BASMATI

Baltic Sea Maritime Spatial Planning for Sustainable Ecosystem Services

Thematic Scoping/Vision Document: report outlining the main conflict and potential synergy areas in cross-border MSP.

Deliverable 2.2

BONUS

Science for a better future of the Baltic Sea region

BONUS BASMATI

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Contents

BONUS BASMATI project in brief

BONUS call 2015:
Blue Baltic

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Theme 2.3 Integrated approaches to coastal management and Theme 4.1 Governance structures, policy performance and policy instruments

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Abstract:
Maritime Spatial Planning (MSP) requires a spatially explicit framework for decision-making, and on that background the overall objective of BONUS BASMATI is to develop integrated and innovative solutions for MSP from the local to the Baltic Sea Region scale. This is to be realised through multi-level governance structures and interactive information technology aiming at developing an ecologically and socio-economically sound network of protected marine areas covering the Baltic Sea. Based on the results of former MSP projects, the BONUS BASMATI project sets out to analyse governance systems and their information needs regarding MSP in the Baltic Sea region in order to develop an operational, transnational model for MSP, while maintaining compliance with existing governance systems. It also develops methods and tools for assessments of different plan-proposals, while including spatially explicit pressures and effects on maritime ecosystem services in order to create the Baltic Explorer, which is a spatial decision support system (SDSS) for the Baltic Sea region to facilitate broad access to information. During the project running until 2020, new data will be produced and tested in assessments corresponding to policy goals. The data will support the combined analysis of the three elements of the concept of ecosystem services: the capacity, flow and benefit of provisioning, regulating and cultural services. A central aim of the project is to facilitate cross-border collaboration, and the project is carried out in close cooperation with relevant stakeholders in the BSR. The impact of the project will be facilitated and assessed in transnational case studies, where integrated solutions are required. The local scale will consist of case study areas in the South-West Baltic, the Latvian territorial and EEZ waters including open part of the Baltic Sea and the Gulf of Riga, and across the region, a pan-Baltic case study will be performed.

Introduction to Deliverable 2.2

The objectives of the BONUS BASMATI WP2 is: 1) To establish the conceptual framework for the development of tools facilitating stakeholder participation in sustainable allocation of marine activities; 2) To test stakeholder involvement tools; 3) Draw lessons from these case study tests.

This document reports on deliverable D.2.2 Thematic Scoping/Vision Document: report outlining the main conflict and potential synergy areas in cross-border MSP. English language master version.

Introduction to the report outlining the main conflict and potential synergy areas in cross-border MSP

Addressing *conflicts* between marine interests and finding workable solutions that can facilitate *synergies between stakeholders* is an important task of spatial planning both onshore and in the sea. A general assumption among many experts in marine/maritime spatial planning (MSP) is that promoting synergies and coexistence can enhance spatial efficiency of marine uses and possibly result in a more sustainable use of marine resources. However, in order to promote cooperation, one needs to first establish a better understanding of the crucial components of conflictive and synergetic planning situations and important definitions related to this.

This scoping report examines conceptualisations and analytical perspectives on work with conflicts and synergies in MSP in relation to the case studies of the BONUS BASMATI project. The theme of conflicts and synergies is rather topical, not least in connection with attempts of the EU and other actors to promote growth in the blue economic sector and keep related environmental impacts low. MSP is seen as an important tool or approach to promote and achieve these goals (European Commission 2008; European Commission 2009; European Commission 2012).

Chapter 1 provides introductory reflections on conflicts and synergies in marine spatial planning using both an analytical narrative complemented with examples from conflict theory. The aim is to provide the reader with an easily understandable introduction into relevant terms used and important issues to be considered when working with conflicts and synergies in MSP. These include interests, stakeholders, institutional frameworks, rules, systems and practices, space and geography, knowledge and technologies, conflict-synergies in a broader context. The chapter concludes with an analysis of conflict analysis and management literature and a discussion on the potential role of conflict management in MSP.

Chapter 2 provides examples of conflicts and obstacles that have emerged in a Baltic Sea Region (BSR) context and how, through people, planning processes, projects and institutions synergies have been developed. The chapter focuses on 1) Conflicts of interest: Marine use related conflicts / obstacles and synergies, 2) Institutional cross-border conflicts / obstacles and synergies, 3) Process-related conflicts / obstacles and synergies, 4) Knowledge and data related conflicts / obstacles and synergies, 5) Other types of obstacles that are context related.

Chapter 3 zooms in on the three BONUS BASMATI case studies and highlights emerging and potential conflicts and synergies within the case study areas. It also suggests potential synergies and solutions for overcoming challenges that can be addressed in the case studies and during the lifetime of the project.

1 Working with Conflicts and Synergies in MSP – An Introduction

The many different *interests* and uses present within a shared marine space can be labelled as a potential 'conflict' or as a 'synergy' depending on their potential impact on each other and the nature of interrelations between stakeholders. Conflicts and synergies can also be attributed to different values and interests, rules/regulations and the institutional systems built around them, the available technologies and knowledge, as well as the specific context and place in question. These conditions are not static, but change over time; for instance, the values attributed to different features of nature has changed significantly over time, and so has the technology for building offshore infrastructures, or the available knowledge on combined impacts of different activities, such as artificial reefs, fishing and pollution. Moreover, from a human use perspective, a conflict may turn into a synergy if compromises or technological solutions can be found. As these conditions change, so do the institutional systems that regulate and manage human interests in the sea, and so does the given 'status' as conflicts or synergies.

1.1 A conflict-synergy continuum for MSP?

The interrelation between one pair of interests and uses can be positioned somewhere along a conflict-synergy continuum depending on their degree of 'coexistence' and context. Figure 1-1, based on a report from an expert workshop by the International Council for the Exploration of the Seas (ICES), visualises a continuum ranging from 'negative coexistence', where the result of an interaction has negative consequences, to 'active coexistence' or synergy, where different uses actively support each other and are mutually beneficial (co-location) (e.g. ICES, 2018). Somewhere in between is 'passive coexistence', where two activities or interests can be present in on place which are neither harming nor benefiting from each other. This implies an absence of conflict without any active form of harnessing positive mutual effects, such as collaboration.

The term conflict needs to be carefully defined. In everyday language it can be loaded negatively and lead to aversive affective reactions. However, conflicts do not necessarily have to be negative and imply an escalated, socially disruptive conflictive situation. Moreover, researcher's sensitive to power differences between actors even see conflicts as a means of development (see e.g. Chantal Mouffe's concept of agonistic conflicts, 2005). Conflicts of interests in planning may imply competition for space but might not be expressed as such in space or perceived as such by relevant stakeholders. Conflicts can also be due to a lack of information and knowledge. In this sense, some conflicts can be sorted out among the negative ones, or even have positive implications. Conflict research has some further differentiations that might be helpful.

A simple coexistence assessment between pairs of interests can become significantly more complicated if these are combined and placed in a context. Human activities and interests do not exist in isolation but are always embedded in a broader context of further interests, rules and regulations, trends and technologies, and other conditions. Applying a conflict-synergy perspective to reality requires a multi-tiered and context specific approach looking into: 1) the nature of the use 'interests'; 2) who are the actors and stakeholders; 3) the institutional systems and processes in place; 4) the space and geography in question; 5) the knowledge and technologies available shaping the use and understanding of it; and 6) in what sense a broader analytical perspective on area-specific contextual factors and on drivers behind conflicts and synergies may be important; 7) what is the role of MSP in addressing conflicts and synergies. These aspects are discussed further below.

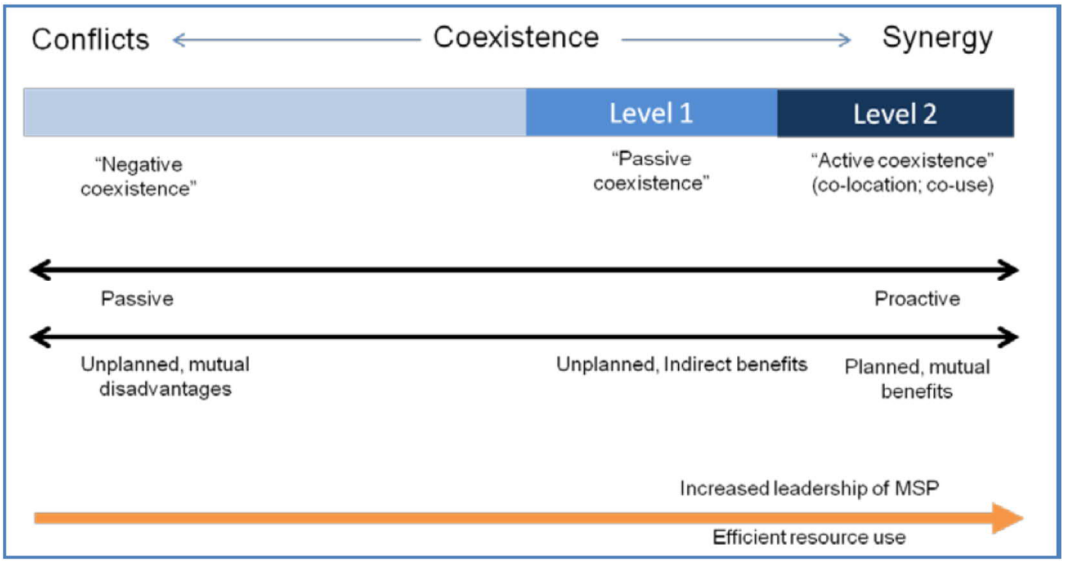

Figure 1-1
Conflicts and synergy as expressions of coexistence and their interrelations (black arrows) and the role of planning (orange arrow). To further specify the roles of MSP, one could add a typologisation of planning from reactive (left) to passive (middle section) to pro-active MSP (right part). There are no strict lines and no good and bad, as MSP can also be consciously be reactive or passive in relation to certain uses, as part of a strategy. Source: ICES 2018.

1.2 Use-Interests

Interests in MSP are normally seen from the perspective of use sectors, such as fisheries, environment and conservation, energy, shipping, tourism, defence, and so on. This categorisation is useful since many sectors are represented by specific government divisions, such as a Ministry of Transport or of Environment and related interest organisations, such as the shipping industry and environmental protection organisations. However, all sectors are not necessarily well identified and included in MSP or may have differing priorities in relation to each other (e.g. 'shall' and 'can' be included such as in DK legislation, or national defence with absolute superiority such as in Sweden). Moreover, the complexity within a sector can differ considerably and imply internal conflict and competition (e.g. fisheries or marine recreation). Furthermore, the degree of organisation and mobilisation differs within and across sectors, where some are well established and used to voicing their interests, while others are neither organised nor mobilised for marine management (Morf et al. forthcoming 2019).

Conflicts of interest and potential synergies become tangible at the level of specific practices, resources and places, rather than at the level of sectors and users (ICES, 2018). Therefore, identifying conflicts and synergies needs an analysis of different types of extraction gear (fishing, mining), technical installations (energy), maintenance and safety requirements (energy, shipping), transport routes (fishing, energy, shipping), fish spawning grounds, and so on. Some key aspects distinguishing interests include (e.g. Przedrzymirska et al. 2018):

- 'Soft' uses (mobile, not fixed in space) and 'hard' uses (physical installations, fixed in space).
- Linear vs. point vs. diffuse vs. area-based use interests (geographical) and where in 3-dimensional marine space and how much these uses are depending on certain locally/regional specific conditions.
- Technical aspects (gear types, installations, vessels) implying different impacts and flexibility in time and space.
- Biotic or abiotic resources are harvested.

- Emerging or well-established uses (and pace of change/innovation)
- Economic driven or non-economic driven (i.e. environmental, social and political values)
- Time and timing: diurnal and seasonal variation, long and short-term horizon of activities and expectations.
- Political priorities - high or low in relation to present political government agenda (i.e. growth interests vs. nature protection).
- Nationally and internationally relevant, including the cross-border interphase

1.3 Marine Stakeholders

The conflict-synergy continuum indicates the type of interaction between uses or interests; however, the actual use and the discussion around them mostly occurs between marine stakeholders, including those users actively using marine space and others having a stake in relation to the sea. These range from individual users and larger aggregations ranging from user groups, enterprises and NGOs, to national states (administration and politics) and international governmental organisations. All, including society at large, play a role in conflicts-synergies discussions for MSP. Moreover, competition and conflicts can exist not only between groups, but also within sectors and within public administrations.

Within public administration itself, different sector interests are represented and managed under various government divisions, such as the ministries of transport, environment, energy, economy, defence, and the related political committees and public agencies. These compartments of political decision-making and public administration are frequently in disagreement. The same can be found within economic sectors, for instance within fisheries where there can be disagreement in terms of fishing gear or competition for fishing grounds. This can be both within and across borders. Moreover, public administration implies subnational levels, namely regional and local administrations with their different sub-divisions. These are key actors, whether they are directly involved in the MSP process or not. Apart from sector experts, politicians and political parties make key stakeholders, as they hold decision-making power and provide basic legitimacy for planning and other decisions.

Key stakeholders from economic sectors include e.g. shipping, fisheries, energy, and tourism enterprise, acting partially as individual enterprises or in organised forms. There are also non-profit organisations representing economic (e.g. fisheries organisations) and non-economic use interests and stakes (e.g. environmental or outdoor recreation organisations). A last type of stakeholder is society at large, including future generations, represented through e.g. local resident organisations, but also as individuals and organisations of many types involved in public consultations.

Zooming-out into the international arena, a number of key actors play important roles in marine governance globally and in regional seas. These include as regulatory actors on a global level, the United nations (UN), especially with the United Nations Convention on the Law of the Sea (UNCLOS); sector governmental organisations (GOs), such as the UNESCO (education and environment) working through the International Oceanographic Commission (IOC) with MSP and ICZM globally, and the International Maritime Organisation (IMO) regulating shipping. At a regional transnational level, covering both Baltic, North Sea, Atlantic and Mediterranean, as a regulatory body, there is the European Union (EU). The Commission and its sectors represented by the different directorates and specific recommendations, policies and directives (e.g. Common Fisheries Policy, Integrated Maritime Policy, MSP directive, IMP, MSFD, WFD and more). Also, within the EU, sectors do not necessarily pull in the same direction. In the Baltic Sea Region (BSR), key players in MSP include the Helsinki Commission (HELCOM) and VASAB, and their joint HELCOM-VASAB MSP Working Group.

