URBAN PLANNING AND ENVIRONMENT

Regulating Coastal Zones

International Perspectives on Land Management Instruments

קתדרת חייקין לגאואסטרטגיה
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Edited by
Rachelle Alterman and Cygal Pellach

ROUTLEDGE

Regulating Coastal Zones

Regulating Coastal Zones addresses the knowledge gap concerning the legal and regulatory challenges of managing land in coastal zones across a broad range of political and socio-economic contexts.

In recent years, coastal zone management has gained increasing attention from environmentalists, land use planners, and decision-makers across a broad spectrum of fields. Development pressures along coasts such as high-end tourism projects, luxury housing, ports, energy generation, military outposts, heavy industry, and large-scale enterprise compete with landscape preservation and threaten local history and culture. Leading experts present fifteen case studies among advanced-economy countries, selected to represent three groups of legal contexts: Signatories to the 2008 Mediterranean ICZM Protocol, parties to the 2002 EU Recommendation on Integrated Coastal Zone Management, and the USA and Australia.

This book is the first to address the legal-regulatory aspects of coastal land management from a systematic cross-national comparative perspective. By including both successful and less effective strategies, it aims to inform professionals, graduate students, policymakers, and NGOs of the legal and socio-political challenges as well as the better practices from which others could learn.

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Maintaining and enhancing living conditions in cities through a combination of physical planning and environmental management is a newly emerging focus of governments around the world. For example, local governments seek to insulate sensitive land uses such as residential areas from environmentally intrusive activities such as major transport facilities and manufacturing. Regional governments protect water quality and natural habitat by enforcing pollution controls and regulating the location of growth. Some national governments fund acquisition of strategically important sites, facilitate the renewal of brown fields, and even develop integrated environmental quality plans. The aim of this series is to share information on experiments and best practices of governments at several levels. These empirically based studies present and critically assess a variety of initiatives to improve environmental quality. Although institutional and cultural contexts vary, lessons from one commonly can provide useful ideas to other communities. Each of the contributions are independently peer reviewed, and are intended to be helpful to professional planners and environmental managers, elected officials, representatives of NGOs, and researchers seeking improved ways to resolve environmental problems in urban areas and to foster sustainable urban development.

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Regulating Coastal Zones

International Perspective on Land Management Instruments

Edited by Rachelle Alterman and Cygal Pellach

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Dedicated to the memory of my only (and younger) sister, Dr. Tzila Shamir (Leichter). She was a brilliant mathematician, whose death from juvenile diabetes cut short her research in robotics, including early contributions to autonomous vehicles and to the math of mobility of people with disabilities.

Rachelle Alterman (Leichter)

Dedicated to the memory of my maternal grandparents, who took full advantage of living on Sydney's coast, each in their own way. Geri loved to walk and swim at the beach. Justin travelled by ferry as often as he could. Both were dedicated to the pursuit of knowledge and thus surely influenced my path in life.

Cygal Pellach

Contents

Preface

The seeds of this book were planted several years ago during the Mare Nostrum project, funded through a research grant by the European Union.[1] The project, led by Rachelle as Coordinator and Cygal as Deputy Coordinator, focused on the legal-regulatory aspects of coastal zone land management in the Mediterranean area. While this book was inspired by the Mare Nostrum project, it has gone much beyond that project in scope, method, and, most importantly, in the much-expanded set of countries.

From this book's broad cross-national perspective encompassing fifteen countries, we learn that despite several decades of laws, policies, and research about Integrated Coastal Zone Management (ICZM), many countries still face persistent impediments to achieving this goal. Knowledge sharing across countries and disciplines is essential for promoting sustainable coastal conservation and for meeting the special challenges posed by climate change. We hope that this book contributes in this direction.

This is not a regular edited volume. It is a concerted team project. We have been very privileged to cooperate with a group of top experts in the various fields related to the legal-regulatory aspects of coastal zone management: Land use planning, planning law, environmental law, and planning governance. Each scholar has agreed to invest much time to analyse their country's coastal land laws and regulations according to our specially designed framework. At times, we asked the authors to go through several rounds of questions about nitty-gritty issues that needed clarification for cross-national calibration. We are immensely thankful to our colleagues for their trust in us.

1 Cross-border cooperation in the Mediterranean: The ENPI CBCMED programme. See http://www.enpicbcmed.eu/programme

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Part I

Framing

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1 Introduction

Objectives and method of comparative analysis

Rachelle Alterman and Cygal Pellach

Everyone loves a pristine beach. But almost everyone (in the Global North) also likes to own land and live near the beach, to vacation in hotels on the beach, to go to country clubs located next to the beach, or at least to be able to view the beach from their home or office. Coastal locations often have a real estate premium in many countries (see for example, Markandya et al., 2008). Coastal zones are often also attractive to government agencies constructing roads and other national or local infrastructure, and many old industries are still located near the coast.

The rationale for Integrated Coastal Zone Management

Throughout human history, coastal zones have been important for livelihood and transportation. A major portion of humanity has always resided close to the coast, and still does (about 40% live within 100 km of the coast; UN, 2017). The environmental consequences of the anthropogenic (human-generated) pressures on the coast and its landscapes are much studied and discussed, but insufficient attention is devoted to the real-property aspects of coastal land. In order to improve coastal zone conservation, the land management aspects must receive more research attention. In the era of growing awareness of climate change and its intensified impacts in coastal regions, the real-property aspects are likely to become even more acute. Adaptation measures to sea level rise or extreme storm events along the coasts inevitably come up against issues related to land property rights.

Any book on coastal zones will note that they are unique and complex environments that warrant special measures for their conservation (see for example, Schernewski, 2016; Portman, 2016). The environmental assets, including the unique landscapes, are especially threatened by the heightened development pressures in coastal zones. Therefore, coastal regions have been recognized as meriting a special decision-guidance model – Integrated Coastal Zone Management, ICZM (Portman, 2016; Kay & Alder, 2005, pp. 8–9). One of the earlier, highly cited books devoted entirely to coastal management offers this definition of ICZM:

> . . . a conscious management process that acknowledges the interrelationships among most coastal and ocean uses and the environment they potentially affect. ICM is a process by which rational decisions are made concerning the conservation and sustainable use of coastal and ocean resources and space. The process is designed to overcome the fragmentation inherent in single-sector management approaches . . . in the splits in jurisdiction among different levels of government, and in the land-water interface (Cicin-Sain et al., 1998, p.1).

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The above definition of ICZM and many similar ones present an ideal that can never be fully implemented, but they do set a direction for policymakers (Garriga & Losada, 2010, p. 89; Portman, 2016, p. 69). The ICZM idea has come a long way since it was first introduced in legislation in the USA in 1972 (Belknap, 1980; Felleman, 1982). In recent decades, ICZM has become widely accepted around the world as the guiding paradigm for policymaking about coastal zones (Cullinan, 2006; Portman, 2016; Ahlhorn, 2017; Ramkumar et al., 2019). Many countries have adopted laws, regulations, and policies in that direction.

Purpose and structure of this work

Unlike much of existing literature that focuses on what *should* be done in terms of better land-management and governance norms towards ICZM, this book addresses what *is* being applied de facto, juxtaposing and comparing current practices with the ICZM norms. The focus is on the laws and regulations and how they manifest in practice. In order to help to move the ICZM ideals from books, treaties, laws, and regulations to actual practice, policymakers need a "reality check" to gauge feasibility, identify impediments, or consider alternative approaches, some based on learning from other countries. To that end, we ask, what specific land-related laws, regulations, or policies have in fact been adopted and implemented by a relatively large set of countries.

This book joins a large number of publications about ICZM, created over decades by researchers from a broad range of disciplines. In order to position our book's contribution within the current body of knowledge, we distinguish among three "pillars" of ICZM:

Pillar 1: Coastal environmental dynamics (not discussed in this book)
Pillar 2: Land demarcation and property rights
Pillar 3: Modes of governance and institutions

The first pillar is outside the scope of this book. It is grounded in environmental sciences, addressing the interrelationships among the various aspects of the marine and terrestrial environments. The purpose is to provide decision makers with a multidisciplinary understanding of the special attributes of the coastal environment, its landscapes, and their dynamics.

The second pillar, pertaining to land demarcation and property rights, could be seen as the "hardware" in the kit of tools of ICZM. In this book, we focus especially on the role of laws and regulations pertaining to coastal land and how they are practised on the ground. Topics include demarcation of zones for special protection, private and public property rights and the regulations that restrict development and direct the use of land. The literature on this topic is the least abundant among the three pillars.

