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Regulation and Planning in the Mediterranean Sea

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12.1 Introduction and Geography

The Mediterranean Sea (Figure 12.1) is the largest of the European regional seas, covering an approximate area of 2.5 million km² (Suárez de Vivero and Rodríguez Mateos 2015). It is situated between three continents: Europe to the north, Africa to the south, and Asia to the east and is bordered by more than 20 coastal states, with 11 countries in Europe, 5 in Africa, and 5 in Asia. This is the largest number of coastal countries among European seas (Suárez de Vivero and Rodríguez Mateos 2015). The Mediterranean has an average depth of 1,500 m, with a maximum depth of 5,150 m along the southern coast of Greece. Its coastline is ca. 45,000 km long in total including more than 5,000 islands and islets, with Greece, Italy, Croatia and Turkey accounting for 75% of this length. This semi-enclosed sea has only two communication waterways with outside oceans: the 14 km wide and 300 m deep Strait of Gibraltar to the west and the few-meter wide artificial Suez Canal to the south-east. As a result, water turnover time is estimated to be very low, about one century (Robinson et al. 2001). The main source of replenishment is the continuous inflow of surface water from the Atlantic Ocean through the Strait of Gibraltar. The scarce inflow and low precipitation, coupled with high evaporation, makes the Mediterranean more saline than the Atlantic Ocean.

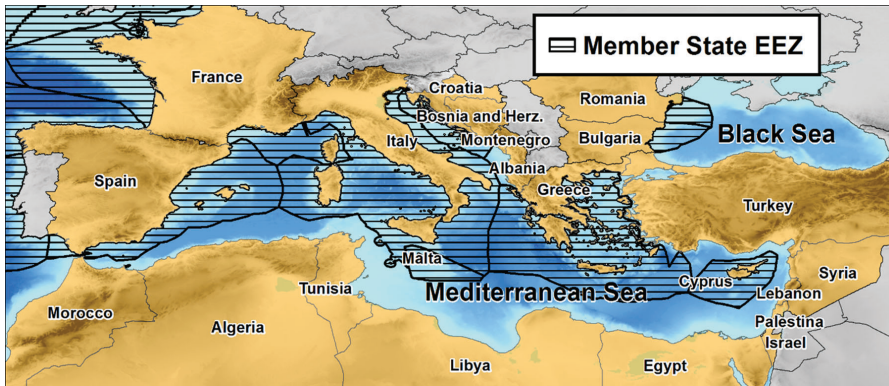


Figure 12.1 Mediterranean and Black Sea Basin.

The Mediterranean is a generally oligotrophic sea with a more productive western basin (D’Ortenzio and Ribera d’Alcalà 2009). Higher productivity occurs in upwelling areas such as the Ligurian Sea, the Alboran Sea and the Strait of Sicily, and in areas characterized by high organic input from natural or human origin such as the north western Adriatic Sea, the Gulf of Lion and the northern Aegean Sea (Barausse and Palmeri 2014). Although its biota was greatly impoverished after a salinity crisis in the late Holocene, the Mediterranean Sea represents a biodiversity hotspot, comprising temperate as well as subtropical species, with about 20% of endemic biota (Sala 2004; Bianchi et al. 2012). Its rocky reefs, seagrass meadows, and upwelling areas support enormous biodiversity. Seagrasses protect the seashore from erosion and maintain water quality, particularly through oxygen production and sediment burial (Salomidi et al. 2012). Mediterranean ecosystems provide suitable habitats for the endangered Mediterranean monk seal *Monachus monachus* as well as for endangered seabirds, endemic fish, invertebrates and communities (e.g. coralligenous). The Mediterranean Sea is also a hotspot of cumulative human pressures (Halpern et al. 2008, Micheli et al. 2013) that pose serious threats to its biodiversity (Coll et al. 2010) and facilitate biological invasions (Galil 2006). The already increasing rate of biological invasions is expected to grow even faster with the foreseen enlargement of the Suez Canal in 2017, since this artificial waterway links the relatively small Mediterranean biota with the huge species pool of the Indo-Pacific Ocean (Galil et al. 2015). The Mediterranean is also highly exposed to geo-hazards, such as earthquakes and land-slides (Urgeles and Camerlenghi, 2013).

The oligotrophy, heavy human pressure, high rate of biological invasions, and exposure to geo-hazards in a semi-enclosed sea with a relatively small water body with respect to the long coastline provide the picture of a diverse but fragile system with low physical inertia and limited ecological resilience. Blue growth activities should be therefore carefully planned in order to attain the adequate balance between benefits and trade-offs, and possibly meet adequate environmental standards (e.g. ISO 14001:2015 Environmental management systems; ISO 31000:2009 Risk management; EU Directives 2011/92/EU (Environmental Impact Assessment) and 2001/42/EC (Strategic Environmental Assessment)).

The Mediterranean region may well be considered one of the cradles of human civilization (Lopes 2014); its borders encompass a hugely diverse cultural, legislative and socio-economic landscape that creates a rich, dynamic and complex human environment, making it more complex to consider a global strategy at basin or sub-basin level (EUNETMAR 2014b). To make things even more complicated, the Mediterranean Sea does not form a clear, unitary geographical entity in the way other European seas do. According to the International Hydrographic Organization (IHO 2002), the Mediterranean Sea is subdivided into a number of smaller water bodies, each with its own designation. These water bodies can be clustered into three sub-regions (although other different subdivisions exist):

Western Mediterranean:

- Strait of Gibraltar;
- Alboran Sea, between Spain and Morocco;
- Balearic Sea, between mainland Spain and the Balearic Islands. In other nomenclatures, the Balearic Sea is part of the Algerian Basin;
- Ligurian Sea between Corsica and Liguria (Italy);
- Tyrrhenian Sea enclosed by Sardinia, the Italian peninsula and Sicily;

Central Mediterranean:

A submarine ridge between Sicily and Tunisia, corresponding to the Strait of Sicily, divides the Western and Eastern basins. Two main water bodies are considered:

- Ionian Sea between southeastern Italy, Sicily, Albania and Greece;
- Adriatic Sea between Italy, Slovenia, Croatia, Bosnia and Herzegovina, Montenegro and Albania.

Eastern Mediterranean:

- Aegean Sea between Greece and Turkey;
- Levantine Basin (or Levant Sea), that is the easternmost part of the Mediterranean.