Finally, conflicts and synergies may also exist at an individual personal and group level, based on individual attitudes and earlier disagreements amongst community members, politicians, planners, and even between nation states.

1.4 Institutional frameworks, rules, systems and practices

The intricate institutional structure regulating marine space, human activities and related sector policies and priorities can make a key source of conflict and create various types of barriers to conflict management and resolution. The historically grown specialisation and departmentalisation of public administration and problems of communication and coordination are a recurrent issue (ICES, 2018). There may also be restrictions for sharing information between states (based on e.g. economic and security arguments). Also, the rules over marine uses and the institutional structures defining them are not the responsibility of national institutions alone. International conventions, directives, policies and national regulations and sub-national rules and practices form a complex playground in which marine activities operate. The distribution of tasks and responsibilities horizontally across sector and vertically across levels varies considerably across borders, further complicating cross-border MSP activities.

Furthermore, operational regulation and management practice such as zoning and licensing can affect the shape and development of conflicts of marine use (e.g. types of protection or unclear requirements or even gaps in regulation). Regulation and practice differ across sectors, borders and levels and may be more or less sufficient and effective. Insufficient implementation, monitoring and enforcement may lead to conflicts as well. Conflicts may also emerge from planning systems and processes themselves and from differences across levels and borders. Regulation may stipulate different priorities and ways of dealing with competition/coexistence. Moreover, planning practice (including planner's capacity and skills and how a process is conducted) affects how conflicts and synergies emerge and how they evolve. Process-related factors affecting the success or failure of MSP include among others things, the quality of the participation process (e.g. who is involved, how much are they involved, and when are they involved?), and the quality and existence of impact assessments and the knowledge planning is based on (whose knowledge and what quality?).

1.5 Space and geography

Interests and related conflicts and synergies are context specific in relation to space and related bio-geophysical aspects. Some activities or ecosystems occupy only the surface, while others cover the entire water column. Likewise, certain topographical and climate situations may make some areas more suitable for e.g. shipping routes or windmills than others. Some ecosystem characteristics are more appropriate for specific living resources than others; and even if fish is a mobile resource, certain species still have more defined spawning grounds and migratory routes, therefore, regulations are also needed to be geographically sensitive. For instance, defining Marine Protected Areas (MPAs) in relation to the species and ecosystem types to protect, both criteria and norms may differ across jurisdictions. Even if a proposal is technically possible due to certain geographical conditions, planners and politicians need to evaluate the benefits of one specific use and its consequences for society in relation to alternative uses and values of the same place (e.g. changing landscapes, permanently affecting defence interests or a fragile ecosystem or cultural heritage).

1.6 Knowledge and technologies

How far knowledge and methods are contested can be a central factor in effective conflict management and developing solutions. Presently, there are still considerable knowledge gaps, both in relation to marine ecosystem characteristics and functions, specific uses and to their interactions and impacts on each other and on marine ecosystems. While some uses have received more attention by research and policy analysis, other uses remain under-engaged, which restricts the possibility to be acknowledged and included in MSP activities. Moreover, differences in sampling scale, frequency and methods and in quality standards across borders and knowledge fields may lead to difficulties to compile and apply the knowledge (e.g. Baltic SCOPE results in Urtane et al.).

Complications and conflicts may arise if knowledge stems from methods and sources following different scientific paradigms and might be contested by some parts in a planning process (e.g. natural sciences and technical vs. social sciences/humanities or qualitative vs. quantitative, experiential vs. scientific knowledge). Also, new knowledge (e.g. about the impact of trawling or of artificial reefs) may both establish negative or positive interactions between uses and affect the course of controversies and solution processes. The accessibility of knowledge can represent an obstacle in the process, which can enhance conflicts or make them difficult to address, e.g. if access is restricted by regulation or high prices. Technological development can affect the interaction between uses:

a) from a data perspective, i.e. by making data collection and processing easier and cheaper, providing new sources and perspectives and promoting a better quality and resolution for larger areas, or making real time monitoring and evaluation easier, with a possibility to provide social control and affect behaviour;

b) moderating the physical interaction between uses and interests or the planning process, making it possible to turn negative interactions into neutral or synergetic ones. Some technical characteristics may make specific uses unsuitable in the presence of others. Here, technological development and other types of innovation may reduce environmental impacts or enable synergistic solutions even between previously irreconcilable uses (e.g. make presently less compatible aquaculture and energy production more able to coexist).

1.7 A Systems Perspective

To help better understand conflicts and synergies some helpful analytical perspectives are outlined below.

Context of conflicts and synergies

Marine use interests and related conflicts and synergies can be first considered separately, but to better understand and address them, a more thorough analysis is needed, situating them in their larger contexts. It is also important to analytically distinguish what is within the system and can be affected and what is outside of the boundaries of the system and should rather be named context, as it cannot be affected (e.g. in relation to a planning process the givens, events, trends and changes at a larger institutional, societal, temporal and geographical scale).

Analysing interrelations between two activities or interests may lead to a single conclusion of either conflict or synergy. However, an actual picture of causes and effects and interactions may not be straight forward (conflict or not) and look like a complex spiders-web in relation to interrelations between uses. The interrelations between uses/interests can shift along the conflict-synergy continuum (see Figure 1-1) depending on whether they are seen in isolation or in a broader, systemic perspective such as societal and ecosystem conditions. These can be further exacerbated by place-specific interests converging and knowledge and technology available in one place. For instance, even if technology may allow a multi-use infrastructure, it also needs to be economically feasible, be supported by authorities, be in alignment with environmental and social demands and there needs to the willingness of stakeholders to collaborate. Here, a system and drivers perspective can be valuable for analysis.

Drivers of marine uses

To explore coexistence from conflicts to synergies, leaning on the relatively well known DPSIR approach used in the BONUS BASMATI analytical framework for indicators for ecosystem services (see deliverables from WP 4), it can be valuable to apply a “drivers-perspective”, asking what actively drives, enables or obstructs the action of marine users and other actors in MSP? (on the DPSIR

framework, see e.g. Smeets & Weterings 1999; Svarstad et al. 2007; Atkins et al. 2011).

Here, we use the term drivers in a broad sense, providing incentives and disincentives for individuals and user groups to shape their activities and interactions in a certain way. Drivers can be of many different kinds: physical (infrastructure, ecosystem), legal (regulation), economic (e.g. livelihood needs, taxation), societal (values, prestige etc.). Drivers can be both of first degree (directly related to the action in the sea) and of higher degree - indirectly related to specific actions in the sea and shaping them (Sundblad et al. 2014), e.g. what directly and indirectly drives professional fishers to use certain gear in a specific place at a specific time and what drives them to take as much as possible of the allowed catch (e.g. livelihood needs, pay off debts, regulatory framework, subsidies of certain fish, landing infrastructure and regulations, the marketing, the prices, the buyers).

Synergies can develop both in the absence of negative interactions or when workable ways are identified to reduce work around known problematic areas. This may require change or adaptation of all that has been mentioned in earlier sections: the users, practices, the institutional system (regulation and management practices), knowledge and technologies, societal and economic changes, or changes in the ecosystem.

Not least, the regulatory systems and use practices for well-established activities can be in contrast to emerging ones that need accommodation within institutional structures and among other uses. Such situations can lead to frictions between uses, users and institutional systems, but can also present opportunities for coexistence and collaboration, to explore ways for old and new uses to e.g. share services, infrastructures and promote other types of synergetic interaction with positive effects for most involved. Drivers behind synergies can e.g. be that this makes sense economically and socially, reduces negative impacts on the environment, technological innovation allows new ways to site and combine uses or changed societal values and regulation. Here a few type examples of possible drivers:

- Use-related: growing and declining sectors exploring cost-effective synergies to reduce costs, diversification of income to promote flexibility (e.g. fishing incorporating tourism related activities)
- Ecological/environmental: environmental change making activities possible or impossible (e.g. temperature, currents), perceived environmental pressures and will to address them.
- Institutional and regulatory (various levels): regulation and planning (e.g. limits, zoning etc.), requirements (e.g. of co-location), taxation, licensing, information, project money promoting desired outcomes (e.g. collaboration on new developments).
- Societal: pressure from social values – e.g. sustainable use of marine resources
- Technological and knowledge related: limiting change/innovation or opening new avenues

To thoroughly understand whole chains of drivers behind uses and conflicts from a scientific perspective requires transdisciplinary analysis, drawing from methods, knowledge and theories from various fields. However, the analysis at this stage of the BONUS BASMATI project tries to stay with the very concrete aspects of marine uses and users and what can easily be collected by looking at documents and talking to marine use representatives.

In relation to conflicts and synergies in marine use and MSP processes, drivers can be of different kinds. In conflict research, one talks about the content of the conflict. In conflict management and ICZM literature there are also reflections on the tractability of conflicts in relation to different conflict parties' positions, interests, values and needs (Morf 2006).

Societal aspects

Conflicts and synergies are defined by humans and may not be straight forward (i.e. a simple yes/no) but are often complex (i.e. degrees of desired or undesired interaction). From an environmental perspective, almost all human activities, in one way or another, have a negative impact on the environment, so one could argue that all these human interventions are in *conflict with the*

environment. Yet, others may say that some human interventions have less negative and more desirable impacts. For instance, a windfarm generates renewable energy (reducing the use of fossil fuels impacting negatively on the climate) and its foundations serve as artificial reefs. Still, in a heavily trafficked waterway, or in front of a popular tourist destination or artificial reef serves as a stepping stone for an invasive hard seabed species, it may be more conflictive. Very much depends on the societal values held by specific actors in a specific place. Here, history and culture, but also the distribution of (environmental and other) costs and related gains can make important contextual factors as well. In some places, off-shore windfarms may represent an image of a modern, climate-aware city of the 21st century like in Malmö.

Border areas can be especially sensitive, as with national boundaries, not only due to different jurisdictions but also contrasting cultural values, language, traditions, history, administrative systems, and places where actors meet.

Temporal aspects and change

Ecosystems, economies, societies and their values, technologies, and available knowledge change over time. Moreover, seasonality plays a role both for ecological processes and human activities (fishing, shipping, recreation). Different activities have different time frames: fishing and shipping have been there since millennia, wind aggregates have a life time of ca 25 years, with a construction phase of only a few months. Furthermore, there are trends in relation to specific uses: renewable energy becoming topical, ships becoming larger, increasing environmental degradation and noise leading to effects both on ecosystems and marine uses (e.g. water quality and swimming, noise and porpoises). The temporal dimension of external factors and internal drivers affects the potential for synergies and conflicts and conflict management as well.

Short intro into conflict research and conflict management

Marine spatial planning processes may not only deal with conflicts of interests, as we mostly discussed so far, but may also have to address other aspects of conflict. To explore these, an introduction into conflict research is outlined by conflict researchers and teachers from Gothenburg university (i.e. Thomas Jordan, Leif Eriksson). Roughly, one can say that from a conflict management perspective, a conflict is a clash about something e.g. interests, values, resources, dominance (and more) between two or more parties (Individuals, groups, organisations, enterprises, nations etc. and any kind of mix thereof).

Firstly, we need to be aware that there are several dimensions to conflicts - not just the actual use interests. Conflicts are not just about interactions of uses or “interests” but also about interactions of people in their use or in the planning process. A marine planner needs to manage both. In order, to structure thought in a pedagogical way, a few basics and some figurative models common in conflict research and conflict management are presented: the ABC triangle and a stairway of escalation.
According to a simplified typology, the so-called the ABC model of conflicts (Fig. 1-2), initially presented by leading conflict researchers Johan Galtung and Anatol Rapoport in the 1960s, conflicts can be said to consist of three main components: Attitudes (A), Behaviour (B), and the Conflict content (C) that can form the three corners of a triangle. If two dimensions are emphasised, conflict expression can be three “pure” typologies along the three sides of a triangle connecting the corners: 1. Games (e.g. chess game: expressed in behaviour and content of the conflict, trying to outwit the opponent without negative attitudes), 2. Fights (e.g. a fist fight - expressed through negative attitudes and conflictive behaviour without necessarily a component of content) and 3. Debates (e.g. a political debate – a conflict of values, expressed through strong attitudes and focus on the content of the conflict – but without violent behaviour towards the other side. Planning conflicts are usually in the main part of a content kind (with focus on resources and rights to use them and intended or not intended side effects), but in the course of a planning process or through interaction of uses and users, other components can develop (A, B). Planning tends to try to keep conflicts to the games and debates side of the triangle.

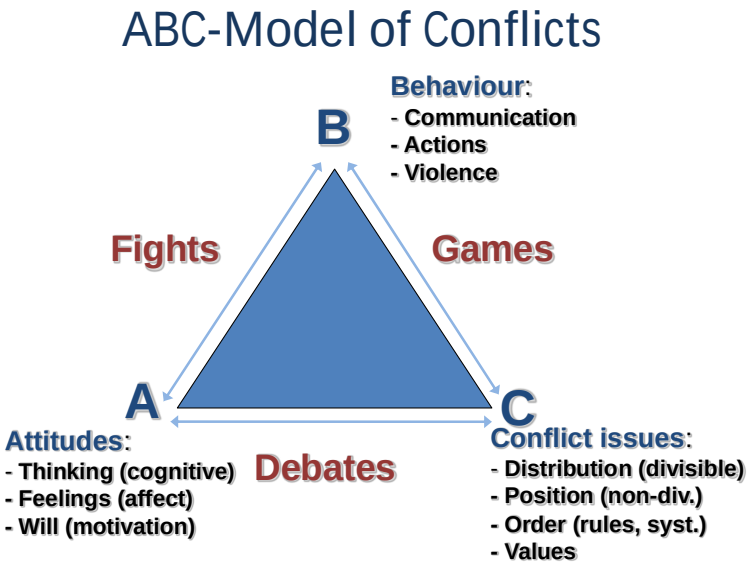

Figure 1-2

The conflict triangle based on the ABC triangle by J. Galtung complemented by the Fights-Games-Debates typology by A. Rapoport (1960). Source: (Morf 2006).

