

Chapter 1

Ocean Governance and Institutional Change

Alf Håkon Hoel,¹ Are K. Sydnes² and Syma A. Ebbin³

^{1, 2} *Department of Political Science, University of Tromsø, N-9037 Tromsø, Norway (hoel@sv.uit.no and ares@sv.uit.no);* ³ *51 Jupiter Point Road, Groton, CT 06340 USA (syma.ebbin@aya.yale.edu)*

1. INTRODUCTION

The extension of coastal state jurisdiction, culminating with the widespread establishment of 200-mile Exclusive Economic Zones (EEZs) is one of the most far-reaching institutional changes in the international society of the twentieth century. Vast ocean areas with an enormous wealth of natural resources that were previously open to all as part of the high seas, have been turned into assets of coastal states. A principal justification for this change was the growing sense at the third United Nations Conference on the Law of the Sea (UNCLOS III), which took place from 1973 to 1982, that international efforts to manage human uses of marine resources had failed. A new approach was required, that vested the responsibility for the sustainable use of the oceans with those most dependent upon them: the coastal states.

The implementation of EEZs granted coastal states extensive rights to natural resources located in a zone extending out to 200 nautical miles (360 kilometres) off the coastal states' baselines. The recognition and formal establishment of EEZs has brought a significant part of the world's oceans under the jurisdiction of coastal states. In addition, the majority of the ocean's primary productivity and fisheries production is located in the coastal shelf regions within the EEZs. Today, 145 states¹ are parties to the 1982 United Nations Law of the Sea Convention (LOSC), enabling them to establish EEZs. The EEZs of the world now cover most continental shelf resources and the majority of the world's fisheries (United Nations, 2004).

There is substantial variation in the nature of the challenges that face countries that attempt to conserve and manage the natural resources in their waters. The status of fisheries, pollution, minerals exploitation, transportation and other ocean use activities varies among the different countries. Because of this, although the concept of EEZs constitutes a common institutional framework for meeting the many governance challenges relating to the use of this area, we expect that there will be variation in the institutional responses to meeting these challenges. When a country develops and implements its EEZ-regime, it does so in response to its particular needs and interests.

The principal goal of this book is to analyse the institutional consequences emerging from the transition from an ocean governance regime based on 'open access' to the resources of the ocean to a regime based on EEZs from the 1970s onwards. The

¹ Other entities are also party to the LOSC, such as the European Union.

focus is on the performance of EEZ regimes in the management of living marine resources, specifically with the development of institutions for that purpose. The key issue we examine is the *governance effects* of the introduction of EEZs.

Although institutions based on the EEZ regime share fundamental legal attributes, the national regimes vary with regard to legislation, administrative structures, and effectiveness. By accounting for the sources of this variance, this volume also seeks to contribute to our understanding of the roles that institutions play in global environmental change and, more specifically, to address the reasons why some institutional responses to environmental problems prove more effective than others (Young et al., 1999). In doing so, we have taken the following research questions as our point of departure:

- What is the nature of the institutions that coastal states have created within the framework provided by the EEZs?
- How has the creation of the EEZs affected the interplay among international regimes, national management systems, and traditional systems of marine tenure and co-management operating at the local level?
- How has the development of EEZ-based regimes affected the fit of marine resource management institutions with biophysical systems?

In the remainder of this chapter we provide a brief historical background and set the institutional context for the case studies that are presented in this volume.

2. INSTITUTIONAL FRAMEWORK FOR OCEAN GOVERNANCE

2.1 Background

The oceans are governed by a multitude of institutions that address a number of issue areas including navigation, fishing, and pollution. From the seventeenth century onward, the oceans were separated into ‘territorial waters’, a narrow band where coastal states possessed rights similar to the rights they exercised over their land territory, and ‘high seas’, a vast area in which all states enjoyed the freedom to use those waters and associated natural resources as they saw fit (Juda, 1996). This system rested on the premise that the resources of the ocean were infinite or, in any case, greater than the demands placed upon them by human users. As it became evident that the oceans and their natural resources were in limited supply, the system of rules implying that the natural resources of the high seas belonged to no one (*res nullius*) came under pressure. In the early post-World War II period, a number of coastal states introduced a series of unilateral extensions of their maritime jurisdictions to reduce pressure on natural resources and secure for themselves a greater share of the wealth of the oceans (Miles, 1989; Churchill and Lowe, 1999).

