Chapter 1
Governing Europe’s Marine Environment: Key Topics and Challenges
Kristine Kern and Michael Gilek

Introduction
This book aims for a better understanding of the fragmented governance architecture of marine governance in Europe by combining in-depth analysis of marine governance structures and processes with development of analytical perspectives. In particular the tension between the Europeanization of regional seas and the regionalization of EU policies is in focus.

Although the EU has become the most important political player in Europe’s regional sea areas, ecosystems as well as regional governance systems differ considerably across Europe’s regional seas. The contributions to this edited volume show that marine governance differs among the various regional sea areas in Europe, depending on the environmental problems and the regional institutions. The Europeanization of Europe’s regional seas may, therefore, lead to differing outcomes despite common objectives.

Moreover, the regionalization of EU marine governance has led to the emergence of new regional institutions. This trend can be observed in various areas, ranging from setting-up Regional Advisory Councils (RACs) for fisheries (Griffin 2007, Griffin 2009, Long 2010, Stör and Chabay 2010) to the introduction of a regional approach in EU directives (such as the Marine Strategy Framework Directive) and launching macro-regional strategies (such as the EU Strategy for the Baltic Sea Region 2009). This development points to a more regionalized approach to European integration, which may strengthen regional governance systems. Such an approach of more regionalization in marine governance provides flexibility for the development and implementation of regional sea conventions and macro-regional strategies.

Governing regional seas requires the establishment of a governance system for the entire region. Problems may occur because the boundaries of existing governance systems, the ecosystems, as well as various societal activities and impacts are not identical. Thus, the scope of regional conventions may be more appropriate than EU legislation because these regional institutions focus on the entire region, including non-member states (such as Russia and Norway). Decisions made in Brussels need to be adjusted to regional environmental institutions. However, marine governance in Europe can be characterized by a
North-South divide with respect to the degree of Europeanization. The North Sea and the Baltic Sea on the one side differ considerably from the Mediterranean and the Black Sea on the other side because the regional seas in the North of Europe are surrounded almost only by EU member states (with Norway and Russia as the only exceptions).

**Multi-Sector Perspectives**

The chapters of this book concentrate on the various aspects of multi-sector, multi-level and multi-actor marine governance. From a multi-sector perspective it can be asked as to how the various environmental risks (e.g. over-fishing, pollution, habitat loss, invasive species, shipping, climate change, etc.) that threaten Europe’s coastal and marine environment can be governed? Traditionally, marine environmental management in Europe has focused primarily on handling particular sources of contamination (e.g. hazardous chemicals and nutrients) and extraction of resources (e.g. fish) in a polluter/extractor-oriented approach with a rather limited focus on protecting/restoring particular (valuable) marine areas (Karlsson et al. 2011). Gradually, however, an alternative and complementary environment-oriented approach, basing management of pollution and resource extraction on defined quality criteria and environmental objectives, has emerged. The Baltic Sea Action Plan (BSAP) is therefore based on an ecosystem approach (HELCOM 2007), i.e. the usual sectoral pollution reduction approach was replaced by a cross-sectoral approach that starts from the vision of a healthy sea with a good ecological status. Like HELCOM in its BSAP the EU developed an integrated approach for the protection of its marine environment based on an ecosystem approach. While the ecosystem approach has become the core approach in the Water Framework Directive and the Marine Strategy Framework Directive, in some areas such as chemicals (REACH) and fisheries management (Common Fisheries Policy) a polluter/extractor-oriented command-and-control type of management still prevails (Karlsson et al. 2011).

Science-policy interactions are crucial for the development and outcomes of marine environmental governance (e.g. Rice 2005). Scientific expertise serves as a basis for decision-making in most policy domains of industrialized societies. However, when social or political conflicts emerge, the primacy of science in politics is often put into question thus creating new demands and challenges for the science system (Bijker et al. 2009, Linke et al. 2014). This is not least the case when it comes to the governance of large-scale marine environmental risks such as overfishing, eutrophication and hazardous chemicals, where the demarcation between the two domains of science and policy is far from clear-cut due to scientific uncertainty and disagreements among stakeholders (Wilson 2009, Karlsson et al. 2011, Linke et al. 2014). Scientific uncertainties and stakeholder disagreements are particularly problematic for marine environmental

**Multi-Level Perspectives**

Marine governance in Europe is affected by European multi-level governance. Increasing Europeanization of regional seas may cause coordination problems because the implementation of EU policies, such as the Marine Strategy Framework Directive, requires close cooperation not only with the member-states but also with already existing environmental organizations (such as HELCOM). Due to European integration and various waves of European enlargement, the governing systems of Europe’s regional seas have undergone rapid changes since the 1970s and are now shaped by a fragmented governance architecture that combines national, international and European governance.