Developing this figure further, one has to be aware that conflicts contain both visible and invisible dimensions. The invisible components may be aspects that are consciously not put on the table (a hidden agenda or not revealed underlying interests in relation to the positions presented in the open and there may even be components the parts are not even aware of (regarding all the three corners of the triangle). Conflict management can be both about isolating some components in order to address them, but also making invisible components more visible to widen the understanding of the situation and the possibilities for negotiations.

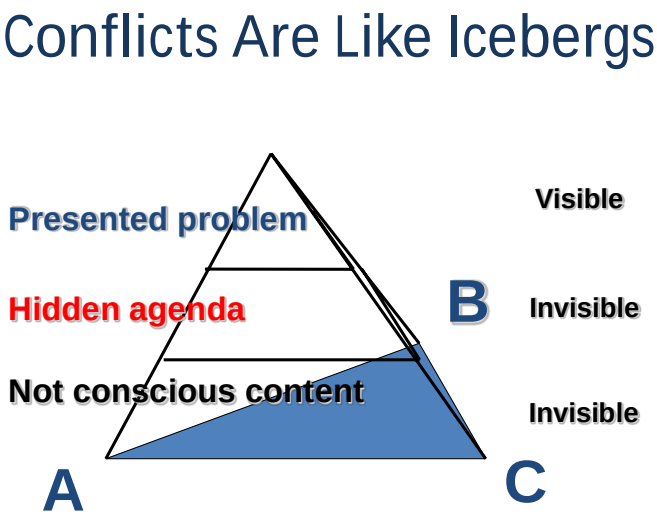

Figure 1-3

Conflicts are like icebergs (Source: figure by A. Morf)

This means, that planning processes have on one hand to deal with the content part of a conflict (the actual use conflicts) but also the interaction of actors (the conflictive process). Here, some short reflections on conflict dynamics are in place, using the figure of a stairway of escalation (Fig 1-4), originally developed by Friedrich Glasl based on studies of interpersonal conflicts (Glasl 1997) and developed further by Thomas Jordan and Leif Eriksson (University of Gothenburg). There is a dynamic of escalation in conflictive situations that tends to go from 1. open trustful dialogue to 2. hardening discussions, where positions are defended, and underlying interests are not presented openly anymore, with trust and listening lost, to 3. debates, where manipulation becomes acceptable and fairness and honesty is lost and so on. The upper end of the stairway is destruction of the other not regarding the own costs. The escalation is visible at all three corners of the triangle, but especially at the A and B corners (with the original content of C becoming less and less important). The task of conflict management is to de-escalate, contain violence and lead the parts in the conflict down the steps again.

Depending on how a conflict is perceived, there are different approaches to conflict management and resolution. Most importantly, the question is whether the conflict is about something that cannot be shared (implying a win-lose situation), or whether it can be transformed into a win-win situation. Moreover, depending on the degree of escalation and the view that can be taken on the conflict by the parties and the managers, there might be a need for a more strict third party, i.e. a) an arbitrator/adjudicator in an adversarial situation (e.g. a judge, politician) or rather b) a mediator, merely helping the parties come down the stairs or c) a facilitator helping the parties to define the problem together and finding one or several solutions (consensual conflict management).

Steps of escalation: characteristics	What is lost
9 Annihilation of other at any price	Self-protection
8 Elimination: attack nervous centre	Respect for other's existence
7 Painful attacks: rumour, psychological, physical	Respect of other's integrity
6 Strategic threats with undesired effects	Fear to have to execute threats
5 Loss of face: open attacks on person	Respect of other's reputation
4 Hidden harassment: dehumanising, ridiculing other	Other's value, image, tolerance
3 Running over: promote own goals, tire other	Communication about conflict
2 Debate: polarisation, facade, manipulation	Fairness, honesty, keep to issue
1 Discussion: hardening positions	Listening, right of other to talk
0 Dialogue: openness, listening	

Figure 1-4

Steps up a ladder of escalation, based on Friedrich Glasl (1997), developed further by (and courtesy of) Thomas Jordan and Leif Eriksson (University of Gothenburg).

Even if it may be advisable to first try to attain an open dialogue situation in public planning processes to promote a constructive dialogue, in reality it is rarely so that power is equal and that all are equally interested in an open dialogue. Examples are difficulties of communication with e.g. the armed forces (not ready to even give some indications on what their interests are in order to allow finding compromises), or economic actors afraid to lose professional secrets such as fishers indicating their good fishing spots to others.

Moreover, in MSP, we are often dealing with multi-party conflicts. Here, how far a problem is perceived to be conflictive or not, the actual content, the needs and interests and the degree of

escalation (and actor's behaviour and attitudes towards each other) may even vary between individuals and groups and may need to be treated in a differentiated way, such as Bloomfield (1997) suggested for dealing with the conflict on Ireland.

From a conflict management perspective and in relation to different stakeholders' stakes in the sea (here, we so far have only clearly discussed their interests), one needs to distinguish further in order to be able to address conflicts. Morf (2006) suggests, based on a literature study (drawing among other on Burton 1990, Provis 1996, Fisher & Ury 1981), studying the following to describe a conflictive situation:

1. Positions defended on the outside (e.g. for or against wind power);
2. Underlying interests (e.g. clean energy, untouched horizon);
3. Related values and norms of the conflict parties (e.g. environmental vs. individualist)
4. Basic, non-negotiable needs (e.g. disturbing noise requiring moving away).

From the first to the latter it becomes increasingly difficult to find solutions without compensation or without one party really losing in a conflict (for a thorough literature analysis and discussion, see Morf 2006). See a table 1-1, taken from Morf (2006), p. 104, developing a typology of tractability of conflicts by Cicin-Sain (1992) further and using examples from the Baltic Sea and the North Sea.

Table 1-1

Typology of conflicts related to tractability based on conflict roots and involved parties

	Types of conflicts Philosophical Conflicts	Potential Interaction Conflicts	Actual Interaction Conflicts	Imagined Interaction Conflicts
Roots of conflict	Differences in values	Differences in facts, interests, possibly values	Differences in facts, interests	Differences in facts
Parties to conflict	Indirect users/ direct users	Direct users/ direct users	Direct users/ direct users	Direct users/ direct users
Tractability	Most intractable	Less tractable	Fairly tractable	Most tractable
Examples	Conservation vs. oil extraction Residency vs. offshore wind power	Recreation vs. aquaculture	Leisure boats vs. fisheries Leisure- vs. professional fisheries	Fisheries vs. oil extraction
Comment	Value based conflict can be enhanced by difficulties to establish direct contact among users. Treatment requires a discussion of values, which take time to change. Lacking conflicts about on basic needs.	Interest based conflict can include information deficits and values. Treatment requires a discussion of both interests and values, which may take time and not necessarily can be solved. Exchange of correct information contributes to solution.	Interest based conflict, combined with information deficits. Can be treated through negotiations and exchange of correct information.	Information based conflict. Can be treated by exchanging correct information.

Source: Morf 2006 p. 104, citing Cicin-Sain 1992 (adapted examples and comment)

When looking at methods to address conflicts, especially philosophical conflicts require a kind of mutual learning process that will take time, as changes of values cannot be achieved by a mere external decision but are in need of a process of discussion. MSP can be said to often be dealing

with so-called ill-defined or more or less “wicked” problems (Rittel & Webber 1973). These are characterised by multiple dimensions, boundary crossing issues and ongoing change both in the natural environment and in society. Moreover, costs and benefits are unevenly distributed, and values related to them not necessarily agreed upon. Thus, decisions have to be taken within a context of high uncertainty and value conflicts, making the legitimisation process rather important (e.g. Jentoft & Chuenpagdee 2009). Transboundary MSP tends to complicate the situation further, not the least, because there is a need to work with consensus. Here so far, no plans are made across borders, but research and development projects function as important enablers.

Conflict literature often distinguishes between five basic strategies to cope with conflict situations (e.g. Friberg 1990): *avoidance* (avoiding confrontation), *dominance* (the stronger party running over the weaker), *submission* (the weaker party submitting to the stronger), *compromise* (negotiating an agreement, where both parties give in on some desires and win on others), and *collaboration* (trying to find a solution presenting a gain to both parties).

The overall approach of consensual conflict management is to define a conflict as a common problem to solve together as far as possible seems to be appropriate also for such situations. However, in situations with multiple parties and levels, complexity of the process can become rather high. However, planning and planners may use all these strategies and more such as opening and closing issues, managing the participation process in specific ways etc. (e.g. as documented for municipal planning situations in Morf 2006). This brings us to the last part of this chapter.

1.8 Conflict Management and Possible roles of MSP

In relation to conflict management and what aspects of a conflict can be taken take care of through MSP and how synergies can be identified and developed (and planning in general), there are three aspects to consider: a) the documents and their knowledge base and other content regulating the interactions in marine space, b) the planning (and implementation) process managing the interaction of stakeholders to share information, identify problems and conflicts and identify solutions, and c) the roles of the planners and other decision makers managing the process. Below a (probably not complete) list of functions we could so far identify.

a) Plan documents:

- As formal regulatory mechanism establishing rights and duties: including zoning and provisions for use and non-use in an actual plan of all marine uses
- As a knowledge platform/bank of the key data and mapping of all sector interests at present and keeping this in a long-term perspective to allow for monitoring change over time.
- As promoter: push for synergies, actively communicate opportunities for synergy (showcasing initiatives from elsewhere)

b) Planning processes

- In identifying potential conflicts and working around them: by forecasting, scenario thinking, being up to date with the trends in industries, markets, technologies, by learning from other disciplines/industries, learning from other countries and sea basins,
- As a forum, platform, meeting place for dialogue – bringing stakeholders together – explore opportunities, solving conflicts and identify potential synergies
- As process – activate change, mobilise stakeholders, push for coordination, forecasting, scenario, medium and long-term thinking
- Connecting: activate a fair process generating an enabling environment, establishing networks, and close relations.
- As promoter of synergies: provide opportunities to communicate on and explore synergies (e.g. showcasing initiatives from elsewhere)

- Promoting learning and adaptation: through **monitoring and evaluating** marine uses, how the plans and its provisions work in practice, and thus revising the plans, and taking actions to constantly improve the plans and the use.

c) **Planners** as both experts in content and process managers can play different roles:

- Facilitators of a collaborative problem solving and synergy identification process,
- Mediators in conflictive situations (e.g. proposing compromises and ways to find synergies),
- Arbitrators where decisions can be taken or by requiring certain actions to be taken in relation to developing potential for synergies (e.g. political decisions).
- Brokers of knowledge: knowing the needs of sectors and, effectively communicating this knowledge with stakeholders – making sure they know what is possible and what other sectors need.
- Funders: providing funding for processes and projects to explore synergies

For the upcoming analysis and case studies

To analytically accommodate the *dimensions* expanded above and in relation to the coming case studies, we suggest analysing the conflicts and synergies in relation to:

a) the content of planning (the uses),
b) the institutional frameworks,
c) the actual planning process,
d) knowledge and data, and
e) important contextual characteristics and concrete drivers (within and beyond the case) affecting the conflicts within the cases we are analysing.

In relation to *conflicts and interaction of conflictive uses*, we suggest to think about the content of the conflict (C) and further components behind it such as values, basic needs and the A/B part - how the conflict parties interact in the planning process and as users (attitudes and behaviour but also degree of escalation/whether a conflict is actually manifest in uses or merely theoretically and information based). See also table 1-1.

Moreover, on *a larger scale and comparing across countries and cases*, we also might need to think about obstacles and enablers to establish functional plans and processes to deal with use conflicts and conflictive interaction of stakeholders (planning processes). This will also involve promoting synergies according to the stated objectives of MSP which can differ between countries and regions and are based on regulation, legislation and principles.

2 Addressing conflicts and synergies in MSP – Examples from the Baltic Sea Region

Conflicts, obstacles and synergies that emerge in planning processes can be grouped under 5 different dimensions:

1. Conflicts of interest: Marine use related conflicts / obstacles and synergies.
2. Institutional cross-border conflicts / obstacles and synergies.
3. Process-related conflicts / obstacles and synergies.
4. Knowledge and data related conflicts / obstacles and synergies.
5. Context related aspects shaping conflicts and synergies

Within this categorisation, we attempt to broaden the scope of conflicts and synergies, by incorporating other dimensions and specific obstacles and enabling elements to achieve functional planning processes promoting the addressing and managing of conflicts and development of synergetic interactions. Some of these are not conflicts or synergies per se, but act as barriers, or create conflictual conditions, that hinder the planning process. Conversely, they might also enable or create the synergetic conditions that facilitate planners work.

2.1 Conflicts of interest: Marine use related conflicts and synergies

The most straightforward type of conflicts is those with a clear spatial character resulting from an overlap of two or more interests over a specific sea area that have a direct impact on each other. For instance, windfarms as physical installations may exclude other activities, such as shipping. In most cases, marine uses and objects of interest are not fixed in space, but are mobile, or have blurry boundaries. Examples are ecosystems, fish stocks and migration patterns, fishing, and shipping. Conflicts involving these kinds of interests are normally identified and mapped in MSP by using some kind of 'interests' matrix', where the interests from different sectors are contrasted to each other, both in general terms and in specific contexts and places.

Table 2-1 lists conflicts (problems) and obstacles identified in the BSR and concerning different marine uses, often connected to different status and / or involvement of sea use sectors, such as shipping, fisheries, energy, environment etc. The table also provides examples of synergies and co-existence in relation to different types of marine uses and users.