12.1.1 Overview of Key Marine Sectors

The Mediterranean Sea is amongst the world's busiest waterways (Maritime Forum 2010): Currently, about 30% of the world ship traffic pass the Gibraltar Strait (several hundred ships daily, VT Explorer website) and the Suez Canal (49 transiting vessels daily at present) (Abdulla and Linden, 2008). The latter figure is expected to double with the imminent enlargement of the Suez Canal to a daily average of 97 transiting vessels by the year 2023 (Suez Canal Authority 2017). In addition to long distance shipping of goods, also some of the busiest intercontinental submarine cables for telecommunications pass through the Mediterranean (Bilsky 2009).

A study of twelve Mediterranean countries¹ identified coastal tourism and shipping (both deep sea and short-sea shipping) as key marine sectors in the Mediterranean Sea, generating 73% of the total gross value added by maritime economic activities in these countries; this exceeded EUR 63 billion in 2010 (EUNETMAR 2014b). Coastal tourism and maritime transport are significant economic activities not only in these countries, but also in European Neighbourhood Policy's partner countries. In terms of projects and initiatives related to blue growth and IMP in the Mediterranean, more than 80% EU-driven and -funded topics concern primarily environmental monitoring, coastal tourism and maritime transport. In programmes funded by the European Neighbourhood and Partnership Instrument (ENPI), coastal tourism is by far the principal maritime economic activity covered.

Fisheries is another principal marine economic sector, with an estimated regional economic impact of almost EUR 9 billion (GFCM, 2016). Several EU-, GFCM- and country-driven initiatives have been implemented to mitigate overfishing and foster fish stock recovery, from fishing license buyback schemes to spatial-based fisheries management (e.g., EC 2006; cf. Table 12.3).

¹The twelve countries are the EU member states Spain, France, Italy, Slovenia, Malta, Greece, Cyprus, Croatia, the candidate countries Bosnia and Herzegovina, Montenegro, and Albania, and the potential EU candidate Turkey.

In a study that looked at future business trends, marine aquaculture and coastal tourism were identified as “the most promising and relevant” maritime economic activities in almost all of the twelve EUNETMAR countries studied, followed by short-sea shipping and cruise tourism (EUNETMAR 2014a). Tourism is often a pivotal activity and the potential for growth remains significant. Other activities such as oil and gas extraction and aquaculture are also considered as promising in some countries. A further eight activities are important in more than two but fewer than five of the 12 studied countries: Passenger ferry services, yachting and marinas, deep-sea shipping, offshore oil and gas, shipbuilding and ship repair, water projects, inland waterway transport, fishing for human consumption. The remaining potential industry areas, such as blue biotechnology, offshore wind, protection of habitats, securing fresh water supply, maritime monitoring and surveillance were not considered important for those 12 Mediterranean countries (EUNETMAR 2014b, p. 8).

To summarise, Table 12.1 presents an inventory of the main current and future activities of the 21 Mediterranean countries. Actual data for the EU member states was gathered via the new European MSP Platform (<http://www.msp-platform.eu/>), which is considered “the central exchange forum for the rich knowledge generated in past, current and upcoming MSP processes and projects”. For the non-EU Mediterranean countries, no central data exchange point is available, hence, the inventory relies on the data published until 2011 in a research project report for the European Commission (PRC 2011). Our recent inventory comprising all Mediterranean countries slightly modifies the picture based on EUNETMAR (2014a,b): Tourism and aquaculture do represent important current and future maritime activities in many Mediterranean countries. However, in addition to these, also renewable energy production and environmental protection (MPAs) appear repeatedly in the list of future activities (Table 12.1).

12.1.2 Key Features Affecting Maritime Policy

The Mediterranean policy is affected by the particularities of the Mediterranean geography (see above) and by the diversity of the jurisdictional, political, and economic factors (see below) in the coastal states (Suárez de Vivero and Rodríguez Mateos 2015).

Jurisdictional features

The Mediterranean countries have declared different width of their territorial sea (3, 6, 12 nautical miles), resulting in national jurisdictional heterogeneity.

Table 12.1 Inventory of current and future marine/maritime activities, based on msp-platform.eu for all EU member states (except France), and on PRC (2011)

Country	Current Activities	Future Activities
Albania	Predominant focus: fisheries, aquaculture . Other activities: coastal tourism , offshore wind, oil and gas research, nature protection (1 MPA). Potential regional competition between: tourism, fisheries, onshore energy. Harbour transport, fishing, urban pressure.	offshore wind farm ; oil and gas exploitation, nature protection (more MPAs planned)
Algeria	Fisheries, marine protection. Maritime transport routes, desalination of sea water, marine aggregate (sand) exploitation	offshore wind/wave energy
Bosnia and Herzegovina	fishing, aquaculture , seashells production. High environmental pressure from fisheries and mariculture.	plan for harbour construction (no MPAs yet, no plans for offshore wind/wave energy yet)
Croatia	tourism (coastal + cruise), shipping, fisheries, shipbuilding, ship repair, water projects, passenger ferry services, marine aquaculture	tourism, aquaculture , shipping, passenger ferry services, yachting, marinas
Cyprus	tourism , fishing, shipping, water projects, securing fresh water supply	shipping, tourism, aquaculture , oil and gas, securing fresh water supply
Egypt	Maritime traffic; offshore hydrocarbon activities; fishing, aquaculture	nature protection (MPAs planned)
France	maritime traffic, marine protection,	fixed offshore wind farms planned ; no recent update available
Greece	nature conservation, shipping, ports, fisheries, aquaculture, tourism , under water cultural heritage, oil and gas, submarine cables and pipelines, military; coastal industries (cement, desalination)	offshore renewable energy production, dive parks, underwater tourism
Israel	maritime transport, ports/marinas, fisheries/ mariculture , sea water desalination, oil and gas, MPAs. Economic growth concerns; Perceived conflicts among uses	new and emerging uses, e.g., aquaculture ; effects of climate change (e.g., sea-level rise, coast cliffs erosion) [winds near Israeli shore not sufficiently strong for offshore wind farms]

