

The emerging policy landscape for marine spatial planning in Europe

Wanfei Qiu*, Peter J.S. Jones

Department of Geography, University College London (UCL), London WC1E 6BT, UK

ARTICLE INFO

Article history:

Received 30 May 2012

Received in revised form

19 October 2012

Accepted 20 October 2012

Available online 20 December 2012

Keywords:

Marine spatial planning

European Union

Common Fisheries Policy

Marine Strategy Framework Directive

Ecosystem-based approach

Sustainable development

ABSTRACT

This paper provides an overview of the emerging policy landscape for marine spatial planning in the European Union, which consists of four main categories of policy drivers: environmental legislation, legislation on marine renewable energy, fisheries regulations and the Integrated Maritime Policy. The weak links between these categories of policy drivers, underpinned by a lack of clarity regarding the vision for sustainability, pose major challenges for the emergence of ecosystem-based and integrated marine spatial planning in Europe. In addition, there is still uncertainty arising from on-going reform of the Common Fisheries Policy, and discussions on the need for a new marine spatial planning directive. This paper concludes with the view that better integration of environmental concerns into the Common Fisheries Policy is needed to strengthen the link between environmental legislation and fisheries regulations, and that the existing policy landscape, particularly the Marine Strategic Framework Directive, already provides a legal framework for ecosystem-based marine spatial planning. Such a framework is consistent with the recognition that ecosystem conservation underpins other pillars of sustainable development and provides the foundation for cross-sectoral marine planning and management.

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1. Introduction

Marine spatial planning (MSP) is “a public process of analysing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic, and social objectives that are usually specified through a political process” [1]. MSP is often considered a practical strategy to implement the ecosystem-based approach to the conservation and management of marine resources [2,3].

The policy landscape for MSP in Europe is still a young and emergent one. The concept of MSP is relatively new and some important policy drivers, such as the Marine Strategy Framework Directive (MSFD, Directive 2008/56/EC) and Integrated Maritime Policy (IMP, COM(2007) 575), came into force relatively recently. As an emergent policy landscape, it is also subject to on-going political and legislative changes that may significantly affect its future development. The European Union (EU) has recently adopted a new legislative procedure under the Lisbon Treaty (2009), which may affect the adoption of new policies or the revision of existing ones. A proposal for a new regulation under the Common Fisheries Policy (CFP) is currently being deliberated upon, following the new procedure as established in the Lisbon Treaty. New policy instruments on

MSP are being explored by the European Commission (hereafter the ‘Commission’) as a means of promoting a common approach to MSP across Europe [4]. Such major policy reforms and new developments may significantly shape the vision and direction of MSP in Europe in the decades to come.

This paper aims to examine the main areas in which synergies and tensions are likely to arise in this emerging policy landscape for MSP. The paper is divided into the following inter-related parts:

- definition of sustainability in the wider EU policy context, and its implications for MSP,
- implications of the Lisbon Treaty for the emerging MSP policy landscape,
- main policy drivers of MSP in Europe, and the interactions between them, and
- emergent issues that need to be addressed to enable a system of ecosystem-based, integrated and just MSP initiatives in Europe.

When preparing this paper, information on MSP-related policies, directives and regulations was gathered through reviewing relevant policy documents. This information was combined with in-depth interviews with several MSP experts with detailed knowledge about the emergent issues discussed in this paper. They remain anonymous for reasons of confidentiality, but their views and perspectives informed the analyses presented in the paper. Based on the

* Corresponding author. Tel.: +44 20 7679 0521; fax: +44 20 7679 0565.

E-mail addresses: wanfei.qiu@gmail.com, w.qiu@ucl.ac.uk (W. Qiu), p.j.jones@ucl.ac.uk (P.J.S. Jones).

review of policy documents and the interviews, an interim working paper was produced and circulated to a wider audience, including scientists, researchers and government officials, to verify the main findings. The comments and feedback received were subsequently incorporated into the revised working paper, which forms the basis for this paper (see Supplementary Material).

2. Different views on sustainability and implications for MSP

It has been recognised that there are different views on the meaning of sustainability. The differences partly result from the divergent moral and philosophical roots from which conceptions about society–nature relationships develop [5]. This implies that defining and achieving sustainability is not fundamentally a scientific or technical issue, but an issue that concerns human values and collective choices for a preferred future [5,6].

Various authors [6–8] distinguish between ‘soft’ and ‘hard’ sustainability. ‘Soft’ sustainability is based on the view that depletions in natural capital, through crashes in natural stocks, declines in biodiversity, etc., can be compensated for through economic growth, related improvements in technology, etc. This often means that among the different ‘pillars’—economic, social and environmental—of sustainable development, the economic pillar is considered as the foundation for the well-being of a society. ‘Hard’ sustainability is based on the view that natural capital cannot be substituted by man-made capital, and that increases in man-made capital should not be based on consuming natural capital and should not undermine the natural systems and processes that are vital to the existence of humans. The environmental pillar is thereby considered as the foundation for the well-being of society (Fig. 1).

The EU Sustainable Development Strategy includes the objective to “safeguard the earth’s capacity to support life in all its diversity, respect the limits of the planet’s natural resources and

ensure a high level of protection and improvement of the quality of the environment” [9]. This policy statement and the requirement of the precautionary principle under the Lisbon Treaty (examined below) imply the underpinning importance of environmental sustainability in the EU’s overall commitment to sustainable development [10], i.e. tending towards ‘hard’ sustainability. It is also noted, however, that in reality the economic pillar has often been prioritised over the environmental pillar [10,11], i.e. tending towards ‘soft’ sustainability.

MSP ultimately involves political processes that lead to the allocation of sea space to meet social, ecological and economic objectives. How sustainability is interpreted in such political processes thus has important implications for the outcomes of such processes. Mee et al. [6] note that in marine management, both ‘soft’ and ‘hard’ sustainability represent two extremes, and the real approach often lies somewhere in between. The policy drivers for MSP in the EU are dominated by environmental regulations, which may be based on the recognition that Member States do not need further encouragement from the EC in promoting growth in the maritime economy. However, how these environmental regulations interact with other policy drivers to influence MSP, and whether MSP should be based on ‘hard’ or ‘soft’ sustainability is likely to be a recurring theme in existing and future debates and initiatives concerning MSP, in the same manner as it has been a recurring theme in sustainable development debates and initiatives since the Stockholm conference in 1972 [12]. MSP thereby provides a framework for such debates rather than a solution to them.