Even though MSP provides mechanisms for balancing stakeholders' interests, there is a strict hierarchy among sectors, and consequently, conflict resolution may be complex. There is a path-dependency component to the sectoral imbalance in MSP. Traditional sectors, such as shipping, defence and fisheries are well established in their processes and interactions, which often gives them the upper hand when defending their interests. Emerging sectors, such as energy and tourism, normally have a lower influence on decision-making, while some sectors may not even be included (e.g. local marine recreation not mentioned as a sector in the MSP Directive). These hierarchical relationships, however, do not necessarily translate into the MSP process in terms of which sectors are more active and better represented.

In reality, those who have more power are often underrepresented, such as defence and shipping, whereas those that are pushing their way up are more active, such as the environment and energy sectors. Yet, less powerful sectors can be increasingly influential, especially due to national priorities. For instance, many countries' have prioritized the generation of renewable energy, which has led to several concessions for offshore wind installations.

Table 2-1

Marine use related obstacles and conflicts and synergies and factors that can affect them

Marine use related obstacles and conflicts	Synergies & Coexistence
Competing sectoral interests (=actual use conflicts)	Stakeholder involvement processes, methods and tools. Process and tool: Conflicts and Synergies Matrix for cross-sector analysis of interactions. Creating awareness of other sectors interests and needs (e.g. elaborating topic papers and cross-sectoral workshops in Baltic SCOPE). Case Studies conducted, and tools developed under BONUS BASMATI.
Differences in power	
Differing influence of sectors	Building synergies between sectors.
Varying intensity of sector engagement in MSP.	Increased understanding of different national sectors. interests through projects (Baltic SCOPE, BONUS BASMATI) and stakeholder events.
Underrepresentation of certain sectors	Stakeholder conferences. Creating awareness. Sharing results of projects.
Under-documentation of some sectors	Point out knowledge gaps and encourage establishing data and mapping to strengthen sector in MSP process.
Hierarchy between sectors	Encouraging stakeholders to think from a pan-Baltic perspective (e.g. transnational Stakeholder Conferences, BONUS BASMATI Pan-Baltic Case). Encourage equal inclusion of all sectors in MSP (not mandatory vs. optional sectors as seen in some national laws). Awareness raising of 'soft' sector importance
Problems of perspective	
Lack of trans-Baltic and cross-sector perspective among sectors	Fora for sector stakeholders to exchange information. Case Studies conducted under BONUS BASMATI and other BSR projects (BALTSPACE, Baltic SCOPE, Pan Baltic Scope etc.)
Uneven timing in MSP across sectors and countries	Coordinated data and planning processes through participation in trans-Baltic projects
Technically impossible to coexist on the same space	Promote spatial efficiency, develop and make use of technologies that are compatible with other uses, promote dialogue and collaboration, make compromises

Often the conflicts between sectors emerge from a lack of understanding between stakeholders about the needs and interests of other sectors. MSP processes represent an important channel for establishing dialogue and generate better understandings among stakeholders. Initially, this dialogue helps to highlight potential conflicts, but it also helps to identify synergies, opportunities, and compromises. In addition to ongoing national processes, the Baltic SCOPE project, for example, promoted and strengthened linkages between sectors across-borders. A first step included the elaboration of topic papers by four key sectors in cross-national 'task forces', which outlined the interests and needs of each sector.

This was followed by workshops and other events organised to initiate the cross-sectoral debate, including discussion over specific conflicts, synergies and potential solutions.
A tangible result from the cross-sectoral interaction in the Baltic SCOPE project, for example, were different versions of the so called 'conflicts and synergies matrices' or 'tables of overlapping interests' as outlined in figure 2-1 below (Giacometti et al. 2017 and Kull et al. 2017).

Info Box 2-1

Interests Matrix developed and used in the South-West-Baltic case

Planners mapped the different interests present in each focus-area and assigned them different priority levels. This new knowledge enabled planners to discuss in further detail the interrelation between sectoral interests in each focus-area.

Baltic SCOPE

South-West Baltic Case

FOCUS AREA	Middle Bank		Adlergrund			Kriegers Flak			Öresund		Odra Bank			Harbour Approach		Grey Zone		Fehmarn Belt	
INTEREST \ COUNTRIES participating	PL	SE	SE	DK	DE	SE	DK	DE	SE	DK	PL	DK	DE	PL	DE	PL	DK	DK	DE
Offshore Wind Energy (planned/existing)																			
Power Cables (planned / existing)																			
Data Cables (planned / existing)		?	?						?	?									
Pipelines (planned/existing)																			
Other physical Infrastructure (Tunnel etc.)									*1	*1								*1	*1
Ship Traffic / IMO Routes																			
Sand and Gravel Extraction (planned/existing)																			
Fishery																			
Conservation Areas			?			?													
Other Nature Conservation and Managing Interests	??	??																	
Defence						?													
Planning Restrictions/Regulations existing																			
Territorial Sea (TS) / Exclusive Economic Zone (EEZ)	EEZ	EEZ	EEZ	EEZ	EEZ / TS	EEZ / TS	EEZ / TS	EEZ / TS	TS	TS	EEZ (TS)	EEZ	EEZ			EEZ	EEZ	EEZ / TS	EEZ / TS
Notes/ remarks	there might be NGO interests with regard to nature conservation (harbour porpoise); IBA		need for more information from DK			nature conservation interests in German EEZ with regard to bird migration (cranes) and reef structures			Öresund Bridge, perspective metro tunnel; municipality plans, fishery closure area		IBA; EU fishery closure area			no definitions in German MSP		indirect interest from SE regarding Fishing and cables		*1: Tunnel	
Responsibility for (geographical) information about areas	SE+PL		DE			DE+SE			DK+SE		PL (together with Odra Bank)			PL		PL		not to be considered	

4th Planners Meeting/2nd December 2015

strong interest; minor interest; no interest; no information; existing planning restrictions/regulations; no restrictions/ regulations known

The cross-sector analysis continued through a new table of overlapping interests for each of the focus-areas (Giacometti et al. 2017). The table outlined national interests in the specific focus-areas, and paired them to identify the relationship of overlapping interests, including:

- Status
- Description
- Potential solutions
-

The 'status' of each pair of overlapping interests refers to both a) existing, claimed, or planned interests; and b) if they are in 'conflict', 'coexistence' or 'competing' depending on the impact they have with each other. The nature of the relation between interests and how sea uses interfere with each other is elaborated. Existing regulations and other conditions that add complexity to the multiuse of the same space are also referred to. Finally, the table lists potential solutions and from a planners' perspective. This includes solutions that can be handled by planners alone and within national planning systems. However, in most cases the need of involving other stakeholders, from the politics, industries etc, emerged.

The purpose of this tool was to map all the current issues between sectors and identify the nature of their relation. Initial versions of this exercise resulted in more general issues, and following versions narrowed down also on small case areas and labelled the relation between each pair of interests as 'competing', 'conflict' or 'coexisting' (Giacometti et al. 2017). This exercise proved to be successful in creating awareness, focusing efforts on the issues to be addressed, and develop some potential solutions. One example was the decision of one country's planners to modify the area defined as 'interesting' for wind energy development through dialogue with planners from the neighbour country that identified the area as an important ferry route.

The Pan-Baltic Case study area in the BONUS BASMATI project focuses mainly on whether maritime transport and marine tourism will enhance understanding about stakeholder engagement processes in selected countries and regions from around the Baltic Sea. The case study tries to answer a relevant question for pan-Baltic collaboration: if notable differences are found in the national and regional practices, how do they affect cross-border stakeholder integration?

2.2 Institutional conflicts and synergies

Marine spatial planning is a rather complex process, which involves multiple stakeholders that are located at multiple levels of governance, potentially even operating across national borders. In the BSR, governance and planning processes are diverse, at different stages and bring together sometimes diverging national interests. Overlapping international and European regulatory systems add additional challenges to this complicated situation.

Table 2-2 summarises institutional conflicts and obstacles that have emerged in the BSR context and lists enablers of MSP work, tools and methods to identify / create synergies and coexistence.

Table 2-2

Institutional obstacles and potential and actual conflicts and related enablers of MSP work, synergies and coexistence in a cross-border context

Institutional obstacles and conflicts	Enablers of MSP work, synergies and coexistence
Potential for institutional conflicts	
Nested and overlapping governance and regulatory systems	HELCOM Country Fiches. Increased understanding of national MSP specificities through projects (e.g. Baltic SCOPE, Baltic Lines etc.). Matrix of Interests (see Figure 2.1 above). Project Reports.
Lack of coordination and collaboration between countries	Individual learning through knowledge sharing and explaining (in projects and Pan-Baltic Institution). Institutional and Organisational Learning at National Level (through projects such as Baltic Scope & Pan Baltic Scope). Increased coordination and stronger links established between national authorities across borders. Institutionalised frameworks for deliberation, e.g. HELCOM-VASAB MSP Working Group.
Different (political) attention and perceived importance of MSP and related different objectives (Blue growth vs. nature protection). Minimal compliance vs. full scale MSP.	Increased understanding of national MSP priorities and the effects of these.
Differences in sector inclusion in MSP (makes cross-border planning difficult for some sectors)	Inclusion of all relevant sectors in MSP.
Different planning mandates of the collaborating countries	Sharing information on national institutional frameworks. Joint learning.
Institutional obstacles	
Different stages of national MSP processes	Joint learning in projects and institutions. Sharing information on national institutional frameworks, through projects such as Pan Baltic Scope. Exploring possibilities if countries entered applied more synchronised planning cycles.
Institutional reorganisation and loss of staff holding key competences in MSP	Swift integration of new colleagues into ongoing projects and work (e.g. Baltic SCOPE, Pan Baltic Scope).
Difference in resources (staff, time, funding) allocated to MSP	Level of MSP activities in other countries may add pressure for more resource allocation in some countries/regions.
Contextual obstacles	
Issues reaching beyond planners' mandates, e.g. conflicts of sovereignty (grey zones).	Aligning national plans. Lifting the boundary issue to the appropriate ministerial level to press for resolution based on the time limit of the EU MSP Directive.
Issues escaping the influence of single national governments / are regulated internationally (e.g. IMO, balancing sector-related legislation originating at different levels of governance)	Concrete recommendations outlining possible solutions to specific geographic transboundary issues through national MSP (MSP as instrument of coordination towards higher levels).

Rather than being a conflict per se, institutional and administrative structures inhibit transboundary and sea basin wide coordination. While MSP is holistic in practice, it is confined by national borders and restricted by national and international governance systems and regulations. Planners are bound to work within national jurisdictions, while most activities and marine resources know no boundaries. Because of this, countries across the world have agreed on global laws of the sea (UNCLOS), and EU countries have agreed on a common policy to manage the fish stocks (Common Fisheries Policy). MSP is a predominantly national activity and has a rather limited influence over some of the sectors it is meant to coordinate due to these international agreements. National MSP, however, also requires cross-border coordination with neighbouring countries as part of the MSP process.

Moreover, each country has its own administrative tradition and distinct institutional set-up for MSP. Within the Baltic Sea Region alone, the responsibility for MSP in different countries is allocated at national level, regional level and a combination of national and sub-national levels. In some countries, the authority responsible for MSP is vested in the Ministry of Environment (e.g. Latvia), while in other

countries, the responsible authorities are the Ministry of Finance (e.g. Estonia), or a public agency, which in turn is controlled by a ministry (e.g. in Germany, the Federal Maritime and Hydrographic Agency within the jurisdiction of the Federal Ministry of Transport and Digital Infrastructure and in Denmark, the Danish Maritime Authority within the Ministry of Industry, Business and Financial Affairs). The placement of MSP in different ministries and agencies also reflects different political priorities, competences and traditions (e.g. nature protection or Blue Growth). Furthermore, the allocation of staff, time, and finances varies considerably across the BSR and allows some countries to establish a full-scale MSP with many sectors, while others are limited to a more 'minimal compliance' version of MSP with selected sectors (see e.g. Giacometti et al. 2019).

In some cases, a maritime spatial plan is merely guiding, while in others it is legally binding. Hybrid models exist in other cases. All these differences represent a major challenge for transboundary collaboration and stakeholder mobilisation, not to mention that every country has its own priorities and interests, as well as different regulations and management set-ups for each individual sector.

Furthermore, the planning process takes its own shape and runs a specific procedure in a specific time-line, which is not timed to the neighbouring countries planning processes (Figure 2-2).

Figure 2-1
Marine Spatial Planning in the BSR 2018. Source: Pan Baltic Scope project.

2.3 Process-related conflicts / obstacles and synergies.

MSP emerged as a new field within public administration to better coordinate marine activities and resources across policy sectors and governance levels in a rather fragmented governance setting. Table 2-3 gives examples of process-related conflicts and obstacles as well as concrete enablers of MSP work and ways to achieve synergies and coexistence.