These unilateral actions provided the impetus for the United Nations conferences on the law of the sea, the first and second of which were held in 1958 and 1960. They produced four conventions but did not go far in creating a governance system capable of

managing the growing uses of the oceans and its resources. Several events during the 1960s and early 1970s, among them continued unilateral assertions of rights on the part of coastal states and the prospects of exploitation of metallic nodules at the deep seabed, provided the impetus for UNCLOS III, which commenced in 1973. By then, the idea of extended coastal state jurisdiction had matured, and a consensus soon emerged that coastal states should be accorded 'sovereign rights' over the natural resources located in a zone stretching 200 nautical miles seawards, as measured from their coastal baselines (Miles, 1998; Orrego Vicuna, 2001). A critical step in achieving this was the decoupling of security and economic issues during the negotiations, and the upholding of traditional high seas rights as far as maritime transport and naval activities were concerned (Friedheim, 1993).

Extended coastal state jurisdiction changed the prior system of ocean governance by adding the category of EEZs, which cover a large area located between territorial waters and the high seas. In the EEZ, the coastal state is awarded *sovereign rights* over the natural resources in the zone for the purposes of '...exploring and exploiting, conserving and managing the natural resources, whether living or non-living' (Article 56). As regards living marine resources, these rights on the part of the coastal states are accompanied by obligations to conserve the resources, utilise them, and cooperate with other countries to those ends.

The conservation obligation entails that coastal states shall determine the allowable catch of living resources based on the best scientific evidence available, and ensure that the resources in the EEZ are not endangered by overexploitation (Article 61(2)). The provision regarding the utilisation of resources maintains that the coastal state shall 'promote the objective of optimum utilization' of the living marine resources in the EEZ (Article 62(1)). Many of the world's fisheries are based on fish stocks that are shared with other countries or have a migratory range that extends into the high seas. In cases of shared fish stocks (in which a stock spans the EEZs of two countries) or straddling fish stocks (in which a stock occurs in at least one EEZ as well as the high seas), states have an obligation to seek to cooperate on the management of these stocks (Article 63). Cooperation may take on various forms – it can be direct, or it can take place in a regional organisation. An obligation to cooperate also pertains to fisheries for highly migratory species (Article 64),² as well as marine mammals (Article 65). The fisheries regime of the LOSC also has provisions for anadromous and catadromous species, as well as sedentary (bottom-dwelling) species. A corresponding set of provisions for the high seas are also set out in the convention (Articles 116-119).³

In the second half of the 1970s, a large number of states claimed 200-mile zones. By the time that UNCLOS III came to an end in 1982 and the final text of the LOSC was signed, the EEZ concept was already established in customary international law (Churchill and Lowe, 1999). When the LOSC entered into force in 1994, more than one hundred coastal states had enacted legislation establishing extended jurisdiction in some form. The EEZs constitute a common framework within which coastal states have been enabled to create arrangements governing human activities taking place within their zones. Administrative structures – ministries and agencies – as well as policies and

² Highly migratory species are defined in an annex to the convention.

³ A more thorough discussion of the fisheries regime of the LOSC is presented in Chapter 2 by William Edeson.

legislation have been developed. At the same time, the EEZs are nested into the larger framework of the Law of the Sea and embedded within overarching institutional arrangements in international society.

The creation of EEZs did not solve all the problems attributable to the authority deficit in ocean governance (Sætersdal and Moore, 1987). Initially, few states had the domestic arrangements necessary to manage the natural resources in these extended zones. Substantial variation exists in the character and effectiveness of the regimes that coastal states have put into place to govern activities taking place in their EEZs (Hoel et al., 1999). Moreover, the fit between these new institutional arrangements and the biophysical features of the problems they are intended to solve is still far from perfect. A large number of fish stocks have come under the jurisdiction of two or more countries, necessitating the negotiation, and, in some cases, judicial settlement or creation of new territorial boundaries or joint management systems for shared resources.

High seas fisheries for stocks that straddle the boundaries between waters under national jurisdiction and the high seas emerged as a serious problem in the 1980s (Burke, 1994; Stokke, 2001a). Collapses in major fisheries combined with the growth of a broader interest in protecting marine environments prompted calls for institutional change. Reform of the global framework for ocean governance found its way onto the agenda at global fora such as the 1992 United Nations Conference on Environment and Development (UNCED) and the UN Food and Agriculture Organization (FAO). It was widely recognized that the provisions of the convention dealing with straddling fish stocks and highly migratory fish stocks were too ambiguous to provide states with sufficient guidance to resolve the issues, and that more specific rules were needed to rectify this.

