

Recommendations on the procedural steps to follow for the development of cross-border MSP

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Supporting Implementation of Maritime Spatial Planning in the Western
Mediterranean region



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C 1.3.1 Develop and propose a conceptual methodology for transboundary MSP in the Western MED, with operational details on selected aspects

The methodology will be based on an Ecosystem-Based Approach (EBA) to reach objectives of sustainable use of the sea. A reflection on the conceptual methodology for addressing MSP in the Western Mediterranean, taking into consideration transboundary and cross-border issues will be carried out. Operational aspects will be detailed on selected topics of concern. The sustainable use of the sea will be granted through an Ecosystem-Based Approach (EBA), which the methodology will be based on.

Outputs: Recommendations on the procedural steps to follow for the development of cross-border MSP

C 1.3.1.1 Conceptual method: major steps

The task will consider the ongoing process of implementation of MSP in the Countries involved in SIMWESTMED, to reflect on the state of advancement and the understanding of the MSP process from the methodological aspects. A review on current methodologies to implement MSP will be put in place (starting from the well-established ones as the UNESCO-IOC step-by-step approach, Ehler and Douvère 2009). The review will be used to reflect on identifying barriers and bottlenecks to be considered from a methodological perspective.

Outputs: Report on the review of the methodological approach to MSP towards cross-border MSP.

1. Objectives

This document identifies a number of key issues considered particularly relevant for the implementation of MSP in the Western Mediterranean.

The main goal is to identify common issues driving or hindering MSP implementation in the Western Mediterranean and provide suggestions to strengthen drivers and/or remove obstacles. Some of the identified issues are common also to the Eastern Mediterranean, thus applying to the entire Mediterranean Basin.

Moreover, the document briefly describes the current state of MSP implementation in the Western Mediterranean, considering the EU countries (Italy, France, Spain and Malta) mainly referring to the information included in the EU MSP Platform¹ and in the Initial Assessment of the project (SIMWESTMED, 2018).

2. Conceptual method: major steps

In order to provide general suggestions on the steps to follow for an MSP conceptual methodology in a transboundary context, a desk-based literature review was hereby conducted. The most used and recognized MSP methodology (Ehler and Douvere, 2009) was generally analysed. Furthermore, previous and on-going projects were cited, and the concept of Transboundary MSP (TMSP) was elaborated taking into account the current definitions in literature and in policy documents. The main needs and the barriers in TMSP implementation (conceptual, institutional and geopolitical) have been discussed. Moreover, the current state of implementation of the MSP directive in the Western Mediterranean EU countries (Italy, France, Malta and Spain) was reviewed and finally some methodological recommendations have been drawn.

2.1 Existing MSP methodologies, previous and on-going projects

During the last decades, the unplanned use of the maritime space, together with the growing competition between human activities taking place at sea, lead to irreversible damages to the marine ecosystem (MEA, 2005; Maes F., 2008; Douvere F., 2008).

Marine/Maritime Spatial Planning (MSP) is considered to be an effective tool and concept to achieve the desired target of sustainable development (Blue growth), while maintaining the Good Environmental Status (GES).

MSP can be defined as 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 usually have been specified through a political process” (Ehler and Douvere, 2009).

According to Ehler and Douvere (2009) the main characteristics of an MSP process are: **Ecosystem-based**, balancing ecological, economic, and social goals and objectives toward sustainable development; **Integrated**, across sectors and agencies, and among levels of government; **Place-based or area-based**; **Adaptive**, capable of learning from experience; **Strategic and anticipatory**, focused on the long-term; **Participatory**, stakeholders actively involved in the process.

¹ <https://www.msp-platform.eu/>

MSP does not lead to a one-time or master plan. It is a continuing, iterative process that learns and adapts over time through feedback between results and planning phases (fig. 1).

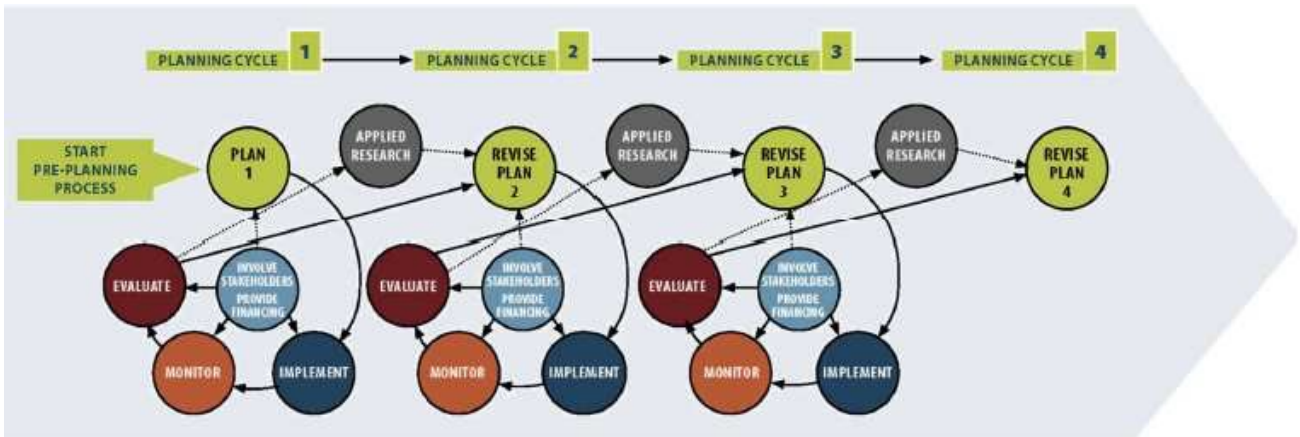


Fig. 1 MSP planning cycle. (Source UNESCO-IOC, 2009)

The most recognized and applied methodology to implement MSP is the UNESCO-IOC (2009) guide “Marine Spatial Planning: a step-by-step approach toward ecosystem-based management”. The guide was intended for the use of professionals responsible for the planning and management of marine areas and provides a comprehensive overview of MSP, describing a sequence of steps that should be applied to achieve desired goals and objectives. It is divided in ten phases (fig. 2):