Table 2-3

Process-related obstacles and potential and actual conflicts as well as enables of MSP work, synergies and coexistence

Process-related obstacles and conflicts	Enablers of MSP work, synergies and coexistence
Potential for conflicts related to the participation process	
Lack of engagement of key decision makers, who are essential to reach political agreements.	Key authorities and national-level sector stakeholder engagement in discussing project work / planning goals / challenges in projects such as Baltic SCOPE and Pan Baltic Scope. Decision support tools, such as Baltic Explorer developed under BONUS BASMATI.
Sector authorities lack interest in MSP.	Stakeholder meetings reflecting transboundary issues. Maps to inform / engage stakeholders and raise awareness of other sectors' needs and impact on them. Innovative forms of engagement (World café). Innovative decision-support tools such as Baltic Explorer.
Broad citizen involvement is so far not achieved and presents a challenge.	Stakeholder involvement strategies. Decision support tools, such as Baltic Explorer developed under BONUS BASMATI.
Unclear understanding or lack of clarification of who is a stakeholder and why, when and how they should be mobilised and their role in process.	Stakeholder involvement strategies.
Lack of established networks between relevant stakeholders in the marine realm	Establish networks (e.g. through project involvement) and increase awareness of stakeholders
Lack of motivation of stakeholders to participate in transboundary stakeholder conferences.	Ministerial / official invitation. Stakeholder interaction and education.
Actual conflicts in content	
Lack of a common ecosystem perspective to be applied in transboundary MSP	Baltic SCOPE Ecosystem-based approach Task Force & Checklists. Continuous work on the Ecosystem-based approach in Pan Baltic Scope. Projects including BONUS BASMATI.
Potential for conflicts towards higher/lower levels	
Priorities escape the influence of single national governments and are regulated internationally.	Concrete recommendations outlining possible solutions to specific geographic transboundary issues through national MSP (MSP as instrument of coordination towards higher levels).
Uneven scales of planning - regional and local level involvement in some countries and national level in others.	Stakeholder involvement strategies. Decision support tools, such as Baltic Explorer developed under BONUS BASMATI.
Potential for aggravating conflicts (drivers)	
MSP as a new policy and management instrument, lack of previous experience, marine-oriented methods and knowledge or examples for benchmarking.	Co-creation of knowledge, establishing channels for sharing knowledge, ideas, methods, tools, conferences and workshops among planners and other experts. Support of academia, knowledge from other policy fields.
Difficult to think and act on a pan-Baltic level due to national institutional specificities, different national priorities, sectoral divisions and lack of trans-Baltic planning evidence.	A pan-Baltic approach to transboundary collaboration in MSP through projects such as Baltic Scope or Pan Baltic Scope (see also final case reports and project recommendations). Institutions including HELCOM and VASAB. Projects including BONUS BASMATI.
Different understanding and perceptions of key concepts.	Stakeholder involvement and exchange/project participation to enhance shared perceptions/definitions.
Language barriers and different interpretations	Communication and translations into English.
Lack of time and resources (planners and participants). Change of key staff and loss of competence.	Stakeholder identification (including local / sub-national) Transnational stakeholder conferences synergies. Decision support tools, such as Baltic Explorer developed under BONUS BASMATI.
Time limits and pressure in planning process to meet the 2021 deadline of MSP.	Inspiration from other countries further ahead in MSP planning.

For many countries, MSP is a new process and there is a lack of clarification of who constitutes a stakeholder and why, when and how they should be mobilised and their role in process is probably the most relevant process-related challenge. Stakeholder involvement relates to multiple levels of governance and sectors. Sectors may be unexperienced and unaware of the potential of MSP or simply not interested in being engaged in the process. A lack of time and resources for both planners and relevant stakeholders further exacerbates this problem. MSP is not a cross-sectoral and inter-governmental process alone – yet the disengagement of citizens, decision-makers and politicians has been observed (e.g. Kull et al. 2017). National institutional specificities, different national priorities, sectoral divisions and a lack of coherent planning data makes transboundary thinking in MSP difficult.

However, there are different approaches, tools and methods to involve public sector actors, relevant sectors, NGOs, etc. (Morf et al. 2018, Giacometti et al. 2019). An early stakeholder identification (including local / sub-national levels), and stakeholder involvement strategies enabling sound stakeholder interaction / education and co-learning are key to a successful MSP process. Stakeholder involvement and exchange and project participation to enhance shared perceptions and definitions proved successful in the BSR (e.g. PartiSeapate, Baltic SCOPE, BALTSPACE) and is a continuous process (e.g. Pan Baltic Scope and BONUS BASMATI). The Baltic SCOPE project led a process of intense interaction among planners and stakeholders from countries across the Baltic Sea Region, generating a synergistic environment and a momentum for transboundary collaboration.
Decision support tools, such as Baltic Explorer developed under BONUS BASMATI are intended to further improve inclusion of stakeholders and interaction between MSP authorities and actors that have a stake in MSP. MSP has not yet showed its overarching benefit. In a few years, evaluations of the socio-economic and environmental impacts will be conducted to demonstrate in concrete terms the real benefit of MSP.

2.4 Knowledge and data related conflicts / obstacles and synergies.

The fragmentation of knowledge and data is a recurrent challenge for MSP, both in terms of lack of coherence and gaps in the available information and data-sets. Table 2-4 highlights a number of knowledge and data related conflicts and obstacles. It also shows enablers from MSP work and activities that led / lead to synergies and coexistence.

Table 2-4

Knowledge and data related obstacles, conflicts and synergies

Knowledge/data related conflicts and obstacles	Enablers of MSP work, synergies and coexistence
Obstacles – lack of harmonisation	
Fragmentation of knowledge and differences in national data collection. Regulation of data management.	Exchange of national level information and data in projects such as Baltic Scope and Pan Baltic Scope and the HELCOM-VASAB Data Group. HELCOM work on and provision of data. Production of common maps (mapping exercise and data gap analyses etc.) Common EBA checklists (Baltic SCOPE). Project recommendations for common guidelines and need for common maps.
Different national input data in differing quality.	Identification of knowledge gaps and needs for harmonisation of data collection. Agreement/collaboration on data collection methods and quality assurance. Development of shared common transboundary planning evidence. HELCOM-VASAB Data Group.
Limitations in access to data	Communication and resources
Different methods used to collect data (need for harmonisation).	HELCOM-VASAB Data Group. Projects such as Pan Baltic Scope.
Uneven time series/year of data collection	Harmonisation of data collection
Lack of trans-Baltic planning evidence	Projects (e.g. Baltic SCOPE, BALTSPACE, Pan Baltic Scope & BONUS BASMATI) especially their case studies and case reports as well as project recommendations.
Lack of mechanism for monitoring of MSP over time.	Development of shared indicators and monitoring scheme to assess progress in MSP sectors also during the 10-year periods between planning.
Conflicts related to knowledge and methods	
Differences in opinion of applicability of some methodologies (e.g. cumulative impact assessment).	Analyses of uncertainties/quality of methodology.
Sectors' limitations	
Lack of full spatial coverage (sector – overall sea basin).	Identify spatial gaps within sectors and within sea basin.
Varying availability and quality of relevant planning evidence on sectors and countries. Some sectors not included due to lack of data.	Development of common data and maps. Identification of knowledge gaps & needs for standards and method development. Common platform for data exchange.
Stakeholder's lack understanding of their roles and relevance in MSP (affecting stakeholder motivation) and how they can contribute to the process.	Educate people (experts involved) about the different kinds of planning and their relevance in the planning process.
Difficult to discuss future issues with sector experts due to short term sectoral perspective	Identification of knowledge gaps & needs for standards and method development. Need for common platform for data exchange.
Contextual factors	
Lack of planning evidence and data collection methods from outside the BSR to inspire MSP.	Screening of international best practices and methods

Fragmentation of knowledge, dissimilar criteria for data collection, as well as discontinuous data sets, is common when taking a cross-border perspective on planning. Most problematic in a transboundary setting are the regulation and norms that impede an open and swift exchange of / access to data from national institutions. Furthermore, national input data is of differing quality (incl. uneven time series/years of data collection, lack of spatial coverage etc.). Relevant planning evidence on sectors and countries varies both in terms of availability and quality. However, institutions such as the HELCOM-VASAB Data Group and projects, such as Baltic SCOPE, its successor Pan Baltic Scope and BONUS BASMATI are important enablers for MSP work. They fill knowledge and data gaps, develop common data sets and maps and contribute platforms / space for data exchange.

The Baltic SCOPE project, for instance, was successful in bringing together key MSP stakeholders in the BSR, and to a large extent shared information openly and identified solutions to get around

knowledge gaps and establish fruitful ground for further coordination. For instance, by the end of the project, partners had agreed on common recommendations on data gathering and needs, such as the development of common fisheries and green infrastructures maps in the future. Work started by BSR planning authorities and partners to create synergies in relation to data and knowledge continued and was widened under the Pan Baltic Scope project, having several dedicated activities and work packages on this issue, including data sharing, cumulative impacts and land-sea integration.

The BONUS BASMATI project not only contributes new knowledge and data through its three case studies (see chapter 3 below), but also works on making this available and applicable for planners and other marine stakeholders in the BSR and beyond. New knowledge and data will be provided from the fields of aquaculture and fisheries, maritime transport and tourism, as well as (connectivity of) marine protected areas and their synergistic relationship with other sea use sectors (chapter 3). A geospatial tool will be developed in the Pan-Baltic case study with the aim to increase marine use-based synergies and decrease conflicts in the Baltic Sea. Case findings, data and tools will be made available through a decision-support tool, the Baltic Explorer.

2.5 Other types of conflicts and synergies that are context related

Context-related conflicts and synergies are of a very different nature and are connected to the four other categories discussed in the previous sub-chapters. Such conflicts and synergies might relate to political and (international) legal and jurisdictional concerns over so-called grey zones (unresolved border conflicts), non-communicated military interests over specific sea spaces (e.g. in Sweden) or availability and definitions of what is best available knowledge (e.g. environmental data in relation to offshore wind farms in Estonia). In addition to data, knowledge and institutional conflicts, frictions in specific contexts can also emerge at individual level. Actors may dislike each other, have a confrontational approach when collaborating, or they may have prejudices towards other cultures or sectors. Before zooming in on the three BONUS BASMATI cases as examples with very distinct contexts and the potential conflicts and synergies these cases are working with, the next sub-chapter provides a short overview of the topics studied in BSR projects on the EU MSP platform.

2.6 BSR projects on the EU MSP platform

When looking at the 48 BSR projects on the EU MSP platform (12 of these are ongoing), all projects on this platform and to varying degrees provide input into Maritime Spatial Planning processes (https://www.msp-platform.eu). However, MSP planning itself and finding approaches, methods, tools etc. to address MSP challenges is also well represented in the BSR region through at least 18 of the 48 projects. The Pan Baltic Scope (2018–2019) and the BONUS BASMATI – *Baltic Sea Maritime Spatial Planning for Sustainable Ecosystem Services* (2018–2020) projects are the most recent projects driving forward or contributing to transboundary MSP planning.

The ecosystem-based approach in MSP – at the core of BONUS BASMATI – has a high priority with at least 12 projects focussing on *natural environment, biodiversity, and nature conservation*. An early example is the BALANCE project (*Baltic Sea Management - Nature Conservation and Sustainable Development of the Ecosystem through Spatial Planning*), which started in 2005 and ended 2013. Recent projects include NABEL-MSP – *A Scientific Basis for the Integration of Nature Conservation Issues into Marine Spatial Planning under Consideration of International Requirements* (2015–2017). Ongoing projects include for example SeaGIS 2.0 (2015–2018), which is a follow-up project of the SeaGIS project (2011–2014) and with a focus on data, methods and collaborative networks and the aim of enabling more integrated planning and management of marine and coastal areas (but with a geographically limited area).

Different marine use sectors and their synergetic interrelation including fisheries/aquaculture in the focus of BONUS BASMATI case studies, are studied through a number of projects and tools developed. One example is the COEXIST project – *Guidance of Better Integration of Aquaculture, Fisheries, and other Activities in the Coastal Zone* (2010–2013) using Individual Stress Level Analysis (ISLA). An analysis of Conflict Scores was conducted in the AQUABEST project – *Innovative practices and technologies for developing sustainable aquaculture in the Baltic Sea region* (2011–2013). The DISPLACE project – *A spatial model of fisheries to help maritime spatial planning* (2013–2013) resulted in a model for spatial fishery planning and effort displacement. More recent projects include GOFORIT with a focus on Intelligent Oceanographically-Based Short-Term Fishery Forecasting Applications (2015–2018).

Off-shore energy sector projects are also well-represented in the BSR and include OFFSHOREGRID – *Offshore Electricity Grid Infrastructure in Europe: A Techno-Economic Assessment* (2009–2011), SEANERGY 2020 – *Delivering Offshore Electricity to the EU: spatial planning for offshore renewable energies and electricity grid infrastructures in an integrated EU Maritime Policy* (2010–2012), BALTIC INTEGRID – *Integrated Baltic Offshore Wind Electricity Grid Development* (2016–ongoing) and WINWIND – *Increasing the acceptance of Wind Energy* (2017–ongoing).

Less studied /funded sectors on the EU MSP platform include for example *dumping*. The ECODUMP – Application of ecosystem principles for the location and management of offshore dumping sites in the Baltic Region is one project dealing with this issue.

According to the EU, *tourism* is the largest sector of the maritime industry, providing employment for 2.35 million people and producing over €100 billion value added to the EU economy every year (European Commission, 2013).

However, only two projects in the BSR appear to briefly include this sector. This is the former BALTCOAST project – *Integrated Coastal Zone Management in the Baltic Sea Region* (2002–2006) and the ongoing BalticRIM project – *Baltic Sea Region Integrated Maritime Cultural Heritage Management* (2017–2020). The *recreational use* of the sea by local residents has also received limited attention and is only covered in the BalticAPP project – *Wellbeing from the Baltic Sea – applications combining natural sciences and economics* (2015–2018). This project includes a story map: Recreation in the Baltic Sea under Climate Change. National studies from Denmark indicate the participation of local residents in water-oriented recreation to be very high (77.6 % of the adult population annually) and to use large parts of the sea – particularly the coastal waters and shorelines (Kaae et. al. 2018). Similar patterns can be expected in other BSR countries but with some variations. The limited inclusion of local recreation in MSP tends to overlook a large user group with limited representation through any joint organisation.

The rich underwater *cultural heritage* found in the BSR has only recently been included and is represented in one single on-going project, BalticRIM.

Uneven spatial distribution of MSP projects in the BSR

Looking at the EU MSP platform, it appears that project involvement of the different countries in projects covering the BSR region is uneven. In the 48 projects on the platform, project involvement is high in Sweden (34) and Germany (30). Around half of the projects saw Finland (25), Denmark (25) and Poland (24) involved. Involvement is lower in the Baltic countries of Estonia (18), Latvia (18) and Lithuania (15). Norway has participated in 6 projects. Quite a number of projects have also had partners from other European countries outside of the BSR, including the North Sea basin with the UK and the Netherlands involved in 5, Belgium in 4, and Ireland in 3 projects. Partners from the Atlantic Sea basin included France (4 projects), and Portugal (2 projects). BSR projects have partners involved from the Mediterranean Sea (east and west) including Italy (6 projects), Spain (4 projects), Greece (3 projects), Malta (3 projects) as well as Croatia and Slovenia in one project. Partners from the Black Sea basin include Romania (3) and Bulgaria (1). Eight other countries from outside of Europe were involved. This broad involvement provides good opportunities for interactions and

exchange of knowledge, methods and tools with other regions and countries that are fairly advanced in their MSP (e.g. UK, the Netherlands, Belgium, Portugal). Good practices may be found here to inspire and facilitate MSP in the BSR region. One example is the TPEA Good Practices Guide – *Lessons for cross-border MSP from transboundary planning in the European Atlantic* by Jay & Gee (eds. 2014). At least 30 countries around the world has already established MSP and the experiences, tools and methods from these could inspire and facilitate the process in the BSR.