Table 12.1 Continued

Italy	Coastal tourism ; Fishing for human consumption; Short sea shipping; Cruise tourism ; Shipbuilding and repair; Passenger ferry services; Deep-sea shipping	Short sea shipping; Passenger ferry services; Marine aquaculture ; Protection of habitats ; Coastal tourism ; Cruise tourism
Lebanon	maritime transport, fishery, oil and gas, marine protection (1 MPA)	?
Libya	fisheries management, offshore hydrocarbon exploitation/oil and gas, maritime transport	challenges: Biodiversity protection/creation of coastal protected areas ; Pollution of coastal waters by municipal, industrial and ship-generated waste; Lack of public awareness and participation; Participation in international agreements
Malta	shipping, ports, tourism , fisheries, aquaculture , oil and gas, submarine cables and pipelines	offshore renewable energy production , submarine cables and pipelines, scientific research
Monaco	navigation, ports, pollution, sustainable development, environmental protection (1 MPA)	?
Montenegro	maritime transport, ports, passenger ferry services, fisheries, mariculture , oil and gas, coastal tourism , nature protection (MPAs)	coastal tourism , nautical tourism /marinas, passenger ferry services, oil and gas, nature protection
Morocco	maritime transport/shipping, land-based water discharges/pollution, tourism , overfishing, sand extractions; high marine biodiversity	?
Palestine/ Gaza strip	natural gas fields; environmental pollution: solid wastes, construction debris, rubble, waste water, overfishing/excessive fishing methods, beach recreation, war	?
Slovenia	tourism , fisheries, shipping; water projects, shipbuilding and repair	shipping, tourism , aquaculture ; biotechnology
Spain	tourism , fisheries, shipping/maritime transport, mari/aquaculture , ports, hydrocarbons/mineral extraction, offshore renewable energy production/energy corridors	offshore renewable energy production
Syria	oil and gas terminals and ports	?

(Continued)

Table 12.1 Continued

Country	Current Activities	Future Activities
Tunisia	hydrocarbons extraction, maritime transport, fishing; coastal tourism , nature protection	?
Turkey	shipping/maritime transport, fisheries, aquaculture , marine protection	?

Note: Cells with “?” denotes no information found.

A wide range of jurisdictional regimes applies. The waters beyond national jurisdiction fall under the UNCLOS high seas regime, which implies free access to the water for all states, including non-coastal states. The seabed and the underlying subsoil, however, are part of the national jurisdiction down to the continental shelf border, including the slope. Most Mediterranean countries have renounced claims of sovereignty far beyond their territorial sea in order to avoid tensions with their neighbouring states. Roughly one third of the Mediterranean Sea has not been formally/officially claimed (yet) as national territory or EEZ (cf. Figure 2a in Cinnirella et al. 2014). In 2012, the maritime jurisdictions in the Mediterranean Sea were distributed as follows (Suárez de Vivero and Rodríguez Mateos 2015): High Seas 29%; EEZ 26%; Territorial Sea 19 %; Inland waters 7%; Fisheries protection zone 9%; Ecological protection zone 8%; Ecological and fisheries protection zone 1%; Other 1%. This picture is evolving, though, due to several sovereignty disputes (Table 12.2). For example, the borders of territorial seas off the coasts of Syria, Lebanon, Israel, Gaza, and Cyprus are under discussion following the discovery of substantial oil and gas deposits in the marine subsoil (US Geological Survey 2010).

Political and economic features

The Mediterranean region is currently focal point of conflict, crisis, terrorism and mass movements of people (e.g. Albahari 2015, Abbasi et al. 2015, Taghizadeh Moghaddam et al. 2017, Tardif 2017). The political and economic situations in the different coastal countries is very diverse (e.g. Coscieme et al. 2017, Cirer-Costa 2017). The Northern and Southern shores are separated by “one of the most marked economic divides on the planet and at their eastern end are home to one of the most intricate and dangerous geopolitical conflicts in modern international relations” (Suárez de Vivero and Rodríguez Mateos 2015). On the other hand, the Mediterranean countries share an enormous wealth of physical and economic assets, which, according to the European

Table 12.2 Overview of EEZ status of countries bordering the Mediterranean Sea, as of March 2017

COUNTRY	EEZ status (March 2017)
Albania	no
Algeria	No EEZ, but exclusive fishing zone established.
Bosnia and Herzegovina	no
Croatia	provisions for EEZ in Maritime Code of Croatia (1994), but not established. Instead: "ecological and fishery protection zone" beyond the territorial waters of Croatia.
Cyprus	yes
Egypt	yes
France	in progress
Greece	not yet
Israel	established in 2011, but not yet declared according to UNCLOS. Both northern and southern territorial boundaries are in dispute: N with Lebanon, S with Egypt (and Gaza) (Portman 2015)
Italy	no
Lebanon	yes (Decree No. 6433 - Delineation of the boundaries of the exclusive economic zone of Lebanon, 2011)
Libya	yes: EEZ declared in 2009 (General People's Committee Decision No. 260 of A.J. 1377)
Malta	no
Monaco	no
Montenegro	no
Morocco	EEZ established but not enforced in the Mediterranean
Palestine/ Gaza strip	no. 3nm Gaza Marine Activity Zone (1994)
Slovenia	no
Spain	yes: EEZ established in North-west Mediterranean Sea (Royal Decree 236/2013)
Syria	yes: EEZ claimed although Syria has not ratified UNCLOS.
Tunisia	EEZ area defined, but not enforced yet
Turkey	no

Note: EU member states printed yellow on blue (white on black). Cells highlighted in green indicate countries that have established an EEZ. Orange highlight indicates that the a process is ongoing, or that there are still disputes to settle between bordering countries and the entire EEZ has not been established yet. See "Links" in Table 12.4 for references.

Commissioner for Maritime Affairs and Fisheries, Karmenu Vella, need to be further explored to unlock the potential of the Mediterranean blue economy (EU 2009, Vella 2015): 450 ports and terminals; over 400 UNESCO world heritage sites; 236 Marine Protected Areas; 30% of the global sea-borne trade by volume; a quarter of worldwide sea-borne oil traffic; the world's leading tourism destination with one third of total arrivals worldwide; rapidly developing cruise tourism; and a coastal population of 150 million people which more than doubles during tourist season.

12.2 Environmental Policy

Two major governance processes can be distinguished in the Mediterranean Sea (Cinnirella et al. 2014, Suárez de Vivero and Rodríguez Mateos 2015):

1. Regional Sea level: the United Nations Mediterranean Action Plan (MAP) and the Barcelona Convention, along with the regionalization of management;
2. EU level: development and implementation of the EU's Integrated Maritime Policy and marine policies/legislation relating to fisheries, environment, coastal management, maritime spatial planning, the EU strategy for the Mediterranean Sea basin.

Both, sea basin and EU level policies trigger national action, such as the national strategic action plans (NSAP), and the national implementation of the EU framework directives.