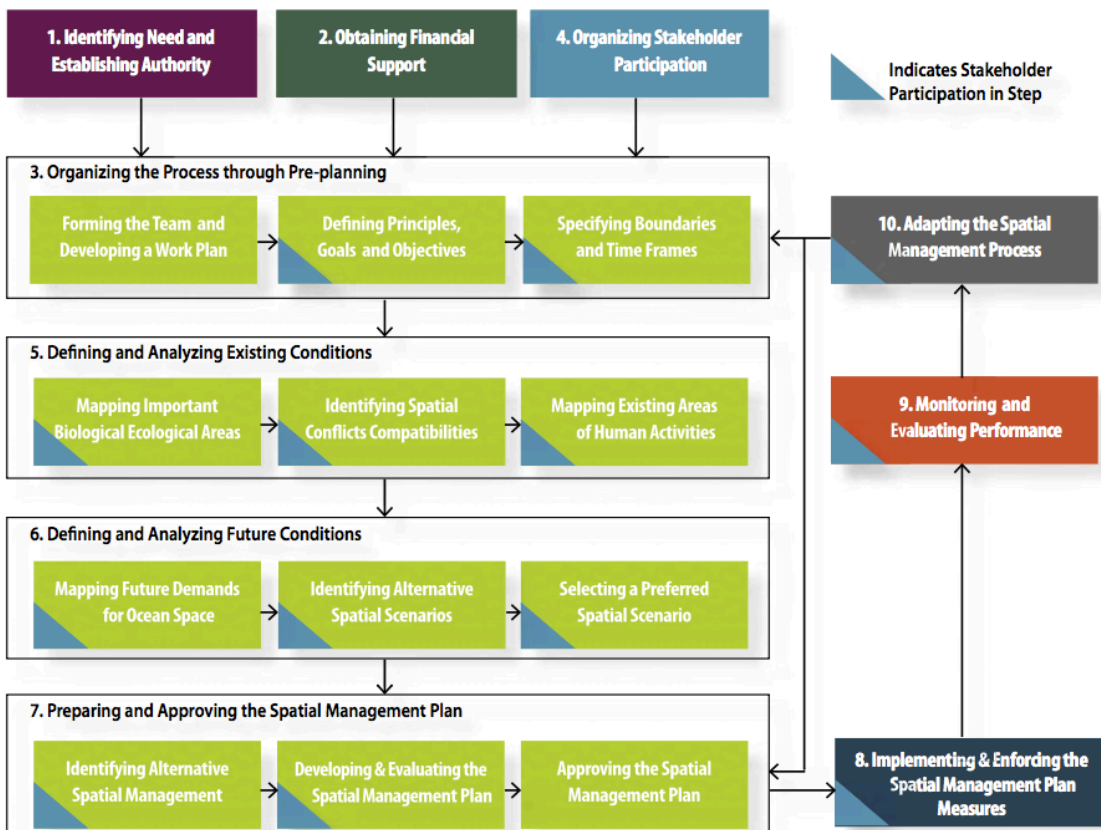


Fig. 2 MSP methodology phases (Source UNESCO-IOC, 2009)

At a global stage MSP processes are expanding and evolving, with different places taking different approaches to implement MSP in order to meet their needs and purposes. It is therefore clear that “no one size fits all”. Therefore, effective and successful MSP can only be defined within the specific context in which MSP is practiced, and that no particular recipe for MSP can be considered universal (EC 2008a; Flannery et al., 2015; Jones et al., 2016).

In the European context through the Directive on MSP (2014/89/EC) the main goal of the planning process is to address a sustainable development of the maritime spaces in line with the objectives of the European Blue Growth strategy and the Marine Strategy Framework Directive (MSFD, 2008) (fig. 3), and to strength relationships and cooperative activities between Member States. It is necessary to acquire a holistic vision of human uses interactions and environmental and socio-economic dynamics to adopt the EBA approach in MSP processes. In addition, considering the cross-border nature of many maritime activities taking place transnationally, another important goal of MSP is to consider the transboundary nature of emerging conflicts and the possible resolutions.

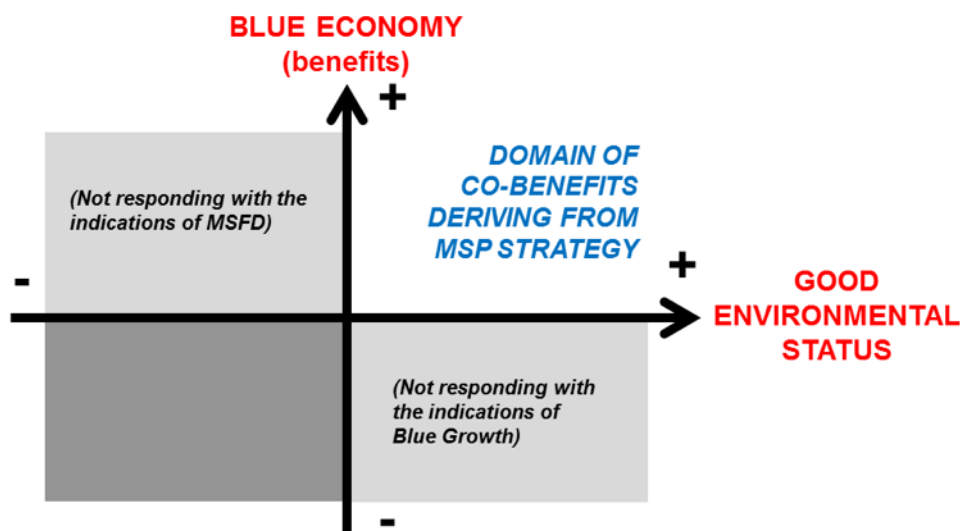


Fig. 3 Scheme representing the domain of action in which MSP should be developed (Source: ADRIPLAN, 2015)

2.2 Transboundary MSP

Seas and oceans are one unique interconnected element and coastlines are shared among states. Indeed, the sea, being a fluid mass, is a highly dynamic and mobile element which for its intrinsic nature allows a constant flow of materials (fish, waste, pollution, nutrients and so on), with patterns of dispersion and movement difficult to predict. This dynamic nature overcomes the administrative and national boundaries, calling for planning initiatives on a wider regional or sea basin scale (Gilliland and Laffoley, 2008). Boundaries between marine ecosystems and the distribution of some maritime activities (e.g. shipping) are not restricted and bound by specific political and administrative borders. Moreover, marine resource management has also to be considered on a cross-border basis, in order to avoid conflicts among neighbouring countries, to avoid exceeding the

carrying capacity of shared resources, to avoid marine habitat fragmentation and to ensure sustainability of marine economic activities (Douvere, 2008).

Cross-border cooperation and collaboration in MSP, is essential to improve the efficiency of planning and management of coastal and marine resources and activities, facilitating decision-making. Indeed, the transboundary methodological components of MSP are necessary to achieve a comprehensive and applicable example of planning in the Mediterranean, and one of the objectives of the SIMWESTMED project is to support cross-border cooperation in the Mediterranean concerning MSP.

The necessity of tackling MSP on a transboundary basis has been highlighted by many policy documents among which those deriving from the EU and the UN (such as the MSP Directive, the Marine Strategy Directive, the Barcelona Convention and Protocol etc.). At the EU level, a series of initiatives has been undertaken to advance cooperation among states in MSP practices in compliance with the Directive. The SIMWESTMED project is one of these initiatives.

There is not an official definition for the concept of Transboundary MSP. According to Soninen and Hassan (2015), Transboundary Marine Spatial Planning (TMSP) is defined as “a process in which at least two States sharing a boundary at the Territorial Sea or on the Exclusive Economic Zone, jointly manage a marine area”. In the EU MSP Directive text, instead of TMSP, it is adopted the concept of “cross-border cooperation”, which is noted in terms of:

- Transboundary cooperation among Member States (Art. 11) “Member States bordering marine waters shall cooperate with the aim of ensuring that maritime spatial plans are coherent and coordinated across the marine region concerned”, indicating that such cooperation shall be pursued through the use of existing regional institutional cooperation structures (e.g. Regional Sea Conventions); networks / structures of Member States’ competent authorities; and / or any other method (e.g. sea-basin strategies).
- Cooperation with third countries (Art. 12) in relevant marine regions and in accordance with international law and conventions.

In addition, art. 6(2c) indicates that “MSP should aim to promote coherence between MSP and the resulting plan or plans and other processes, such as integrated coastal management or equivalent formal or informal practices”, which implies internal coherence and therefore cooperation among different government levels within a same country.