3 The BONUS BASMATI cases from a conflicts-synergy perspective

This chapter examines conflict-synergy thinking within the three case studies addressed within the BONUS BASMATI project. The Danish-German aquaculture case, the Latvian case and the pan-Baltic case, are quite different in nature, but they all provide interesting angles from which to identify existing and potential conflicts, synergies, and solutions.

3.1 The Danish-German Case Study on Aquaculture

3.1.1 Case Study Outline

The Danish-German case study investigates opportunities for aquaculture in the south-western Baltic Sea. Contrary to global trends, aquaculture is to a large extent an emerging sector in many parts of Europe (Jansen et al., 2016). Increased attention is being directed towards the potential development of the aquaculture sector, which has been defined as one of the five focus areas in the EU Blue Growth Strategy (SWD (2017) 128 final). However, developments in the sector are hindered by competition of space and regulatory restrictions regarding environmental protection (COM, 2009; Jansen et al., 2016). The latter has been particularly relevant in Denmark, where the political goal was to add 16000 tons of fish production in the future, thereby increasing the volume by 160% in Danish marine waters. The open waters were designated for these developments given that the ecosystem can cope better with increased nutrient input. The Danish authorities assume that the HELCOM action plan will be successful (i.e. the good ecological status of the Baltic Sea will be restored by 2021) and that only a minor part of the excess nutrients will be exported to sensitive coastal areas in which case mitigation measures (following the Danish law 111), such as mussel farming, would be put in place. In response to the political goal, fish farmers handed in a wish list for fish farm production sites, including sites in the western Baltic Sea, and aquaculture companies applied for permits.

The political position of the Danish authorities, and the aforementioned assumptions, have proven to be highly problematic, therefore, decisions regarding new permits have been postponed until 2019. Knowledge on suitable sites in the Baltic is missing. While models have been used to identify potential suitable sites in the Kattegat, no sites have been identified so far in the Baltic Sea. Furthermore, there is uncertainty about the impact of fish farms. Local municipalities fear that fish farms could interfere with tourism and expect protests from the local communities. Moreover, German authorities disagree with the Danish authorities on the impacts of off-shore fish farms. Placing fish farms offshore could to some extent alleviate conflicts in the coastal zone and German authorities do not agree that they would not interfere with neighbouring Basins in the Baltic. In addition, strict European environmental legislation restricts additional nutrient input to the already heavily eutrophied Baltic Sea.

Considering the debate around Danish aquaculture, the case study focuses specifically on mussel farming. One consideration for this choice is that mussel farming is one of the most environmentally friendly forms of aquaculture. The case study investigates potential locations for mussel farms and

aims at adopting a site selection process that will identify the best suitable sites from an environmental, spatial and technical perspective that take into account ecosystem services. The site selection process includes i) mapping of constraining human activities and enabling environmental conditions in the chosen area ii) identification of external requirements iii) identification of several potential sites, and iv) an evaluation of the sites based on ecosystem services. The identified sites will be investigated using an ecological model of the case study area to simulate mussel growth, nutrient removal and changes in water clarity. The scientific insights from this case study will contribute to the debate around aquaculture expansion activities by showing i) to what extent mussel farms can contribute to mitigate the effects of fish farms and eutrophication, and ii) how an evaluation of sites based on ecosystem services can provide a tool for more sustainable planning and decision-making.

3.1.2 Conflicts and Synergies in the Case Study

Table 3-1 gives an overview of the different types of actual and potential conflicts and synergies that might emerge in this case area.

Table 3-1
Conflicts and Synergies in the Aquaculture Case.

Type of Conflict & Synergies	The Aquaculture Case
Marine use related conflicts / synergies	Conflicts: existing (and planned) maritime activities and interests restrict the space for new developments i.e. mussel farms. Potential synergies: co-location of mussel- and fish farms.
Institutional cross-border conflicts / synergies	Potential conflicts: diverging interests and interpretations between different authorities nationally i.e. national vs. local administrations; internationally i.e. Danish vs. German authorities; and supra-nationally i.e. EU regulations vs. National interests. Conflictive policies and strategies (Blue Growth vs. environmental protection).
Process-related synergies and conflicts	Stakeholder involvement: data & knowledge gathering has been limited to experts, authorities and aquaculture companies.
Knowledge/data related synergies and conflicts	Potential conflicts: scientific debate about mussel farming as a mitigation measure.
Context Related issues	Conflict: aquaculture expansion is a sensitive topic in Denmark.

Marine use related conflicts & synergies

The existing marine uses in the case study area are being mapped, along with buffer zones around the uses, which restrict other activities taking place in these areas. To avoid conflicts, areas that are already occupied by (known) uses, are not considered as suitable sites for mussel farming. Potential synergies include the co-location of mussel farms with fish farms as a way to mitigate some of the adverse effects of the latter.

Institutional cross-border conflicts & synergies

Depending on mussel farm sites proposed there could be a conflict between administrative levels. When the mussel farm is located farther than 1 NM from the coast, it falls under national jurisdiction, and when the farm is located within 1 NM from the coast, it is the responsibility of the respective municipality.

The state and municipality might have diverging interests, e.g. the state may be promoting new mussel farm, whereas the municipality may be sceptical and afraid that a mussel farm disrupts coastal

views. Institutional conflicts also arise in relation to contradicting policies and strategies at EU and national levels and opposing views across national Danish and German authorities.

Process –related conflicts & synergies

Due to the dwelling conflicts around aquaculture expansion in Denmark, the case study will not advance to practical implementation (i.e. a mussel farm will not be established in the case area). This entails that stakeholder involvement is restricted to experts, authorities and aquaculture companies (see appendix for list of contacted stakeholders) for the enquiry of data and information regarding the first steps of the site selection process.

Knowledge/data related conflicts & synergies

There is some dispute about the relevance of mussel farms as a compensatory measure for mitigating the adverse effects of fish farms. It is not expected that it will cause major conflicts, but it should be kept in mind that the approach is not unambiguous in (scientific) literature. Data related conflicts may concern data confidentiality.

Context related issues

The diverging interests regarding the expansion of the aquaculture sector in Denmark (on the one hand, the state promotes the expansion, and on the other hand, environmental laws restrict or even prohibits it), sets the context in which the case study has to navigate. As a result, the aim is not the establishment of a mussel farm in the case area, but rather a scientific investigation of the site selection process and the incorporation of ecosystem services in this process.

3.1.3 Possible solutions to conflicts

Table 3-2 visualises possible solutions to the above outlined conflicts that might emerge from the case study.

Table 3-2
Potential solutions in the Aquaculture Case..

Type of Solutions	Your Case
Technical / planning solutions	Spatial analysis of the area to avoid spatial conflicts.
Institutional and transboundary integration	Providing neutral knowledge on the use of mussel farming.
Process related issues, incl. work with different types of stakeholders	Potential solution: Involvement of planning stakeholders only at national level.
Knowledge and method development related solutions and knowledge integration	Ecological modelling to fill in some part of the knowledge gap.

The technical solution of potential marine-use conflicts is to conduct a spatial analysis of the area, thereby areas are identified which are not suitable for mussel farms as the space is already taken by other maritime uses. The possible concerns by municipalities regarding visual disruption of coastal views can be addressed by placing the mussel farm further offshore, or in areas which are not often frequented by coastal dwellers or tourists. The conflicts that may exist between municipalities and the state may be addressed by providing neutral knowledge on the relevance of mussel farms on water clarity, for example. In order to receive feedback on the site selection, the case study could benefit from stakeholder perspectives. However, since it is a theoretical case study, local stakeholder involvement could be critical. A potential solution could be to involve planners at a national level to receive feedback on the suitability analysis and the modelling work on a more abstract level.

Regarding the knowledge dispute mentioned above, the CS will investigate via environmental modelling if mussel farms can be used for mitigating some of the effects of fish farms.

Action and input needed from BONIUS BASMATI partners

A close collaboration of the case study with WP3, WP4 and WP5 is foreseen and to a large extent already realized. For the data management and delivery of case study specific data, the cooperation with WP3 is necessary to agree on data standards and metadata formats. As the aquaculture site selection process proposed in the case study foresees an evaluation of potential mussel farm sites based on ecosystem services, the case study needs to adopt the ecosystems service framework developed in WP4. As an 'end-product' of the project, the site selection process developed in the case study should preferably be implemented in the Baltic Explorer as an automated process that can be used for decision-making. WP5 is, therefore, also quite important for the case study development. Since the Baltic Explorer shall be tested in stakeholder settings using the case studies as examples, input of WP2 will also be needed regarding the choice of stakeholders and the appropriate setting for such a stakeholder meeting. Potentially, there could also be an intra WP6 cooperation between the aquaculture case study and the Latvian case study by applying the ecological model adopted in the former to the latter. This still needs further investigation, however.

3.2 The Latvian Case Study to support Marine Protected Areas

3.2.1 Case Study Outline

The Latvian case study aims to support the Marine Protected Areas' (MPAs) designation process, that besides meeting the conservation goals, will also consider social and economic issues. This should ensure that MPA sites are, as far as possible, chosen to maximise ecological, social and economic benefits, while minimising associated costs. The objective of the Latvian case study is to provide the basis for developing a tool that would allow the identification of MPA locations and the evaluation of impacts in alternative sea use options on MPAs in the MSP context. The plan is to apply a Spatial Multi-Criteria Decision Analysis (MCDA) where environmental impacts, costs and benefits of alternative sea uses (e.g. MPAs, wind farms, aquaculture sites) will be evaluated within the Multi-Criteria Analysis framework. This will be conducted in interaction with stakeholders.

Relevant evaluation criteria will be defined in collaboration with stakeholders. The criteria will relate to the environmental impact of a scenario (on the relevant ecosystem components and their provided ecosystem services), efficiency (concerns societal costs and benefits of the scenario), equity (where welfare benefits or costs fall, e.g. on particular sectors of industry, certain social classes, certain geographical areas, etc.). Thereafter, the MCA will be applied to compare scenarios among themselves and based on results of analyses a ranked list of scenarios will be elaborated. The ranking process and its outcome will be discussed with stakeholders.

Adequately designated Marine Protected Areas (MPAs) have a 'visible positive effect on marine biodiversity, influencing both average size, abundance and species numbers (European Environment Agency 2015, p.10) and play an integral role in protecting highly valuable benthic habitats (Erkkilä-Välimäki et al. 2017). MPA's do not only help achieve conservation goals but deliver socioeconomic benefits. They do this by supporting sustainable blue-green growth and enhancing ecosystem services that result in increased food security, climate change mitigation, as well as jobs in tourism and recreation, site management, and monitoring (Russi et al. 2016, EU Commission 2008).

The protection of the marine environment in Latvia is regulated by the Marine Environment Protection and Management Law 2010 and the 'Programme of Measures for Achieving Good Environmental Status 2016-2020'. The law is in line with the Marine Strategy Framework Directive and the accompanying marine environmental targets and descriptors (Ministry of Environmental Protection and Regional Development, Republic of Latvia 2018). There are currently 7 MPAs in Latvian EEZ

and territorial waters, which are Natura 2000 designations and cover around 15% of Latvian marine waters (Dabas aizsardzības pārvalde 2018, Veidemane et al. 2017). The existing sites protect biotopes, habitats as well as feeding and wintering grounds for migrating birds of EU scale importance (Ruskule et al. 2016) under the EU Habitats (92/43/EEC) and Birds (2009/147/EC) Directives (Ministry of Environmental Protection and Regional Development, Republic of Latvia 2018, Russi et al. 2016).

Along with the rest of EU coastal states, Latvia is required to designate a certain percentage of its EEZ as MPAs. This will involve the reassessment of existing sites as well as establishment of new ones, most likely extending the Natura 2000 Habitats Directive MPA network. In this case study, protection status will be sought for geological reefs- a protected habitat in an unfavourable state (Veidemane et al. 2017).

All existing MPA's are unique and socio-economic activities within the area are not restricted as a whole but assessed on a case by case basis within the particular MPA framework of protection to ensure compatibility with conservation goals (European Commission 2007).

Indeed, recent research has found that the wellbeing of local residents and businesses is closely linked to the success of protected areas. This suggests that incorporating socio-economic criteria in the selection of MPAs is essential for a successful conservation plan (Portman et al. 2016). The process of MPAs designation requires intense collaboration with stakeholders to solve potential conflicts and find opportunities for coexistence while ensuring conservation goals at the same time. To enable coexistence, or even synergy between marine environmental conservation and socio-economic maritime activities, MPA establishment in Latvia must have a robust ecological and socio-economic basis for site allocation.