First, national environmental governance may vary considerably among the states surrounding regional seas. Thus, we find pronounced differences among the various regional seas in Europe. While the North Sea is bordered by founding members and countries that have long been members of the EU (except Norway) and exhibits well-developed national environmental governance systems, the group of Baltic Sea states includes old member states, new member states and Russia. While the Nordic countries and Germany can be considered as environmental pioneers, most of the new member states started to develop their environmental policy only recently. Like the Baltic Sea, the Black Sea has been directly affected by the end of the Cold War, and many of the riparian states, including Russia, are in transition from socialist states to market economies. However, in the Black Sea region only two countries (Bulgaria, Romania) are member states of the European Union, i.e. in the Black Sea region Europeanization is far less important than in the North Sea and the Baltic Sea regions. In the Black Sea and in the Mediterranean Sea regions the riparian countries seem to differ to a much higher degree than in the North Sea and Baltic Sea regions. Moreover, in these regions we find both inter-state conflicts (for example between Ukraine and Russia in the Black Sea region) and intra-state conflicts (such as the civil war in Syria). As national environmental governance systems are still the backbones of regional environmental governance, prospects for a sustainable development of Europe’s regional seas varies considerable and seem to be better for the North Sea and the Baltic Sea than for the Black Sea and the Mediterranean Sea.

Second, regional seas are affected by global agreements (such as the IMO convention and UNCLOS), for example in the area of shipping (Suárez de Vivero and Rodriguez Mateos 2002), and by international treaties for regional sea areas. Initial efforts to improve the environmental situation in regional sea areas started relatively early. The Helsinki Convention on the protection of the marine environment of the Baltic Sea area was signed already in 1974. It was the first regional seas convention and triggered the creation of UNEP’s Regional Seas
Programme. Today this program covers 18 regions in the world, including the Baltic Sea (Helsinki Convention), the Mediterranean Sea (Barcelona Convention 1976), the North-East Atlantic (OSPAR Convention 1992) and the Black Sea (Bucharest Convention 1992) (Doussis 2006, Hoballah 2006, Costa 2009). Regional sea conventions are implemented by guidelines and action plans such as the Baltic Sea Action Plan (BSAP) (HELCOM, 2007). It uses a multi-level approach and distinguishes between measures that can be implemented at national level, at EU level (e.g. Common Fisheries Policy, Common Agricultural Policy), and at international level (e.g. shipping control by the International Maritime Organization).

Third, the Europeanization of regional seas has developed very quickly. This is most prominent in the area of fisheries, which is dominated by the EU’s Common Fisheries Policy (Princen 2010), but includes a proliferating body of EU legislation affecting various aspects of the marine environment such as the Water Framework Directive, REACH, Natura 2000, and the EU Recommendations for Integrated Coastal Zone Management. Moreover, the EU adopted a Marine Strategy Framework Directive in 2008 and is developing an Integrated Maritime Policy (see for example the Communication on Maritime Spatial Planning published in December 2010; COM(2010)771) (Suarez de Vivero 2006, Koivurova 2009, Queffelec et al. 2009, Borja et al. 2010, Fritz 2010, Juda 2010, Wakefield 2010, De Santo 2011). However, research shows a bifurcation between policies that aim at the use of ecosystem services such as the Common Agricultural Policy and the Common Fisheries Policy on the one hand and policies that are designed primarily for marine and coastal environmental protection such as the Water Framework Directive and the Marine Strategy Framework Directive on the other (De Santo 2010, Wenzel 2011). This points to the need for horizontal coordination of EU legislation because different directives may lead to contradictory and incompatible policies, for example between fisheries and nature conservation. At the implementation level Europeanization of national marine governance is supported by Common Implementation Strategies that have been developed, for example, for the Water Framework Directive and for the Marine Strategy Framework Directive.