The main challenges impeding MSP implementation on a transboundary basis evidenced by current literature mainly regard two kinds of fragmentations (Van Tatenhove, 2017): institutional and conceptual fragmentation. In the Mediterranean Basin, TMSP faces many challenges among countries sharing a common boundary in the sea, limiting to some extent the room for enhanced cooperation.

One of the first transboundary pilot project that needs to be cited is the Transboundary Planning in the European Atlantic (TPEA) Project which delivered A Good Practice Guide (Jay and Gee, 2014) capitalizing some good lessons learned from the transboundary cooperation needed in the project focusing on the areas in Portugal-Spain and Ireland-United Kingdom. As in SIMWESTMED, in the TPEA project MSP authorities did have a central involvement, and precondition of the project was that it had to be a realistic planning exercise in which the responsibilities of the authorities and national sovereignty needed to be respected. Moreover, the project recognized that

“transboundary MSP is unlikely to lead to a joint plan but should offer effective links between national MSP processes” (Jay et al., 2016). Some key lessons learned from the TPEA to adopt in a transboundary approach to MSP include: it is crucial to define from an early stage transboundary areas and issues; transboundary data management requires the development of institutional relations and development of agreed processes; differences in culture, awareness and institutional arrangements require stakeholder engagement activities to be customized to each context; it is crucial to understand the different governance systems.

Other on-going or completed TMSP initiatives in Europe include:

- Baltic Sea: Plan Bothnia; BaltSeaPlan; PartiSeapate; Pan Baltic Scope; BaltSpace
- North Sea: Maspnose; NorthSee; Seanse
- Atlantic Ocean: SimCelt; Simnorat; Marsp
- Mediterranean Sea: Supreme; Adriplan; Panacea; Adriatic+

2.2.1 Transboundary MSP through Ecosystem Based Management (EBM)

Ecosystem Based Marine Spatial Planning (EB-MSP) has been developed and identified as a process potentially able to favour and even ensure the Good Environmental Status (GES) of the sea in parallel with the human sustainable economic growth (McLeod et al., 2005; Foley et al., 2010; Ansong et al., 2017). Furthermore, EB-MSP is a process that integrates the Ecosystem Based Management (EBM). EBM represents a holistic and integrated method aimed at the achievement of social, economic, and ecological objectives through a scientifically-based ocean management. Such approach allows the optimization of the marine space by rationally allocating the different anthropogenic activities (in space and time) (Gilliland and Laffoley, 2008; Soninen and Hassan, 2015). Overall, this is a multidisciplinary approach that supports the Blue Growth objectives even in line with the Marine Strategy Framework Directive (MSFD, EC, 2008; Berg et al., 2015; van Leeuwen et al., 2014; Buhl-Mortensen et al., 2017) that calls for the achievement of the Ecological Objectives and GES targets that have been approved by all the Mediterranean countries in the framework of UN Environment/MAP - Barcelona Convention.

As TMSP has to be considered a key integrated approach that allows the harmonization of the existing governance framework to improve and support EBM (Backer, 2011; Flannery et al., 2015), both the approaches should participate together at the achievement of the same objectives. Cooperation among neighbouring states is needed in coordinating the use of the shared marine space and resources that extend across international boundaries, to ensure ecosystem integrity and regulate its sustainable exploitation (Brunner, 2003; Mackelworth, 2013). Moreover, transboundary initiatives are becoming established in environmental fields (Warner and Marsden, 2012), such as nature conservation (Rüter et al., 2014; Vasilijevic et al., 2015), river basin management (Daniel et al., 2013; Wiering and Verwijmeren, 2012) and marine conservation zoning (Agardy, 2010).

Adopting the Ecosystem Approach and making operational EB-MSP, means that spatial planning in the marine space should no longer be practiced per sector or per economic activity (that has been the common practice up to now). Instead, it should be practiced within ecosystem boundaries (marine regions), so that wiser management of all uses (marine or terrestrial) and of the ecosystems can be achieved (Douvere, 2008).

Therefore, adopting the Ecosystem Approach in MSP (and in TMSP) can be achieved in various ways:

- ✓ By adopting an approach strongly area-based (instead of a sectoral one) when planning in the marine space.
- ✓ By choosing the right limits (and scale) of the marine management units. In the sea delimitation of the management units should not only consider the administrative limits or the national (geopolitical) borders of each coastal country. Instead, definition of the management units should also consider the ecological boundaries of marine ecosystems and their communities.
- ✓ By ensuring GES of marine ecosystems and waters within the management units. This means by considering, at least, the 11 descriptors included in the MSFD (Marine Strategy Framework Directive).

TMSP reflects on ecological boundaries and dynamics (Ansong et al. 2017). It considers the interaction and effect of impacts and risks of uses between national, regional and local boundaries, according to international legislation on environmental impacts (UNCLOS). Connectivity (migratory species, larval dispersal, genetic flow, etc.) is a key ecosystem propriety to be included in TMSP process (Muñoz et al., 2015; Caldow et al., 2015; Jay et al., 2016), also in relation to the evaluation of effectiveness in conservation planning (i.e. MPA network) (Agardy, 2010).

Adopting the Ecosystem Approach in MSP, i.e. practicing MSP within marine regions (ecosystem) boundaries, is usually not only a matter of a single country. Instead, it may probably be a matter of more than two countries, highlighting the need for transboundary considerations and cross-border MSP initiatives, involving all countries sharing the same marine region. Based on these assumptions, in marine planning an effective ecosystem approach can hardly be achieved without considering the transboundary dimension of the plan. In that view, mechanisms, institutional structures and communication channels established in the framework of Regional Seas Conventions should be used as a starting point for transboundary cooperation.

2.2.2 Main needs for TMSP

Institutional and conceptual fragmentations (see 2.2.3) and the necessity of EBM to practice MSP within marine regions ask to include the following elements in a general transboundary or cross-border approach:

- recommendation and general guidelines on the procedural steps to follow for the development of cross-border MSP, including a common understanding of the ecosystem-based approach and GES;
- consider the diversities in implementing MSP and in adopting the prefer approach of the different countries;
- indicate possible paths towards an operational and methodological coherence at basin scale;
- put in evidence strengths, weaknesses and bottlenecks at a shared level;
- development of a shared methodological framework;

To ensure a comprehensive plan and facilitate the implementation of the MSP Directive in the member states, a permanent collaboration of maritime planners and a network of planning

practitioners is necessary.

Moreover, transboundary or cross-border MSP needs to be pursued through an integrated approach, which comprises the following characteristics (Jay et al., 2016): inter-sectoral coordination; international integration; integration between different levels of governance (vertical and horizontal); integration between land and sea planning.

Institutional agreements and similar (if not same) elements of planning procedures can be a step towards a comprehensive transboundary approach.

Transboundary initiatives are also becoming established in other environmental fields such as nature conservation, river basin management and marine conservation zoning and can be used as examples.

Most transboundary MSP efforts to date have been voluntary in nature, simply because the EU Directive recognizes the competency of member states in carrying out MSP for their marine area (art. 2) but does not explicitly define as mandatory transboundary or cross-border MSP approaches.

2.2.3 Barriers in the implementation of TMSP and possible solutions

Conceptual barriers for implementing TMSP

Conceptual barriers for implementing TMSP are due to the differences among countries in terms of approaching and implementing MSP, directly depending on their planning culture and their institutional context (Van Tatenhove, 2017).