The third pillar of ICZM focuses on governance. One could see this as the "software" in the kit of ICZM tools. This pillar, like the first (but unlike the second), has benefited from considerable research attention, mostly with a general institutional perspective, rather than the legal-regulatory perspective adopted here. Previous research has usually highlighted the persistent problems of high fragmentation among the many coast-related government bodies and the difficulties in reaching coordinated decisions, and proposes approaches to improve institutional set-ups and better governance (superbly explained by Portman, 2016; see other examples in Cicin-Sain et al., 1998 and Ahlhorn, 2017).

In this book, we address the third pillar from the special perspective of the second pillar – the land-related laws and regulations. Our analysis encompasses the following issues: Coordination among institutions in charge of land-related policy and implementation, especially land use

planning; integration of the land-related subject areas and across the land–sea divide; public participation; and capacity to enforce infringements of land-related rules. In the era of climate change, we added questions about the degree of institutional awareness of the need for adaptation to sea level rise or other climate-related challenges. We also look at the capacity of the laws themselves to adapt to climate change (Arnold, 2013).

The book has a three-tier structure of analysis: National, cross-national, and supra-national. For each tier, we address the relevant laws, regulations, and practices of land-related ICZM. Across each of the tiers, the book makes a unique contribution to the current state of knowledge both in its subject matter and in its selection of countries. This is also the first book to address all three levels and the interrelationships among them.

At the national tier, the book encompasses a large (non-random) sample of fifteen national jurisdictions selected according to specific criteria. Each country report has been written by one or more experts from that country. The country chapters are the heart of the book. Each country chapter follows a rigorous framework based on a shared set of topics, which we call "parameters", to be introduced in detail in Chapter 2. Each individual country report stands as a unique contribution to the state of knowledge about that specific country. The picture that emerges is of a (surprisingly) high degree of variety among the laws, regulations, and practices about ICZM.

The second tier – the cross-national analysis – is made possible through the systematic structure of the country reports. At this level, we as editors collate and compare the rich information provided by the country chapters in order to offer the readers opportunities for cross-learning. There is not much previously reported analysis of land regulation in the framework of ICZM that is based on a rigorous cross-national comparative perspective. Notable research efforts to date are Boelaert-Suominen & Cullinan (1994), Cicin-Sain et al. (1998), Markandya et al. (2008), Ahlhorn (2017, pp. 23–31), and Karnauskaitė et al. (2018). These pioneering publications, however, do not delve into questions concerning implementation. This book goes beyond, both in scale and breadth.

The third tier – the supra-national level – is relevant to thirteen of the countries. They each come under one or more set of rules enunciated through international law or supra-national policy intended as guidance to improve ICZM among the signatory states. Yet, in reading the country reports, one is struck by the absence of references to these relevant supra-national documents (except occasionally, when introduced during the editorial process). Although this fact foreshadows some of our findings, it does not diminish the importance of looking at the performance of the international efforts. There is not yet much research attention to the degree of influence of the supra-national ICZM norms on national laws and policies. Among the few contributions in this category are several excellent analyses by the team of Rochette and Billé (Rochette & Billé, 2010, 2013; Billé & Rochette, 2011, 2015; see also González-Riancho et al., 2009). To date, however, researchers have addressed only a handful of countries.

Over the remainder of this chapter, we introduce the supra-national laws and their implications; present the rationales for country selection; and discuss the methodology of analysis and its limitations.

Supra-national ICZM law: Shunning intervention in land rights

In 2008, a daring leap was taken when ICZM first entered the realm of international law. After several years of consideration under UN auspices (Markandya et al., 2008; Sanò et al., 2011), the Protocol on Integrated Coastal Zone Management for the Mediterranean was adopted,

henceforth, the Mediterranean ICZM Protocol (UNEP, 2008). A few years earlier, in 2002, the EU adopted a supra-national policy document on ICZM endorsed by all its member states. However, adoption of international laws or policies is easier than their implementation by national and local governments, especially where land and property rights are concerned. Throughout this book, we will learn to what extent the real-property aspects of ICZM have been amenable to legal and policy change.

The Mediterranean ICZM Protocol was not just one more international agreement on environmental issues. Such agreements go much further back, to the 1940s, and over time have addressed a growing number of environmental topics.[1] Sea-related environmental agreements also go far back, to the early 1970s. The significance of the ICZM Protocol – with twenty-two signatory nations covering almost all Mediterranean countries (PAP/RAC, n.d.) – is that it was the first attempt to intervene in the terrestrial aspects of coastal zones through international law. Although a few other conventions followed for regional seas, the Mediterranean ICZM Protocol remains the most ambitious (Rochette & Billé, 2012).

However, it turns out that the idea of direct international intervention in domestic law pertaining to *land* – as distinct from sea – is much more contentious than it may have seemed in 2008 when the Mediterranean ICZM Protocol came into effect. The indicative story is the failed attempt by the EU to upgrade its "soft law" guidance on ICZM into a binding EU Directive that would apply to both sea and land.

The intentions were clear. The EU policy document was first adopted in 2002 as *Recommendation of the European Parliament and of the Council . . . Concerning the Implementation of Integrated Coastal Zone Management in Europe* (henceforth European ICZM Recommendation). During preparation of the ICZM Recommendation, the European Council established a group of experts, which in 2000 published an unofficial document called *Model Law on Sustainable Management of Coastal Zones and European Code of Conduct for Coastal Zones* (Ahlhorn, 2017; Council of Europe, 2000). This document was to evolve into a binding Directive that would cover both sea and land. A draft Directive was prepared on "maritime spatial planning and integrated coastal management" (European Parliament, 2013). The explanatory note stressed the key importance of addressing land–**sea connectivity and interactions**.[2] One should also recall that by that time, the EU itself was already a signatory to the ICZM Protocol, in addition to the eight Mediterranean states that are also EU members (PAP/RAC, n.d.).

Nevertheless, when the draft Directive came to a vote, a majority of Members of the European Parliament (MEPs) voted to eliminate the reference to rules pertaining to land, leaving only the maritime aspects and vague references to "land-sea interactions". During the debate, Kay Swinburne, a UK member of the European Conservatives and Reformists party, submitted the following:

> . . . The final agreement should have no or minimal impact on our existing process and will not impose new or added burdens. The ICM element has been dropped from the final agreement in exchange for references to, and requirements on, land-sea interactions. The importance of this relationship between land, coast and sea is already reflected in our marine planning processes. The agreement allows the UK to move forward with the delivery of marine planning and recommend its adoption. It contains additional safeguards to preclude any overlap with or impact on land planning, and underlines that the content of the marine plans will be determined by Member States. (European Parliament, 2014a)

Interestingly, among the MEPs who objected to the inclusion of the land aspects were members from the same Mediterranean states that had signed the ICZM Protocol several years earlier, along with its binding land-related regulations. We find this story quite dramatic. It conveys a strong message that, in the eyes of most EU MEPs, land laws and policies should be immune to intervention from the outside. This message is especially stark in view of the ostensibly consensual goal to better coastal protection, which often has cross-national implications.[3]

Once all references to rules for land were eliminated, the Maritime Spatial Planning Directive was adopted in 2014 (European Parliament, 2014). Thus, today, a legally binding Directive applies to the marine zones in all EU members states, while a non-binding EU ICZM Recommendations document applies to coastal land. Yet paradoxically, those EU member states located along the Mediterranean are legally bound also by the Mediterranean ICZM Protocol, which, as noted, addresses both land and sea. Furthermore, most of these states have individually ratified the ICZM Protocol. Granted, as international law, the ICZM Protocol is not very easy to invoke for adjudication in specific countries (or internationally). Our findings will show that, at best, the Protocol functions (so far) more like a policy document than binding international law. However, in principle, once ratified, the Protocol does have domestic status in national law, should any party wish to harness its legal potential.

Selection of countries

In selecting our research countries, fifteen in total, we used two key criteria: Relationship to supra-national law or policy, and shared and differing developmental attributes.