12.2.1 Regional Sea level

The Mediterranean Action Plan (MAP), a regional environmental protection initiative, has been adopted in 1975 by sixteen Mediterranean countries and the European Community as the first-ever Regional Seas Programme under United Nations Environment Programme (UNEP) umbrella. Its four main objectives focus on: assessment and control of marine pollution, formulation of national environmental policies, improvement of governance to identify alternative development paths, and optimization of resources allocation. Seven legal protocols complete the MAP's legal framework, specifically as regards pollution control and management: Dumping Protocol from ships and aircraft; Prevention and Emergency Protocol (pollution from ships and emergency situations); Land-based Sources (LBS) and Activities Protocol; Specially Protected Areas (SPA) and Biological Diversity Protocol; Offshore Protocol (pollution from exploration and exploitation); Hazardous Wastes Protocol; Protocol on Integrated Coastal Zone Management (ICZM).

There are several programs and regional activity centres (RAC) to implement the MAP protocols. Also, to address land-based pollution, Strategic Action Plans (SAPs) have been developed since 1993, and countries have prepared and formally endorsed National Action Plans (NAPs) that describe the policy and actions each country intends to undertake to reduce pollution, in line with SAP targets. They incorporate mechanisms for information exchange, technology transfer, and promotion of cleaner technology, public participation and sustainable financing. Their fundamental goal is to develop and implement concrete pollution reduction projects that mobilize both stakeholders and resources, to become a cyclical process on which to build upon, to be mainstreamed into relevant institutional, budgetary and policy frameworks, and to incorporate lessons learnt in the process.

The NAP implementation process is expected to greatly enhance economic, technological and social development at the local level and to contribute to sustainable development. The Mediterranean Ecosystem Approach Strategy (EcAp) was proposed in 2005 and launched in 2009, aiming to achieve a Healthy Environment status of the Mediterranean Sea by 2020.

Today, the European Union and twenty-one countries around the Mediterranean are Contracting Parties of the MAP. In 2016 all parties reconfirmed their commitment “to implement the UNEP/MAP Mid-Term Strategy 2016–2021” to achieve “a healthy Mediterranean with marine and coastal ecosystems that are productive and biologically diverse contributing to sustainable development for the benefit of present and future generations” (UNEP/MAP Mid-Term Strategy 2016–2021 and UNEP Athens Declaration 2016). The MAP is legally binding.

The same MAP parties adopted the Convention for the Protection of the Mediterranean Sea Against Pollution (Barcelona Convention) in 1976. Both instruments, MAP and Barcelona Convention, were amended and adopted again by the Contracting Parties in 1995 (UNEP 1995a, 1995b). Initially the Barcelona Convention was fully focused on nature conservation and protection. Such focus successively shifted towards sustainable development, aiming at meeting the challenges of environmental degradation in the sea and to harmonize sustainable resource management with socio-economic development.

12.2.2 EU Level

Specifically for the Mediterranean region, the basin strategy of the EU’s Integrated Maritime Policy (IMP) emphasizes the need for improving cooperation between the more than 20 Mediterranean countries. The IMP’s Mediterranean basin strategy is “to improve cooperation and governance while also encouraging sustainable growth” (EU DG MARE website). Cooperation of the Mediterranean countries and among the many marine and maritime Mediterranean sectors is necessary in order to manage maritime activities, protect the marine environment and maritime heritage, prevent and combat pollution, improve safety and security at sea, and promote blue growth and job creation.

There is also a strategic research agenda for the EU Marine Strategy Framework Directive (MSFD) (SEAS ERA Med 2012), with the goal for Mediterranean marine science to “be able to contribute with New Knowledge to efficient Policy Making and sustainable growth of Maritime Economy

in response to the societal challenges for Food, Energy, Wellbeing, and a Healthy marine environment following the principles of Ecosystem Approach to Management of Natural Resources” by 2020. The research agenda also includes a focus on support to sustainable economic growth in the region.

12.3 Regulatory Regimes

Appendix 12.1 addresses the main global regulations (treaties and legislation) of relevance for Blue growth sectors. In addition, Table 12.3 shows specific policy frameworks in relation to the sector combinations considered for the Mediterranean. The MARIBE project identified these sectors as relevant for the Mediterranean Sea [Chapter 14 of this book].

Table 12.3 Mediterranean sector specific policies

Sector	Policy/Agreement
Aquaculture	<ul style="list-style-type: none"> ● Directive on Animal Health Requirements (2006/88/EC) ● Common Fisheries Policy: Regulation (EC) No 1434/98 ● Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy. ● Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions of 29 April 2013 on Strategic Guidelines for the sustainable development of EU aquaculture (COM/2013/229). ● Regulation (EU) No 304/2011 of the European Parliament and of the Council of 9 March 2011 concerning use of alien and locally absent species in aquaculture. ● Council Regulation (EC) No 708/2007 concerning use of alien and locally absent species in aquaculture. ● Commission Regulation (EC) No 710/2009 of 5 August 2009, as regards laying down detailed rules on organic aquaculture animal and seaweed production. ● Regulation (EC) No 889/2008 laying down detailed rules for the implementation of Council Regulation (EC) No 834/2007 on organic production and labelling of organic products with regard to organic production, labelling and control. ● Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91. ● Communication from the Commission to the European Parliament and the Council – Building a sustainable future for aquaculture, A new impetus for the Strategy for the Sustainable Development of European Aquaculture (COM/2009/0162 final).

Table 12.3 Continued

Fisheries	<ul style="list-style-type: none"> ● GFCM Agreement ● ICCAT Convention ● Common Fisheries Policy: Regulation (EU) 2015/812 of the European Parliament and of the Council of 20 May 2015, as regards the landing obligation. ● Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy. ● COUNCIL REGULATION (EC) No 1967/2006 of 21 December 2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea.
Offshore Wind fixed , floating; offshore fixed terminal	<ul style="list-style-type: none"> ● Renewable Energy Directive (2009/28/EC) ● Communication from the Commission to the European Parliament and the Council, the European Economic and Social Committee and the Committee of the Regions – Blue Growth, opportunities for marine and maritime sustainable growth (COM/2012/494 final). ● Communication from the Commission to the European Parliament and the Council, the European Economic and Social Committee and the Committee of the Regions – Blue Energy Action needed to deliver on the potential of ocean energy in European seas and oceans by 2020 and beyond (COM/2014/08 final).
Tourism	<ul style="list-style-type: none"> ● No specific policy at regional level. The following policies and instruments affect tourism in the Mediterranean at different levels: ● UN Agenda 21, is the only policy covering the entire region. ● Cotonou Agreement (2000) and its successive amendments allow for cooperation in development between the EU and African countries through the European Development Fund. ● At EU level: Communication from the Commission to the Council and the European Parliament – A European Strategy for more Growth and Jobs in Coastal and Maritime Tourism (COM/2014/086 final). ● At sub-regional level: Communication from the Commission to the Council and the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions concerning the European Union Strategy for the Adriatic and Ionian Region (COM/2014/0357 final).
Oil and Gas	<ul style="list-style-type: none"> ● Industrial Emissions Directive (2010/75/EU) ● Directive on safety of offshore oil and gas operations (2013/30/EU) ● Directive concerning common rules for the internal market in natural gas (2009/73/EC) ● Directive imposing an obligation on Member States to maintain minimum stocks of crude oil and/or petroleum products (2009/119/EC)