3. The ‘Lisbon Treaty’ and the implications for MSP in the EU

EU law consists of ‘primary’ and ‘secondary’ legislation. The treaties (i.e. primary legislation) establish ground rules that govern

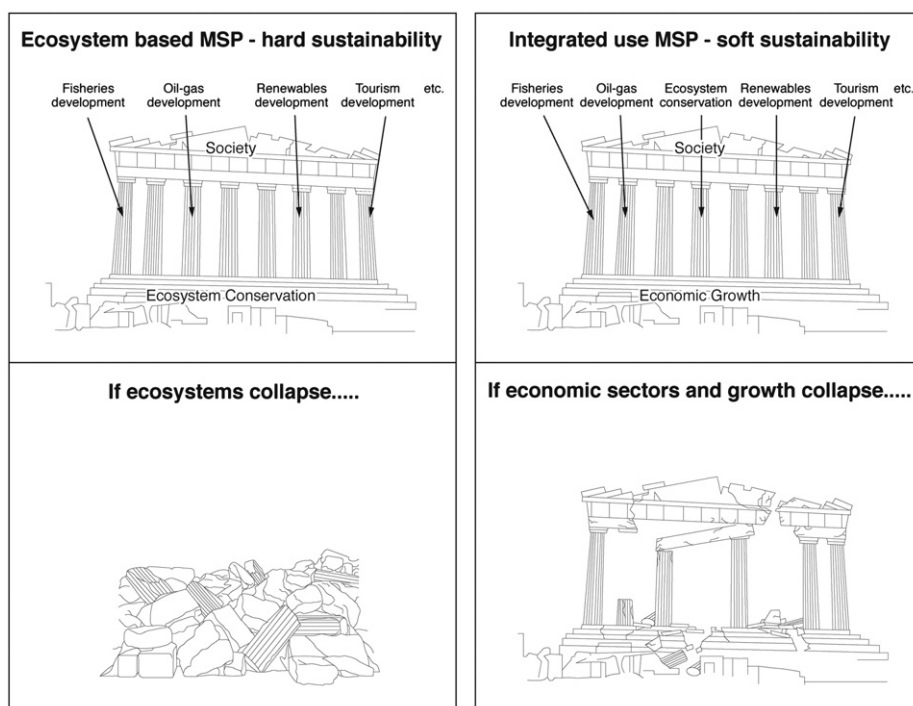


Fig. 1. Different views on sustainability in MSP. The two figures on the left describe ecosystem-based MSP, and the anticipated consequences of ecosystem collapse, based on ‘hard sustainability’. This view sees ecosystem conservation as the foundation for MSP, and that irreversible collapses in marine ecosystems would eventually lead to collapses in the economic sectors that depend on such marine ecosystems. The two figures on the right describe integrated-use MSP, based on ‘soft sustainability’, in which economic growth is seen as the foundation of MSP, and the collapse of the ‘environmental pillar’ does not necessarily lead to the collapse of related socio-economic structures.

all EU decisions and actions. Secondary legislation, including regulations, directives and decisions, is based on the principles and objectives established in the treaties [13]. The Lisbon Treaty is comprised of the Treaty on the European Union (TEU) and the Treaty on the Functioning of the European Union (TFEU), and entered into force in 2009, amending previous treaties without replacing them [14]. A full analysis of the Lisbon Treaty is beyond the scope of this paper; however, important implications of the Treaty for MSP are outlined below and discussed in subsequent sections of the paper.

As in previous treaties, environmental protection continues to be prominent in the Lisbon Treaty [15]. Article 3 of the TEU specifies that the EU “shall work for the sustainable development of Europe based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment”. According to Article 191 of the TFEU, policy on the environment “shall be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay” [16]. Although the Lisbon Treaty does not specify the relationships between different objectives of sustainable development—social, economic and environment [15], the inclusion of the precautionary principle implies that environmental protection is given a particularly high priority. While EU environmental laws are often criticised for a lack of explicit requirement for the precautionary principle [6], it is important to recognise that such a principle is enshrined in the Treaty that establishes ground rules for the functioning of the EU, including all EU laws and policies.

One of the most important changes introduced by the Lisbon Treaty is the adoption of co-decision making as the ‘ordinary legislative procedure’ (Article 294). Under the co-decision procedure, the Commission drafts proposals for adoption of new legislative acts, in consultation with national parliaments and other interested parties. The legislative proposals are then passed to the two co-legislators—the directly elected European Parliament (hereafter the ‘Parliament’) and the Council of Ministers (hereafter the ‘Council’) representing national governments. Co-decision procedure gives the two co-legislators equal rights and obligations in adopting legislation, and neither can adopt legislation without the agreement of the other. As the ‘ordinary legislative procedure’, the Lisbon Treaty extends the application of the co-decision procedure to 85 policy areas, compared to 44 in the Treaty of Nice (2001) [17]. Such policy areas now include the Common Fisheries Policy, environment (except for certain measures) and energy (except for fiscal measures). For some Council acts on the environment, including the supply and diversification of marine renewable energy resources, a ‘special legislative procedure’ applies. Decisions in these areas are adopted by the Council acting unanimously after consulting the European Parliament, Economic and Social Committee and Committee of the Regions [18].

The significance of the co-decision procedure is that it places democratically elected members of the Parliament on an equal footing with the Council, and government ministers in the Council can no longer dominate law-making in the EU in most policy areas [19]. Given the ‘green’ track record of the Parliament, the increased role of the Parliament could help advance environmental agenda in EU decision-making [15]. In addition, the co-decision procedure also strengthens the influence of national parliaments following the subsidiarity principle. If a draft legislative act’s compliance with the subsidiarity principle is contested by a third of the votes allocated to national parliaments, the Commission has to review the proposal and decide whether to maintain, amend or withdraw the act [20]. The co-decision

procedure therefore enhances transparency and accountability, and provides more opportunities for political representatives, including those with environmental sympathies and under lobbying pressure from conservationists, to have a much greater influence through their national parliaments and through the Parliament. The implications of the new co-decision procedures will be illustrated in a later section through discussions of the ongoing processes for the reform of the CFP and the adoption of new policy instruments for MSP.

4. Policy drivers for MSP in the EU

MSP in the EU receives important impetus from a number of EU directives, policies and regulations. Such policy drivers can be broadly categorised into four groups: environmental legislation, legislation for renewable energy, fisheries regulation and frameworks for cross-sectoral and integrated management. It is important to recognise that although most of the policy drivers discussed below do not contain explicit provisions for cross-sectoral MSP, they do have direct and significant influence on the allocation of marine space for a particular purpose, thereby affecting the availability of space for other sectors. The synergies and tensions between the different policy drivers therefore represent opportunities and challenges for the emergence of fully integrated, cross-sectoral MSP initiatives. The discussion below draws on a review of the objectives and provisions of the main policy drivers as summarised in Table S1 (see Supplementary Material).