Multi-Actor Perspectives

Vertical interplay within the region may strengthen the regional governance system and support the regionalization of EU policies. The multi-level systems of regional seas cannot be governed solely by hierarchical structures. Alongside horizontal interplay between regional environmental institutions and the EU, vertical interplay is of special interest for the development of regional governance systems. Vertical interplay in (regional) multi-level systems may result in a shift of competencies, for example from national governments to regions and cities.
In all regional seas governmental initiatives have been supplemented by initiatives of non-governmental and subnational organizations (Kern and Löffelsend 2004, Joas et al. 2007, 2008). Alongside subnational authorities, NGOs play an increasing role for vertical interplay in regional sea areas. Such forms of transnational governance range from the Black Sea NGO Network (BSNN) to the Union of the Baltic Cities. Moreover, transnational city networks have developed and thrived in Europe since the early 1990s (Kern and Bulkeley 2009).

Cross-level institutional arrangements such as transnational city networks or transnational networks of micro-regions may function as boundary or bridging organizations and play an intermediary role between different arenas and levels. In recent years, the transnationalization of regional seas transformed traditional international organizations such as HELCOM. Inclusion of subnational authorities at regional level (for example by granting observer status to city networks in regional sea conventions) strengthens the vertical coordination of regional sea areas and improves the implementation of regulations. Thus, the Baltic Sea Action Plan is the result of the active participation of all major stakeholder groups in the region, i.e. the shared vision of a healthy Baltic Sea has been defined together with all relevant stakeholders. The organization of regional stakeholder conferences has led to a transformation of decision-making at regional scale.

Structure and Content of the Book

The individual chapters of the book discuss various facets of marine governance in Europe from both the European and the regional perspective. Although various links exist between national, international and European governance arrangements, research has focused primarily on specific environmental institutions (such as HELCOM) or on EU policies, thereby neglecting the multi-level character of marine governance, the differences between Europe’s regional seas, the interaction between EU legislation and regional sea conventions, and the transferability of regional best practice.

Consequently, in response to the above outlined key challenges and critical research gaps the analysis of European marine governance presented in this book is organized in three parts. In the first part key analytical perspectives on marine governance are discussed with the aim of contributing to the development of more comprehensive and multi-disciplinary analytical approaches for studying marine governance and its challenges. This includes general theoretical ideas about governance, governing, and governability which serve as a starting point for analysing the development of marine governance in Europe from the perspective of different disciplines, in particular on political, social, legal aspects as well as the ecosystem approach. This includes chapters on new forms of marine governance, institutional capacity building in multi-level systems, the role of law in marine governance, and the implications of the ecosystem approach for marine governance.
In the second chapter Jentoft and Chuenpagdee argue, based on examples of marine protected areas (MPA) and marine spatial planning (MSP) initiatives, that the appropriateness of marine governance strategies depend on the marine social and ecological system, as well as the capability of the governing system to implement them. A critical assessment of the system that is being governed, the governing system, and the governing interactions in their natural, socio-cultural and political environments, is therefore required. They assume that it is in the systems and their contexts that the means to enhance governability would be found. They contend that the governing system must somehow reflect the diversity, complexity, dynamics and scale of the marine social and ecological system. Enhancing governability will therefore require critical assessment of these systems and considerable institutional adaption and, in many instances, innovation.

In the following chapter, Van Tatenhove develops a conceptual model to understand and analyse institutional capacity building in a multi-level governance setting. It is shown that institutional capacity building is required to design and implement integrated marine governance arrangement at the level of, for example, regional seas, in a complicated multi-level institutional setting. The chapter concludes that capacity building is influenced by marine governance arrangements, power dynamics, as well as negotiations and the translation to formal decision-making. It is also hypothesized that institutional capacity building in marine governance will differ for the European seas because every sea has a different institutional setting. This will affect the involvement of stakeholders, the possibility to mobilize knowledge and relational resources and the possibility to define rules at the regional sea level. Consequently, comparison of institutional capacity building in various governance contexts such as in different regional seas is therefore identified as an important focus for future research.

The next analytical perspective added to the analysis of marine governance is the role of law. In their chapter Bohman and Langlet provide a conceptual basis for analysing the multi-levelled web of rules and processes that make up the legal aspect of marine governance in Europe. They argue that much of the pertinent legislation is ambitious and promising, providing a ground for a more coordinated and compound implementation, and introducing new judicial tools and mechanisms. However, several factors that may counteract successful governance are also identified (e.g. linked to the far-reaching coordination between policy areas envisioned in the ecosystem approach). Consequently, it is concluded that continued political commitment to marine governance is a prerequisite for law to serve as the strong floater that it ought to be.