For instance, in some European countries, planning and management of the maritime space is conceptualized and derived from the ICZM approach, in other cases they are seen as separated activities compared to urban and coastal planning. Moreover, MSP on a case by case and in the different European countries can be more economically (BLUE Growth) or environmentally (MSFD) focused (Soininen and Hassan, 2015). Another type of barrier that can jeopardize the correct implementation of TMSP is the fact that, especially in the Mediterranean, while some countries have already advanced in MSP implementations, others did not and are not obliged to do so (non-EU countries) (Flannery et al., 2015). In this context, the UN Environment/MAP – Barcelona Convention work on MSP is expected to contribute to the implementation of MSP in a coordinated manner across all the Mediterranean countries.

If planning experiences and approaches are different among countries sharing the same sea, it is very likely that different national plans sharing cross border marine areas will be difficult to integrate between each other.

In order to achieve better harmonization in conceptual matters regarding TMSP, countries sharing the same regional sea would need to (Schultz-Zehden & Gee, 2013; Flannery et al., 2015; Jay et al., 2016):

- better understand neighbouring planning systems and context so that eventually they can adapt and become more compatible to each other
- reach a common conceptualization of planning issues and goals; i.e. establish clear and common objectives of management and planning in shared seas

- closely cooperate in gathering and exchanging data and relevant information
- establish a transboundary team of practitioners and experts that can closely collaborate to the definition of the plan
- acknowledge and enhance the role that the Regional Seas Conventions can and should play in promoting and supporting ecosystem-based MSP implementation.

Institutional barriers in implementing TMSP

Institutional barriers in implementing TMSP can be ascribed mainly to the fragmented responsibilities and the different kinds of institutions, policies and regulations existing at the regional sea level (Raakjaer et al., 2014; Van Tatenhove, 2013). Indeed, there is no single authority responsible for the impacts on the marine environment caused by maritime activities, and the interrelation between the different international rule systems of the United Nations Convention on the Law of the Sea (UNCLOS), International Maritime Organization (IMO), Regional Sea Conventions, the EU, national and sub-national authorities create complexity (Van Tatenhove, 2017). In the case of the Mediterranean Basin for example, more than 21 countries share the same sea basin, and apart from European and international policy documents, including those developed in the framework of UN Environment/MAP Barcelona Convention, a series of national policies also are in place providing guidelines and regulations mainly for sectorial activities creating a complex governance framework.

Additional institutional impediments may also emerge at a sub-national level, if no administrative systems and jurisdictions are defined per country in its maritime parts (Jay et al., 2016). Moreover, in a regional sea context there are no generally accepted rules in the overlapping of the diverse institutional settings and responsibilities (Van Leeuwen et al, 2014).

To avoid overlapping in the different national jurisdictions and coordination between often contradictory policies, and to apply coherently TMSP, the current literature (Jay et al., 2016; Van Tatenhove, 2017) suggests having:

- policy and legislative convergence and alignment in countries sharing the same sea
- harmonization across jurisdictions both at a transnational and a sub-national level
- organizational reforms per coastal country, so that formal and informal transboundary institutions can contribute to cross-border working and collaboration
- the emergence of network states and appropriate channels of communication, so that neighbouring authorities effectively work on matters that have cross-border implications.

For these reasons, the development and implementation of TMSP can be achieved mainly through the setting of regional seas and at a basin scale, which are composed by heterogeneous regime complexes or what Castells (2009) calls emerging network states. These regime complexes can be described as: “an array of partially overlapping and non-hierarchical institutions governing a particular issues area” (Raustiala and Victor, 2004). Some examples of regime complexes are already present in sectorial management. Each sectorial activity indeed has its own hierarchy and institutional dynamics such as the shipping sector, which is regulated from (top-down): IMO, national states, ship owners, harbour activities and so on. This approach should be integrated among sectors in order to ensure cooperation at the different regime complexes by defining

common goals and setting up strategic partnerships in order to find institutional solutions for transboundary problems, which is a fundamental step towards an effective TMSP (Van Tatenhove, 2017).

Geopolitical impediments for practicing TMSP

In many cases, and in particular in the Mediterranean area, neighbouring coastal countries face severe geopolitical conflicts, leaving little room for transboundary MSP initiatives and practices. At sea, conflicting relations among neighbouring countries can often lead to disputes regarding sovereign rights and delimitation of common Territorial Waters or EEZ borders.

Shared regional seas, where geopolitical conflicts exist, and no consensus has been reached on the outer (marine) limits of each country, usually become context where the natural ecosystem is neglected and where resource exploitation is not based on equity and mutual trust, leading to the exceeding of carrying capacities, affecting all sides and sectors.

2.2.6 Human activities with a highly transboundary nature

According to the current literature (Foley et al., 2010; Jay et al., 2016; Flannery et al., 2015) the need of transboundary planning and management is much stronger on the sea space than on land, because of highly dynamic and mobile natural characteristics which allows a constant flow of materials across administrative borders.

Therefore, adopting a transboundary approach when planning in the sea is imperative in order to: avoid conflicts among transnational users/professionals; avoid overexploitation of marine resources; achieve efficient preservation of valuable marine ecosystems; effectively tackle pollution, deriving from sea activities as well as from land-based activities.

In order to achieve a correct and holistic transboundary approach, key functions and human activities having a highly transboundary nature shall be identified. These may include: area-based management tools (MPAs, FPZ, FRA, IMMA etc.); military operations and exercises; energy infrastructure and networks (oil extraction platforms, cables, pipelines); maritime transportation; cruise tourism; fishery.

2.3 State of MSP Implementation

The review of the current state of implementation of the MSP Directive in the Countries (based on the Country fiches provided by the partners) and the jurisdictional aspects (agreements, conventions etc.) will be used to identify barriers and bottlenecks to be considered from the methodological perspective.

For what concerns Italy maritime jurisdictions, the baselines from which its territorial sea is measured in 1977 (D.P.R. 26/04/1977, n. 816) have been defined. Considering its position in the middle of the Mediterranean, Italy has concluded the most delimitation agreements among the Mediterranean coastal States in particular: Territorial sea in the Strait of Bonifacio with France in 1986; Continental shelf with Tunisia of 1971; Continental shelf with Spain of 1974. Regarding the line dividing the fishing areas on the boundary between Italy and France near Ventimiglia/Menton, as provided for in the draft of the bilateral fishing convention of 1892, it is customarily recognized by the Parties as the delimitation of the territorial sea, though the fishing convention itself was never signed. An agreement for the delimitation of all maritime spaces between Italy and France was signed in 2015 (Agreement of Caen) and this has been submitted for parliamentary ratification but

it is not yet in force. Regarding marine delimitation with Malta, Italy has been repeatedly proposing to Malta to revive negotiations on the delimitation of the continental shelf. The modus vivendi of 1970 between the two Parties, which is not in line with the UNCLOS provisions, is not considered satisfactory by Italy. The main elements of the Italian marine waters can be summarized as follows: Size of internal waters (to the baselines): 39,339 km²; Territorial sea (12 nm zone): 81,528 km²; (including 4,330 km² islands, not included in water areas). Regarding the EEZ Italy has not declared yet any Exclusive Economic Zone but it established in 2011 an Ecological Protection Zone in the North-Western Mediterranean, in the Ligurian and in the Tyrrhenian seas (D.P.R. 27/10/2011 n. 209).