4.1. Environmental legislation

In Europe, one of the most important drivers for MSP is biodiversity conservation legislation, as part of the EU’s fulfilment of international commitments under, inter alia, the Convention on Biological Diversity (CBD) and the World Summit on Sustainable Development. The most significant policy drivers include the Birds Directive (Directive 2009/147/EC) and Habitats Directive (Directive 92/43/EEC), which require EU Member States to designate and protect Special Protection Areas (SPAs) and Special Areas of Conservation (SACs), together known as the *Natura 2000* network.

The Habitats Directive aims to maintain the ‘favourable conservation status’ of species and habitats through the establishment of *Natura 2000* sites, as well as the protection of listed species throughout their natural range. The Directive provides for the protection of over 1000 animals and plant species and over 200 habitat types [21]. These include 9 marine habitat types and 18 marine species [22]. The marine *Natura 2000* network consists of 1813 sites covering a total area of 198,760 km², though significant gaps still exist, particularly in offshore environments [23]. At the heart of the Habitats Directive is Article 6, which requires sound management of *Natura 2000* sites through various measures (Table S1, Supplementary Material). A series of non-binding guidance documents have been published by the Commission on the application of Article 6, including on environmental impact assessments in *Natura 2000* sites and on the application of Article 6 in specific sectors, such as wind energy, port development and non-energy mineral extraction [24].

In addition to the Birds and Habitats Directives, the Environmental Impact Assessment (EIA, Directive 85/337/EEC) and Strategic Environmental Assessment (SEA, Directive 2001/42/EC) Directive also have important implications for MSP, as they require environmental assessments to be undertaken for individual projects (EIA Directive) or development programmes and plans (SEA Directive). Under the SEA Directive, an environmental assessment is mandatory for all plans and programmes that require an assessment pursuant to

Article 6 or 7 of the Habitats Directive for the protection of *Natura 2000* sites. The SEA Directive also requires that a Member State shall forward a copy of a draft plan or programme and the relevant environmental reports to other Member States, when the plan or programme is likely to have significant transboundary effects on the environment, and shall enter into consultation at the request of other Member States concerning the transboundary effects of implementing the plan or programme (Table S1, Supplementary Material). This provision creates incentives for cross-border consultation and cooperation in addressing the transboundary environmental impacts of national marine plans [25].

The most recent policy driver for the protection of the marine environment is the MSFD, which represents an ecosystem-based approach towards marine management and governance, aiming towards achieving ‘good environmental status’ (GES). Together with the Water Framework Directive, the MSFD represents a framework through which other EU sectoral directives can be linked, providing integrated management from the catchment through the coast to open marine ecosystems [26]. The ‘framework’ nature of the MSFD is reflected in the eleven descriptors for determining GES, which cover the most important maritime sectors and their impacts on marine ecosystems (Table S1, Supplementary Material). From the Birds Directive to the SEA Directive and the MSFD, there is a clear trend of mainstreaming environmental concerns into wider planning and development programmes in European legislation.

The MSFD strengthens the commitment to designate a network of MPAs across Europe, by requiring Member States to implement spatial protection measures that contribute to ‘coherent and representative networks of marine protected areas (MPAs)’ (Article 13 Programme of Measures). Establishing coherent and representative networks of MPAs is the only explicit requirement under Article 13, forming a core element in delivering the ecosystem-based approach envisaged in the MSFD. Such networks of MPAs include marine *Natura 2000* sites, but the MSFD requirement for coherent and representative networks of MPAs implies that protection needs to be extended beyond marine features listed under the Habitats and Birds Directives, as these were not designed to lead to coherent and fully representative MPA networks. This suggests that MPAs of national importance need to be designated by Member States to complement the existing *Natura 2000* network, leading to coherent and representative networks of MPAs across Europe. The MSFD does not explicitly require MSP, but Member States are required to develop national programmes taking consideration of ‘spatial and temporal distribution controls’, which are ‘management measures that influence where and when an activity is allowed to occur’ (Annex VI).

4.2. Legislation on renewable energy

In a number of EU countries, including Belgium, Germany, the Netherlands and the United Kingdom, the promotion of offshore wind energy has been a strong driving force behind the development of national MSP frameworks [25,27,28]. The growing interest in offshore renewable energy represents a response to anticipated economic benefits in terms of job creation and stimulating growth, as well as concerns over energy security [29,30]. It is also a response to obligations under the EU Renewable Energy Directive (Directive 2009/28/EC), which is a key component of the EU Climate and Energy Pack adopted in 2008 to contribute to EU’s fulfilment of Kyoto Protocol objectives. The Pack includes a legally binding obligation to increase the share of renewables to 20% of total energy consumption in the EU by 2020.

The Renewable Energy Directive was adopted to address this obligation. Under this directive, Member States are required to meet its national overall target for the share of energy from

renewable sources in 2020, which is set out in Annex I of the Directive. Each Member State is also required to adopt a national renewable energy action plan, providing projections for the share of renewable energy consumed in electricity, transport and heating/cooling sectors in 2020 (Table S1, Supplementary Material). According to the submitted national renewable energy action plans, EU Member States are planning to install 44.2 GW of offshore wind energy and 2.3 GW of tidal, wave and ocean energy in 2020 (increased from 2.6 and 0.2 GW in 2010), which accounts for 12.2% of total renewable electricity capacity, or 5.2% of total renewable energy (including transport and heating/cooling) in 2020 [31].

As the offshore renewable industry grows, the spatial requirements are likely to have significant effects on other uses of the sea, such as fishing and navigation [32]. There are also potential tensions between offshore renewable developments and *Natura 2000* sites [29]. How such conflicts are addressed will have major implications for MSP, which will be discussed in the next section.

4.3. The reform of the CFP

The reform of the CFP will have a significant effect on the implementation of other EU policies, particularly the Birds and Habitats Directives and the MSFD. A key difference between the CFP and other policy drivers discussed in this paper is that the European Commission has exclusive competence through the CFP for managing fisheries beyond 12 nautical miles in Member States’ EEZs. This is based on the recognition that fisheries in a given Member State’s waters have long been accessed by fishermen from other Member States, therefore fisheries regulation would benefit from an EU-wide approach, achieved through a number of regulations and Council Decisions adopted under the CFP. The CFP was officially established in 1983, and is currently undergoing a reform process. The revised CFP is expected to enter into force during 2013.