Finally, in the last chapter of the first part of the book, Monica Hammer contributes with a state-of-art review and analysis of various perspectives and framings of ecosystem management, as well as the implications and challenges of this holistic management approach for the governance of Europe’s marine environment. She concludes that, despite many severe implementation challenges, the present policy framework within the EU is promoting a shift towards a more comprehensive ecosystem management of marine systems acknowledging the
interconnections within ecosystems as well as links between ecosystems and humans. However, processes such as stakeholder participation, learning and innovation are identified as being in need of more research in relation to ecosystem management and its possibilities and challenges.

The second part focuses on rigorous analysis of marine governance of the European Union, in particular the Marine Strategy Framework Directive and the Common Fisheries Policy. Marine governance in Europe is still characterized by a bifurcation between policy areas that are dominated by a polluter/extractor-oriented approach (such as the Common Fisheries Policy) and policy areas that have incorporated the ecosystem approach (such as the MSFD). This part focuses on the internal dimension and institutional tensions of the MSFD, on the stakeholder involvement in European fisheries and the science-policy interfaces in European marine governance. The studies in this part also show faster developments in the North and the Baltic Seas on the one hand and the Mediterranean and Black Seas on the other.

Chapter 6 by De Santo examines the potential of the MSFD as a catalyst for Marine Spatial Planning in the European Union focusing, first, on the institutional tensions and their implications within the European Union (in particular between DG Environment and DG MARE) and beyond EU borders (regional sea conventions, non-EU members); and second on the integration of a wide range of legislative instruments at the national and regional levels. The analysis of the Common Implementation Strategy shows that the member states, in particular in the Mediterranean and the Black Seas face difficulties to agree on a common understanding for defining Good Environmental Status and setting specific targets and indicators. The article also examines the architecture of ‘Good Environmental Status’, the compliance with EU Directives and the capacities in regional sea areas for the implementation of the MSFD. As some member states are a party to more than one regional sea convention it can be hoped that the experiences from the North and Baltic Seas will spread to the Mediterranean and Black Seas.

In chapter 7 Dreyer and Sellke discuss the importance and challenges of regional-level stakeholder involvement in EU marine governance. They do so by examining the challenges linked to ‘inclusion’ and ‘closure’, which have been identified as critical to processes of participation in environmental governance. While inclusion refers to the contents of the debate and the included actors, closure means the choice of the decision-making principle and the criteria for decision-making. It is concluded that setting up an inclusive marine advisory body implies addressing demanding issues related to inclusion and closure. These issues are particularly critical when the advisory body is to provide input on how to design and/or implement a holistic ecosystem approach. This requires consideration and representation of various economic, social and environmental aspects and interests – leading to a major ‘dilemma of numbers’; in other words it bears the risk that appropriately broad participation is achieved at the expense of quality of deliberation and effectiveness of reaching joint products.
Finally, in chapter 8 Gilek et al. use the development and implementation of the MSFD to investigate how Europeanization, regionalization and the ecosystem approach influence science and policy and their interactions in European marine governance. It is concluded that the MSFD fits well to a modernized understanding of the blurred nature of science-policy interfaces, thus opening opportunities for enhancing trust in the relationship between science, policy and stakeholders. Furthermore, the analysis indicates that the three processes of Europeanization, regionalization and implementation of EAM facilitate marine environmental governance, in a rather co-evolutionary manner, by helping to develop credibility of the knowledge base, legitimacy of science-based advice and, thereby, preventing tensions and conflicts. These developments in science-policy interactions and marine governance are shown to be progressing at a faster pace in the Baltic and North Seas compared to the Mediterranean and Black Seas and it is suggested that a way forward could be to stimulate learning between different regional seas.

The chapters in the third part provide in-depth analyses of marine governance of Europe’s regional Seas, namely the Baltic Sea, the North Sea, the Mediterranean Sea and the Black Sea. They discuss the key environmental problems, the governance architecture in these regional sea areas, in particular the development of regional institutions, the growing influence of the EU in the region and the trends towards regionalization of EU marine governance in these regional sea areas.