The implementation of the MSP Directive 2014/89/EU has been transposed in Italy through the Legislative Decree 17 October 2016 n. 201. An Inter-Ministerial Coordination Table (TIC) has been designed to work on the elaboration of guidelines on MSP, adopted by Decree of the President of the Council of Ministers of 1 December 2017, providing that a Technical Committee is in charge of defining the maritime spatial plans for each maritime area identified (Western Mediterranean Sea; Adriatic Sea; Ionian Sea and Central-Western Mediterranean Sea). The Italian Ministry of Transport has been designed as the Competent Authority of the MSP implementation. In particular its functions is related to: the initial recognition of the Acts and Orders of the Maritime Authority, the planning and management processes at regional, national, European or international level; forwarding to the European Commission and the other Member States a copy of the maritime management plans and related updating of Directive fulfilment; transmission to the European Commission of the information set out in the Annex to Directive 2014/89/EU and the related amendments; reporting annually to Parliament on the activities carried out in pursuit the objectives set out in the above mentioned Decree; monitoring, with the Technical Committee, the state of implementation of maritime spatial management plans; ensuring the consultation and the active participation of the public in the processes of processing; reviewing the proposals for management plans and forward to central and decentralized administration; publication on website of maritime spatial management plans; supporting transboundary cooperation among Member States for MSP implementation. On the 1st of December 2017 guidelines containing addresses and criteria for the preparation of maritime spatial plans were approved.

To date there is no approved maritime spatial plan.

For what concerns Spain maritime jurisdictions, the territorial sea is claimed by the Law 10/1977 on territorial sea and it has an extent of 12 nautical miles from the baselines. These baselines are composed with normal and straight baselines, which are defined in the Royal Decree 2510/1977 of 5 August establishing the straight baselines for the delimitation of Spanish territorial waters and jurisdictional waters. Internal waters correspond to the maritime space beyond those baselines and the Autonomous Regions have some competences on them like aquaculture or fishing (art 148.11 Spanish Constitution). The contiguous zone has an extent of 24 nautical miles from the baselines. The limits of the Economic Exclusive Zone in the Mediterranean Sea are explicitly described in the Royal Decree 236/2013, establishing the EEZ of Spain in the north-western Mediterranean. To note that no agreement has been reached with France regarding the EEZ limits in the area of the Gulf of Lion. An agreement with Italy was reached in 1974 to define the boundary of the continental shelf (Instrument of Ratification of the Convention between Spain and Italy on the delimitation of the Continental Shelf between the two States, done at Madrid on 19 February 1974).

The MSP competent authority was individuated in the Ministry of Agriculture and Fisheries, Food and the Environment, General Directorate for the sustainability of the coast and the sea through the Royal Decree 363/2017, 8 of April. There is no approved Maritime Spatial Plan to date.

The Inter-ministerial Commission for Marine Strategies, in June 2015, agreed to create a working group to draft the RD for the transposition of Directive 2014/89 / EU with representatives of the Departments of Development, Defence, Industry, Energy and Tourism, Economy and Competitiveness, Foreign Affairs and Cooperation, Health, Social Services and Equality, Finance and Public Administration, Education, Culture and Sports, Agriculture and Fisheries, Food and Environment and Cabinet of Presidency of the Government. In March 2017, it was agreed that this group should be transformed into a Working Group on Maritime Spatial Planning. The group is scheduled to meet regularly from autumn 2017.

The marine areas, for which maritime spatial plans should be defined, have been identified and a plan for each of the five Spanish marine districts will be developed (Northern Atlantic; Southern Atlantic; Canary basin; Strait and Alboran; Levantine and Balearic). The General Directorate for the Sustainability of the Coast and Sea will draw up a plan for each marine demarcation. They will be sent to the Inter-Ministerial Commission of Marine Strategies for their assessment after consulting the Committees of follow-up of the Marine Strategies, the autonomous communities, the Advisory Council on the Environment and the ministerial departments concerned. They will then be approved by the Council of Ministers. To date there is no approved maritime spatial plan.

For what concerns France maritime jurisdictions, through the order n° 2016-1687 of 8 December 2016, the French Republic claims in Mediterranean Sea: internal waters, a territorial sea, a contiguous zone and an Exclusive Economic Zone. In accordance with the United Nations Convention on the Law of the Sea, the territorial sea and the contiguous zone respectively have an extent of 12 and 24 nautical miles from the baselines. Those baselines are composed with normal and straight baselines which are defined in the French Republic's decree n° 2015-958 of 31 July 2015. The internal waters correspond to the maritime space beyond those baselines. The limits of the EEZ are explicitly described in the French Republic's decree n° 2012-1148 of 12 October 2012.

In the Mediterranean Sea, France shares maritime boundaries with three countries: Italy, Monaco and Spain. The ratified bilateral agreements concern Monaco and Italy. The maritime boundary between France and Monaco is defined in the French Republic's decree n° 85-1064 of 2 October 1985 (agreement of Paris of 16 February 1984). The maritime boundary agreement between France and Italy only concerns the Strait of Bonifacio between Corsica and Sardinia. An agreement for the delimitation of all maritime spaces between Italy and France was signed in 2015 but it is not yet in force as said above. It is defined in the French Republic's decree n° 89-490 of 12 July 1989 (agreement of Paris of 28 November 1986). Disputed areas regarding EEZ claims between France and Spain are present in the Gulf of Lion.

The Directive 2014/89/EU establishing a framework for maritime spatial planning has been transposed in France through the Law 2016-1087 of 8 August 2016, on the restoration of nature and biodiversity (article 123) and the Decree 2017-724 of 3 May 2017 integrating the maritime spatial planning and the sea action plan in the sea basin strategic document. The competent authority has been individuated in: one couple of terrestrial and maritime Prefects (called Coordinating Prefects) on the Mediterranean Sea basin at the scale of the sea basin, and the Central Government that coordinates the policies. The marine areas, for which maritime spatial plans should be defined, have been identified and correspond to the 4 French sea basins (Eastern channel and North Sea; Northern

Atlantic; Southern Atlantic; Mediterranean Sea). The governance national framework for MSP can be described as it follows:

- implementation of the strategic documents is led by coordinating prefects (maritime and region prefects), which has also the duty to consult the stakeholders;
 - the Ministry in charge of Maritime Affairs has duties to: look after coherence of strategic plans at national scale; consult national committee for sea and coastline which brings together stakeholder's national representatives; report strategic plans to European Commission;
 - the Ministry in charge of the Sea and the Ministry of foreign affairs and coordinating prefects have duties to inform neighbouring countries and to look after coherence with their respective plans.
- To date there is no approved maritime spatial plan.

For what concerns Malta jurisdictions, it has defined the extent of its territorial sea, contiguous zone and the Fisheries Management Conservation Zone (FMCZ) through the Territorial Waters and Contiguous Zone Act, Cap. 226. The area of the Continental Shelf extends to a boundary that is defined by Article 2 of the Continental Shelf Act. The Directive 2014/89/EU establishing a framework for maritime spatial planning has been transposed through the Maritime Spatial Planning Regulations of 2016, under the provisions of the Development Planning Act of 2016 (Cap. 552) and the Planning authority of Malta was designated as the competent authority for MSP.