Relationship to supra-national law or policy

We tried to include a range of countries that represent the major types of relationships with supra-national law or policy. These relationships are depicted in Figure 1.1. Seven of our eight

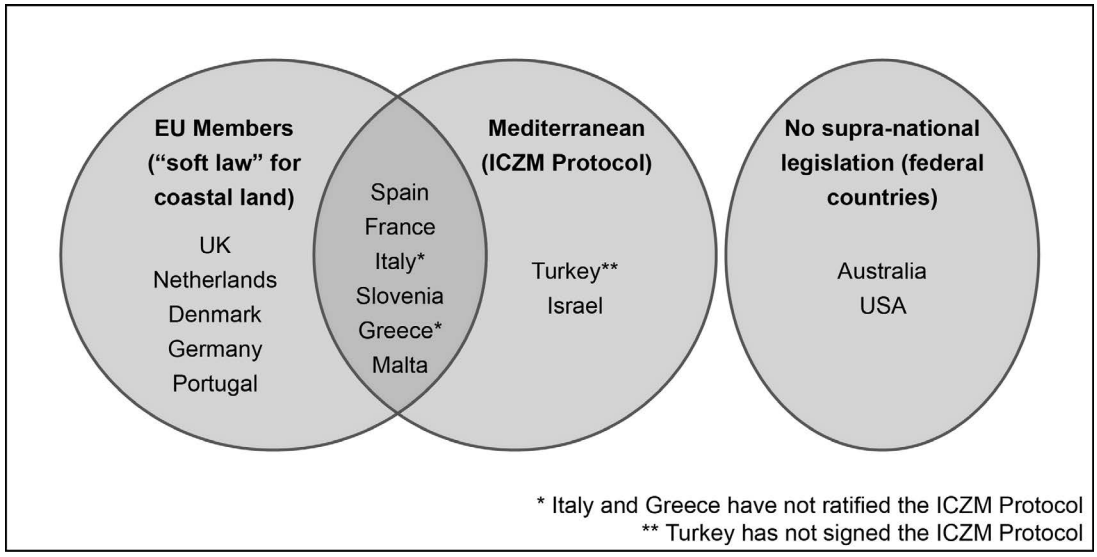

Figure 1.1 The research countries in the context of supra-national law and policies

Mediterranean countries have signed the ICZM Protocol (Turkey has not but is eligible to do so). Five of these have already ratified the Protocol, thus rendering it part of their domestic law; Italy and Greece have not. Six of the Mediterranean countries are also members of the EU and thus come under both umbrellas – the ICZM Protocol and the EU Recommendation. One country – Israel – is bound only by the ICZM Protocol. And finally, two countries – the USA and Australia – are not legally affected by any supra-national norms for ICZM. However, both the USA and Australia are federal countries with a legal relationship between the states and the federal level that are somewhat reminiscent of the international–national relationships in the other countries. The authors for these two countries sometimes highlight important differences among the constituent states.

This book is thus well positioned to address the following question: How do the national laws and regulations in each of the relevant countries perform vis-à-vis the norms set out either by the ICZM Protocol or by the EU ICZM Recommendations?

Shared and differing developmental attributes

We sought to have an adequate common denominator to allow for comparative analysis and some cross-country learning. At the same time, we wanted to represent enough differences in relevant variables so that the findings would interest readers from a variety of countries.

The main common denominator is the level of economic development. All the selected countries have a relatively advanced economy and a good standard of living for their citizens. Except one country – Malta – all are members of the OECD – the Organisation for Economic Co-operation and Development. This organization accepts only countries with an advanced economy and a reasonably functioning (democratic) governance system. Our set of fifteen countries constitutes about 40% of all OECD members. At the same time, our sample also happens to represent 40% of the member states of the European Union (including Malta). Four of the book's countries are members of the OECD but not the EU (the US, Australia, Turkey, and Israel). The book does not encompass developing countries, with the assumption that they have an a priori weaker capacity to implement ICZM – especially its challenging norms of governance.

In selecting the countries, we also sought relevant variety. The degree of land-development pressure near the coast should be especially pertinent. This factor does not receive enough direct attention in evaluations of ICZM implementation. More attention is given to indices that assess the pressures on the natural environment (see Portman, 2016). Because our study focuses on land regulation and property rights, it is important to find a way to take development pressures on land into account.

Following an unsuccessful search for ready-made quantitative indicators of development pressures, we created our own surrogate.[4] Given limited resources, we built a simple, perhaps simplistic measure. It is based on the population density within 10 km of the coastline (persons per square kilometre), multiplied by the percentage of each country's population living within 10 km of the shoreline (see Table 1.1). The assumption is that higher population pressure is expressed in more demand for land (for housing, economic enterprises, infrastructure, recreation, etc.).

The scoring of countries using our Coastal Population Pressure Index potentially opens up an important consideration for assessing ICZM. For example, the scores for Malta and Israel, at the high end of the scale, are 70–75 times higher than those of Slovenia and Germany at the low end. Perhaps surprisingly, although the Netherlands is known for its high overall

Table 1.1 Coastal Population Pressure Index (CPPI) applied to the set of countries

	Total population	*Population density within 10 km of the coast (persons per sq. km)**	*Percentage of population living within 10 km of the coast***	*Score on Coastal Population Pressure Index (CPPI)****
Slovenia	2,067,535	389	4%	**17**
Germany	80,688,538	275	7%	**19**
USA	321,773,631	133	20%	**27**
Australia	23,966,501	47	59%	**28**
France	64,395,347	252	16%	**40**
UK	64,714,995	222	34%	**75**
Greece	10,954,560	134	64%	**85**
Italy	59,799,759	352	28%	**99**
Denmark	5,669,093	168	73%	**122**
Turkey	78,665,813	465	27%	**126**
Portugal	10,356,070	421	31%	**132**
Spain	46,121,679	501	32%	**161**
Netherlands	16,924,927	625	45%	**284**
Israel	8,064,033	1984	46%	**914**
Malta	418,674	1288	100%	**1288**

* To nearest whole
** To nearest percentage point
*** Density within 10 km of coast × percentage of population living within 10 km of coast (to nearest whole)

population density, the CPPI scores show that the Netherlands' pressure along the coasts is only about one-third of Malta's or Israel's.[5] The difficulties of introducing new land regulations in densely populated high-pressure regions are likely to be greater than in low-pressure ones. When reading each of the country chapters, it is recommended to keep the Coastal Population Pressure Index in mind.

Methodology: Country-specific and comparative analysis

The research method we applied combines two levels of analysis: In-depth focus on each separate country, analogous to case-study method, and systematic cross-national comparative analysis based on shared parameters (with some minor variations). The backbone of this book is the team of leading scholars who have consented to devote their time and harness their knowledge to analyse the laws, regulations, and practices relevant to their respective countries' coastal zones. The analysis in each country report is largely descriptive, in order to provide the facts, but it also reflects each author's evaluation or criticism.

Each of the fifteen country reports, or case studies, tells a rich story, embedded in the country's unique legal, institutional, and behind-the-scenes cultural-political context. To enable systematic comparison across the countries, we articulated a framework composed of a set

of parameters relevant to ICZM. These served to guide each author in writing their country reports. In order to gain reasonable consistency despite the very different legal and governance contexts, each chapter went through several iterations between the editors and the author(s).

The shared set of parameters also serves the third objective of this book: To promote cross-national learning through comparison of the laws and practices across the sample countries. Comparative legal research, in general, has both proponents and critics. The latter often note that each jurisdiction has a unique legal tradition and context and that the researcher is inevitably imbued in his or her own culture and thus cannot maintain adequate rigor for critical comparative thinking (Frankenberg, 1985, 2016; Zumbansen, 2005). Proponents argue that laws may be compared usefully cross-nationally, so long as their *functions* are shown to be similar (Zweigert & Kotz, 1998; Whytock, 2009). Proponents also note the usefulness of comparative findings in expanding the horizons of legislators and policymakers (see also Barak-Erez, 2008). The debate about the value of comparative research is paralleled among policy scientists, with arguments supporting the functional approach (Peters, 1998; Peters & Pierre, 2016). Recently, urban planning scholars have also argued in favour of comparative learning, despite the especially complex and contextualized attributes of spatial planning (van Assche at al., 2020).

This book adopts the functional approach and has a pragmatic, rather than a legal-critical, purpose: We seek to contribute to an area of law and policy that is yearning for more knowledge about ways to promote a globally essential and consensual goal of Integrated Coastal Zone Management. Systematic comparative analysis can provide a rare opportunity to observe one's own laws from an external perspective. A comparative perspective has the potential of unleashing self-critical thinking and enabling reconsideration of laws and practices that have been taken for granted.