2.2 Recent Developments

At the request of UNCED, the UN General Assembly (UNGA) initiated a conference to negotiate an agreement to clarify the content and scope of these provisions. The resulting 1995 UN Fish Stocks Agreement⁴ was adopted in August 1995, and entered into force in December 2001.⁵ The 1995 UN Fish Stocks Agreement contributes significantly to the existing institutional framework for ocean governance (Orrego Vicuna, 2001). Aiming to ensure the long-term conservation and sustainable use of straddling and highly migratory fish stocks through effective implementation of the LOSC (Article 2), the 1995 UN Fish Stocks Agreement outlines the conservation and management of these fish stocks on the high seas (Article 3). The 1995 UN Fish Stocks Agreement breaks new ground in developing the global rules governing fisheries management in four areas.

First, it introduced new principles to marine resource management, to be applied universally – on the high seas as well as within the EEZs. Notably, all signatory states

⁴ Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks.

⁵ At the outset, it was not at all clear that this was to become a treaty, but during the negotiating sessions in 1994 a majority of countries came out in favour of a legally binding agreement to supplement the LOSC, rather than a soft-law set of guidelines.

must implement a precautionary approach (Article 6), outlined in an annex to the agreement. In addition, the management of resources inside and outside the EEZ should be compatible (Article 7), so that management actions consider the full extent of the stock in question, rather than stock components inside or beyond the EEZ. In particular, the measures adopted for the high seas shall not undermine the conservation measures adopted by coastal states for the same stock(s) in their EEZ(s). Second, Part III of the Fish Stocks Agreement expands on Article 118 of the LOSC that obligates states to cooperate on a regional basis in the conservation and management of straddling fish stocks and highly migratory fish stocks at the high seas, by providing a framework for the organisation of and participation in regional cooperation efforts⁶ (see Sydnes, Chapter 8, for further discussion). Third, the 1995 UN Fish Stocks Agreement strengthens the legal framework for enforcing regulatory measures, *inter alia* by specifying and strengthening flag state obligations, as well as, under certain circumstances, permitting enforcement actions on the part of states other than flag states on the high seas.⁷ Finally, on the basis of the framework laid down in the LOSC, the 1995 UN Fish Stocks Agreement lays out a mandatory regime for the settlement of disputes. An important aspect of this is that parties to the 1995 UN Fish Stocks Agreement, which are not parties to the LOSC, thereby submit to this dispute resolution system. The provisions of the 1995 UN Fish Stocks Agreement can be viewed as responses to the 'problem of fit', in which the institutional scope or jurisdiction of the EEZ regime fails to match the biophysical context of a problem found within the EEZ. This lack of fit may in turn impede the resolution of the problem. By strengthening the provisions for cooperation of high seas fisheries management, the 1995 UN Fish Stocks Agreement, helped to achieve a better fit between management regimes and the resources they are managing.

Also in 1995, the FAO Conference adopted a Code of Conduct for Responsible Fisheries (FAO Code of Conduct), which addressed virtually all aspects of fisheries from conservation principles to marketing practices. While non-binding in nature, the FAO Code of Conduct provides standards for countries to strive towards in developing and implementing fisheries policies. The FAO Committee of Fisheries (COFI) oversees the implementation of the Code of Conduct and the FAO supports its implementation through the FishCode, a designated programme of assistance.⁸ COFI has since negotiated and adopted four International Plans of Action (IPOAs) for seabirds, sharks, capacity reduction, and illegal, unregulated and unreported (IUU) fishing. The implementation of these IPOAs demonstrate that the FAO Code of Conduct can be adapted to changing circumstances and needs in a more flexible and rapid manner than would have been possible with binding legal agreements. However, a significant part of the Code of Conduct is the 1993 Compliance Agreement, which is a legally binding agreement that was negotiated to strengthen flag state obligations to control vessels flying their flag.⁹

⁶ This rule, of course, applies only to parties to the 1995 UN Fish Stocks Agreement.

⁷ Part VI of the 1995 UN Fish Stocks Agreement.

⁸ See the FAO homepage at www.fao.org for more information on the FishCode.

⁹ 1993 Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas.

A notable tendency during the last decade is that fisheries issues increasingly are viewed as environmental issues (Hoel, 1998). The 1995 UN Fish Stocks Agreement and the FAO Code of Conduct are heavily influenced by concepts and principles derived from the realm of environmental politics. The precautionary approach as laid out in the 1995 UN Fish Stocks Agreement is one example. This is not to imply that these developments were driven solely by environmentalists pushing a reluctant fisheries community towards more environmentally inspired approaches to conservation and management. Rather, the processes referred to here were by and large dominated by fisheries administrators and legal experts, working on the basis of a general recognition that the current EEZ-based system had failed to deliver the expected conservation benefits, and that improvements needed to be made in the global framework of LOSC overlying the operation of regional and national governance systems.