It has been widely recognised that the current CFP fails to meet the goals of reducing overfishing and integrating environmental concerns into fisheries management [33]. The Green Paper on the reform of the CFP reported that 88% of Community stocks subject to scientific assessment were being fished beyond maximum sustainable yield (MSY), and that 30%, including the iconic cod, were being fished outside safe biological limits [34]. In July 2011, detailed proposals for the reform of the CFP were adopted by the EC. The following proposals are being discussed in the European Council and Parliament following the co-decision procedure [35]

- Multi-annual management plans capable of achieving MSY within specified timeframes.
- Ban on discards for specified stocks—fishermen will be obliged to land all catches for specified stocks in accordance with a precise timeline for implementation.
- Mandatory system of transferable fishing concessions from 2014 for fishing vessels over 12 m and vessels under 12 m deploying towed gear—Member States will decide whether such a system should be applied to fishing boats under 12 m in total length deploying other gears.
- Financial assistance Member States or individual fishing operators receive from the EU will be linked to compliance—non-compliance may lead to interruption or suspension of the financial assistance.
- Within SACs, SPAs and MPAs of national importance under the MSFD, fishing activities shall be conducted in such a way as to alleviate the impacts of fishing—substantiated proposals for such restrictions shall be put forward by Member States but the Commission shall also be empowered to specify such fishing related measures to alleviate the impact of fishing

activities in SACs, SPAs and MPAs. Similar provisions are made for temporary measures to prevent damage to wider marine biological resources or marine ecosystems in order to achieve GES.

The outcomes of the CFP reform will affect MSP in many ways, particularly with regards to protecting SACs, SPAs and MPAs, and achieving GES. Despite various provisions for fisheries restrictions to support environmental conservation and the management of *Natura 2000* sites under the CFP (see Table S1, Supplementary Material), such provisions are actually very rarely used. Whilst there are over 1800 marine *Natura 2000* sites, only two specific CFP regulations have been introduced to protect such sites: the Darwin Mounds [36] and the Macaronesian Isles, though two temporary measures have also been introduced for SACs in Irish waters and the El Cachucho offshore SAC, as well as one compensatory measure to better protect the Dutch Voordelta related to the expansion of Rotterdam harbour [37]. Such restrictions under the CFP are very important as designation of *Natura 2000* sites does not have any immediate, direct effect on fisheries management. The co-decision process will raise many political challenges to these ambitious proposals, as examined in more detail in the next section. However, better integration of the environmental pillar into the CFP is arguably necessary if the objectives of the MSFD, Habitats Directive and other EU environmental policies are to be achieved.

4.4. The IMP and the potential for integration

As the EU's integrated maritime policy, the IMP embraces all the objectives established in other marine policies and legislation, including designation of MPAs in addition to *Natura 2000* sites, the development of offshore renewable energy and sustainable fisheries. It is stated in the 'Blue Book' that competence for decision-making in MSP and Integrated Coastal Zone Management (ICZM) lies with the Member States, and that both instruments "contribute to meeting the commitments deriving from the Thematic Strategy for the Protection of the Marine Environment (MSFD) and provide operators with improved predictability for their planning of future investments" (Table S1, Supplementary Material).

Similar to the MSFD, the IMP interacts with most other EU directives and regulations that affect the use and management of the marine environment, including those for fisheries, shipping, ports, renewable energy and nature conservation. The MSFD is regarded as being the 'environmental pillar' of the IMP [38], however the MSFD's relationship with other objectives or 'pillars' is not clear. Compared to the MSFD, the IMP clearly places a greater focus on promoting cross-sectoral integration and maritime economic growth. This is reflected by the fact that in a total of EUR 40 million committed for the implementation of the IMP for the period 2011–2013, at least 60% will be allocated for the development of cross-sectoral management tools, including MSP, compared to 8% for the protection of the marine environment and sustainable use of marine resources [39]. As further discussed in the next section, the relationship between the IMP and the MSFD—the EU's 'framework' directive for the marine environment, raises important questions regarding the future direction for MSP.

To summarise, the policy landscape for MSP in the EU is characterised by a complex array of sectoral policies and directives, exhibiting both synergies and tensions between the different policy drivers (Fig. 2). Following the objectives set out in the MSFD and IMP, MSP must be able to deliver the ecosystem-based approach, provide clarity and certainty for future investments in maritime sectors and prevent or reduce conflicts between different uses of sea space through integrated planning. Such an ambition faces the reality that maritime activities in Europe have previously been managed on a strongly sectoral basis [40], and that some conflicts cannot be 'planned away'. There are challenges and issues to be addressed, as discussed below.

5. Emergent issues for MSP in Europe

5.1. The relationship between the MSFD and the IMP: Different approaches to sustainability?

It seems that the MSFD and IMP prescribe two different approaches to MSP in Europe. As discussed earlier, the MSFD provides for an ecosystem-based approach for achieving GES, and requires different sectoral activities to be managed in a way that achieves GES.

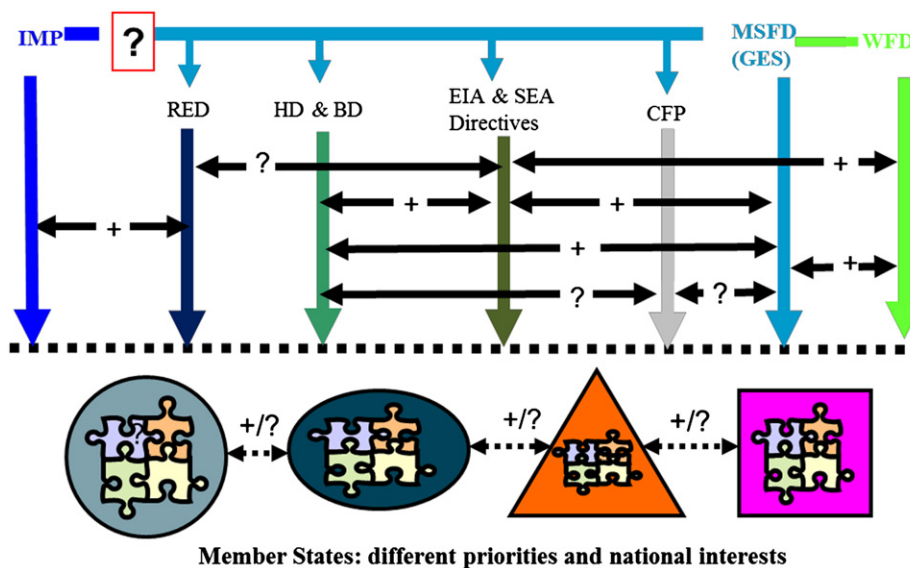


Fig. 2. The policy landscape for MSP in the EU, exhibiting both synergies (+) and potential tensions (?) between the different policy drivers and Member States (represented by different objects at the bottom). IMP: Integrated Maritime Policy; MSFD: Marine Strategy Framework Directive; WFD: Water Framework Directive; RED: Renewable Energy Directive; HD & BD: Habitats Directive and Birds Directive; EIA and SEA Directives: Environmental Impact Assessment and Strategic Environmental Assessment Directives; CFP: Common Fisheries Policy.

Whilst the MSFD does provide for sustainable development, it does not explicitly promote economic development. The MSFD is legally binding on all Member States, and although it does not explicitly require MSP, this requirement being limited to MPAs, it can be used as a good basis for ecosystem-based MSP [41]. By comparison, the IMP envisages MSP as being an instrument for cross-sectoral management and providing predictability for future investments, in addition to implementing the ecosystem-based approach [41].