Learning from others' experiences is especially essential in land-related laws and practices because these tend to be "home grown". One of the ways of transcending this insularity is to offer opportunities for cross-national learning (Alterman, 2001). Alterman's own prior large-scale comparative research on other topics related to planning law and to governance was also based on the functional approach (Alterman, 1997, 2001, 2011). Alterman has demonstrated that in the case of planning law and policy, identification of similar functions is possible, thus enabling fruitful cross-national comparison and learning. For example, planning laws may have similar specific functions regardless of the legal families to which the jurisdictions belong. The often-presumed cleavage among common law or civil law countries is hardly visible when it comes down to specific topics of planning law, as demonstrated in Alterman (2010) and Alterman (forthcoming). In the current book's set of countries, too, there are jurisdictions ascribed to both legal families, and, once again, one can hardly discern any significant differences along these lines.

Alongside the merits of comparative analysis of planning and law, one should also be wary of over-expectation. We agree with the criticism that comparative evaluation should shun the notion of "best practices" (Peters, 1998). Because ICZM itself is composed of a set of recommended concepts and practices, there is a temptation to harness comparative research to search for best practices. However, in reality, there is probably no set of existing laws, regulations, policies, or institutions that constitutes an optimal recipe for ICZM. Certainly, there is not any model that could be transferred intact elsewhere. Each set of laws and policies for coastal management ultimately operates within a unique country context. Cross-national learning must be fuzzy, contextual, and with a dose of scepticism. Indeed, land-related laws and policies are especially resistant to direct transfer across jurisdictions. They are always part of a thick web

of legal, economic, sociocultural, and political factors that differ across space and cannot be uprooted (see also Van Assche et al., 2020). In comparative legal research as presented here, there should not be any expectation to "explain" why a specific jurisdiction has a specific set of laws and regulations and, especially, how they are applied in practice.

In the following chapter we expound upon the ten parameters for comparison.

Notes

1. For a list of international agreements, see https://en.wikipedia.org/wiki/List_of_international_environmental_agreements. (We link to Wikipedia because, unlike the UN official sites, it presents the international environmental agreements both by topic and by date.) There are also many regional agreements.
2. See the proposed directive at https://ec.europa.eu/environment/iczm/pdf/Proposal_en.pdf. Also see discussion on the land–sea divide at https://ec.europa.eu/environment/iczm/practice.htm.
3. Strangely, we have not found any documented analysis of the significance of this story.
4. We were unable to find a ready-made set of data. We therefore used GIS (ArcGis by Esri, which supports population estimates) to extract the relevant figures, thus: Country borders were identified using the National Geographic Map from ESRI. Polygons were created for inland areas. Coastlines were manually isolated and a 10 km buffer applied (distance with linear units, end type round, and planar method). The buffer edges were manually adjusted to obtain 10 km coastal strip area. "Total population" and "Population within 10 km of the coast" were calculated using CIESIN (2018) estimates for 2015. The study considers the points contained by the 10 km coastal strip polygon, and the sum of their point information (table of contents field "UN_2015"). For islands catalogued as "small" or "very small" in the National Geographic Map, total area and population were considered. The point density provided by CIESIN (2018) is similar across most countries (usually corresponding to the smallest administrative/census units), with the exception of Turkey and Israel, where points are sparser. However, given the study scale, the point density appears to be adequate. Our thanks to Inês Calor and Mateus Magarotto for lending their time and GIS expertise.
5. Had we been able to invest in a more sophisticated index, it would have taken into account the projected population growth as well. Within such a perspective, Israel, for example, would have bypassed Malta due to Israel's much higher birth rate. According to the OECD (2020), in 2017, in Israel the rate was 3.11 children/woman; in Malta, 1.26.

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2 The parameters for comparative analysis and their expression in supra-national legislation

Rachelle Alterman and Cygal Pellach

To guide the analysis and ensure consistency across the country chapters, we translated the principles of ICZM into ten land-related parameters. These parameters also provide the backbone of the comparative analysis presented in Chapters 18–20. This chapter explains the rationale for each parameter and the degree to which it is reflected in either the Mediterranean ICZM Protocol or the EU ICZM Recommendation (or both; refer to Chapter 1). The comparative analysis in the final chapters of the book reflects back to these parameters and to the relevant supra-national rules.

Ten parameters in two sets

The ten parameters are divided into two sets:

Land demarcation and property rights

A. Conception of the coastal zone
B. Shoreline definition and delineation
C. Coastal public domain – extent and rules
D. Coastal setback zone – extent and permitted uses
E. Right of public access – to and along the coast

Institutions and governance

F. Land use planning – institutional aspects and dedicated instruments
G. Climate change – awareness and regulatory actions
H. Public participation and access to justice
I. Integration and coordination
J. Compliance and enforcement

In addition to these ten parameters, we also asked the authors to look at relevant fiscal issues related to any of them. In most country reports, there is a separate section for this aspect, but in doing the comparative analysis, we recognized that fiscal aspects are dispersed along various parameters. Thus, in the comparative analysis, we incorporated the fiscal aspects within the relevant parameters.

The two sets of parameters probably differ in terms of their legal import vis-à-vis the two supra-national documents. The first set of parameters pertains to concrete land use

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limitations and clear legal distinctions about landownership and right of public access over land. If these rules are addressed in binding supra-national law, the degree of conformance could be determined, perhaps even be measurable. Thus, if the issue of compliance with international law were to be raised in legal procedures in one of the signatory countries, the court would likely be able to issue a judgement. Further, such a determination in one jurisdiction could, in principle, be of relevance in other jurisdictions (once adjusted to the local context).

By contrast, the second set of parameters deals with the normative quality of governance. There are no internationally shared criteria and standards to determine what constitutes minimally adequate levels of compliance. For example, what government actions are enough to fulfil requirements for public participation? What levels of coordination and integration are of adequate standard? What is good planning? When it comes to the parameters of the second set, we conjecture that, if ever brought before the courts, they will be regarded similarly to "soft law" – non-binding recommendations. Regarding this set of parameters, there will not be much legal difference between the Protocol and the EU recommendations.

In the following sections, we introduce each parameter and its rationale. We then look at what the two supra-national documents say on the topic. As we proceed, we also provide some "appetizers" for the comparative findings.

Parameter A: Conception of the coastal zone

What is the coastal zone? Although this term is part of the ICZM acronym, it does not have a universally agreed-upon definition (Kay & Alder, 2005; Portman, 2016). The academic and organizational literature presents a variety of approaches. Environmentalists perceive the coastal zone as characterised entirely by natural phenomena and processes that distinguish coastal zones from inland areas. One of many examples of this approach is the definition adopted by Davis and Fitzgerald (2004). They define the coastal zone as "… any part of the land that is influenced by some marine condition, such as tides, winds, biota or salinity" (p. 2). If translated into land-management policies, this description would cover an area of land where the boundaries change constantly, along with the forces of nature. In this book, we call this family of definitions **"nature-led"**.

By contrast, the European Environment Agency (2006) uses a definition based on predetermined physical distances: "The terrestrial portion of the coastal zone is defined by an area extending 10 km landwards from the coastline" (p. 11). The Agency distinguishes between "the immediate coastal strip (up to 1 km)" and "the coastal hinterland (coastal zone between 1- and 10-kilometre line)" (p. 11). Obviously, 10 km is not a nature-based criterion. Depending on the coastal biophysical system, 10 km could be a relatively good fit with land influenced by the sea (as in Davis and Fitzgerald's definition above), or the quantum could be very much "off nature". This definition was probably adopted by the EU as a convenient compromise guideline for implementing policies across the many EU member countries. We will call this type of definitions **"implementation-led"**.

The Mediterranean ICZM Protocol does not offer a basic definition of what constitutes a coastal zone. It thus indicates that a formal definition is not a necessary condition for compliance with the Protocol's various rules and guidelines. Nevertheless, we were interested to know how each of the sample countries conceives of its coastal zone. In some jurisdictions,

the way that the coastal zone is defined at the national level may determine the extent of land that is affected by specific coastal land regulations. We therefore asked the team of authors to answer the following questions:

- Is the coastal zone defined at the national (or state) level?
- Is the definition found in law or policy?
- What is the definition?