Another environmental concern that has influenced the management of marine resources is the growing emphasis placed on the protection of marine biological diversity and the resultant effort to apply the principles of the 1992 Convention on Biological Diversity (CBD) to activities in the EEZs (DeFonteaubert et al., 1998). While the provisions of the CBD arguably are less potent than those of the LOSC and 1995 UN Fish Stocks Agreement with respect to the conservation of ocean biodiversity (Hoel, 2003), work under the CBD on marine issues has gradually developed since the Djakarta Mandate, a work agenda with focus on marine affairs was adopted at the CBD Conference of Parties in 1995. Since then, a marine programme has been adopted, and at the 8th CBD Conference of Parties in 2004, the programme was extended to 2010.¹⁰ It has not proved to be of great significance to the management of living marine resources in a broad sense, but has helped to address specific issues such as threats to coral reefs and biodiversity on the high seas, and has raised the issue of marine protected areas as a regulatory tool in this regard.

The 2002 World Summit on Sustainable Development (WSSD) adopted a plan of implementation with an unprecedented level of ambition and precision as regards oceans management.¹¹ The WSSD plan of implementation encourages the application of an ecosystem approach to fisheries management by 2010 (Paragraph 29), and states that to achieve sustainable fisheries, fish stocks should be maintained or restored to levels that can produce the maximum sustainable yield – ‘with the aim of achieving these goals for depleted stocks on an urgent basis and where possible not later than 2015’ (Paragraph 30). The WSSD plan of implementation builds on the FAO IPOAs. Countries are asked to ‘urgently develop and implement national and, where appropriate, regional plans of action, to put into effect the FAO international plans of action, in particular the international plan of action for the management of fishing capacity by 2005 and the international plan of action to prevent, deter and eliminate illegal, unreported and unregulated fishing by 2004’ (Paragraph 30). Chapter 12 by Serge Garcia and David Douman further addresses these issues.

When the LOSC entered into force in 1994, the UNGA established an annual review of its implementation as well as developments in oceans affairs. Related to this has been the negotiation and adoption of a series of resolutions on ocean affairs. From 1999 onwards, the UNGA review has been preceded by preparatory meetings, in the

¹⁰ Decision VII/5, see in particular Paragraphs 61-62.

¹¹ World Summit on Sustainable Development: Johannesburg Plan of Implementation.

format of an open-ended informal consultative process, established by the UNGA in resolution 54/33, in order to facilitate its annual review and the preparation of resolutions. The informal consultation process, as it is commonly referred to, operates by way of discussion of a few themes at each meeting, thereby preparing the ground for substantive resolutions and debate in the UNGA.¹² The informal consultations constitute a process where new issues and concerns are brought to the attention of the UN. This process is an important arena for issue-raising and developing a global framework for oceans management.

To summarise, the transformation of the institutional framework for ocean governance over the last century can be divided into three distinct phases: 1) the recognition that the open access system based on the principle of the freedom of the high seas is untenable in the face of increasing pressures and uses of the oceans and its resources; 2) the negotiation of the LOSC providing coastal states with the legal basis to conserve and manage the uses of the ocean areas off their coasts; and 3) the supplementation of this legal framework with other instruments, based on the realization that the implementation of obligations to protect the ocean environment needs increased attention. In this most recent phase, environmental concerns and ideas have come to dominate the fisheries agenda. This has led to ‘treaty proliferation’, where numerous agreements, binding and non-binding, at the global level constitute the framework within which coastal states are to define their oceans policies and devise sustainable management regimes. In addition, this global regime has increasingly come to be seen as a continuous process, rather than one composed of clearly delineated negotiating conferences. This situation, in which states interact both among themselves as well as with international institutions and processes, has created a highly dynamic and complex situation. An analytical framework and tools able to address the interplay among institutions are essential to developing nuanced understandings of the developments in this global arena.

3. ANALYTICAL THEMES

3.1 Institutions and Regimes

Analyses of the performance of EEZs must take into account the operation of local, national, and international institutions through which the effects of EEZs manifest themselves. The creation of EEZs would not have far-reaching consequences if the process were not accompanied by changes in national and international institutions intended to capitalise on and implement the rights and obligations established under EEZ regimes.

The analytical core of the volume is focused on the creation and transformation of institutions, at different levels of social organisation, which have resulted from the introduction of the EEZs. Institutions refer to ‘sets of rules of the game or codes of conduct that serve to define social practices, assign roles to participants in these practices, and guide the interactions among the occupants of these roles’ (Young, 1994:

¹² The formal name of the process is the United Nations Open-ended Informal Consultation Process on Oceans and the Law of the Sea.

