational levels (**Paper III**), perhaps caused by a lack of resources and/or ambiguities in HELCOM’s mandate. It is therefore justified to wonder how decision-making processes within international organizations differ in intergovernmental and supranational organizations, but also how this process can be made more responsive at all levels of the organization.

In addition, international organizations must also relate to other organizations in adjacent policy areas. HELCOM has gone from being the only international collaboration concerned with the environmental state of the Baltic Sea to be one of many. Other examples of international environmental collaborations are the Baltic Sea Action Group, the Council of the Baltic Sea States, the Northern Dimension, the Union of the Baltic Cities, Baltic 21, and also the EU. Since 2004, all contracting parties belong to HELCOM except Russia and the members of the EU, which is why the Europeanization process in the region is discussed by several scholars (see e.g. Kern and Löffelsend 2004; Kern 2011; James Scott 2002). Nevertheless, research is still lacking when it comes to organizational competition, which is a phenomenon that goes far beyond Baltic Sea governance (see Brunsson and Sahlin-Andersson 2000; Brunsson 2009). As the number of organizations in the Baltic Sea region multiplies, the scope and priorities among organizations overlap. This plethora of organizations could strengthen the achievements to improve the Baltic Sea environment, but the ‘organizational overload’ could potentially also dim or even obstruct environmental progress. A case of organizational competition in the Baltic Sea, besides competition between the NGOs in the region, is HELCOM and the EU. Rather than see them as different parts in the same system, they sometimes behave as competitors in a run for the “most successful organization.” The similarities between the EU Marine Strategy Framework Directive (MSFD) and the BSAP challenge the member states’ willingness to comply with both, or choose one or the other. HELCOM countries that also are member states try to influence the EU policy process so that the MSFD complements rather than contradicts the BSAP (Borja et al. 2010; Udovyk and Gilek 2013), but more could be achieved by the two organizations to make the implementation and compliance for the member states easier. As organizations are clearly interrelated so are the policies that these organizations produce. Policy diffusion in the Baltic Sea is therefore an interesting path for further research.

At the same time as the rising number of international organizations increases the competition for political mandates, there are theories arguing the virtues of so-called institutional redundancy and polycentric governance arrangements (McGinnis 2000; Ostrom 2005). A promising task for new research is therefore to further explore organizational diversity, and to better understand relationships between, but also interrelationships among, international organizations.

Historically, the environmental policy domain has been considered to be low-level politics with very little at stake for involved actors in international politics. As environmental degradation continues to affect not only the environment in itself but also the livelihoods of citizens, the energy sector and food security, environmental policy has gone from low-level politics to high-level politics, influencing one of the main classic high-level policy areas – security. With the BSAP suddenly much is, or potentially could be, at stake for the respective states surrounding the Baltic Sea. HELCOM has gone from being an organization where the actors around the Baltic Sea during the Cold War could “only” discuss environmental issues to a situation where HELCOM is affected by or in the midst of many political battles: the Europeanization of the Baltic Sea area (where the management of the Baltic Sea is intended to be a blue print for the Marine Directive), increased shipping of people and goods (HELCOM, 2010; 2014), gas deliveries from Russia (Langlet 2014), and the development of renewable energy (wind and wave) from the sea. This changing policy landscape will pose new and potentially very different challenges for HELCOM in the years to come.

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