The findings show that most jurisdictions did adopt a formal definition of the coastal zone, with interesting variations and possible implications for further policy. Based on the evidence from the fifteen countries, we classified the definitions along scales in two dimensions: From nature-led to implementation-led and from general wording (open to interpretation) to specific wording.[1]

Parameter B: Shoreline definition and delineation

A legally based demarcation of the shoreline is usually an important benchmark for other laws and regulations for coastal land management. For the purpose of this study, we adopt Oertel's (2005) understanding of the shoreline as the boundary between land and sea at the local scale. The delimitation of the shoreline may have major implications on property rights and thus on the ease or difficulty in implementing restrictions on development in the spirit of ICZM. For example, the Mediterranean ICZM Protocol states that the parties:

> *Shall establish in coastal zones, as from* ***the highest winter waterline****, a zone where construction is not allowed…* (Article 8(2)(a)) (emphasis added)

This "highest winter waterline" is just one of several reference lines that may be used to define the shoreline. Our country chapter authors address these questions:

- Is the shoreline legally defined?
- What reference line is used for the delineation?
- Has the entire shoreline been demarcated in practice?

One might have thought that shoreline delineation is the most technical among our parameters, requiring expert scientific knowledge of the coastal environment and established measurement techniques, without much room for contestation. And yet, the country reports show that there is no cross-national consensus even on this parameter. While in many cases the legal definition of the shoreline is based entirely on an acknowledged hydrographic reference line with established measurement techniques, in others the legal criterion is partially administrative, and additional technical standards must be developed in order to apply it.

Parameter C: Coastal public domain – extent and rules

Public ownership of some (or all) of the coastal zone could be useful in controlling land use and protecting the coastal environment. Public landownership in coastal zones has a long philosophical and legal history – but non-uniform practice. In many jurisdictions, the legal history is tied to the "public trust doctrine" (Takacs, 2008). The well-known version of this doctrine was initially codified by Emperor Justinian in the sixth-century Byzantine Empire, based on Roman common law. The principle states:

> *By the law of nature, these things are common to mankind – the air, running water, the sea, and consequently the shores of the sea* (cited in Portman, 2016, p.3; see also Takacs, 2008, p. 711).

This ethos, with different nuances, is not exclusive to the Roman Law tradition and has been independently developed in other parts of the world, including by Indigenous cultures (Ryan, 2020).

Assertion of public ownership is not just another land-management parameter. Since it touches directly on real-property rights, this parameter is one of the most recalcitrant ones. It is likely to cause a head-on clash between environmental and private interests. In some jurisdictions, public landownership has existed in law and practice for generations. But in many countries around the globe, private landownership or other types of individual tenure are the reality along some of the coastal zones.

It may be significant that the legally binding Mediterranean ICZM Protocol refrains from addressing public landownership directly, leaving it to an indirect, non-binding land-policy recommendation –

> *… in order to ensure the sustainable management of public and private land of the coastal zones, Parties may inter alia adopt mechanisms for the acquisition, cession, donation or transfer of land to the public domain and institute easements on properties.* (Article 20(2))

The European ICZM Recommendation (2002) does address public landownership directly. It recommends that in developing ICZM strategies, Member States should consider concrete action towards public ownership, including:

> *… land purchase mechanisms and declarations of public domain to ensure public access for recreational purposes without prejudice to the protection of sensitive areas* (Chapter IV(3)(b)(ii))

Recall that almost all EU member states voted against adoption of a legally binding directive on coastal land. Perhaps this type of clause was one of the deterrents.

Regarding the public land-ownership parameter, we pose these questions:

- Does the law require that a defined area of the coastal zone be in public ownership?
- If so, how is public land defined and how is it obtained (expropriation or other means)? What legal and fiscal issues have arisen, or may arise?
- What public body owns or manages this land?
- What are the rules for the use (or development) of coastal public land?

We learn from the country reports that practices in public landownership vary greatly. The comparative analysis shows that in most jurisdictions, there have not been any major recent attempts to change the existing ownership status from private to public. Generally, only what was public, of whatever extent, remains public. In the two or three jurisdictions where private land was converted to public domain in recent decades or is slated for conversion, the process was, and still is, laden with conflicts. The stories surrounding these attempts are fascinating and may provide practical lessons for other countries.

Parameter D: Coastal setback zone – extent and permitted uses

A coastal setback zone (as we define it in this book) is a designated area within a (usually) predefined distance from the shoreline, where land development is prohibited or highly restricted. Setback zones should not be confused with public domain, since they may apply to privately owned land. Establishing a setback zone (sometimes referred to as "buffer zone"; Sanò et al., 2010) is seen as an important tool to protect and conserve the overall quality of the coastal zone. Setback zones are intended not only to protect the environmental values of the coast by pushing development activity further out but (depending on location) also to protect property from damage due to erosion or flooding. As sea levels rise and exceptional storm events become more frequent, setback zones should gain special importance as a land-management tool.

Coastal setback zones are used as a regulatory tool in many of the jurisdictions in our book but with great differences in functional distances. Because setback zones are usually regulated as a predetermined quantitative distance, they are ostensibly easy to compare cross-nationally. As our comparative analysis in Chapter 19 will show, reality is more complex.

The drafting of Article 8.2 of the ICZM Protocol (about the setback zone) drew the most intensive debate (Sanò et al., 2011). It is a mandatory rule for a minimum distance of 100 m from the shoreline. The debate over the setback zone is not surprising because implementation of this rule could lead to direct intervention in property rights. The setback rule is also an especially prominent part of the Protocol because it is its only quantitative norm. The Protocol specifies the reference line for the shoreline, from which the setback is calculated:

> 8.2. *(a) [Parties] Shall establish in coastal zones, as from the highest winter waterline,* ***a zone where construction is not allowed****. Taking into account, inter alia, the areas directly and negatively affected by climate change and natural risks,* ***this zone may not be less than 100 meters in width****, subject to the provisions of subparagraph (b) below. Stricter national measures determining this width shall continue to apply.* (Article 8(2)(a)) (emphasis added)

The Protocol does, however, grant leeway for local conditions. Those who drafted the Protocol were probably aware that on the Mediterranean, much of the coastal zone is already built up (though with significant variations). They therefore allowed for discretionary exemptions, enumerated in the next Article:

> 8.2. *(b) [The parties] May adapt, in a manner consistent with the objectives and principles of this Protocol, the provisions mentioned above:*
>
> 1 *for projects of public interest;*
> 2 *in areas having particular geographical or other local constraints, especially related to population density or social needs, where individual housing, urbanisation or development are provided for by national legal instruments.* (Article 8(2)(b))

A non-legal reading of this sub-article seems to say, "anything goes". However, in international law as adopted by the EU, the wording of these two paragraphs conveys a duty on the state to take action to implement the minimum setback as a general rule. Article 8.2 (b) should be read as allowing only justifiable exceptions to the rule (Rochette & Billé, 2010). In any case, none of our Mediterranean chapters report of any jurisprudence interpreting this Article (this topic merits separate scrutiny).

On the setback topic, our questions are:

- Is a coastal setback zone required under national (or state) regulations?
- How is the coastal setback zone defined and measured in practice?
- What restrictions on development or special permissions apply to the zone?
- In cases where establishment of a setback zone required transition from a previously permissive approach to more restrictions on development, what legal and fiscal issues have arisen? For example, are there compensation rights if unbuilt development rights are abolished?
- Are any fiscal instruments (taxes and levies) used as disincentive for development in protected zones? Or the opposite: Are fiscal tools used to incentivize development to locate or relocate in the hinterland?

The setback distances on their own should not be compared with each other. They must be analysed against the different reference lines used to define the shoreline in each jurisdiction. Furthermore, in some countries, there is more than one type of setback. With these qualifications, the variations among the setback distances are much greater than at first sight.

An obvious question is whether, more than a decade after the ICZM Protocol came into force, one can gauge its influence on the eight Mediterranean countries in this book. We address this question in our analysis in Chapter 19.

Parameter E: Right of public access – to and along the coast

Public accessibility to the coast is not just a matter of getting from place to place. The legal right to access the coastal zone (physically or as open view) is a normative expression of the general public's relationship with the coast. The ability to access and enjoy the coast (in permitted locations) is one of the rationales for coastal zone management. In this book, we therefore discuss the right of public access in greater detail than usual. We also address aspects of accessibility that are rarely discussed in the context of regulatory aspects of coastal land management.