3.2.2 Conflicts and Synergies in the Case Study

Currently the main uses of the Latvian coastal and sea space are:

- Shipping
- Ports
- Nature conservation
- Fisheries
- Tourism
- Military
- Scientific research
- Submarine cables and pipelines (MSP Platform 2018)

Aquaculture, offshore renewable energy and hydrocarbon production are new sectors being introduced to the Latvian national MSP and do currently not have a physical presence in the Latvian marine waters (MSP Platform 2018). Throughout the process of Latvian MSP and the accompanying stakeholder consultations, conflicts and synergies amongst existing and future activities have been discussed at length (Veidemane et al. 2017, Ministry of environmental protection and regional development, Republic of Latvia 2018, Caune et al. 2017). A matrix depicting all the current users/activities and the nature of their interaction has been developed (Figure 3-1). The protection of underwater biotopes has been identified as conflicting with the following activities:

- Sediment Disposition Areas
- Benthic trawling in the open sea
- Fish aquaculture
- Algae and mussel aquaculture
- Exploration of hydrocarbons
- Extraction of hydrocarbons
- Extraction of mineral resources
- Wind and energy productions

Furthermore, biotopes can coexist with the following sea uses under the right conditions:

- Shipping
- Ports
- Military training
- Formerly mined areas
- Coastal fishing
- Wave energy production
- Underwater cables

Finally, synergies can be found with:

- Surveillance towers
- Pelagic trawling in the open sea
- Marine water sports
- Diving
- Marine tourism and leisure
- Fish and spawning and nursery
- Protection of birds
- Protection of coastal landscapes
- Cultural monument

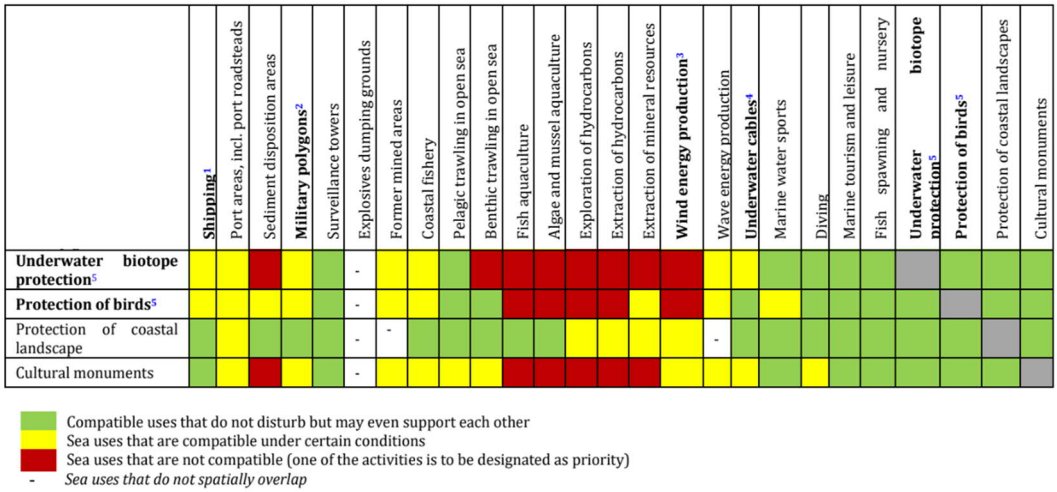

Figure 3-1

Sea user conflicts and synergies matrix, Ministry of Environmental Protection and regional development, Republic of Latvia (2018).

The identified conflicts and synergies between the establishment of nature protection sites and other uses of Latvian sea space, as well as the enablers and obstacles permitting or obstructing coexistence of activities, are presented in more detail below.

Shipping

Shipping is a well-established, traditional sector regulated by IMO on international level and has no navigation restrictions in Latvian waters, except when there is safety risk. The ports of Riga, Liepaja and Venstpils are likely to expand, however no additional routes and ports are expected (Kopti et al. 2016, p.24). To offset ports' adverse impacts on MPAs, a neutral regime zone has been introduced to define the space for expansion and development (Veidemane et al. 2017) acting as buffer zones. Furthermore, despite the steady increase of vessel capacity and size in the global context, in the case of the Baltic Sea the Danish Strait provides a draft limit of 15.4m (Veidemane et al. 2017) restricting the size of vessels that enter the sea and arguably safeguarding the port and shallow area benthos from dredging activities.

Table 3-3

Conflicts and Synergies in the Latvian Case – Shipping.

Type of Conflict & Synergies	Latvian Case
Marine use related conflicts / synergies	Conflicts • All areas designated for research of biodiversity in the Latvian MSP have shipping routes cutting across them to some extent (Ministry of environmental protection and regional development, Republic of Latvia 2018[2], Caune et al. 2017). Synergies • Shipping safety

Fishing

Fishing is another traditional sector in the Baltic Sea and Latvian waters. Western parts of the Gulf of Riga & the Baltic Proper near Ventspils and Liepāja are the most extensively fished areas (Veidemane et al. 2017). Coastal fishing using passive gear is an important part of historical heritage in many towns of the western coastline. For many fishermen, this represents an additional source of income rather than a livelihood (Minde 2011). Latvian coastal fishermen have recently shown interest in establishing mussel farms alongside their usual trade to increase their incomes. This will be achieved by attracting target species to their fishing sites by increasing the number of mussels present, as well as the available grants/subsidies for those involved in Blue Growth projects/ aquaculture (Cooperation agreement between LHEI and the private fisherman, June 2018). Fisheries are regulated by the EU Common Fisheries Policy and quotas, and the Latvian national Fishery Law (Zvejniecības Likums) that prohibits bottom trawling in waters under 20m depth in turn safeguarding the benthic ecosystems in territorial waters, and the majority of Latvian MPAs (Veidemane et al. 2017). Pelagic fishing is seen to coexist with seabed habitats as the two do not come into physical contact. However, on a wider ecosystem scale, pelagic fishing can have a negative impact on the pelagic food web by decreasing the numbers of top predators, such as cod, and impacting on benthic communities (Casini et al. 2009).

Table 3-4

Conflicts and Synergies in the Latvian Case – Fishing.

Type of Conflict & Synergies	Latvian Case
Marine use related conflicts / synergies	Conflicts • Conflict may arise if new MPAs within the Latvian EEZ are identified in depths of over 20m, where bottom trawling takes place.

Tourism and recreation in Latvia

Sustainable tourism and recreation have been identified in the national MSP as a sector with potential for growth and development in the Latvian coastal areas (Ministry of environmental protection and regional development, Republic of Latvia 20182). The MSP process has shown that coastal water tourism can take place in synergy with MPAs for underwater biotopes, without having an impact on existing socio-economic activities, such as fishing (Ministry of environmental protection and regional development, Republic of Latvia 20182). Natura 2000 territories, both in land and sea, are accessible by visitors with the exception of nature reserves (Dabas aizsardzības pārvalde 2018). In part, the aim of the existing MPA's "Nida-Pērkone" and "Western Coast of the Gulf of Riga" management plan, is to '*to facilitate development of sustainable tourism in the Marine Protected Area and ensure infrastructure according to the goals of MPA management.*' (Nature Management Plan for Marine Protected Area "Nida-Pērkone" 2009, Nature Management Plan for Marine Protected Area "Western Coast of the Gulf of Riga, 2009, p.2)

Table 3-5

Conflicts and Synergies in the Latvian Case – Tourism and Recreation.

Type of Conflict & Synergies	Latvian Case
Marine use related conflicts / synergies	Conflicts • Limited activities during seasonal sensitive ecological processes such as breeding (Veidemane et al. 2017); • Restrictions on development of coastal infrastructure; • Touching by divers may cause damage to reefs; Synergy • Development of sustainable tourism brings in visitors increasing awareness of Natura 2000 sites and their necessity

Offshore Wind energy and hydrocarbon extraction

Offshore wind energy production and hydrocarbon extraction is planned for and expected in the future, yet the time frame is uncertain. Offshore wind energy developments are of particular national interest as they would help decarbonise energy production, provide employment opportunities in development and maintenance, as well as increase energy security (Caune et al. 2017).

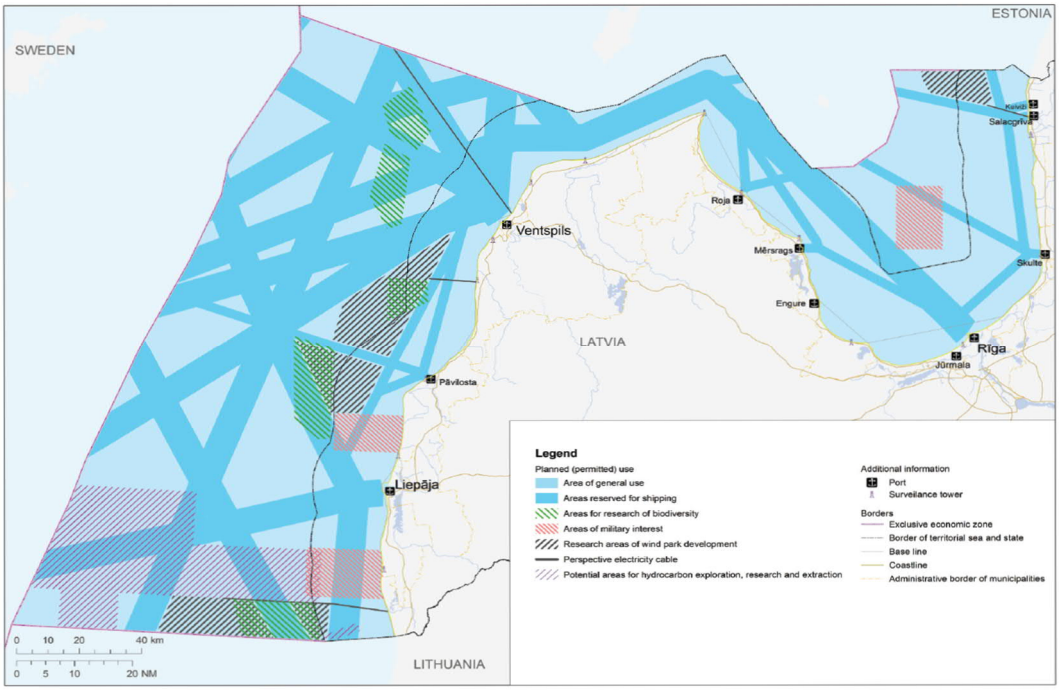

Figure 3-2

Proposed "Balanced Development „Plan during shipping and energy stakeholder participation event (Caune et al. 2017)

A large area of research for wind farm development has been designated in the Pāvilosta area on the coast of the open Baltic Sea, some of which overlaps with areas selected for research of biodiversity (Figure 3-2).

Table 3-6

Conflicts and Synergies in the Latvian Case – Offshore Wind energy and hydrocarbon extraction.

Type of Conflict & Synergies	Latvian Case
Marine use related conflicts / synergies	Synergy • Infrastructure may provide refuge for marine life from predators and fishermen (Cordes et al. 2016, Bergström et al. 2018); • Hard substrate provided by the infrastructure may enhance the marine environment in the area (ICES 2016). Conflicts • Short term impacts (physical disturbance and noise) can affect the marine environment adversely (Cordes et al. 2016, Bergström et al. 2018), in particular species with very low recovery rates; • Some members of the public find wind farms unsightly claim they spoil the seascape of a protected area (Karydis 2013); • Introduction of new habitats may increase connectedness of ecosystems and attract invasive species.

Aquaculture

At present there is no commercial marine aquaculture in Latvia, but as part of the Baltic Blue Growth initiative (2017), a pilot study on blue mussel farm has been set up just off the port town of Pāvilosta, 5 km offshore in the open Baltic Sea. The study has provided evidence suggesting that blue mussel cultivation could substantially improve the water quality in the Baltic as the mussels filter the water and take up nutrients as part of their diet (Baltic Blue Growth 2017). Given the potential synergy between mussel farming and MPAs it may become possible to combine mussel aquaculture, MPAs and wind farms in the future. A potential synergy between aquaculture and MPAs is highly dependent on the type of farming and the technology available to mitigate any impacts. Unlike mussel farming, fish farming (such as salmon and trout) has been found to have adverse impacts on the marine environment (Science for Environment Policy 2015). To date, there are no proposals for commercial developments.

Table 3-7

Conflicts and Synergies in the Latvian Case – Aquaculture.

Type of Conflict & Synergies	Latvian Case
Marine use related conflicts / synergies	Synergy • Mussel farms mitigate eutrophication pressures; • Mussel farms increase local wild mussel population which has been predated by an alien species (Round Goby). Conflicts • Introduction and transfer of species in the case of fish farms; • Spread of disease and parasites in the case of fish farms; • Release of wastes in the case of fish farms; • Release of misused chemical (Primaver 2006) in the case of fish farms.

Knowledge/data

Environmental data collection and research demand much resources. Scientific research carried out by research institutes may be a source of dispute with the MPA managing authorities, as in some cases data collection requires the use of physical objects or building infrastructure on ecologically sensitive sites and MPA.

Table 3-8

Conflicts and Synergies in the Latvian Case – Knowledge/data.

Type of Conflict & Synergies	Latvian Case
Knowledge/data related synergies and conflicts	Conflict • Current regulations would dispute development of research infrastructure within or in proximity of MPAs

Institutional cross-border issues

Table 3-9

Conflicts and Synergies in the Latvian Case – Institutional cross-border issues I.

Type of Conflict & Synergies	Latvian Case
Institutional cross-border conflicts / synergies	Conflicts • Issues may rise from development of infrastructure by neighbouring countries in proximity of MPAs for instance oil platforms; Synergy • Synergy achieved through alignment of sites protecting underwater biotopes across national borders.

During the Latvian MSP process, several stakeholders were involved in consultations held by the Ministry of Environmental protection and regional development. Local governments, the shipping industry and environment sectors were among some of the best represented groups (Figure 3-3).