3). Unlike organisations, which are material entities that typically figure as actors in social practices, institutions may be thought of as the rules of the game that determine the character of these practices.¹³ Institutions can encompass both formal and informal rules and codes such as bodies of law, non-binding agreements, established practices, as well as organisations. Regimes are institutions that establish principles, norms, rules and decision-making procedures within spatially and/or functionally defined issue areas (Young and Osherenko, 1993:1).¹⁴ Although the terms frequently are used interchangeably, regime is a more narrowly defined concept than institutions in the sense that regimes are issue-specific.

The focus on individual regimes, as institutional mechanisms defined by their functions and scope, has been a salient feature of regime theory (Young, 2002). However, there is increasing acknowledgement in the research community that analyses of institutions in isolation are inadequate in developing a comprehensive understanding of their role in international relations. In practice, institutions may be linked in ways that affect their individual and collective performances. Institutional interplay refers to those situations in which the contents, operations or consequences of one institution influence other institutions (Stokke, 2001b).

3.2 Institutional Interplay

Interplay may occur among institutions at the same level of social organisation (horizontal interplay) or among institutions at different levels of social organisation (vertical interplay) (Young, 2002: 23). These interactions may enhance or impede a regimes' effectiveness and have distributive consequences. It is not surprising, therefore, that states seek to influence the interplay of institutions (Stokke, 2001b). The authors of the case studies in this volume have taken as a primary focus the institutional interplay among the institutions of fisheries governance, in particular the interactions of the global EEZ regime with regional, national and local institutions. One main concern is the extent to which the provisions of the EEZ regime and other global governance institutions have affected the establishment and operations of regional, national and local institutions of fisheries governance, instances of vertical interplay. A secondary concern is, the extent to which institutions of fisheries governance have been influenced by and in turn influence institutions within other issue areas, such as trade and environmental protection, instances of horizontal interplay.

A main contribution of the institutional interplay approach is the recognition that institutions cannot be analysed in isolation, but must be seen within the context of their institutionalised environments. Institutional interplay directs attention to the ways in which 'classic' regimes and institutions (Levy, Young and Zurn, 1995) affect each other's substantive content and operations. As the institutional density within international issue areas increases, as is the case in the subject matter at hand here, such

¹³ Therefore, we interpret institutions according to their behavioural consequences. An alternative would be to define institutions as formally agreed-upon arrangements. However, this would include arrangements that have not been acted upon by participants (so-called 'dead-letter' agreements). In practice international and domestic politics are littered with agreements formalising cooperation between parties, which have not been acted upon and thereby have no behavioural consequences. For a discussion of the term 'institution' see, for example, Hasenclever et al. (1997).

¹⁴ As such, all regimes are institutions, but not *vice versa*.

interplay may be expected to become an increasingly dominant feature of international relations. Central questions addressed in this volume revolve around how and to what extent the establishment of EEZs have impacted the interactions of institutions engaged in the management and conservation of fisheries.¹⁵

3.3 The Problem of Fit

The issue of fit, the extent to which institutions match the characteristics of the biophysical environment and natural resources in question (Young et al., 1999), sets the stage for an examination of how the development of the global EEZ framework facilitates improvements in resource management by extending the scope and authority of national and regional institutions. The protection of a migratory species would be difficult if the geographic scope or membership of a regime established to conserve a species did not encompass the migratory route or extent of human impacts. The protection of the North Sea would not be effective if it did not take into consideration all toxics that enter and affect the marine ecosystem. Similarly, in order for institutions of fisheries management to be effective, there needs to be a high degree of fit between the scope of an institution and the nature of the resources being managed. Among the main challenges of fisheries management are establishing the rights to participate in and exploit fisheries, understanding the extent and the abundance of fish stocks, and ascribing the authority to manage the fisheries to specific actors and institutions.

Our main concern in this volume is with the *governance* effects of the EEZs. Changes in governance systems, such as the creation of EEZ-based regimes, often have ramifications beyond the boundaries of the regimes themselves. In the case of EEZs, these effects have flowed downward to the domestic regimes established by states and upward to institutional arrangements operative at the level of international society. Looking downward, EEZs constitute an institutional umbrella within which a variety of related initiatives have unfolded. Regional fisheries institutions are also important in this regard (Sydnes, 2001). Thus, individual coastal states have created distinct national regimes to deal with fisheries and other marine resources over which they have acquired jurisdiction as a result of the creation of EEZs. All these arrangements build on the same framework, but they differ significantly in other respects, including the biophysical and socio-economic effects they have produced. By privileging national regimes, the establishment of EEZs has subordinated local and customary systems of marine tenure to new and formal rules governing the use of ocean resources. The formal policies and decision-making procedures characteristic of national institutions can displace or undermine informal, local arrangements, and can generate important biophysical and socio-economic consequences (Apostle et al., 1998).