The European ICZM Recommendation (2002) indicates that a strategic approach to ICZM should be based (in part) on:

> *adequate accessible land for the public, both for recreational purposes and aesthetic reasons* (Chapter I(f))

From the wording of this phrase, the reference is probably only to physical access along or to the coast. The ICZM Protocol, too, includes freedom of access in its "criteria for sustainable use of the coastal zone":

> *"providing for freedom of access by the public to the sea and along the shore"* (Article 3(d))

Here, the wording does distinguish between access **to** the sea (vertical accessibility) and **along** the shore (horizontal accessibility). In this book, we take an even broader view of accessibility and in addition to the usually mentioned two, we add three more:

1 Horizontal accessibility – Walking, playing, and swimming along the shoreline
2 Vertical accessibility – Reaching the shoreline
3 Accessibility for people with disabilities
4 Social justice in accessibility – For the poor and special sociocultural groups
5 Visual accessibility – Ability to view the coast from a distance

Questions of accessibility often relate directly to land rights and are therefore likely to be addressed by any ICZM regulatory document. In some of the jurisdictions analysed in this book, the conflicts between the right of public access and land rights have reached the courts.

The questions we ask under this parameter include:

- Is there a legal right to horizontal access? What is the legal source (legislation and regulatory plans)? What are the rules?
- Is there a legal right to vertical access? What is the legal source (legislation and regulatory plans)? What are the rules?
- Do accessibility rules apply to private land as well as public?
- Is accessibility for people with disabilities taken into account in law or practice?
- Are entrance fees charged in all/some beaches? Any other socio-economic barriers?
- Are there rules about visual accessibility?
- Is there significant jurisprudence about accessibility?

One might have thought that accessibly would be a relatively straightforward norm. The accounts from the fifteen countries show how complex and often contentious is this norm in practice. Introducing new rules for public access or implementing existing ones may be difficult. Due to this complexity, we do not attempt to rank the set of jurisdictions on a scale reflecting degree of accessibility.

Now we turn to the **second set of five parameters** – those focused on institutions and governance (as related to land management). Both the ICZM Protocol and the EU Recommendations do address these parameters. However, as noted, these parameters refer to rather broad norms that are difficult to adjudicate and, in our view, are likely to be regarded as "soft law" in both documents.

Parameter F: Land use planning – institutional aspects and dedicated instruments

Every ICZM program gives planning, in its broad sense, a front seat. Planning is seen as a key vehicle for ICZM – as a primary integrative way of making decisions (Portman, 2016). Under the parameters "public coastal land" and "coastal setback zones", the contributing authors discuss the special land use regulation relevant to those zones. Under the present parameter, we address the broader institutional framework for land use planning. We wish to know whether

the coastal zone is seen as meriting special planning institutions or instruments for the promotion of better ICZM.

The Mediterranean ICZM Protocol mentions "the process of planning" under the heading of "Land Policy". We thus assume that this refers to land use planning.

> *For the purpose of promoting integrated coastal zone management, reducing economic pressures, maintaining open areas and allowing public access to the sea and along the shore, Parties shall adopt* ***appropriate land policy instruments*** *and measures, including the* ***process of planning****.* (Article 20(1)) (emphasis added)

The wording "appropriate… process of planning" leaves much to local discretion. This is reasonable indeed regarding urban and regional planning in general. But what is "appropriate" under ICZM? What is an appropriate division of responsibility between the local and national echelons? Indeed, as noted, there is no consensus among planners about what is "the process of planning". Planning theorists still contend over this very concept (Allmendinger, 2017). The planning process is not a technical matter of following a sequence of steps; it is a sociopolitical process often characterized by a tug-of-war over its very format. Coastal land, one would expect, would be especially prone to conflicts. Once the international ICZM Protocol becomes an active legal norm in domestic (national) law, one would expect contestation about the meaning of an "appropriate process of planning". However, we do not know of any jurisprudence that has yet confronted the need to decide what planning process comes up to the standard of "appropriate".

Our questions to the authors are:

- Does your country have planning bodies dedicated to coastal planning?
- Is land beyond the setback zone subject to special planning regulations?
- Are there dedicated plans or other instruments for coastal areas?

Our questions within the scope of this book look only at the institutions and instruments and not their outputs. Yet efforts to adjust the legal and institutional frameworks, especially for coastal management, are, in themselves, steps towards ICZM. The comparative overall findings about this parameter are among the more encouraging. Several of the country reports speak about concerted efforts to create dedicated planning institutions and special instruments for the coastal zone. These may be contributing to more sustainable outcomes.

Parameter G: Climate change – awareness and regulatory actions

The effect of climate change on coastal zones, especially sea level rise, should be a crucial consideration in coastal planning and land management (Peterson, 2019; OECD, 2019). The reasons are well known: Coastal areas will be the first affected in the case of sea level rise, which carries with it increased rates of coastal erosion, damage to property, and major public or private expenditures. Coastal areas are also vulnerable to flooding from extreme weather events, which are expected to increase in frequency and magnitude as global temperatures rise. In some cases, retreat from the shoreline may be necessary, either following damage or as a preventative measure.

Adaptation to the effects of climate change on coastal land is likely to lead to clashes with property rights and investments. A preview of these is provided in a few of the country reports.

Both the EU ICZM Recommendation (2002) and the Mediterranean ICZM Protocol (2008) refer to climate change and associated risks. The former indicates that a strategic approach to ICZM should be based (in part) on:

> *recognition of the threat to coastal zones posed by climate change and of the dangers entailed by the rise in sea level and the increasing frequency and violence of storms* (Chapter I(b))

The ICZM Protocol addresses climate change in its Objectives section (Article 5):

> *(e) prevent and/or reduce the effects of natural hazards and in particular of climate change, which can be induced by natural or human activities*

The Protocol goes further and dedicates an entire Article (22) to natural hazards and climate change:

> *Within the framework of national strategies for integrated coastal zone management, the Parties shall develop policies for the prevention of natural hazards. To this end, they shall undertake vulnerability and hazard assessments of coastal zones and take prevention, mitigation and adaptation measures to address the effects of natural disasters, in particular of climate change.*

Not many jurisdictions have already taken on board land-management measures to adapt land and development rights to climate change. Such measures may have to reinvent land rights and rethink the social justice norms regarding who bears responsibility for property damage. A concrete climate adaptation plan would need to reconsider public finance in cases of unplanned or planned retreat – such as compensation for massive damage – and re-evaluate the role of insurance companies.

In our research, we ask whether awareness of climate change in coastal zones has seeped into legislation and formal policy. Under this parameter, we ask:

- Do the relevant laws/regulations address climate change on coastal land (or land that includes the coast)?
- Are there specific legal-regulatory tools, or only general statements about climate change? If specific tools, what are they?
- Specifically: If existing buildings are threatened due to cliff erosion or sea rise, do landowners have compensation rights? Rights to be paid for relocation? Have these situations been encountered in practice?
- Are government bodies authorised to expropriate coastal property under major hazard risk and to what extent do they exercise this in practice?
- Are insurance companies permitted to insure landowners for the full possible damages due to natural hazards? Is this tool used extensively by landowners in practice?

In the comparative analysis in Chapter 20, we develop a rough ordinal scale of degrees of regulatory specificity regarding climate change challenges in coastal zones. On the highest tier are several jurisdictions where climate change is addressed with more targeted legislation or regulations than in the others. On the positive side, the findings show some momentum in

acknowledging that climate change should be a policy consideration in coastal zones. However, most jurisdictions – even on the highest tier – probably still fall short of the necessary adaption measures for coastal land. Our comparative findings contribute a new perspective for future discussion and research about policies for climate change in coastal zones.

Parameter H: Public participation and access to justice

Almost every definition of integrated coastal zone management mentions public participation as an essential ingredient (see also Areizaga et al., 2012). The authors of these definitions – whether legislative, academic, or government policy – seem to assume that, on balance, the participation process will be supportive of coastal zone protection. However, participation is a general and rather elusive concept and is itself part of the sociopolitical context in each case, as Arnstein (1969) taught us long ago (see also Alterman, 1982; Fung, 2006; Stringer et al., 2006).