(Continued)

Table 12.3 Continued

Sector	Policy/Agreement
	<ul style="list-style-type: none"> ● Directive on the conditions for granting and using authorisations for the prospection, exploration and production of hydrocarbons (94/22/EC) ● Communication from the Commission to the Council and the European Parliament – Blue Growth, opportunities for marine and maritime sustainable growth (COM/2012/494 final).
Seabed Mining Offshore	<ul style="list-style-type: none"> ● Directive on environmental liability with regard to the prevention and remedying of environmental damage (2004/35/EC) ● Communication from the Commission to the Council and the European Parliament – Blue Growth, opportunities for marine and maritime sustainable growth (COM/2012/494 final).
Biotechnology	<ul style="list-style-type: none"> ● There is currently no overarching regional strategy or plan specifically focusing on marine biotechnology research and development. ● General marine science issues are considered by organisations such as CIESM and projects such as the SEAS-ERA Project (www.marinebiotech.eu) ● At EU level: Communication from the Commission to the Council and the European Parliament – Blue Growth, opportunities for marine and maritime sustainable growth (COM/2012/494 final).
Nature conservation	<ul style="list-style-type: none"> ● Convention for the Protection of the Mediterranean Sea Against Pollution (Barcelona Convention) ● Mediterranean Ecosystem Approach Strategy (EcAp) ● Agreement on the Conservation of Cetaceans of the Mediterranean and the Black Sea and contiguous Atlantic Area (ACCOBAMS) ● Directive 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)

12.4 Spatial Impact and Planning

A protocol on Integrated Coastal Zone Management (ICZM) entered into force in 2011 (UNEP 2008), signed by 15 and currently ratified by 10 parties (Albania, Algeria, Croatia, France, Greece, Israel, Italy, Malta, Monaco, Montenegro, Morocco, Slovenia, Spain, Syria, Tunisia and the EU). The main goal of the ICZM Protocol is to allow the Mediterranean countries to better manage and protect their coastal zones, as well as to deal with the emerging coastal environmental challenges (e.g. climate change). The Protocol puts pressures on science and technology to improve practices of MSP and ICZM. The Action Plan for the implementation of the ICZM

Protocol is ongoing (2012–2019). The Protocol is part of EU law (EU 2008) and has binding effects. Furthermore, the EU FP7 research project PEGASO² has developed novel approaches to support integrated policies for the coastal, marine and maritime realms of the Mediterranean (and Black) Sea. Building on existing capacities, the approaches are consistent with and relevant to the implementation of the ICZM Protocol for the Mediterranean.

Table 12.4 provides a status overview by country of the existing implemented marine spatial plans and/or any existing related MSP legislation. The overview was constructed on the basis of data from the European MSP Platform, PRC (2011) and the UNESCO country reports (UNESCO website). The EU MSP directive provides a framework for MSP for EU Member States. In order to comply with the MSP Directive EU Member States needed to implement the required laws, regulations and administrative provisions by September 2016. The maritime spatial plans should be implemented as soon as possible, and at the latest by March 2021. Plans will be reviewed at least every 10 years. Of the Mediterranean EU Member States only Croatia, Malta and Slovenia have successfully implemented national MSPs so far. There are no international MSP obligations for the Non-EU states.

12.5 Related Strategies

12.5.1 Mediterranean Cooperation Projects and Initiatives

The EUNETMAR (2014b) project identified 149 cooperation projects and initiatives related to blue growth and integrated maritime policy. About a third of those are specific to the Adriatic and Ionian basins. Table 12.5 gives an overview of international/supranational, EU and national cooperation projects for maritime sectors as well as overarching for the Mediterranean Sea region.

12.5.2 Maritime Clusters

Additionally, clusters are considered important for the progress of the Blue Growth strategy as the development and growth of maritime sectors are often dependent on collaboration and cooperation between local players. A cluster is defined “as a geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities (external economies). External economies that occur within a cluster are the economic and financial inter-sector relations, a common knowledge and technology base,

²<http://www.vliz.be/projects/pegaso/>

Table 12.4 Overview by country of existing implemented marine spatial plans or related MSP legislation in the Mediterranean Sea, based on msp-platform.eu for all EU member states (except France), PRC (2011) and UNESCO website.

Country	MSP in Place	Existing Legislation	Activities		Links
			Covered	Comments	
Albania	no	Coastal Zone Management plan (2004); National ICZM plan (but no national ICZM law)			PRC 2011
Algeria	no	Coastal Area Management Programme (CAMP) for the Algerian Coastal Zone (2001)		No EEZ, but exclusive fishing zone established.	PRC 2011
Bosnia and Herzegovina	no	Federal Law on Spatial Planning. No legislative instruments/mechanisms/procedures for coastal management; no bodies/agencies for integrated management of the coastal area		Territorial sea is entirely surrounded by Croatia's internal waters. Treaty on maritime borders signed in 1999; however not ratified.	PRC 2011
Croatia	Yes	MSP on regional level the legally binding "Zadar county integrated sea use and management plan". On national level the Physical Planning Act (2013) provides for MSP, but not legally binding. legally binding plan focusing on mariculture and with links to MSP: Zadar county integrated sea use and management plan.	focus on mariculture	Maritime Code of Croatia (1994) contains several EEZ provisions, but has not in reality been established	msp-platform.eu
Cyprus	no	EEZ established. No specific, single legislative act for maritime spatial planning yet. Pilot plans exist			msp-platform.eu