On the other hand, it is possible to explore the impacts of EEZ-based regimes on the ways in which states define their roles and interests and, more broadly, on the theory and practice of sovereignty in international society. The rights of coastal states in the EEZs are far-reaching, but not identical to the bundle of rights generally associated with sovereignty over territory. By introducing a new configuration of rights, distinct from those exercised in territorial waters or those associated with the high seas, UNCLOS III

¹⁵ As Kalinoe (Chapter 7) demonstrates, the interplay between the EEZ regime and local regimes of fisheries management may have a limited impact.

initiated an institutional experiment in which sovereignty is not approached in absolute or indivisible terms. The rights conferred on coastal states through the creation of EEZs place them in the roles of managers and caretakers of marine ecosystems. With the passage of time the rights associated with EEZs have also been tempered by a growing understanding of the need for cooperation among adjacent states and between coastal states and distant water states to ensure the sustainability of fish stocks. Both the theory and the practice of sovereignty undergo transformations in response to functional problems arising from interdependencies (Litfin, 1998). Recent developments in state practice in cooperative fisheries management, for example, the activities of the North-east Atlantic Fisheries Commission with regard to the enforcement of regulations, and in other areas, such as joint development zones for oil and gas, suggest that new ways of thinking about sovereignty with regard to the resources of the EEZs are emerging.

4. OUTLINE OF CHAPTERS

The chapters of this volume cover case studies from both the north and south, in the Pacific and the Atlantic Oceans. The case studies critically examine the impact of the EEZ regime on institutions at local, national, regional and international levels of social organisation. The broad range of contributions by the authors highlights the diversity of institutions and outcomes that have emerged from the implementation of the EEZs, providing a rich opportunity for comparative analysis. The volume is organised into four sections. The first section focuses on the development of global institutional frameworks. The second presents several case study analyses from different countries and regions. The third offers a discussion of regional applications of the EEZ regime, and is illustrated with two case studies. In the fourth and concluding section, we set forth new and emerging initiatives as well as some possible directions for future development. The volume offers an institutional approach to a topic that current literature commonly addresses in legal terms, but contains only one chapter written from an explicitly legal perspective.

Completing the first section, William R. Edeson (Chapter 2) lays out the main features of the fisheries regime in the LOSC and assesses its development. He concludes that, overall, the balance of interests represented in the LOSC have been respected, and that practice has largely adapted to the LOSC since its adoption. As regards more recent legal developments, he argues that while concepts such as the precautionary approach have been accepted in broad terms, much remains to be done in terms of their practical implementation. Overall and in legal terms, the regime has stood well up. However, the themes that dominated discussions under UNCLOS, such as the rights of land-locked states, have been replaced by other concerns, such as conservation of the marine environment.

In the first chapter of the second section, which focuses on national case studies of EEZ implementation, Alf Håkon Hoel (Chapter 3) discusses the foundations of Norway's marine policies in general and fisheries policies in particular. With two million square kilometres of ocean and rich fisheries, Norway is one of the major beneficiaries of the developments in ocean law in recent decades. Norway's ocean management regime is to a large extent defined by the fact that most significant stocks

of living marine resources are shared with other countries, and that international cooperation is a precondition for effective resource management. Currently, major efforts are directed at reconfiguring the domestic regime in response to calls for ecosystem-based management approaches.

Geir Hønneland (Chapter 4) presents a case study on the development of the management of the Northwest Russian fisheries. The author provides an overview of the Russian Federation's system for fisheries management. He reviews the legislative base, formal objectives and institutional set-up of the management system at the federal level. Further, he discusses the institutional interplay among various federal management institutions, as well as the interplay between federal and regional authorities in Russia's northern fisheries basin. Hønneland concludes that the overall trend in Russian fisheries is one of centralising management authority to institutions at the federal level.

Russell E. Reichelt and Geoffrey C. Wescott (Chapter 5) discuss the conditions for the effective implementation of the 1998 Australian Ocean Policy. The authors deliberate on the institutional and political challenges that were confronted in implementing the policy through ecosystem-based Regional Management Plans. In particular the authors examine challenges related to integrated management, the establishment of marine protected areas, and developing an adequate knowledge base for marine resource management. They conclude that, although the making of the Australian Ocean Policy took a mere two years, its implementation through the development of Regional Management Plans, may take decades. This is partly due to relations between the Commonwealth and the Australian states and territories, on the one hand, and between different sectoral user groups, on the other.