Participation is addressed both by the European ICZM Recommendation (2002) and the Mediterranean ICZM Protocol (2008). The former does not devote much space to participation. However, by referring to promoting "bottom up initiatives", the Recommendation does imply a broader conception of participation than just reaction to government's proposed policy:

> … *identify measures to promote bottom-up initiatives and public participation in integrated management of the coastal zone and its resources* (Chapter IV(3)(d))

The ICZM Protocol's Article 14 addresses participation in a more detailed way (see Box 2.1). The Article lists stakeholders who should be involved in participation processes and does not

Box 2.1

Article 14 of the ICZM Protocol

ICZM Protocol Article 14

1. *With a view to ensuring efficient governance throughout the process of the integrated management of coastal zones, the Parties shall take the necessary measures to ensure the* ***appropriate involvement*** *in the phases of the* ***formulation and implementation*** *of coastal and marine strategies, plans and programmes or projects, as well as the issuing of the various authorizations, of the* ***various stakeholders****, including:*
   - *the territorial communities and public entities concerned;*
   - *economic operators;*
   - *non-governmental organizations;*
   - *social actors;*
   - *the public concerned.*

   Such ***participation*** *shall involve inter alia consultative bodies, inquiries or public hearings, and may extend to partnerships.*
2. *With a view to ensuring such participation, the Parties shall provide* ***information*** *in an adequate, timely and effective manner.*
3. ***Mediation or conciliation procedures and a right of administrative or legal recourse*** *should be available to any stakeholder…"*

leave out economic development interests. It also specifies that participation requires that information be provided in an "adequate, timely and effective manner" and sets out that the public should be able to challenge "decisions, acts or omissions" relating to the coastal zone.

It is noteworthy that EU member countries in this book – eleven out of the fifteen – are signatories to the Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (UNECE, 1998). This Convention, signed by most European countries in 1998, refers to a set of "rights" of the public with regard to environmental decision-making (which includes land use planning). Topics covered are the right to receive environmental information through open access; the right to participate in decision-making; and the right to review and challenge public decisions.

Our contributing authors report about how participation is expressed in national (sometimes regional) laws and regulations pertaining to land use planning in coastal zones. The questions posed under this parameter are:

- What are the policies/regulations/practice for public participation in planning?
- Are there special policies or practices for coastal zones?
- Do you have critical thoughts about the process or its effectiveness?
- How broadly defined is access to tribunals and courts?
- To what extent are NGOs involved in coastal issues and in action before the courts?
- How publicly accessible is information on coastal issues, planning, and regulation?

The findings concerning this parameter are not amenable to systematic cross-national comparison. Public participation is deeply grounded in local modes of governance. However, the country reports provide important contextualized information on participation. Of special interest are the NGO initiatives that have achieved major impacts and the different degrees of involvement of courts in promoting better ICZM.

Parameter I: Integration and coordination

Integration and coordination are part of the conceptual core of ICZM. A high level of substantive i*ntegration* – or comprehensiveness – would see linked policies across a wide range of subjects and disciplines – environmental, economic, and social. Of special importance is integration across the land–sea divide (Portman, 2016, pp. 61–69). A high level of *coordination* would see institutions working in tandem towards management goals, both horizontally (within a parallel level of government) and vertically (between the national, regional, and local levels).

Both supra-national ICZM documents address integration and coordination, though often without distinguishing between the two. The EU Recommendation on ICZM (2002) indicates that Member States should develop ICZM strategies which:

> *… identify the roles of the different administrative actors within the country or region whose competence includes activities or resources related to the coastal zone, as well as mechanisms for their coordination. This identification of roles should allow an adequate control, and an appropriate strategy and consistency of actions* (Chapter IV(3)(a))

Box 2.2

Article 7 of the ICZM Protocol

ICZM Protocol Article 7 Coordination

1. *For the purposes of integrated coastal zone management, the Parties shall:*
   a. *ensure institutional coordination, where necessary through appropriate bodies or mechanisms, in order to avoid sectoral approaches and facilitate comprehensive approaches;*
   b. *organize appropriate coordination between the various authorities competent for both the marine and the land parts of coastal zones in the different administrative services, at the national, regional and local levels;*
   c. *organize close coordination between national authorities and regional and local bodies in the field of coastal strategies, plans and programmes and in relation to the various authorizations for activities that may be achieved through joint consultative bodies or joint decision-making procedures.*
2. *Competent national, regional and local coastal zone authorities shall, insofar as practicable, work together to strengthen the coherence and effectiveness of the coastal strategies, plans and programmes established.*

The ICZM Protocol places even more attention on integration and coordination. First, under General Principles of Coastal Zone Management, the Protocol states:

> *Cross-sectorally [sic] organized institutional coordination of the various administrative services and regional and local authorities competent*[2] *in coastal zones* ***shall be required***. (Article 6(e)) (emphasis added)

The language here already conveys an obligation. In addition, the Protocol dedicates an entire article (Article 7) to promoting coordination (Box 2.2).

A legal obligation to coordinate cannot do much more than to signify a general direction. There are no "recipe books" for achieving good coordination and integration across existing legal-institutional contexts. Instead of attempting to evaluate the degree to which coordination is achieved, our contributing authors report on institutions with special coordinative roles and on visible instruments to improve coordination. The questions we pose are:

- What are the bodies responsible for coastal management and what is the distribution of authority among them?
- What are the mechanisms, if any, for vertical integration and coordination across national, regional, and local scales? Have new ones been added?
- What are the mechanisms, if any, of horizontal (inter-sectoral) integration and coordination? Have new ones been added?

The struggles to reduce institutional fragmentation are apparent in several of the country chapters. We do observe positive momentum in the direction of improved coordination in the

spirit of ICZM. New, dedicated institutions for vertical or horizontal coastal coordination are established in some jurisdictions. However, each jurisdiction has its unique institutional structure, and no shared model has emerged.

Parameter J: Compliance and enforcement

The last parameter is, in our view, very important, yet it has been almost neglected to date. It is often mentioned only in passing in conjunction with implementation, but these issues have never, to our knowledge, been addressed comparatively in the context of ICZM.[3] Having wonderful laws, regulations, and plans as part of ICZM is not enough. Even a good record of coordination among agencies will not be sufficient. The "bottom line" of laws and regulations is compliance by the general public. There are usually administrative units dedicated to enforcement, but they are often short of resources and with limited legal powers (Calor & Alterman, 2017).

Compliance and enforcement are not mentioned in either the EU ICZM Recommendation (2002) or the Mediterranean ICZM Protocol (2008). This omission reflects insufficient awareness of the special characteristics of some coastal zones: A unique intersection of very high real estate values with older, established neighbourhoods or settlements that are home to relatively low-income populations. As such, we view this parameter as an important indicator of ICZM implementation.

Under this parameter, we ask each contributing author to address:

- What is the extent of noncompliance in the coastal zone (and its various subzones – public domain and setback zone)?
- How are coastal planning rules enforced?
- How effective are the enforcement measures? To what extent are they used?
- Is demolition an available tool? Is it used in practice?
- Who is in charge of enforcement?

The comparative analysis of the compliance and enforcement parameter turned out to be very interesting. We were able to classify the fifteen countries along a rough scale. The insights gained should help to invigorate this neglected topic.

Fiscal aspects of coastal zone management

There is an additional topic for analysis – fiscal issues, often interlinked with legal issues. This topic is a world in its own and merits a focused comparative research project of its own. We nevertheless went ahead and incorporated some key fiscal policy issues into the relevant parameters.

The fiscal dimension is important because regulation of property rights and development may involve major loss (or indeed, gain) in economic property values. In coastal zones, some of these values may be very high. Each country is likely to have different approaches and instruments regarding the land value and public finance aspects of regulation. Expropriation of real property likely involves compensation, but conceptions and calculations of compensation rights

differ across jurisdictions. Different countries may or may not have compensation rights for landowners in case of "regulatory takings" (reducing or abolishing development rights while leaving the land in private hands; Alterman, 2010). There may be public policies regarding insurance schemes for natural hazards; there may be different policies about fees and charges for use or development on coastal land; and there are also fiscal policies related to enforcement against illegal use or development.

Several authors point out the role of fiscal issues regarding capacity to implement land management for ICZM. Where relevant, we incorporated their insights in the relevant parameters.

A preview of the comparative analysis

The picture that emerges from reading the fifteen country reports shows less convergence than one would have expected decades after the notion of integrated coastal zone management was introduced in 1972. The evidence shuns any "explanations" of shared or differing approaches. Our comparative analysis (Chapters 18–20) shows that some countries located in different parts of the world and with different legal traditions nevertheless share some similar laws or regulations, while countries with similar legal or cultural traditions show very different approaches.

The fifteen country reports and the comparative chapters will show that no country is an optimal achiever along all parameters. At the same time, several countries do stand out as better achievers along some of the parameters (among those that have a normative direction). However, it is difficult to say which parameters of ICZM are more important and to determine the trade-offs among them. Methodologically, overall comparative evaluation is untenable because the contexts are very different.