Table 12.4 Continued

Egypt	no	EEZ established. National Committee for Integrated Coastal Zone Management (1994) but clear mandate and authority lacking. Aim to develop ICZM strategy in compliance with the ICZM protocol.	PRC 2011
France*	ongoing	EEZ establishment in progress. MSP: Plan d'action pour le littoral méditerranéen; Marine Protected Areas Strategy, suitable for MSP. National Strategy for the sea and oceans (Livre Bleu, 2009); currently developing a new maritime policy	PRC 2011
Greece	no	Several sector specific legislative acts, strategic documents and spatial planning frameworks (e.g. aquaculture, tourism, industry and renewable energy)	no specific legislation dealing with MSP yet msp-platform.eu
Israel	yes	Israel Marine Plan (Technion IMP (TIMP)) completed (by academic initiative), but not yet approved. The southernmost part of the territorial sea is adjacent to the Gaza Strip and therefore closed to Israel civilian uses.	Competition likely between: port development-MPAs-channel dredging-recreation-military use; fishing-deep sea MPAs-desalination projects-recreation; TMP (ongoing); Portman 2015; UNESCO website 2017

(Continued)

Table 12.4 Continued

Country	MSP in Place	Existing Legislation	Activities Covered	Comments	Links
Italy	no	EU MSP Directive was transposed in Italian legislation with the Legislative Decree 17 October 2016, n. 201. No binding maritime spatial plan has yet been officially elaborated/adopted	marine conservation, biodiversity concerns; new and emerging uses	cliffs erosion-nature protection/archaeology; sand supply/port construction-nature protection-sand drift	msp-platform.eu
Lebanon	no	EEZ established. No binding MSP legislation, but several ICZM strategies and projects; Framework Law on the Protection of the Environment (444/2002, article 29-34); creation of the National Council of the Environment to coordinate ICZM actions foreseen, but not yet set up.		potentially three MSP plans to be elaborated, for (i) Western Mediterranean, (ii) Adriatic Sea, (iii) Ionian Sea and Central Mediterranean	PRC 2011
				no maritime activities at border with Israel due to political conflicts. Laws and regulations re planning and environment are overlapping, contradictory and not well-applied, resulting in inter-ministerial disputes related to jurisdiction and mandate.	

Table 12.4 Continued

Libya	no	EEZ established. No comprehensive ICZM legislation for the entire coastline; weak environmental legislation. Existing legislation (1969) and National Spatial Planning Strategy focus on controlling development on land.	controlling development on land	Important and well-preserved beaches and near-shore marine areas (sea turtles nesting areas);	PRC 2011
Malta	yes	MSP; Strategic Plan for Environment and Development (SPED, 2015) = overarching document for planning issues on land and at sea in an integrated manner. It constitutes the national Maritime Spatial Plan. Main legislative act: Development Planning Act of 2016 (incl. development at sea); Strategic Plan for Environment and Development (SPED, 2015) = overarching document for planning issues on land and at sea in an integrated manner. It constitutes the national Maritime Spatial Plan.	maritime transport; short sea shipping; port; cruise tourism; yachting, fishing, aquaculture, offshore hydrocarbon exploration; communication cables		Plan: http://www.pa.org.mt/sped ; Country MSP info: msp-platform.eu

(Continued)

Table 12.4 Continued

Country	MSP in Place	Existing Legislation	Activities Covered	Comments	Links
Monaco	no				PRC 2011
Montenegro	yes	MSP: Spatial Plan for the coastal zone/Public Maritime Domain as a Special Purpose Area (2007). Draft National Strategy on Integrated Coastal Area Management (NS ICAM)		pollution hotspots and sensitive areas in the coastal sea; planning system in general is well-developed, comprehensive and integrated, but lack of plans/adequate solutions for the coastal/marine area issues	PRC 2011
Morocco	no	EEZ established but not enforced in the Mediterranean. Environmental legislation exists; sub-national coastal management plan developed.			PRC 2011
Palestine/ Gaza strip	no	no information		natural gas fields; environmental pollution: solid wastes, construction debris, rubble, waste water, overfishing/excessive fishing methods, beach recreation, war	FT 2013; Al-Dameer 2009
Slovenia	yes	MSP: National Spatial Plan for the integrated spatial development	Shipping, Ports,		msp-platform.eu

Table 12.4 Continued

<p>of the port for international traffic at Koper (no new legislation needed for implementation of MSP directive). National Spatial Plan for the integrated spatial development of the port for international traffic at Koper</p>	<p>Tourism (incl. recreation and sports), Nature protection, Military</p>	<p>Spain no</p> <p>Spanish law 41/2010 for planning the marine environment (MSFD implementation); an instrument (Royal Decree) for MSP is being prepared.</p>	<p>coastal and marine tourism, fisheries, maritime transport and mariculture</p>	<p>No MSP covering the entire coastal zone; Act on Protection of the Marine Environment (2010) ICZM strategy. No legal delimitation of the coastal zone.</p>	<p>msp-platform.eu</p>
<p>Syria</p>	<p>no</p>	<p>EEZ claimed although Syria has not ratified UNCLOS. Strategic integrated approach to spatial planning of the coastal area is lacking.</p>	<p>High salinity, low biodiversity, high pollution</p>	<p>PRC 2011</p>	<p>PRC 2011</p>
<p>Tunisia</p>	<p>no</p>	<p>EEZ established. Existing maritime law; national MPA programme</p>	<p>ICZM considered high priority. Challenges: high urbanisation, pollution, vulnerability of the marine environment</p>	<p>PRC 2011</p>	<p>PRC 2011</p>
<p>Turkey</p>	<p>no</p>	<p>legal framework for ICZM and institutional structure not yet established; wide scope ICZM law provided by current legal framework; uncoordinated management as regards coastal planning</p>	<p>uncoordinated management as regards coastal planning: More than twenty institutions are in charge of the sea and coastal areas resulting in responsibility overlaps and gaps.</p>	<p>PRC 2011</p>	<p>PRC 2011</p>

Table 12.5 Maritime clusters per cooperation project/sector in the Mediterranean Sea Region

Cooperation Project	Name and Brief Description	Source/Link
Cooperation EU-non EU	<p>EUROMED (Euro-Mediterranean Partnership)</p> <ul style="list-style-type: none"> • a portal for news and information about EU cooperation with its Southern neighbours • established by the Barcelona Convention: Union for the Mediterranean (UfM). 	<p>http://enpi-info.eu/indexmed.php http://eeas.europa.eu/euromed/index_en.htm</p>
Regional and local cooperation	<p>Euro-Mediterranean Regional and Local Assembly (ARLEM) (EU-Committee of the Regions)</p> <ul style="list-style-type: none"> • To support the process of decentralisation and promote the “territorialisation” of the UfM’s policies, programmes and projects • To strengthen the institutional capacity of local and regional authorities to manage public policies and highlight the role of local and regional authorities as strategic partners for good governance and successful development outcomes • For the implementation of a cohesion policy in the Southern and Eastern Mediterranean region and the adoption of a macro-regional approach. • To bring Euro-Mediterranean cooperation closer to the citizens, therefore producing tangible results in people’s daily lives. 	<p>http://cor.europa.eu/en/activities/arlem/Pages/arlem.aspx</p>
Regional support	<p>CPMR Inter Mediterranean Commission to express the shared interests of Mediterranean</p> <ul style="list-style-type: none"> • Regions in important European negotiations • Defending the interests of the Mediterranean Regions in key EU policies • Incorporating the territorial concept and the role of the regional authorities in the Barcelona process and the Mediterranean Union • Undertaking strategic “pilot” projects on key themes with a forceful territorial impact 9 member countries, comprising 40 member regions 	<p>http://www.medregions.com/index.php?act=1,1</p>
Regional fisheries management organization (RFMO)	<ul style="list-style-type: none"> • GCFM (General Fisheries Commission for the Mediterranean) under the FAO • to promote the development, conservation, rational management and best utilization of 	<p>http://www.fao.org/gfcm/en/</p>