Malta is the only country of the SIMWESTMED project that has already an approved Maritime Spatial Plan (Strategic Plan for the Environment and Development, 2015) approved by the Government of Malta.

2.4 Methodological recommendations

Transboundary MSP, is then no different from MSP practiced within national/marine waters, except for the need to make some extra steps and adapt some of the steps in order to align governance procedures and harmonize planning contexts and approaches in all participating countries. These extra and preliminary steps to be made are described below, in correlation with the ordinary spatial planning steps.

Besides all this, an important cross-cutting theme that should be addressed during transboundary projects is investing and dedicating more time in communication and cultural differences issues. This is fundamental in order to: find accepted languages and terminologies to facilitate communication in order to avoid risks of misunderstanding; develop direct channels of communication (both horizontal and vertical); clearly state and communicate at an early stage goals and objectives of the transboundary project.

Important Note: the present section aims at presenting a conceptual framework/methodology that would be applicable in every case of cross-border MSP. In the case of the SIMWESTMED project, most of the steps described below, constitute essential and distinct Components (deliverables) to be delivered by the corresponding partners. This means that most of these steps are already included in the planning methodology to be applied in the pilot study areas. Besides this, the steps and the general methodology have the aim of being flexible for the project case studies and for more general cross-border methodology.

Disclaimer: The stakeholder engagement step needs to be pursued among all the below phases in order to have a comprehensive participation. An engagement strategy indeed is necessary, in order

to understand the benefits of a comprehensive stakeholder involvement and encourage communication channels at the regional sea level. Emphasis should also be put on the engagement of marine clusters (shipping companies, oil extraction companies, etc.), to ensure that common objectives will be built on mutual trust. At a secondary level, stakeholders' engagement may also prove valuable in promoting citizen science and in filling knowledge (and data) gaps for the seas. It is of crucial importance to involve stakeholders into the process as early as possible to give the opportunity to interact and share different perspectives.

These steps are based on the most recognized and applied methodology UNESCO-IOC (2009) guide "Marine Spatial Planning: a step-by-step approach toward ecosystem-based management" and on the Adriplan methodology (Barbanti et al., 2015).

A. PRE-PLANNING

PHASE 1

Step 1: Establishment of a transboundary/transnational working group

Multidisciplinary approach with national and international experts by selecting a different expertise team belonging from all the countries involved in the planning process. Planners, policy makers, experts (i.e. marine ecologists), and all the bearers of interest. The establishment of a transboundary working group is a fundamental step when practicing MSP on a transboundary basis. Moreover, in the transboundary working group is important to: ensure representativeness between all partners; find and establish clear structures of working and communication; take time for trust building and internal discussions.

The group coordinates planning and management issues and will be responsible for the alignment of policies and planning objectives among countries sharing the same sea. A correct coordination of the group may lead to the harmonization of the different competencies in the area, keep the timeframes and ensure effective collaboration among countries.

To be noted that TMSP does not need to end up with a joint cross-border plan but it can be considered a key integrated approach that allows the harmonization of the existing governance framework and general objectives in order to improve and support EBM.

Moreover, in that view, mechanisms, institutional structures and communication channels established in the framework of Regional Seas Conventions should be used to establish a transboundary working group.

Step 2: Definition of transboundary area(s) to be planned

The definition of what is meant as transboundary area in order to practice TMSP should be carefully considered. Indeed, the definition of the outer and landward limit needs to take into account administrative and jurisdictional limits, geographical and ecological dimensions of shared seas, as well as social, cultural, governance and policy variations among states.

The area(s) may be delimited by "hard" limits (for administrative reasons) and/or by "softer" limits (i.e. ecosystem borders). Hard limits, however, should be the starting point, given that regional,

national and sub-national authorities and administrations would be responsible for the monitoring of the implementation of MSP.

The area should be assessed considering all the possible transboundary elements (environmental, socio-economic) and this step will be focused more on an analytical and negotiation aspects.

PHASE 2

Step 3: Definition of common planning and management goals

The definition of common planning goals and objectives is a fundamental step to coordinate interests and resources of all parts. The setting up of such goals and objectives must ensure that resource management will be based on equity and trust, so that ecosystem services keep flowing to the benefit of all sides. Common objectives should also regard sea and land-based activities, their possible synergies and conflicts, as well as their impacts on the marine ecosystem (pollution, etc.). This step will orient the data collection and the analysis on which the planning process will be based. The knowledge framework should be based on existing strategic regional documents and be in line with the legal and policy instruments developed at international, regional and EU levels, that will drive the identification of common planning and management goals.

PHASE 3

Step 4: Assessment of national competencies and jurisdictions

This step will give an overview of the local, national and regional governance framework and of the existing plans that insist in the transboundary area(s). This is necessary in order to individuate promptly the necessary competent authorities, and an inventory of the strategic documents, future trends and development plans can be useful to drive the subsequent phases.

OUTPUTS OF PRE-PLANNING

- Identification of existing mechanisms for collaboration between sectors and countries
- List of experts for the transboundary working group
- Initial spatial assessment of the study area (maps)
- Overview, report and mapping of governance framework, common objectives (official strategic documents and development plans), management goals and future trends.

B. KNOWLEDGE AND DATA COLLECTION

PHASE 4

Step 5: Definition of the study area

This step will be dedicated to a more in-depth characterization of the transboundary area(s) by collecting and sharing information on the area(s) in order to feed the data collection and management.

Step 6: Identification of necessary data

Identification of which data is necessary to be collected for planning on the base of the above steps (in relation to the emerged issues): which data is needed? which data is available? which data sources? which data and information are likely to be produced? which representative indicators for each informative level (environment, uses, socio-economic assessment)?

Step 7: Data management

At sea, data is most likely to be missing or, when it exists, to be incompatible with each other. Digital geographical data deriving from different countries must comply with common standards for metadata, common vocabulary, data transport formats, quality control methods and flags. At the EU level, this compatibility of data is in progress, after the adoption of the INSPIRE Directive (Infrastructure for Spatial Information in the European Community). Moreover, at the regional Mediterranean level, data compatibility is pursued through implementation of the Integrated Monitoring and Assessment Programme (IMAP), adopted by the Contracting Parties to the Barcelona Convention in their COP 19 (Athens, Greece, 2016). This step shall create a compatible geodatabase in order to harmonize the data collected among the partners. Besides this, a list of the available and applicable analytical tools would be useful to inform this phase.

OUTPUTS OF KNOWLEDGE AND DATA COLLECTION

- Inventory of existing datasets/sources
- Homogenization of information/data
- Data feedback and review
- Creation or use of existing geodatabase
- List of analysis/planning tools

C. ANALYSIS

PHASE 5

Step 8: Mapping

Collection of spatial information regarding the environment, uses and activities, socio-economic assessment and so on. Moreover, considering land-sea interactions (socio-economic and environmental data) can help to develop a more comprehensive and complete analysis.

Step 9: Human activities having a highly transboundary nature

Adopting a transboundary approach when planning in the sea is seen as necessary in order to avoid conflicts among transnational users/professionals; avoid overexploitation of marine resources; achieve efficient preservation of valuable marine ecosystems; effectively tackle pollution, deriving from sea activities as well as from land-based activities. In order to achieve a correct and holistic transboundary approach, key functions and human activities having a highly transboundary nature shall be identified. This shall be done in coordination between all the countries.