Syma A. Ebbin (Chapter 6) examines the governance impacts of the implementation of the US Fishery Conservation and Management Act, focusing on the management of Pacific salmon in the Pacific Northwest. Ebbin explores the vertical interplay between the national, regional and local level management efforts through the use of four case studies that involve cooperative management of salmon by the indigenous peoples of the Pacific Northwest. She finds that the 200-mile EEZ in the US has led to the elimination of foreign interceptions of salmon within the EEZ and the stabilisation or reduction of domestic interceptions. Additionally, the federal government has worked to eliminate the harvest of salmon in international waters. The federal government has set up a framework for cooperative management between the sub-national state governments and indigenous groups. In these respects, federal oversight of the EEZs has enhanced equitable access, use and management of salmon resources indigenous fishermen.

Lawrence Kalinoe (Chapter 7) presents a case study of customary marine tenure among indigenous Papua New Guineans with specific reference to the Trobriand Islanders. He elaborates on their uses of the marine resources and to the extent to which these practices establish customary rights in different zones of jurisdiction. The author comes to the interesting conclusion that the EEZ regime has no consequences for the traditional rights of Trobriand Islanders, as their fishing activities take place primarily in near-shore waters. He concludes that rights under customary marine tenure cannot be claimed and exercised within Papua New Guinea's 200-nautical mile EEZ.

In the third section of the book, Are K. Sydnes (Chapter 8) analyses the historical role of regional fisheries regimes in the evolution of international fisheries

governance. The author introduces a typology, distinguishing between the scientific, development and management roles of such regimes. He further argues that the EEZ regime adopted by UNCLOS III was partly a reaction by coastal states to the ineffectiveness of regional fisheries regimes to provide for the sustainable conservation and management of fisheries. While the introduction of EEZs temporally diminished the role of such regimes, developments during the 1990s put the role of regional fisheries management on the international political agenda. With the prominence given to such organisations in the 1995 UN Fish Stocks Agreement and other international agreements, their role in fisheries management is set to increase considerably in the future.

Carmen A. Ablan and Len R. Garces (Chapter 9) examine the impacts of the EEZ regime within the South China Sea. They find that the implementation of EEZs in this region fostered an increase in investments in the fisheries sector by coastal states. They further find that the focus on national ownership and property rights has not adequately addressed some management issues, especially those involving transboundary fish stocks and various ecosystem-level processes that span multiple jurisdictions. The authors examine these problems of fit and note that sustainable management will require multilateral cooperation, the pooling of capital, financial, and human resources, the development of transboundary management strategies and the creation of regional management institutions. They conclude that greater recognition of the different spatial scales found in marine ecosystems, the creation of appropriate institutions for management and improved incentives for transboundary cooperation, are required if fish stocks are to be restored to sustainable levels by 2015.

Joeli Veitayaki (Chapter 10) analyses the regional approach taken by the member countries of the South Pacific Forum Fisheries Agency as a response to the LOSC. The majority of the member countries are small island developing states, heavily dependent on fisheries, but with limited technical and financial resources to manage them independently. Veitayaki lays out the regional institutions and agreements that have been negotiated by these coastal states to enforce their claims to the living marine resources in the EEZs and extended fisheries zones. He concludes that the regionalist approach has proved to be a success. However, the sustainable development of the regional fisheries hinge on further development and the political will to implement the appropriate regional institutions.

Oran R. Young (Chapter 11) examines developments in the Bering Sea large marine ecosystem, which encompasses parts of the jurisdiction of the two coastal states in the area, Russia and the US, as well as a portion of the high seas. While, on the whole, the fisheries of the Bering Sea stand out as being comparatively well managed, ecosystem shifts in the Bering Sea region represent a major challenge to the current regime. Young proposes an integrated meta-regime approach as an alternative to the current fragmented situation in which a number of different institutions and regimes operate. He finds that this holds considerable promise for achieving robustness and resilience in the face of major environmental changes.

Serge M. Garcia and David J. Doulman (Chapter 12) review current efforts under the purview of the FAO to fulfil the mandates laid out by the FAO Code of Conduct and the four IPOAs. They discuss the relation between these instruments and the WSSD plan of implementation, and assess the current status of work with regard to the WSSD mandate. As such they provide a global overview of international trends in

institutional development and implementation. Moreover, they point out that there are substantial overlaps and synergies between the instruments and programs under the auspices of the FAO, and the WSSD plan of implementation.

In the final chapter we integrate the findings presented in the various case studies and put forth several generalisations that emerge from this comparative examination of the performance of the EEZ regime. We examine the volume's findings in terms of the governance impacts of the EEZ on marine living resources, implications for institutional interplay, as well as issues of fit. We conclude with some thoughts on future work that should be done to assess the performance of the EEZs.