Table 12.5 Continued

	living marine resources as well as the sustainable development of aquaculture in the Mediterranean, the Black Sea and connecting waters 24 members (23 countries + EU)	
Marine cetaceans: Conservation Monitoring, research Capacity building information	ACCOBAMS (Agreement on the Conservation of Cetaceans in the Black Sea, Mediterranean Sea and Contiguous Atlantic Area) <ul style="list-style-type: none"> • cooperative tool for the conservation of marine biodiversity in the Mediterranean and Black Seas • to reduce threats to cetaceans in Mediterranean and Black Sea waters and improve our knowledge of these animals 	http://www.accobams.org/
Science/Research	CIESM (Mediterranean Science Commission) <ul style="list-style-type: none"> • support a network of marine researchers • applying the latest scientific tools to better understand, monitor and protect a fast-changing, highly impacted Mediterranean Sea • Structured in six committees and various taskforces, CIESM runs expert workshops, collaborative programs and regular congresses, delivering authoritative, independent advice to national and international agencies. • 23 member states 	http://www.ciesm.org/
Coastal nature protection, FR-IT	Accord RAMOGE (Agreement for the prevention and combat against pollution in the marine environment and the littoral of the PACA Region (FR), the Principality of Monaco and Liguria (IT)) <ul style="list-style-type: none"> • Management and protection of the coast and marine biodiversity, fight against pollution of the marine environment 	http://www.ramoge.org/fr/default.aspx
Coastal protection, collaboration	PIM (Petites Iles de Méditerranée) Mediterranean small islands Initiative, Coastal Protection Agency <ul style="list-style-type: none"> • setting-up practical measures for conservation management and protection of these microcosms • facilitating exchange of information and experience between site managers (administrators) and experts from across the Mediterranean Basin. 	http://www.initiative-pim.org/en

(Continued)

Table 12.5 Continued

Cooperation Project	Name and Brief Description	Source/Link
Regionalisation	e.g.: EU Strategy for the Adriatic and Ionian region and its action plan Developing sub-regional strategies to exploit the strengths and address the weaknesses of particular maritime regions	http://ec.europa.eu/maritimeaffairs/policy/sea_basins/adriatic_ionian/index_en.htm
Coast guard: Maritime safety, Surveillance, Monitoring, . .	ECGFF (Mediterranean Coast Guard Functions Forum) <ul style="list-style-type: none"> • self-governing, non-binding, voluntary, independent and non-political body • brings together administrations, institutions and agencies working on coast guard issues from all Mediterranean countries • network • DG MARE funded 	http://www.ecgff.eu/
Virtual knowledge centre Coordination, Cooperation	Virtual Knowledge Centre for marine and maritime affairs in the Mediterranean – part of IMP-MED <ul style="list-style-type: none"> • instigated by the European Union, European Investment Bank and International Maritime Organization • to facilitate coordination and cooperation, consolidate and share general, technical and sectoral information; to improve synergies across initiatives and projects, promote investment and innovation, and support maritime businesses. 	http://www.vkc-med.eu/
Communication platform	Maritime Forum <ul style="list-style-type: none"> • a common communication platform for EU maritime policy stakeholders to improve their communication to publish events, documents and follow developments in their areas of interest • share information amongst a closed community or published openly 	https://webgate.ec.europa.eu/maritimeforum/

and a shared labour market” (PRC 2008). A European Network of Maritime Clusters has been established “as a best practices dissemination and exchange platform”, its “aim is to establish a framework for future common targeted actions” (ENMC website). Table 12.6 describes existing clusters in a few Mediterranean countries.

Table 12.6 Maritime Clusters in the Mediterranean Sea basin

Country	Name	Cluster Description
France		Aquitaine, Bordeaux Maritime cluster (especially shipping) is active and strong in many niches (e.g. maritime research and technological services and yacht building) (source: CMF, 2008): Yacht building and repair Mer PACA = regional competitiveness poles (source: Pôles de Compétitivité, 2008)
Greece		No formal organisation representing sea-related sectors is (yet) established
Italy	Federazione del Sistema Marittimo Italiano	Shipbuilding, Marine equipment, Seaports, Shipping AIDIM (diritto marittimo), ANCIP (lavoro portuale), ANIA (assicurazione), ASSOPORTI (amministrazione portuale), ASSONAVE (cantieristica navale), ASSORIMORCHIATORI (rimorchio portuale), COLLEGIO CAPITANI (stato maggiore marittimo), CETENA (ricerca navale), CONFITARMA (navigazione mercantile), FEDERAGENTI (agenzia e intermediazione marittime), FEDEPILOTI (pilotaggio), FEDERPESCA (navigazione peschereccia), FEDESPEDI (trasporti internazionali), INAIL/exIPSEMA (previdenza marittima), RINA (certificazione e classificazione) e UCINA (nautica da diporto).
Malta		traditional maritime sectors with an employment of 7 600 or 5% of all Maltese employed
Slovenia		Employment in coastal tourism and fisheries
Spain	Cluster Marittimo Espanol (SMC) several regional cluster organisations Cluster Marittimo de Canarias	Fisheries, Shipbuilding, coastal tourism, offshore supply, recreational boating Canaries: Shipbuilding and ship repairs; port services; fishing and aquaculture; and auxiliary industries Spanish maritime cluster excels in the sectors fisheries and coastal tourism and their supporting services

Source: PRC 2008.

12.6 Supporting Blue Growth

International European funding sources for Blue Growth activities are listed in Table 12.7.