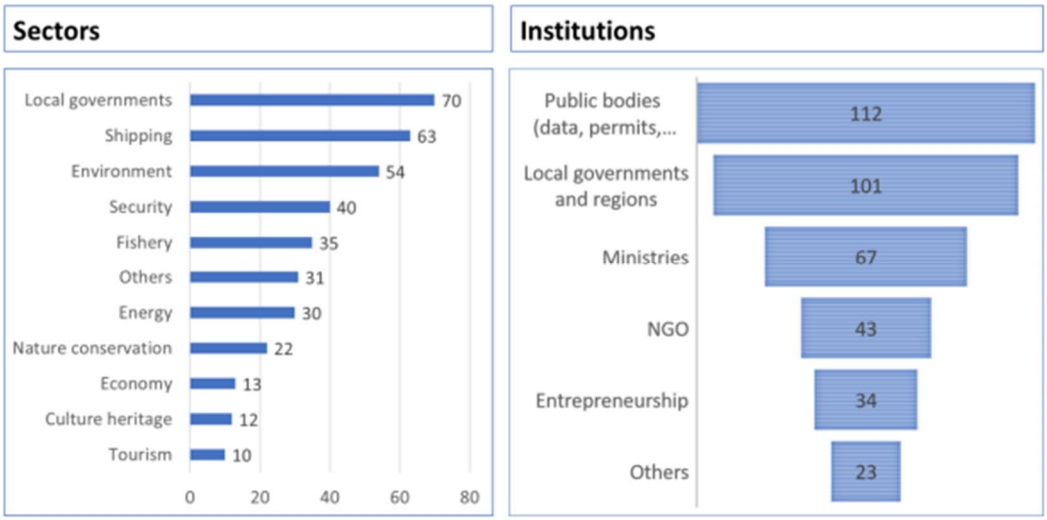

Figure 3-3

Stakeholder involvement in MSP and SEA, Ministry of Environmental protection and regional development, Republic of Latvia (2018)

The meetings did not only provide input into the marine plan, but also resulted in the creation of a database. The on-going MSP process in Latvia has functioned as an important mobiliser and enabler of cross sector interaction. Stakeholders from different sectors are ready to discuss this issue and appear to have a positive attitude towards the overall planning process. This positive attitude may respond to the inclusive ongoing and earlier MSP planning process with many workshops and opportunities for stakeholder interaction (Caune et al. 2017, Minde 2011, Veidemane et al. 2017). Our observations do not indicate any deeper process-related obstacles between sector stakeholders (on inclusion/exclusion or escalated conflicts).

Table 3-10

Conflicts and Synergies in the Latvian Case – Institutional cross-border issues II.

Type of Conflict & Synergies	Latvian Case
Process-related synergies and conflicts	Conflicts No expressed conflicts between representatives from different sectors at present. Synergy Process so far has created contacts and dialogue and readiness to discuss (mobilising stakeholders for dialogue).

3.2.3 Possible solutions to conflicts

The Latvian case has identified the following potential solutions to help overcome the potential conflicts outlined above.

- Technical / planning solutions
- Process related issues, incl. work with different types of stakeholders
- Institutional and transboundary integration
- Knowledge-related solutions and knowledge integration

Table 3-11

Possible solutions in the Latvian Case.

Type of Solutions	Latvian Case
Technical / planning solutions	Energy • Make development restrictions by establishing 'no-go areas' or a nature reserves for particularly sensitive sites where physical impacts of construction would be severe and long lasting. Tourism and Recreation • Zoning and no-go areas to restrict access and coastal developments. Aquaculture • New technological solutions for fish farms
Institutional and transboundary integration	• Scientific research cooperation between cross-border countries
Process related issues, incl. work with different types of stakeholders	• Clear understanding of roles;
Knowledge and method development related solutions and knowledge integration	• Work on harmonising methods and data base; • Encourage cross-border institutional and expert coordination and collaboration support exchange of knowledge and methodologies (Kull et al. 2017)

Action and input needed from BASMATI partners

Collaboration with WP2, WP3, WP4, WP5 and WP7 is foreseen and already realised. The Latvian case study will apply the ecosystem service framework developed in WP4. The collation of data and the translation into information on ecosystem services will be done in close collaboration with WP3. The case study should preferably be implemented in the Baltic Explorer (WP5) as process that can be used for decision-making to allow the identification of efficient locations of MPAs and evaluate impacts of alternative sea use options on MPAs in the MSP context. Input of WP2 will be needed to set appropriate stakeholder meeting where Baltic Explorer tool (developed in WP5) will be tested in the case study context.

3.3 The Pan Baltic Case Study

3.3.1 Case Study Outline

The Pan-Baltic case study focuses on international and offshore activities by addressing the issues of maritime transport and marine tourism as they both are part of Baltic-wide business sectors. The selected subsectors to be investigated are marine transport, emphasising merchant shipping and ports, guest harbours and leisure boating, as well as diving and submarine cultural attractions. The structure and the work flow of the Pan-Baltic case study differs from the other BONUS BASMATI case studies by utilising qualitative research methods based on interviews and questionnaires. Concurrently, the case incorporates a component which takes a geospatial approach and focuses more broadly on conflicts and synergies of marine uses in the Baltic Sea.

It is stated that stakeholder engagement is crucial for the MSP process (e.g. Gilliland & Laffoley 2008, Pomeroy & Douvere 2008). Hence, the qualitative part of the Pan-Baltic case study focuses on this issue of stakeholder engagement by producing information about stakeholder perceptions and requirements concerning their involvement in MSP processes. Recent critical views on MSP stakeholder engagement and its exclusivity highlight several challenges in stakeholder involvement (Flannery et al. 2018). Questions about the effectiveness of the participation processes and the true influence of stakeholders on MSP have been raised (Ounanian et al. 2012, Reilly et al. 2016, Flannery et al. 2018).

This case still investigates the issues of inclusion versus exclusion and participation versus non-participation among the sector representatives by evaluating the perceptions of feasibility and motivation of the stakeholders to participate, including the transboundary and cross-border aspects of MSP. Furthermore, the perceptions, knowledge, and experiences of the selected stakeholders on ecosystem services will be explored. The case study aims to evaluate the current understanding of stakeholders about the concepts of MSP and ecosystem services; how they perceive the benefits provided by ecosystem services and the influence of human pressures on these services. Also, perceptions on the future changes and needs for adaptation measures related to ecosystem services will be addressed, such as climate change induced shifts in environmental conditions.

The selected representatives of planners, experts, planning authorities, NGO's, and businesses are interviewed to include views arising from inside and outside of the economic realm and the operational environment of the subsectors. First, MSP planning authorities and experts are questioned regarding their perceptions and expectations on the business involvement in MSP. During the second phase, the sector representatives are asked about their views and attitudes in relation to MSP, ecosystem services, and stakeholder involvement. Lastly, the views of representatives of other interest groups, such as NGO's, are explored regarding their perceptions and expectations on maritime transport and marine tourism sectors.

The geospatial aspect of the case study is based on the challenge arrived from the expanding number of existing and new marine-based human uses leading to increasing pressures on marine space (Kannen 2014, Stuiver et al. 2016). It will develop a framework for co-location of marine uses based on existing literature and use this framework to analyses gaps in existing geospatial tools. A geospatial tool will be developed to increase marine use synergies and decrease conflicts in the Baltic Sea. The tool will be part of the Baltic Explorer and be a supplement to other relevant tools e.g. single-sector suitability analyses for allocating space to new marine-based uses and cumulative environmental impact analyses. The tool to increase marine uses synergies and minimise conflicts will include a cross-sector perspective that will consider different spatial scales and availability of spatial data for the Baltic Sea Region. At first, the tool will be applied at the pan-Baltic level but will be further developed and evaluated in spatially smaller Baltic Sea cases to more concretely exemplify and discuss multi-use potentials for the sea region.

3.3.2 Institutional and process-related cross-border issues

The Pan-Baltic case study has, as its name suggests, a Baltic-wide perspective, therefore, transnational aspects are inherently incorporated in the study. Planners, experts, and stakeholders are contacted and interviewed from countries around the Baltic Sea. It is well-known that the Baltic Sea countries have different planning systems and scales in MSP. These differences in the planning process may also incorporate differences in stakeholder involvement practices and the selection of relevant stakeholder groups. Consequently, the qualitative part of the case study aims to gain an understanding about the stakeholder engagement processes in selected countries and regions from around the Baltic Sea. This raises an interesting follow-up question: if notable differences are found in the national and regional practices, how do they affect cross-border stakeholder integration?

The countries around the Baltic Sea are at various stages of MSP process (see chapter 2). In some countries, maritime spatial plans are already implemented or revised, while in other countries, the official MSP process is still in the very beginning. Countries or regions behind in the process may still be developing their methods, for example related to stakeholder involvement, while the more advanced countries may already have established MSP practices. This, again, raises the question of whether cross-border collaboration among these countries is affected by the differences in the planning process. Do the different planning stages hinder countries' possibility to participate in equal discussions? Being at different stages of the planning process might also provide the beginners with a possibility to learn from the experiences of the more advanced planning authorities.

In addition to differences in national MSP governance structures, there is a list of international actors and rules affecting the planning process. In the Baltic Sea Region, EU regulation naturally plays an important role, but there are also other international conventions to be taken into account. Ritchie and Ellis (2010), for instance, when discussing the institutional fragmentation in the regulation of marine-related activities note that varied institutional boundaries and overlapping jurisdictions create their own challenges in national and transnational MSP processes. By focusing on stakeholder involvement and the stakeholder identification process, the Pan-Baltic case study may also reveal differences in the list of agencies that planning authorities in each country regard relevant in the MSP process.

Both marine use sectors in the focus of the Pan-Baltic case study – maritime transport and marine tourism – represent traditional Baltic-wide activities which are often transnational in nature. Based on the results of previous MSP research projects and stakeholder involvement, the shipping sector has been viewed as unwilling to participate in MSP processes (e.g. PartiSEApate 2014). It is stated that the International Maritime Organization (IMO) plays a key role in the regulation of maritime transport related activities, which is why participation in the national processes seems not relevant to the sector. The Pan-Baltic case will investigate issues related to this perception, both from the planners' and the business representatives' viewpoint. The PartiSEApate report (2014) states that shipping and ports lack a common platform for a pan-Baltic dialogue on MSP related issues. The report also highlighted that involving scattered and commercially competitive actors to stakeholder activities was regarded as a challenge. The marine and coastal tourism sector consists of particularly variable activities and businesses of varying sizes, which exacerbates the possibility of conflicting interests. Nonetheless, obstacles and attitudes towards stakeholder involvement and the MSP process may be somewhat different for the representatives of the two sectors under investigation.

3.3.3 Challenges related to marine uses and spatial data

Globally, there are numerous studies that have identified conflicts and synergies related to marine uses. However, these studies usually do not have a spatial perspective. In the Baltic Sea Region, these issues have been discussed in the PartiSEApate and Baltic SCOPE projects as a question of spatial compatibility of marine uses. The project results reveal for instance, that the shipping sector is conflicting mainly with aquaculture, fishery, and the offshore wind energy sector. The same sectors were mentioned to be conflicting with the tourism sector as well (PartiSEApate 2014, Veidemane et

al. 2017). However, Papageorgiou (2016) highlights the heterogeneity of the tourism sector. As the tourism sector includes leisure activities of varying types and intensities, the interactions of tourism sectors with other marine uses may vary considerably. Therefore, categorizing marine tourism as compatible or incompatible with other activities is not a straightforward task. Hence, the Pan-Baltic case study, investigates spatial conflicts and synergies in the Baltic Sea area at a more general level through the development of the geospatial tool.

Regarding data, there seems to be a clear difference in the amount of existing geospatial data describing the distribution of shipping and tourism in the Baltic Sea area. With AIS (Automatic Identification System) data, a possibility exists to gather global information about shipping intensity. The system produces data of uniform quality, which provides an excellent information base for Baltic-wide research on maritime transport. However, such Baltic-wide spatial data and knowledge archive does not exist for the marine tourism sector. The existing data sources are fragmented, as are the activities within the sector themselves. Many leisure activities, such as sailing and diving, are not restricted to certain places, therefore delineating tourism areas on a map is very challenging, especially on a Pan-Baltic scale. In the Pan-Baltic case study, the interviews with the planner's touch on issues related to data availability. The lack of spatial data about the tourism sector seems to create challenges in the planning process, as well as in the geospatial analyses on conflicts and synergies of marine uses.

4 Conclusion

Addressing conflicts and finding potential synergies between marine users and finding solutions to common problems within a shared sea basin is an essential part of MSP. Increased stakeholder knowledge and understanding of what drives conflicts and synergies is, therefore, vitally important and can help foster the development of more effective MSP processes. This scoping report has contributed to this learning process by defining and conceptualizing different analytical perspectives from research on conflict and synergies in MSP. These perspectives have been analyzed in relation to three case studies to be conducted as part of the BONUS BASMATI project to help facilitate the development of the Baltic Explorer tool.

The report has highlighted that different interest and uses within a shared marine space can be positioned anywhere along a conflict-synergy continuum depending on the degree of co-existence between them and the overall context. The term conflict itself needs to be defined and used carefully as it is loaded with negative connotations; in fact, the use of the term conflicts within an MSP context does not directly relate to an antagonistic or socially disruptive situation. Conflicts of interests may arise from competition over sea space or be driven by a lack of understanding about stakeholder interests, different institutional structures and planning processes and the low availability of data and technology. Furthermore, conflicts are not static, but depend on the broader context in which they are immersed, with changes to institutional systems, technology and data all potentially impacting on MSP processes. It is important to note, however, that conflicts alone are not the sole drivers of MSP activities, with the search for potential synergies also an important factor in contributing towards enhanced cooperation and collaboration between stakeholders across borders.

The report has provided a detailed overview of conflict and synergy areas from within the Baltic Sea Region at the centre of the BONUS BASMATI project. A number of potential conflicts and synergies are identified in relation to competing marine uses, institutional and regulatory differences, and asymmetries in knowledge and data. In addition, tools developed in Baltic Sea-based research projects, like the 'interests matrix' developed during the Baltic SCOPE project, have been highlighted as potentially useful in helping MSP stakeholders identify conflicts and synergies. This background analysis has formed the basis of a review of potential conflicts and synergies within the three case study areas of the BONUS BASMATI project. Each of the three case studies are unique and have a different geographical and sectoral focus; however, this scoping report has been a valuable first step

in highlighting potential conflict and synergies in their respective areas and identifying which stakeholders are most closely involved.

The next step of the project BONUS BASMATI project is to assess how the Baltic Explorer tool can contribute to overcoming the challenges identified and help build synergies between stakeholders. The results of this research will be outlined in case study reports and this new knowledge will help contribute to enhancing our understanding of MSP conflicts and synergies in the Baltic Sea Region.

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