References

- Andresen, S., and W. Østreng, eds, 1989, *International Resource Management: The Role of Science and Politics*, Belhaven Press, London.
- Apostle, R., G. Barret, P. Holm, S. Jentoft, L. Mazany, B. McKay, and K. Mikalsen, 1998, *Community, State and Market at the North Atlantic Rim: Challenges to Modernity in the Fisheries*, University of Toronto Press, Toronto.
- Burke, W., 1994, *The New International Law of Fisheries*, Clarendon Press, Oxford.
- Churchill, R. R., and A. W. Lowe, 1999, *The Law of the Sea*, Manchester University Press, Manchester.
- DeFonteaubert, C., D. R. Downes, and T. S. Agardy, 1998, Biodiversity in the seas: Implementing the Convention on Biological Diversity in marine and coastal habitats, *The Georgetown International Law Review*, **10**: 753-854.
- Ecosystem Principles Advisory Panel, 1999, *Ecosystem Based Fishery Management—A Report to Congress*, National Marine Fisheries Service, Seattle.
- Friedheim, R., 1993, *Negotiating the New Ocean Regime*, University of South Carolina Press, Columbia.
- Hasenclever A., P. Mayer and V. Rittberger, 1997, *Theories of International Regimes*, Cambridge University Press, Cambridge.
- Hey, E., 1996, Global fisheries regimes in the first half of the 1990s, *International Journal of Marine & Coastal Law*, **11** (4): 459-90.
- Hoel, A.H., 1998, Political uncertainty in fisheries management, *Fisheries Research*, **37**: 239-50.
- Hoel, A.H. with contributions from E. Andreeva, R. Reichelt, V. Walsh and O.R. Young, 2000, Performance of Exclusive Economic Zones, Scoping Report No 2, Institutional Dimensions of Global Environmental Change Programme, Dartmouth College.
<http://fiesta.bren.ucsb.edu/~idgce/html/publications/publications/eez92600.html>
- Hoel, A.H., 2003, Marine biodiversity and institutional interplay, *Coastal Management*, 30:25-36
- Juda, L., 1996, *International Law and Ocean Use Management*, Routledge, London.
- Levy, M.A., O.R. Young and M. Zurn, 1995, The Study of International Regimes, *European Journal of International relations*, **1**, 267-330.
- Litfin, K., ed, 1998, *The Greening of Sovereignty in World Politics*, MIT Press, Cambridge.
- Miles, E., ed, 1989, *Management of the World's Fisheries: Implications of Extended Coastal State Jurisdiction*, University of Washington Press, Seattle.
- Miles, E., 1998, *Global Ocean Politics*, Martinus Nijhof, Dordrecht.
- Orrego Vicuna, F., 2001, The International Law of High Seas Fisheries: From Freedom of Fishing to Sustainable Use, in: *Governing High Seas Fisheries: The Interplay of Global and Regional Regimes*, O. S. Stokke, ed, Oxford University, Oxford.
- Sætersdal, G., and G. Moore, 1987, Managing extended fisheries: A decade's modest progress, *CERES*, **20**(5): 38-43.
- Stokke, O. S., 2001a, *Governing High Seas Fisheries: The Interplay of Global and Regional Regimes*, Oxford University, Oxford.
- Stokke, O.S., 2001b, The Interplay of International Regimes: Putting Effectiveness Theory to Work, *FNI Report*, **14**.
- Sydnès, A.K., 2001, Regional Fishery Organisations: How and Why Organisational Diversity Matters, *Ocean Development and International Law*, **34**: 349-372.
- United Nations, 2004, Draft Report of the Secretary General: Oceans and the Law of the Sea, 4 March 2004, Doc A/59/62, United Nations General Assembly, New York.
- Young, O.R., 1994, *International Governance: Protecting the Environment in a Stateless Society*, Cornell University Press, Ithaca.
- Young, O.R., 1996, Institutional Linkages in International Society: Polar Perspectives, *Global Governance*, **2**: 1-24.
- Young, O. R., 2002, *The Institutional Dimensions of Environmental Change. Fit, Interplay and Scale*, MIT Press, Cambridge (Mass) and London.
- Young, O.R and G. Osherenko, eds, 1993, *Polar Politics. Creating International Environmental Regimes*, Cornell University Press, Ithaca and London.
- Young, O.R. with contributions from, A. Agrawal, L. King, P. Sand, A. Underdal, and M. Wasson, 1999, *Institutional Dimensions of Global Environmental Change – Science Plan*, IHDP Report No 9, Bonn.