Step 10: Identify spatial conflicts and synergies

The identification of the areas that are mainly affected by the uses, which present high biological significance, and where uses are in conflict is of fundamental importance for the development of the plan. Moreover, the definition of possible synergy opportunities can help solve some of the issues individuated. Some tools could be used when available (i.e. coexist among uses and cumulative impacts).

Step 11: Identification and mapping of the scenarios

Identification and mapping of alternative scenarios by including the future trends expected and analysis of strategic documents. Usually types of scenarios are: business as usual; economic development; nature conservation; sustainable development

NOTE: considering land-sea interaction aspects (socio-economic and environmental data), if any, could be useful.

OUTPUTS OF ANALYSIS

- Environmental, socio-economic, uses and activities, conflict and synergies maps
- Reports regarding transboundary issues and identified conflicts and synergies
- Prioritization of transboundary activities
- Development of a scenario portfolio

D. DESIGN

PHASE 6

This phase aims at defining the operational goals (SMART) of the plan to achieve the planning goals (compensation measures related to conflicts and management measures respect to the opportunities) on the base of the selected scenario.

Step 12: Strategic planning proposal

Step 13: Identification of pilot actions

OUTPUTS OF DESIGN

- Plan proposal
- Pilot actions proposal
- Best practices

E. IMPLEMENTATION

Implementation is the process of converting MSP plans into actual operating programs and is integral part to the success of any MSP program. The process will become operational when all the necessary transboundary institutional arrangements will function and will be operative. General requirements of the MSP plan, such as zoning or permits, will be most effective if closely related to

the practical compliance and enforcement (clear and simple). The enforcement of the plan will need a set of actions that governments and institutions take to achieve compliance with regulations involving human activities. The implementation should be coordinated among the countries without prejudice to the national implementation processes.

F. EVALUATION AND MONITORING

Monitoring activities shall be continuous during and after the implementation process. Evaluation and monitoring are based on the collection of data/knowledge and information on selected indicators to provide decision makers and stakeholders with progress reports on the state of achievement of objectives and goals. Transboundary MSP evaluation and monitoring shall not repeat national MSP procedures but focus on transnational and cross-border aspects. Existing sets of indicators developed at regional and international levels, relevant to MSP, should be used as appropriate.

G. ADAPTATION OF THE PLAN

The adaptive procedure is needed in order to improve the plan in a “learning by doing” phase. Indeed, the acquirement of updated and new information shall drive the redesign of the MSP plan if necessary.

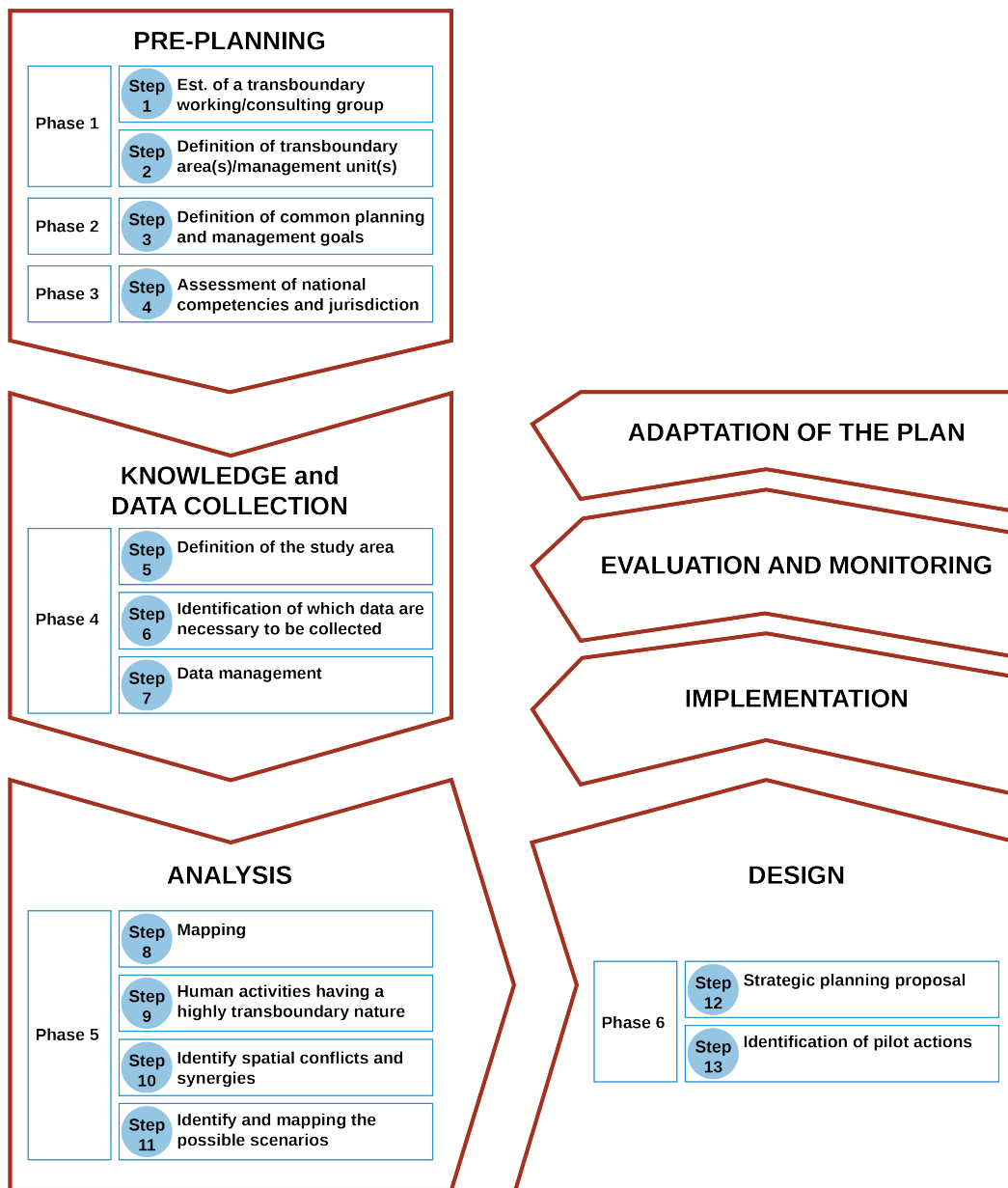


Fig. 3 Scheme of the methodological approach suggested. Source: University luav of Venice, 2018.