When ICZM meets land, it meets different terrains, both literally and figuratively. Some countries face high density and development pressures along their coasts; others have ample space and not much pressure. Some countries have a long tradition of excellent governance, as indicated by the various international rankings. These contextual factors should be taken into account when reading the fifteen country reports and the three comparative chapters.

Notes

1. A similar classification along the first dimension only is proposed by Kay and Alder (2005, pp. 3–6).
2. "Euro-English" meaning "with authority over".
3. This is true also for environmental regulation in general. See, for example, the UN report by Kumar et al. (2019). While enforcement or compliance are mentioned many times in passing, there is no direct focus on this major issue.

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Part II

Country reports

Group 1: European Countries – Non-Mediterranean

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3 United Kingdom

Linda McElduff and Heather Ritchie

Overview

As an island nation, the UK has a close relationship to the coast and has made several efforts to secure a more sustainable and holistic approach to the management of the coastal zone, given the inevitability of future change. Yet coastal management approaches continue to be characterised by fragmentation across the devolved administrations and over different spatial scales; short-term planning; insecure funding; and partial policy implementation. At this juncture, we are experiencing an evolving policy landscape of the UK at all levels, including local government reforms, the introduction of the marine planning agenda at the national and regional level, and the UK's exit from the European Union. The convergence of these events means that coastal initiatives and partnerships are competing with other emerging forms of regulation for funding, time, and recognition. This is an opportune time to reflect on current practice, identify potential issues for future practice, and draw lessons from elsewhere.

Introduction to the UK coastal zone

As an island nation, the United Kingdom (UK) has a close affiliation with the coast. According to European Commission statistics in the UK Climate Change Risk Assessment (CCRA) 2017, over one-third of the UK population resides within 5 km of the coast (defined as mean high-water level), which rises to two-third within 15 km. The UK has a long history of responding to coastal issues, and coastal management in the form of coastal defences has existed since Roman times. More concerted efforts relating to coastal management came to the fore in the 1960s and 1970s due to increasing concerns with protecting the 'undeveloped' coast and to growing developmental pressures emerging from certain offshore activities (particularly North Sea oil and gas in Scotland). Traditional governance arrangements for planning and managing the coastal zone were characterised by an extension of land-based policies and controls, a plethora of sector-based policies and initiatives, and a complex mix of ownership, property rights, rules, and regulations (Lloyd and Peel, 2004). The marine-coastal zone remains a complex system of rights and responsibilities, and the effectiveness of established institutional arrangements and policies for coastal governance has become increasingly questioned within the sustainability paradigm.

Governance arrangements across the UK are in a period of flux. First, in terms of the terrestrial land use planning system(s), a range of legislative changes, planning reforms, and a move towards policy consolidation in recent years have affected how social, economic,

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and environmental issues are addressed. From a coastal management perspective, these changes have the potential to provide for more sustainable, long-term solutions to the challenges facing coastal areas, but their impact largely remains to be seen. Second, the emergence and growth of the marine planning agenda in the UK, as elsewhere, provides, on the one hand, opportunities to reinvigorate attention, debates, and momentum around coastal planning and management. On the other hand, there are challenges in terms of finding an established role for ICZM within the marine governance architecture. Third, the consequences of the UK's impeding exit from the European Union ('Brexit') are unclear. The UK will need to decide how to proceed and how this situation will affect the legislative context and the capacity to sustainably manage the UK's coastal marine environment in a future outside of Europe (Boyes and Elliott, 2018). Such evolving policy landscapes have affected the approach to, attitude to, and momentum towards coastal zone management. Greater levels of collaboration, cooperation, and coherence across spatial scales and across marine and terrestrial planning are required.

This chapter explores the current legislative and administrative frameworks for coastal management across the devolved administrations of the UK. In particular, we highlight instances of policy convergence and divergence across the administrations, and the shifting roles and responsibilities of the various actors involved. In light of the aforementioned changes, this is an opportune time to reflect on current practice, identify potential issues for future practice, and draw lessons from elsewhere to identify how a more holistic approach to coastal zone management in the UK might be secured.

The UK coast in context

Whilst the UK has a relatively small landmass (the furthest place from the coast is approximately 117 km inland; Zsamboky et al., 2011), it has one of Europe's longest coastlines, at 12,429 km (World Factbook, n.d.). This coastline is extremely varied from hard to soft cliffs, sand and shingle beaches, salt marsh, dunes, and machair, as well as approximately 1,000 islands, of which 291 are inhabited. Much of the coastline is of international or national ecological and cultural significance and contains important resources that provide economic, recreational, aesthetic, and conservation benefits for the whole country. Specific coastal uses include agriculture, aquaculture, mariculture, industry, recreation and tourism, commercial harbours, and military ranges, as well as power generation, waste disposal, and aggregate mining and extraction. These various uses and associated users have shaped the socioeconomic makeup of coastal communities, with some being economically reliant on marine and coastal resources. This dependency has consequent implications for their effective planning, management, and regeneration.

Coastal communities across the UK have experienced cycles of growth and decline (McElduff et. al, 2013) variously driven by factors such as economic instability (e.g. decline of traditional coastal industries and reliance on tourism), social change (e.g. transient populations and ageing demographic), shifting environmental parameters (e.g. increased storm intensity and erosion), and evolving governance structures and priorities (e.g. local government reform and the rise of 'Blue Growth'). The last decade witnessed an awakening to the specific challenges and opportunities facing coastal communities in the UK. The UK House of Commons 2006 Select Committee report on Coastal Towns, for example, helped to generate greater political awareness of coastal issues and attract increasing policy and academic interest at the national, regional, and local scales. Nevertheless, there remains a knowledge gap pertaining to effective

coastal interventions, resulting in coastal towns being identified as 'the least understood of Britain's "problem areas"' (Beatty & Fothergill, 2003, p. 9), in part to due to

> … government's historic reluctance to recognise the importance of this kind of settlement, (and) the distinctive problems that the coast poses (beyond the obvious technical ones of sea defences). (Walton, 2010, p. 67)

In addition to social and economic challenges, environmental parameters are changing. The winter storms of 2013–2014 brought the fragility of the UK's coastline to the public's attention, and to the forefront of media and political discourse. Throughout the UK, it is increasingly recognised that long-term strategies accounting for the uncertainty facing coastal systems are needed to ensure both the protection of the natural ecosystem and economic sustainability. Yet subsequent action remains reactive, sectoral, and piecemeal. Coastal zone management plans are required to provide adaptive approaches better suited to a dynamic environment, which consider alternative solutions and seek to reduce future risk (Creed et al., 2018).

Administrative overview

To aid understanding of the complex coastal zone management framework in the UK, this section provides a brief introduction to the UK administrative context. The UK is divided into four devolved administrations: England, Wales, Scotland, and Northern Ireland (Figure 3.1). Since the 1990s, the UK government has gradually devolved a range of powers to these administrations through the Scotland Act 1998, the Government of Wales Act 1998, and the Northern Ireland Act 1998. Each country has subsequently developed policies aligned to the priorities and needs of their respective territories, resulting in customised approaches to marine and coastal governance. This has led to a divergence of policy, except in areas where the UK Government maintains control, such as security, policing, and macroeconomic policy.

The use and development of land in the UK is controlled and regulated primarily through statutory processes of devolved decision-making in the four administrations. The UK has a discretionary planning system where the scope of control is defined in the first instance through planning legislation, with subsequent legal interpretation provided by judges in the courts dealing with case law. Case law decisions have helped the operation and application of the planning system to be understood and practised (Sheppard et al., 2017). Land use planning operates through several mechanisms and supporting tools, such as structure plans, local development frameworks, and planning policy statements.

Coastal zone management does not lie within the remit of a single authority or organisation; rather, there are a range of government departments, semi-government bodies, conservation bodies, and (public and private) organisations responsible for varying aspects of coastal management. These sectoral arrangements use different regulatory systems operating for the multitude of different activities and uses, frequently over different geographical areas (Taussik, 2007). This 'patchwork' framework can lead to confused roles and responsibilities and is particularly challenging with respect to recent changes in coastal and marine policy specifically and land use planning reforms in general.

Coastal management in the UK: An historical overview

The UK has an established maritime history, but its coastal zone remained relatively underdeveloped until the 20th century (Craig-Smith, 1980). During the interwar period, increased