



The Portuguese maritime spatial plan



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ABSTRACT

Numerous national governments and supranational organizations such as the OSPAR Commission, the European Union and the United Nations Educational, Scientific and Cultural Organization (UNESCO) have underlined the importance of maritime spatial planning (MSP) for balancing and solving conflicts between the needs of different sectors and conservation in the marine space. In the last decade, many maritime spatial plans have been developed around the world. The drivers to develop these plans and the approaches to find solutions for the particular problems differ significantly. The Portuguese national marine jurisdiction is one of the largest in Europe. For the continental part, a maritime spatial plan was initiated in 2009, and entered in 2010 in the final stage of approval. One of the driving forces for this MSP initiative was the claim to extend its continental shelf. The development process was led by a multidisciplinary team. Despite the challenges, the existing as well as potential future marine resources and activities were characterized, mapped and categorized. To overcome conflicts resulting from the many overlapping uses and to assure sustainable development of all sectors, a conflict analysis and evaluation of potential future uses were necessary. The applied zoning scheme represented an exercise of conflict solving and proved to be a powerful tool to promote discussion and participation among stakeholders. The successful implementation of Portuguese MSP will rely largely on its ability to provide efficient management, financial and legal mechanisms to achieve the integration of all strategies and spaces under the Portuguese maritime jurisdiction.

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1. Introduction

The demand for marine resources and space is increasing and there is a growing necessity to balance the needs of different sectors and conservation. Effective implementation of integrated management, including maritime spatial planning is required to avoid or minimize negative effects of the marine environment and conflicts between different uses [1]. Marine or maritime spatial planning (MSP) has become a broadly accepted tool for prospective and active management of cumulative and potentially conflicting maritime uses. Numerous national governments and supranational organizations such as the OSPAR Commission, the European Union, the United Nations Educational, Scientific, and Cultural Organization (UNESCO), have underlined the importance of MSP. There are a number of definitions for MSP. According to the UNESCO, “marine spatial planning is a public process of analyzing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic, and social objectives that usually have been specified through a political process” [2]. Essentially, MSP is a planning tool that enables integrated, forward-looking and consistent decision-

making on the use of the sea. Portugal, having one of the largest marine national jurisdictions in Europe, developed a maritime spatial plan for the continental part of the Exclusive Economic Zone (EEZ) between 2009 and 2011. However, in the final stage of approval, the Ministers of the Inter-ministerial committee for Marine affairs in Portugal considered it a valid exercise and study, but did not grant the status of a planning and management instrument to this maritime spatial plan [3]. For the marine areas of the two autonomous regions Azores and Madeira Islands, a maritime spatial plan for each region is currently under development, but the legal framework remains ambiguous, as a continental maritime spatial plan was not approved as a planning and management instrument.

Although most MSP process are still in their early stages, making it difficult to draw inferences, commonalities are already emerging in terms of what works and what does not in various contexts [4]. In order to further develop this issue, the present work outlines different drivers and scales in international MSP experiences and discusses challenges, with special focus on the Portuguese MSP experience.

2. Drivers and scales in MSP experiences

In the last decade, numerous MSP developments have been developed in European countries and around the world [5].

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Several countries completed their plans recently, such as Australia (Bioregional Plans), Canada (Eastern Scotian Shelf Integrated Management Plan) in 2012, and Norway (Norwegian Sea Management Plan) in 2009. The drivers to develop these maritime spatial plans and the approaches to find solutions for the particular problems differ significantly between plans and regions.

Australia uses the concept of Bioregional Planning, integrating a network of proposed marine reserves. The Australian EEZ is divided into five marine regions, and each marine region is further divided into “bioregions” based on ecological similarities, species distributions, and oceanographic and seafloor characteristics [6]. Drivers to push MSP forward, in this case, were based on conservation issues. In 2005, the regional maritime planning program was included in the Australia’s Environment Protection and Biodiversity Conservation Act of 1999 (EPBC). This step intends to develop an understanding of the key marine conservation values within the marine regions and the corresponding priorities for their protection. As part of the marine bioregional planning process, new marine protected areas (MPAs) were identified and established in order to meet Australia’s international and national commitments to develop a National Representative System of Marine Protected Areas by 2012 [2].

Norway also follows the principle of Eco-regions for its MSP but the MSP drivers were different. For the first Norwegian MSP for the Barents Sea and Lofoten Area (2005/2006, revised in 2010–2011), drivers for MSP were environmental conservation importance on the one side, and strong economic interests from fisheries, maritime transport and mineral exploitation on the other [7,8]. In the Norwegian Sea, similar to the Barents Sea, increasing conflicts between different uses and environmental protection were important drivers to press ahead MSP (completed in 2008–2009). Apart from large petroleum deposits in the Norwegian Sea, there is a possibility that wind farms will be a new sea use in spite of the negative landscape impacts. The near-shore areas are important in terms of maritime transport. In addition, the Norwegian Sea is an important tourism area for enjoyment of the natural environment and for recreational fishing [9].