REFERENCES

- Agardy, T. (2010). *Ocean zoning: making marine management more effective*. Earthscan.
- Ansong, J., Gissi, E., & Calado, H. (2017). An approach to ecosystem-based management in maritime spatial planning process. *Ocean & Coastal Management*, *141*, 65-81.
- Assessment, M. E. (2005). Ecosystem and human well-being: biodiversity synthesis. *World Resources Institute, Washington, DC*.
- Backer, H. (2011). Transboundary maritime spatial planning: a Baltic Sea perspective. *Journal of coastal conservation*, *15*(2), 279-289.
- Barbanti A., et al. (eds) "Developing a Maritime Spatial Plan for the Adriatic-Ionian Region." (2015) CNR-ISMAR, Venice, IT.
- Berg, T., FÜRhaupter, K., Teixeira, H., Uusitalo, L., & Zampoukas, N. (2015). The Marine Strategy Framework Directive and the ecosystem-based approach—pitfalls and solutions. *Marine pollution bulletin*, *96*(1-2), 18-28.
- Brunner, R. (2003). European perspective and experience in transboundary cooperation. *ASEAN Biodiversity, January-June*, 10-15.
- Buhl-Mortensen, L., Galparsoro, I., Fernández, T. V., Johnson, K., D'Anna, G., Badalamenti, F., ... & Vanaverbeke, J. (2017). Maritime ecosystem-based management in practice: Lessons learned from the application of a generic spatial planning framework in Europe. *Marine Policy*, *75*, 174-186.
- Caldow, C., Monaco, M. E., Pittman, S. J., Kendall, M. S., Goedeke, T. L., Menza, C., ... & Costa, B. M. (2015). Biogeographic assessments: a framework for information synthesis in marine spatial planning. *Marine Policy*, *51*, 423-432.
- Castells, M. (2009). *Communication power*. OUP Oxford.
- Daniel, J. R., Pinel, S. L., & Brooks, J. (2013). Overcoming barriers to collaborative transboundary water governance: identifying local strategies in a fragmented governance setting in the United States. *Mountain Research and Development*, *33*(3), 215-224.
- Directive, E. C. (2008). 56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive). *Official Journal of the European Union*, *164*, 19-40.
- Douvere, F. (2008). The importance of marine spatial planning in advancing ecosystem-based sea use management. *Marine Policy*, *32*(5), 762-771.
- Ehler, C., & Douvere, F. (2009). Marine spatial planning, a step-by-step approach towards ecosystem-based management.
- Flannery, W., O'Hagan, A. M., O'Mahony, C., Ritchie, H., & Twomey, S. (2015). Evaluating conditions for transboundary Marine Spatial Planning: Challenges and opportunities on the island of Ireland. *Marine Policy*, *51*, 86-95.
- Foley M., Halpern B., Micheli F., Armsby M., Caldwell M., Crain C., Prahler E., Rohr N., Sivas D., Beck M., Carr M., Crowder L., Duffy J.E., Hacker S., McLeod K., Palumbi St., Peterson C., Regan H., Ruckelshausm M., Sandifer P. and Steneck R. (2010), "Guiding ecological principles for marine spatial planning", in *Marine Policy*. *34*, pp.955–966.

- Gilliland P. and Laffoley D. (2008), "Key elements and steps in the process of developing ecosystem-based marine spatial planning", in *Marine Policy* (32).
- Hassan, D., Kuokkanen, T., and Soininen, N. (Eds.). (2015). *Transboundary marine spatial planning and international law*. Routledge.
- ICES Advisory Committee on Ecosystems (2003), *Report of the Regional Ecosystem Study Group for the North Sea*.
- Jay, S., & Gee, K. (2014). TPEA good practice guide: Lessons for cross-border MSP from transboundary planning in the European Atlantic. *University of Liverpool, Liverpool, UK*.
- Jay, S., Alves, F. L., O'Mahony, C., Gomez, M., Rooney, A., Almodovar, M., Kira G., Suárez de Vivero J.L., Gonçalves J.M.S., Fernandes MdL, Tello O., Twomey S., Prado In., Fonseca C., Bentes L., Henriques G., Campos Al. (2016). Transboundary dimensions of marine spatial planning: Fostering inter-jurisdictional relations and governance. *Marine Policy*, 65, 85-96.
- Jones, P. J., Lieberknecht, L. M., & Qiu, W. (2016). Marine spatial planning in reality: Introduction to case studies and discussion of findings. *Marine Policy*, 71, 256-264.
- Mackelworth, P. (2010). A call for a trans-boundary marine protected area for the Northern Adriatic, can conservation succeed where politics failed. In *Proceedings of the 3rd International Workshop on Biodiversity in the Adriatic: Towards a Representatives Network of MPAs in the Adriatic* (pp. 117-129).
- Mackelworth, P., Holcer, D., & Lazar, B. (2013). Using conservation as a tool to resolve conflict: Establishing the Piran–Savudrija international Marine Peace Park. *Marine Policy*, 39, 112-119.
- Maes, F. (2008). The international legal framework for marine spatial planning. *Marine Policy*, 32(5), 797-810.
- McLeod, K. L., Lubchenco, J., Palumbi, S. R., & Rosenberg, A. A. (2005). Scientific consensus statement on marine ecosystem-based management (signed by 221 academic scientists and policy experts). The Communication Partnership for Science and the Sea. *Marine Policy*.
- Muñoz, M., Reul, A., Plaza, F., Gómez-Moreno, M. L., Vargas-Yáñez, M., Rodríguez, V., & Rodríguez, J. (2015). Implication of regionalization and connectivity analysis for marine spatial planning and coastal management in the Gulf of Cadiz and Alboran Sea. *Ocean & Coastal Management*, 118, 60-74.
- Raakjaer, J., Van Leeuwen, J., van Tatenhove, J., & Hadjimichael, M. (2014). Ecosystem-based marine management in European regional seas calls for nested governance structures and coordination—a policy brief. *Marine Policy*, 50, 373-381.
- Raustiala, K., & Victor, D. G. (2004). The regime complex for plant genetic resources. *International organization*, 58(2), 277-309.
- Rüter, S., Vos, C. C., van Eupen, M., & Rühmkorf, H. (2014). Transboundary ecological networks as an adaptation strategy to climate change: The example of the Dutch–German border. *Basic and applied ecology*, 15(8), 639-650.
- Schultz_Zehden A. and Gee K. (2013), *Findings: Experiences and Lessons from BaltSea- Plan*, s.Pro, Berlin.
- Soininen N. and Hassan D. (2015), Marine Spatial Planning as an instrument of sustainable ocean governance, in D. Hassan, T. Kuokkanen and N. Soininen (eds), *Transboundary marine spatial planning and international Law* (pp.3-20), Abington: Routledge.
- van Leeuwen, J., Raakjaer, J., van Hoof, L., van Tatenhove, J., Long, R., & Ounanian, K. (2014). Implementing the Marine Strategy Framework Directive: A policy perspective on regulatory, institutional and stakeholder impediments to effective implementation. *Marine Policy*, 50, 325-330.
- van Tatenhove J.P.M. (2017): Transboundary marine spatial planning: a reflexive marine governance experiment? *Journal of Environmental Policy & Planning*, DOI:10.1080/1523908X.2017.1292120

- van Tatenhove, J. P. M. (2013). How to turn the tide: Developing legitimate marine governance arrangements at the level of the regional seas. *Ocean & Coastal Management*, 71, 296–304.
- Vasilijević, M., Zunckel, K., McKinney, M., Erg, B., Schoon, M., Michel, T. R., & Groves, C. (2015). Transboundary Conservation: A systematic and integrated approach. *Best Practice Protected Area Guidelines Series*, 23.
- Warner, R., & Marsden, S. (2012). Perspectives on Transboundary Environmental Governance. *Transboundary Environmental Governance. Inland, Coastal and Marine Perspectives. Londres y Nueva York, Routledge*, 1-17.
- Wiering, M., & Verwijmeren, J. (2012). Limits and borders: stages of transboundary water management. *Journal of Borderlands Studies*, 27(3), 257-272.