The IMP can be interpreted as being based on ‘soft’ sustainability, through which MSP is more likely to be developed as an integrated use framework for balancing the needs of different sectors and ensuring that strong growth in certain maritime sectors does not lead to undesirable consequences for other sectors (Fig. 1, Table 1). From an IMP perspective, ecosystem conservation is likely to be considered as one type of ‘sectoral’ use of marine space, which is considered in relation to other sectors. Such an approach to MSP is more likely to be adopted in countries with large maritime industries (oil–gas, renewables, aggregates, etc.), with increasing competition for marine space among different sectors. By contrast, the MSFD can be interpreted as being based on ‘hard’ sustainability, in which ecosystem conservation is the foundation of the ecosystem-based approach. MSP following the approach of MSFD is more likely to be used as a preventive strategy to conserve ecosystem health, often in countries that do not have large maritime industries [41]. NGOs have recently argued that the ‘Blue Growth’ strategy that implements the IMP should be consistent with the requirements of the MSFD and thereby be ecosystem-based [42].

Underlining the issue of potential tensions between the MSFD and IMP is that they fall under the responsibility of different Commission departments: Directorate-General Environment (DG Environment) oversees the implementation of the MSFD, whilst Directorate-General Maritime Affairs and Fisheries (DG MARE) oversees the implementation of the IMP, along with the CFP. MSP-related initiatives commissioned under the two bodies seem to have little connection with each other, leading to confusions regarding the strategic direction(s) for MSP in Europe [41]. As it stands, DG MARE and DG Environment receive scientific advice from different advisory bodies, creating barriers in terms of information flow and shared decision-making [43]. The potentially contrasting approaches to MSP, as prescribed in the IMP and the MSFD combined with disconnections between the two main

Commission bodies responsible for marine management, are likely to be key issues in the development of a more coherent policy landscape for MSP in Europe.

5.2. The integration between the new Common Fisheries Policy and EU environmental legislation

The lack of restrictions under the CFP to protect marine *Natura 2000* sites is a stark illustration of the legal and political difficulties of improving the link between EU fisheries regulations and environmental legislation. In a recent Council meeting, Fisheries Commissioner Maria Damanski gave a speech which included the withdrawal of a proposal for an automatic 25% cut in total allowable catches for stocks with insufficient data for assessment, which was intended to implement the precautionary approach, proposing instead that such precautionary cuts be decided on a case by case basis. Concerns about a proposed ban on all discards are also being raised by both the Parliament and the Council, members of which have argued for a more cautious and flexible approach on a fishery by fishery basis, instead of the overambitious, strictly timetabled, species by species basis proposed by the Commission [44]. This shows that as the legislative proposals go through the co-decision process, compromises will have to be made.

It will also be interesting to see if the new co-decision procedure will make a difference in this round of reform of the CFP, one certainty being that the passage of the new CFP regulations will become a lengthy and complicated process. Previously, government ministers, under significant lobbying pressure from industries, have dominated negotiations for the CFP and other new legislations through the Council. For example, catch quotas decided by the Council have exceeded scientific advice on average by 47% [45], leading to proposed fisheries regulations being ‘watered down’ [33]. During the negotiations for the proposal that has become the MSFD, many attempts by the Parliament to strengthen the environmental commitments were rejected by the Council, including the compulsory designation of MPAs [6]. Under the co-decision procedure, the Parliament has the power to challenge the position of the Council, and the latter cannot adapt legislation without the agreement of the Parliament. In the on-going negotiations for the CFP reform, a draft report of the Parliament’s Fisheries Committee has proposed compulsory targets for the designation of a coherent network of fish stock recovery areas amounting to between 10% and 20% of territorial waters in each Member State [46]. Such a proposal is considered to be beneficial to both fisheries and biodiversity conservation in a recent report commissioned by the Parliament [47], though whether these ambitious and potentially controversial fish stock recovery areas are implemented remains to be seen. The timing and scope of the CFP reform therefore makes it an excellent test field for exploring whether potentially divergent interests—environmental, socio-economic and political—are represented and balanced in a way that reflects greater transparency and democratic values, a change that the co-decision procedure aims to introduce.

5.3. Power, conflicts and justice in the ‘race for space’ in Europe’s seas

Although widely recognised as a means towards achieving integrated marine planning and management, MSP is sometimes introduced and/or implemented in a way that the result will have positive implications for the development of some sectors, which are often of strategic importance to the country concerned [28]. In the EU, the entry into force of the MSFD and the Renewable Energy Directive provides a driving force for the designation of MPAs and the development of marine renewable energy, particularly wind farms, across Europe, which may claim extensive marine areas and lead to a ‘race for space’ in the marine

Table 1
Comparison between the Marine Strategy Framework Directive (MSFD) and the Integrated Maritime Policy (IMP).

	MSFD	IMP
Overarching aim	A framework for implementing an ecosystem-based approach	A framework for promoting maritime economic development and integrated management of different activities
Role of MSP	MSP as a mechanism for achieving ‘good environmental status’	MSP as a mechanism for balancing different uses of sea space
Role of MPAs	Conservation through MPAs at the core of its implementation	Conservation and MPAs as one of the uses of sea space
Legal power	Legally binding (Member States can be taken to the European Court of Justice for non-compliance)	Soft policy (no legal actions will be taken for non-compliance)
Authority	DG Environment	DG MARE
Approach to sustainability	Based on ‘hard’ sustainability.	Based on ‘soft’ sustainability.

environment. For example, both the German and British Governments have launched processes to expand MPA networks. Nominated *Natura 2000* sites in Germany cover about 30% of the country's EEZ [48], and recommended Marine Conservation Zones could increase the coverage of MPAs to 27% of English seas if they are implemented [49]. Both countries are also planning large-scale offshore marine renewable installations, which may (in the UK case) or may not (in the German case) co-locate with MPAs [29,50].

While marine spatial planning may have positive implications for the development of new sectors, as a means to promote strategically important sectors or industries, it often also results in the displacement of existing activities. A key difference between planning on land and in the sea is that the former is often subject to approval from local authorities, while the latter is often subject to much more centralised controls [28,29]. In land-use planning, local authorities are held accountable to the decisions they made to their constituents and are often obliged to consider different interests (economic, environmental and social) thoroughly during the planning process. However, in the marine environment, planning was traditionally conducted more centrally on a sectoral basis and the move towards MSP provides opportunities for national governments to establish new priorities, often based on longer term national interests. The impacts on some local users may be considered as a low priority, particularly in the presence of powerful sectors such as marine renewables. In Europe, the combined impacts of offshore wind farm development and *Natura 2000* designations on fisheries will lead to displacement of fishing efforts to other areas, as well as higher fishing costs and reduced catches for some species [51]. Furthermore, due to a lack of property rights in many marine fisheries, fishermen lack the stance for compensation or negotiation when negative impacts from the development of other activities are anticipated [52]. This could potentially raise significant social justice issues, if certain sectors claim that they are being systematically discriminated against in favour of other sectors in MSP decision-making processes.