Based on a description of the key environmental threats (eutrophication, over-fishing, chemical pollution, invasive alien species, pollution from marine transportation and climate change), chapter 9 by Söderström, Kern and Hassler describes and analyses the changing governance arrangements and their problem solving capacities in the Baltic Sea region. It concentrates on HELCOM and the European Union and two parallel trends: the emergence of a Baltic Sea macro-region with own institutions and an increasing Europeanization of the region since the end of the Cold War. The chapter analyses three phases: (i) regionalization through the Helsinki Convention; (ii) Europeanization through EU legislation; and (iii) macro-regionalization through the EU Strategy for the Baltic Sea Region. It is asked how horizontal interplay between EU institutions and HELCOM, vertical interplay including subnational authorities and civil society and the relations with non-EU countries, have developed during these three phases. It is argued that institutional interplay between EU legislation, the EU Strategy for the Baltic Sea Region and HELCOM (with its BSAP) has led to remarkable synergies, that vertical interplay has increased over time and that Russia has become ‘socialized’ into the region.

In chapter 10 Van Tatenhove and Van Leeuwen analyse the patterns of regionalization in the North Sea. This chapter aims at a better understanding of the recent developments in marine governance of the North Sea as different patterns of regionalization. The authors discuss the main environmental and spatial problems in the North Sea, the governance initiatives which have been taken to deal with these problems and three patterns of regionalization that have
emerged in the region: (i) regionalization through cooperation of governmental actors; (ii) regionalization through the empowerment of non-governmental actors and (iii) regionalization as an organizing principle for activities and planning on the North Sea. Environmental problems in the North Sea have been dealt with by legal conventions on marine pollution, the North Sea Ministerial Conferences and the European Union. Europeanization of marine governance has caused a high level of regionalization. The authors suggest that the regional dynamics has resulted in institutional ambiguity, i.e. a mismatch between the institutional setting of the EU and the North Sea, and argue that different patterns of regionalization should be combined.

Marine governance in the Mediterranean Sea is described in chapter 11 by Juan Luís Suárez de Vivero and Juan Carlos Rodríguez. Governance in the Mediterranean Sea is marked by regionalization of marine governance and Europeanization of marine policies. The key elements of marine governance in the Mediterranean Sea are the Mediterranean Action Plan (Convention and Protocols) and the European Union. In the Mediterranean Sea exists an adequate legal-institutional structure alongside weak political integration and marked economic differences. Mediterranean marine governance should be multilateral and concerted because of the basin’s peculiar geographical constraints and the nature and size of the problems. Environmental issues are regulated by the states, UNCLOS and an intricate regional web that revolves around the Mediterranean Action Plan and complemented by national initiatives. The EU is driving the Europeanization of the Mediterranean’s regional system due to its leading role and also because many coastal states often concur with its legal approaches and take them on board as their own. However, the North-South imbalance strongly limits the implementation of the management of marine affairs, with only a small number of states having enough financial and technical capacity to solve the problems.

Finally, Ståle Knudsen discusses Marine Governance in the Black Sea. This chapter reviews the environmental problems in the Black Sea; discusses processes of regionalization, in particular intergovernmental structures and NGO cooperation; studies the EU influence on Black Sea environmental policies; analyses the geopolitical tensions in the region and introduces a case-study on transboundary Black Sea fisheries management. International agreements such as the Bucharest Convention resulted in some significant achievements, especially with respect to the identification of issues, agenda setting, regional networking, monitoring etc. Despite a progressive environmental agenda, e.g. a holistic approach to environmental governance, there is a lack of compliance, even if national action plans exist. There seems to be a significant lack of capabilities to implement policies that would significantly improve the environmental situation of the Black Sea. EU initiatives seem to constitute the soundest and most realistic road towards effective regional cooperation. However, there are major geopolitical challenges because in the Black Sea region three major political powers meet: the EU, Russia and Turkey. Since both Russia and Turkey claim stronger and more independent roles in the region and Russia tends to resist EU influence around
the Black Sea, transboundary cooperation depends on changes of the geopolitical situation and the priorities of national governments.

In the final concluding chapter we subsequently revisit the key topics and challenges identified in this introduction and explore what has been learnt in terms of problems and opportunities associated with the governance of Europe’s marine environment.

References