Important aspects in the MSP initiatives in southern Europe, (such as the cross-border maritime spatial planning initiative in the Adriatic Sea SHAPE) include the discussion and establishment of maritime borders and national maritime jurisdictions, while in northern and middle Europe licensing requests for wind energy and other marine uses play an important role. Western Europe, Australia and North America have been pioneering in MSP initiatives, but interest is also growing in Asian, South American and South European countries. Some of these countries have already completed a MSP such as China in Asia (2002), Marine Zoning in Saint Kitts and Nevis in the Caribbean (2010) and continental Portugal in Southern Europe (2009) [10,11,5]. It is foreseen that many others will be completed over the next 10 years resulting from different drivers leading to the process.

In Europe and worldwide another increasing important factor is cross-border cooperation in MSP, as recommended in the EU Roadmap: “Cooperation across borders is necessary to ensure coherence of plans across ecosystems. It will lead to the development of common standards and processes and raise the overall quality of MSP” [12]. The OSPAR commission also supports states in cross-border cooperation and in setting common objectives, recognizing that “sea does not respect national boundaries” [1]. To advocate regional-scale MSP, projects were supported by the Commission in regional seas: examples are the Baltseaplan (2009–2012) in the Baltic Sea, Shape in the Adriatic Sea (2007–2013), Plan Bothnia (2010–2012) in the Bothnian Sea, MASPNOSE (2010–2012) in the North Sea, and Plancoast (2006–2008) for marine areas in the Baltic, Adriatic and Black Sea regions. In 2012, a call for the most recent pilot project was launched, integrating the European

Countries around the north Atlantic Arc (namely regions in Spain, Portugal, France, United Kingdom and Ireland). In Australia, to deal with the large EEZ, maritime space was divided into five marine regions, the South-east Marine Region (1,600,000 square kilometers), South-west Marine Region (1,300,000 square kilometers), North-west Marine Region (1,070,000 square kilometers), North Marine Region (715,000 square kilometers) and the East Marine Region (2,400,000 square kilometers). Each marine region was further divided into “bioregions” based on ecological similarities, species distributions, and oceanographic and seafloor characteristics. The marine bio-regionalization consists of the spatial patterns in the benthic (on or near the sea floor) and pelagic environments [6]. It is clear that MSP should be conducted at international scales, but also tailored to national, regional and local scale.

Highlighting the importance of cross-border cooperation, the Baltseaplan has 14 partners from 7 countries (Germany, Poland, Denmark, Sweden, Estonia, Lithuania and Latvia). After a comprehensive analysis of national and regional planning instruments with potential impact on cross-border MSP in the Baltic Sea, a Common Spatial Vision for the Baltic Sea was developed and MSP was demonstrated in 8 relatively small pilot areas Danish Straits/T-Route (DK), Pomeranian Bight (DE/DK/SE/PL), Western Gulf of Gdansk (PL), Middle Bank (SE/PL), Lithuanian Coast (LT), Western Coast of Latvia (LV), Pärnu Bay (EE), Hiiumaa and Saaremaa Islands (EE). Based on the experiences gathered, a “Vision for 2030” was developed to serve as a guidebook for other cross-border projects [13]. The Baltic Sea is one of the most intensely used seas. Different sea uses such as shipping, fishery, wind farms or mineral extraction are increasingly competing for the limited sea space. Further, the fragile Baltic ecosystem and the threats of climate change call for a balanced multi-sector approach [13] which made this project one of the most emblematic ones at this scale.

Consequently, there exist very different scales among the various maritime spatial initiatives around the world—from small national jurisdictions such as the Saint Kitts and Nevis to huge areas like Australia, which has one of the largest marine jurisdictions of the world.

Bio-regionalization is a useful tool to define ecologically-based planning and management units—also across borders. It provides the basis to select biologically and ecologically important areas for protection and a systematic framework for finer-scale planning and management of ocean uses as well as a spatial framework for environmental assessments. This approach differs from historic management of the coast and marine environment using “sector” planning, where agencies executed their roles and responsibilities without full consideration of other existing or potential users and without focusing on the functioning of the marine ecosystem [2].

The concept of Bio-regions was introduced in the European legislation by Thematic Strategy for the Marine Environment (Marine Strategy) in 2008 [14]. The Marine Strategy, the environmental pillar of the Maritime Policy, introduced the principle of ecosystem-based MSP and the concept of marine regions as large, ecologically meaningful management units. It further provides a supportive framework for national initiatives towards MSP [14]. However, the Marine Strategy implementation parallel to Integrated Marine Policy initiatives may complicate the states’ actions and may be seen as “redundant” and with “dubious benefits” [15].

Still, one of the most important drivers for MSP in Europe is the European legislation on nature conservation as part of the EU contribution to implement the 1992 Convention on Biological Diversity. The two most significant are the Birds Directive, providing a framework for Special Protection Areas (SPAs) for rare, vulnerable or migratory species [16], and the Habitats Directive requiring member states to protect sites that support certain natural habitats or species of plants or animals as Special Areas of Conservation (SACs) [17]. Additionally, in the framework of

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