However, it is debatable if such potential conflicts and justice issues can be 'planned away' through MSP. The needs for expanding existing MPA networks and marine renewable installations are justified by the obligations under respective EU directives, as well as growing public concerns over energy security, climate change and environmental quality [6]. There are also strong economic imperatives for promoting marine renewables [30]. It is unlikely that any MSP initiatives in Europe can ignore or downplay the importance of such drivers. In addition, decision-making in MSP, through centralised political processes, is also affected by existing power imbalances between different government institutions and stakeholder groups, which is manifest in the fact that planning for important activities, such as MPAs and offshore wind farms, precedes and remains relatively independent from wider-scale, integrated MSP in some countries [53]. It is therefore questionable if MSP, in itself, provides an integrated approach to marine planning and governance. Issues related to fairness and justice, in terms of access to information and participation in MSP decision-making, are likely to be addressed through existing legal platforms, such as the EU directives (2003/4/EC and 2003/35/EC) and regulation (1367/2006) that transpose the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters [54].

5.4. The necessity of a new EU directive for marine spatial planning?

Under the current policy and regulatory framework, Member States are not obliged to implement MSP, though they are obliged to implement MPAs. In order to promote a common approach to MSP, the Commission has launched a consultation process and

impact assessments to explore new policy instruments for MSP. The consultation process presented four policy options [4]

- Status quo: Maintaining the same level of interactions between the Commission and Member States, with no further actions.
- Non-legally binding acts: Encouraging Member States to pursue MSP through guidelines and recommendations published by the Commission.
- EU directives: Which establish the goals and targets, Member States then being required to adapt national laws to achieve such goals and targets.
- Regulations: Legally binding on every Member State.

In light of recent discussions with MSP policy experts, it seems that the most likely outcome is considered to be the adoption of a legally binding instrument for MSP, in the form of a directive. This is in line with the Commission's position that early development of a coherent framework for MSP is needed at the EU level to guide national processes and to ensure consistency and cross-border cooperation among Member States, and that the legal effects of MSP must be established to ensure its implementation and to provide strategic vision and transparency [55].

The idea of a new MSP directive has already raised several concerns. A number of Member States have expressed concerns that an alternative legal framework for MSP may depart from the environmental objectives established in the MSFD, and reiterated that 'the concept of the environmental pillar needs to be clearly upheld' [56,57]. A group of environmental NGOs has issued a joint position paper, opposing the Commission's view that a new framework for the sustainable use of Europe's seas is needed, as the MSFD already provides for such a framework. They point out that additional provisions for MSP can be added to the MSFD as an annex or amendments, rather than being fragmented into a new legal instrument [58]. This would be a logical solution, if the Commission intends to encourage Member States to undertake MSP following the ecosystem-based approach, as established in the MSFD. However, the option to strengthen the legal basis of MSP through amending the MSFD was not included in the consultation process. Some [e.g. [25]] consider such an approach (adding additional provisions for MSP under the MSFD) as being focused on a sectoral interest, i.e. the 'sector' being ecosystem conservation, which does not provide for strategic and cross-sectoral MSP. Such a perspective neglects the view that if MSP is to follow a truly ecosystem-based approach, ecosystem conservation should be seen as the foundation for cross-sectoral planning and management.

From this perspective, the MSFD represents a coherent framework not only for ecosystem conservation, but also for integrated planning and management in the marine environment. Some would argue that the MSFD exhibits institutional ambiguity, leaving room for manoeuvring during its implementation [59]. However, the level of institutional ambiguity will only increase if a new MSP directive is adopted, which is bound to have a broader policy scope and less clarity on implementation.

Another concern of introducing a MSP directive relates to the competence of the EU for spatial planning in Member States' waters. The limits of EU competences are governed by the principle of conferral, which means that the EU only has power to legislate in certain policy areas specified in the Treaty [25]. Competences not conferred upon the EU in the Lisbon Treaty remain with the Member States (Article 5, TEU). Articles 2–6 of the TFEU specify the limits and areas of EU competences, which include an exclusive competence for the conservation of marine biological resources under the CFP, and shared competences for environment, transport, energy and economic, social and territorial cohesion. In the policy

areas where the EU shares competence with Member States, it is debatable if the term 'territorial cohesion' includes elements of spatial planning. The issue of competence remained controversial during the process leading to the adoption of the 'mother document' for spatial planning on land—the European Spatial Development Perspective (ESDP) in 1999 [60]. The dominant view is that spatial planning is not an EU competence [25,59], which was reflected in the adoption of the ESDP as a non-binding policy guidance. The debates on EU competence for spatial planning will certainly come to the fore if a new MSP directive is pursued, and the necessity and scope of it will need to be justified against the principle of subsidiarity—a principle that has been strengthened under the Lisbon Treaty.

There are, however, opportunities for the Commission to adopt a non-binding instrument, similar to the EU Recommendation on Integrated Coastal Zone Management which sets out the principles for coastal planning and management [61]. This will allow some key concerns to be addressed, such as the requirement for transboundary cooperation between different Member States, for stakeholder participation in planning processes, and for aligning MSP with Integrated Coastal Zone Management, without unduly interfering in existing processes already pursued by different Member States and the authority of national governments. Whether the Commission pursues a directive or some other non-binding instrument, such as guidelines, to achieve these and other objectives remains to be seen.

6. Conclusion

The emerging policy landscape for MSP in the EU consists of various policies, directives and regulations, most of which focus on the promotion of a particular type of use of marine space. Although synergies exist between different policy drivers, the overall policy landscape is characterised by tensions or weak links between the main categories of policy drivers—environmental legislation, legislation on marine renewable energy, and fisheries regulations. This is further complicated by the fact that there is a lack of coherence and clarity regarding the relationship between the two most comprehensive and important policy drivers—the IMP and MSFD. Underlying these issues are arguments that have been raging at least since the Stockholm Conference (1972) as to whether healthy ecosystems underpin economic development or whether economic development provides for ecosystem conservation initiatives [12]. This poses significant challenges for the emergence of ecosystem-based, integrated and just MSP initiatives in Europe.

Furthermore, there is also significant uncertainty regarding how the MSP policy landscape will evolve in the near future. The outcomes of the CFP reform and the decision on a potential MSP directive, both of which are expected to be announced soon, will change the policy landscape, particularly the links between different policy drivers. The analyses presented in this paper supports the better integration of the environmental pillar into the CFP reform, and recognises the adoption of the Lisbon Treaty and the co-decision procedure as a welcome change in this context. This paper argues against the necessity of a new MSP directive, as the MSFD already provides the legal basis for implementing ecosystem-based and integrated MSP. This is based on the recognition that achieving 'good environmental status' underpins the management of different maritime sectors and overall sustainability in Europe's seas, which is consistent with the provisions under the Lisbon Treaty. The promotion of other strategically important industries, such as marine renewable energy, has been addressed in relevant EU directives, and the potential trans-boundary environmental effects of MSP are

addressed in the SEA Directive. It is questionable if a new MSP directive can provide a better and more coherent legal framework for implementing ecosystem-based, cross-sectoral and integrated MSP. The emphasis should, instead, be on strengthening synergies and addressing tensions between different policy drivers, particularly the MSFD and the sectoral policies for which it provides a framework. Introducing a new MSP directive is likely to only increase complications and tensions in an already crowded policy landscape.

Acknowledgements

This research was funded by the European Commission's Monitoring and Evaluation of Spatially Managed Marine Areas (MESMA) project (www.mesma.org) under the 7th Framework Programme. We are grateful to the MSP experts, who shared their insights with us during the interviews; to colleagues in the MESMA team, Frank Maes and Cor Schipper for their comments on the working paper; and to Catherine D'Alton (Geography Department, UCL) for producing Fig. 1.

Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at <http://dx.doi.org/10.1016/j.marpol.2012.10.010>.

References

- [1] Ehler C, Douvère F. Visions for a sea change. Report of the first international workshop on marine spatial planning. Intergovernmental oceanographic commission and man and the biosphere programme. IOC manual and guides no. 48. Paris, UNESCO; 2007.
- [2] Douvère F. The importance of marine spatial planning in advancing ecosystem-based sea use management. *Mar Policy* 2008;32:762–771.
- [3] Maes F. The international legal framework for marine spatial planning. *Mar Policy* 2008;32(5):797–810.
- [4] Policy Research Cooperation. Information package: Study on the impacts of future MSP policy options in the EU. Antwerpen, PRC; 2011.
- [5] Robinson J. Squaring the circle? Some thoughts on the idea of sustainable development. *Ecol Econ* 2004;48:369–384.
- [6] Mee LD, Jefferson RL, Laffoley DD, Elliott M. How good is good? Human values and Europe's proposed Marine Strategy Directive. *Mar Pollut Bull* 2008;56(2):187–204.
- [7] Hopwood B, Mellor M, O'Brien G. Sustainable development: mapping different approaches. *Sustainable Dev* 2005;13:38–52.
- [8] Haughton G, Hunter C. Sustainable cities. London, Kingsley; 1994.
- [9] Council of the European Union. Renewed EU Sustainable Development Strategy. Brussels. <<http://register.consilium.europa.eu/pdf/en/06/st10/st10917.en06.pdf>>; 26 June 2006 [accessed 20.03.12].
- [10] Client Earth. CFP reform proposal: prioritising the environmental pillar in the reformed Common Fisheries Policy. CFP technical briefing series briefing, 7. <<http://www.clientearth.org/reports/legislative-briefing-prioritising-environmental-objective-cfp.pdf>>; 2011 [accessed 10.03.12].
- [11] European Commission. Sustainable development in the European Union. Monitoring report of the EU sustainability development strategy. EC, Brussels. <http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-78-09-865/EN/KS-78-09-865-EN.PDF>; 2009 [accessed 20.05.12].
- [12] Jones PJS. The marine bill: cornucopia or Pandora's box? *ECOS: a review of conservation*. 2006; 27(1): 1–6.
- [13] European Union. How EU decisions are made. <http://europa.eu/about-eu/basic-information/decision-making/procedures/index_en.htm> [accessed 20.05.12].
- [14] European Union. The (Lisbon) Treaty at a glance. <http://europa.eu/lisbon_treaty/glance/index_en.htm> [accessed 20.05.12].
- [15] Vedder H. The Treaty of Lisbon and European environmental law and policy. *J Environ. Law* 2010;22(2):285–299.
- [16] European Union. Consolidated treaties. Charter of Fundamental Rights. EU, Brussels; March 2010.
- [17] European Parliament. Co-decision and conciliation. A guide to how the Parliament co-legislates under the treaty of Lisbon. <http://www.europarl.europa.eu/code/information/guide_en.pdf>; 2009 [accessed 02.03.12].
- [18] European Commission. Treaty on the European union—Treaty on the Functioning of the European union list of decision-making procedures by article. <http://ec.europa.eu/codecision/docs/legal_bases_en.pdf> [accessed 18.03.12].

- [19] European Parliament. European Parliament and the Lisbon Treaty. <<http://www.europarl.europa.eu/aboutparliament/en/0042423726/Parliament-and-the-Lisbon-Treaty.html>> [accessed on 18.03.12].
- [20] European Commission. Codecision step by step. <http://ec.europa.eu/codecision/stepbystep/text/index2_en.htm> [accessed 18.03.12].
- [21] European Commission. The Habitats Directive. <http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm> [accessed 16.03.12].
- [22] European Commission. Lists of existing marine habitat types and species for different member states. Appendix 2. In guidelines for the establishment of the Natura 2000 network in the marine environment. Application of the Habitats and Birds Directives. <http://ec.europa.eu/environment/nature/natura2000/marine/docs/marine_guidelines.pdf> [accessed 16.03.12].
- [23] European Commission. Natura 2000 barometer. <http://ec.europa.eu/environment/nature/Natura2000/barometer/index_en.htm> [accessed 16.03.12].
- [24] European Commission. Guidance documents. <http://ec.europa.eu/environment/nature/natura2000/management/guidance_en.htm> [accessed 16.03.12].
- [25] Drankier P. Embedding maritime spatial planning in national legal frameworks. *J Environ Policy* 2012;14(1):7–27.
- [26] Borja A, Elliott M, Carstensen J, Heiskanen AS, van de Bund W. Marine management—towards an integrated implementation of the European Marine Strategy Framework and the Water Framework Directive. *Mar Pollut Bull* 2010;60:2175–2186.
- [27] Douvere F, Maes F, Vanhulle A, Schrijvers J. The role of marine spatial planning in sea use management: the Belgian case. *Mar Policy* 2007;31:182–191.
- [28] Jay S. Planners to the rescue: spatial planning facilitating the development of offshore wind energy. *Mar Pollut Bull* 2010;60:493–499.
- [29] Toke D. The UK offshore wind power programme: a sea-change in UK energy policy? *Energy Policy* 2011;39:526–534.
- [30] European Wind Energy Associations. Wind in our sails. The coming of Europe's offshore wind energy industry. EWEA, Brussels; <http://www.ewea.org/fileadmin/ewea_documents/documents/publications/reports/23420_Offshore_report_web.pdf>; 2011. [accessed 10.03.12].
- [31] Beurskens LWM, Hekkenberg M, Vethman P. Renewable energy projections as published in the national renewable energy action plans of the European Member States. <<http://www.ecn.nl/docs/library/report/2010/e10069.pdf>>; 2011 [accessed 18.05.12].
- [32] Todd P. Marine renewable energy and public rights. *Mar Policy* 2012;36:667–672.
- [33] Daw T, Gray T. Fisheries science and sustainability in international policy: a study of failure in the European Union's Common Fisheries Policy. *Mar Policy* 2005;29:189–197.
- [34] Symes D. Reform of the European union's Common Fisheries Policy: making fisheries management work. *Fish Res* 2009;100(2):99–102.
- [35] European Commission. Proposal for a regulation of the European Parliament and of the Council on the Common Fisheries Policy. [COM(2011) 425], EC, Brussels, <<http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0425:FIN:EN:PDF>>; 2011 [accessed 22.05.12].
- [36] De Santo EM, Jones PJS. Offshore marine conservation policies in the North East Atlantic: emerging tensions and opportunities. *Mar Policy* 2007;31(3):336–347.
- [37] European Commission. The environmental performance of the CFP. Chapter 8 of Commission staff working document—A diagnosis of the EU fisheries sector ('Frankenstein Report'). EC, Brussels, <<http://www.cfp-reformwatch.eu/pdf/008.pdf>>; 2011 [accessed 22.05.12].
- [38] Juda L. The European Union and the Marine Strategy Framework Directive: continuing the development of European ocean use management. *Ocean Dev Int Law* 2010;41(1):34–54.
- [39] European Commission. General allocation of funds to areas of expenditure listed in Article 2. Annex in regulation (EU) no 1255/2011 of the European Parliament and of the council establishing a programme to support the further development of an Integrated Maritime Policy. EC, Brussels, <<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:321:0001:0010:EN:PDF>>; 2011 [accessed 16.03.12].
- [40] Lloyd MG, Smith HD, Ballinger RC, Stojanovic TA, Duck RW. *Maritime policy and economic development of the European seas*. In: Kidd S, Plater A, Frid C, editors. The ecosystem approach to marine planning and management. London; Washington DC: Earthscan; 2011. p. 68–91.
- [41] De Vivero JLS, Mateos JCR. The Spanish approach to marine spatial planning. Marine Strategy Framework Directive vs. EU Integrated Maritime Policy. *Mar Policy* 2012;36:18–27.
- [42] Limits to blue growth. Joint NGO position paper, October 2012. <http://www.seas-at-risk.org/news_n2.php?page=539>; 2012 [accessed 15.10.12].
- [43] De Santo E. Whose science? Precaution and power-play in European marine environmental decision-making. *Mar Policy* 2010;34:414–420.
- [44] Council of the European Union. Press release, 3155th Council Meeting—Agriculture and Fisheries. Brussels; 19 and 20 March 2012. <http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/agricult/129107.pdf>; 2012 [accessed 18.05.12].
- [45] European Commission. Consultation on fishing opportunities for 2011. COM(2010)241 final. EC, Brussels, <<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0241:FIN:EN:PDF>>; 2011 [accessed 06.03.12].
- [46] European Parliament Committee on Fisheries. Draft report on the proposal for a regulation of the European Parliament and of the Council on the Common Fisheries Policy. EP, Brussels; 8 May 2012 <<http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-%2f%2fEP%2f%2fNONSGML%2bCOMPARL%2bPE-483.528%2b01%2bDOC%2bPDF%2bV0%2f%2fEN>>; 2012 [accessed 20.05.12].
- [47] Roberts C, Hawkins J. Establishment of fish stock recovery areas. European Parliament, Brussels; 2012 <<http://www.europarl.europa.eu/committees/en/studiesdownload.html?languageDocument=EN&file=76399>>; 2012 [accessed 18.10.12].
- [48] BfN. Federal Agency for Nature Conservation, Germany <http://www.bfn.de/0316_gebiete+M5054de7a952.html> [accessed 22.05.12].
- [49] Jones PJS. Marine protected areas in the UK: challenges in combining top-down and bottom-up approaches to governance. *Environ Conserv* 2012;39(3):248–258.
- [50] Department of Energy and Climate Change (UK). Quantifying the potential impact of a marine conservation zone (MCZ) network on the deployment of offshore renewables. Report R. 1763. DECC, London, <<http://www.decc.gov.uk/assets/decc/11/meeting-energy-demand/wind/2813-abp-mer-mcz-report.pdf>>; 2011 [accessed 20.05.12].
- [51] Berkenhagen J, Döring R, Focka HO, Kloppmanna MHF, Pedersen SA, Schulze T. Decision bias in marine spatial planning of offshore wind farms: problems of singular versus cumulative assessments of economic impacts on fisheries. *Mar Policy* 2010;34:733–736.
- [52] Degnbol D, Wilson DC. Spatial planning on the North Sea: a case of cross-scale linkages. *Mar Policy* 2008;32:189–200.
- [53] Fleming DM, Jones PJS. Challenges to achieving greater and fairer stakeholder involvement in marine spatial planning as illustrated by the Lyme Bay scallop dredging closure. *Mar. Policy* 2012;36(2):370–377.
- [54] De Santo E. Environmental justice implications of maritime spatial planning in the European Union. *Mar Policy* 2011;35:34–38.
- [55] European Commission. Maritime spatial planning in the EU—Achievements and future development. [EC COM(2010) 771]. EC, Brussels, <http://ec.europa.eu/maritimeaffairs/documentation/publications/documents/com_2010_771_brochure_en.pdf>; 2010 [accessed 10.03.12].
- [56] European Commission. Implementation: Working together for our seas. <http://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/implementation/index_en.htm> [accessed 22.05.12].
- [57] De Santo E. The marine strategy framework directive as a catalyst for maritime spatial planning: internal dimensions and institutional tensions. Chapter 8 in: Gilek M, Kern K (editors), *Governing Europe's marine environment: Europeanization of regional seas or regionalization of EU policies?* London: Ashgate, in press.
- [58] Maritime spatial planning joint NGO position paper. May 2011. <http://www.mio-ecsd.org/_uploaded_files/article_file_244_S1V18GIL9LNPN.pdf> [accessed 22.05.12].
- [59] Van Leeuwen J, van Hoof L, van Tatenhove J. Institutional ambiguity in implementing the European Union Marine Strategy Framework Directive. *Mar Policy* 2012;36:636–643.
- [60] Faludi A. *Cohesion, coherence, cooperation: European spatial planning coming of age?* London and New York: Routledge; 2010.
- [61] European Commission. Recommendation of the European Parliament and of the Council of 30 May 2002 concerning the implementation of Integrated Coastal Zone Management in Europe. <<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32002H0413:EN:NOT>> [accessed 10.10.12].