Table 12.7 International funding schemes, purpose and link

Funding Name	Purpose/Type of Activity Covered	Links
2014–2020 EU financial framework	Partnership contracts between national governments and the Commission, operational programmes for regional development and work programmes for research	http://ec.europa.eu/budget/mff/index_en.cfm
European Agricultural Fund for Rural Development (EAFRD)	Sustainable management of natural resources and climate action and the balanced territorial development of rural areas.	http://ec.europa.eu/agriculture/rural-development-2014-2020/financial-instruments/index_en.htm
European Maritime and Fisheries Fund (EMFF)	Maritime and fisheries related activities including sea-basins such as the Atlantic. Aims at achieving the objectives of the reformed CFP and IMP.	http://ec.europa.eu/fisheries/cfp/emff/index_en.htm
European Social Fund (ESF)	Main financial instrument for investing in people. Seeks to increase employment opportunities and promote education.	http://ec.europa.eu/regional_policy/en/funding/social-fund/
European Regional Development Fund (ERDF)	Aims to strengthen economic and social cohesion in the European Union by correcting imbalances between its regions.	http://ec.europa.eu/regional_policy/en/funding/erdf/
Cohesion Fund	Helps Member States with a GNI per inhabitant of less than 90% of the EU-27 average to invest in TEN-T transport networks and the environment.	http://ec.europa.eu/regional_policy/en/funding/cohesion-fund/
European Territorial Cooperation Fund	Provides a framework for the exchanges of experience between national, regional and local actors from different Member States as well as joint action to find common solutions to shared problems.	http://ec.europa.eu/regional_policy/en/policy/cooperation/european-territorial/
European Groupings of Territorial Cooperation (EGTCs)	Designed to help specific countries/regions overcome complicated differences between national rules and regulations.	https://portal.cor.europa.eu/egtc/Pages/welcome.aspx
Connecting Europe Facility	A new, integrated instrument for investing in EU infrastructure priorities in transport, energy and telecoms.	https://ec.europa.eu/inea/en/connecting-europe-facility
Programme for the Competitiveness of Enterprises and small and	Aims to strengthen the competitiveness and sustainability of the Union's enterprises and encourage an entrepreneurial culture by promoting the creation and growth of SMEs.	http://ec.europa.eu/growth/access-to-finance/cosme-financial-instruments/index_en

Table 12.7 Continued

Funding Name	Purpose/Type of Activity Covered	Links
medium-sized enterprises (COSME)		htm
Horizon 2020	Research and innovation funding for various types of research project.	http://ec.europa.eu/programmes/horizon2020/
LIFE+	Covers the environment, biodiversity, resource efficiency, governance and all aspects of climate change.	http://ec.europa.eu/environment/life/funding/lifeplus.htm
European Investment Bank (EIB)	Innovation and skills, access to finance for small businesses, environment and climate, infrastructure	http://www.eib.org/about/index.htm

In some circumstances specific sectors may receive governmental support in the form of State aid but this can be subject to very strict conditions. Accordingly, shipbuilding is one such sector, exemptions are discussed in Section 10.6.

The EUNETMAR (2014b) project also identified potential funding opportunities, i.e. support schemes, related to blue growth and integrated maritime policy in the Mediterranean (Table 12.8).

12.7 Key Considerations

Due to the many anthropogenic as well as natural challenges (oligotrophy, heavy human pressure, high rate of biological invasions, exposure to geohazards, semi-enclosed sea with a very low turnover time) the Mediterranean Sea can be characterized as a diverse but fragile system with low physical inertia and limited ecological resilience. Before initiating any type of Blue Growth activity or the combinations thereof, the potential ecological impacts therefore need to be carefully investigated. Due to the socio-economic and cultural diversity of the Mediterranean societies, also social impact studies need to be carried out. An adequate balance between benefits and trade-offs of innovative Blue Growth activities needs to be carefully planned. In light of the geo-political situation the major challenge for the Mediterranean region is to create a safer, peaceful and more prosperous region.

Stability and a common governance framework for the entire Mediterranean Sea region are crucial for Blue Growth – a key conclusion resulting from the international public consultation on Ocean Governance (DG MARE

Table 12.8 Support schemes/potential funding opportunities relevant for projects in the Mediterranean Sea

Cluster	Name and Brief Description
Regional integration and cohesion	UfM (Union for the Mediterranean) http://ufmsecretariat.org/ <ul style="list-style-type: none"> • multilateral partnership aiming at increasing the potential for regional integration and cohesion among Euro-Mediterranean countries
Blue Growth	UfM Blue Growth call for 2016 and 2017 focussing on several maritime and marine challenges of the BLUEMED Initiative. http://ufmsecretariat.org/within-the-framework-of-its-global-sustainable-development-strategy-the-ufm-launches-a-new-blue-economy-cooperation-initiative-in-the-mediterranean/
International, regional, and sectoral integration	ENPI (European Neighbourhood & Partnership Instrument) <ul style="list-style-type: none"> • supports the European Neighbourhood Policy (ENP): 16 ENP countries, to achieve the closest possible political association and the greatest possible degree of economic integration IMP-MED (Project on Integrated Maritime Policy in the Mediterranean) designed to help the southern Neighbourhood countries develop integrated approaches to marine and maritime affairs. → ENPI finances actions in the various sectors, including: more equitable development, energy, transport, information society, environmental sustainability, research and innovation. http://ec.europa.eu/europeaid/funding/european-neighbourhood-and-partnership-instrument-enpi_en
Cooperation EU-non EU Maritime transport	EUROMED Transport Programme: Mediterranean Motorways of the Sea – Maritime transport connections http://www.enpi-info.eu/mainmed.php?id_type=10andid=41 <ul style="list-style-type: none"> • improving transport connections between the EU and its Mediterranean neighbours and to promote the Motorways of the Sea (MoS) concept and assisting the partner countries in further implementing the maritime transport and port operations actions as adopted in the Regional Transport Action Plan (RTAP), a road map for transport cooperation adopted in 2007 (covering 2007–2013).
Fisheries Cooperation	FISHERIES – FARNET (Charter for Mediterranean FLAG Cooperation) https://webgate.ec.europa.eu/fpfis/cms/farnet/charter-mediterranean-flag-cooperation <ul style="list-style-type: none"> • FR, ES, GR, CY • 2011 • to further projects that contribute to the development of Mediterranean fisheries areas • environmental and educational activities • promotional actions for local fisheries products and fisheries-related tourism

Table 12.8 Continued

Cluster	Name and Brief Description
Fisheries	EMFF (European Maritime and Fisheries Fund) http://ec.europa.eu/fisheries/cfp/emff/index_en.htm <ul style="list-style-type: none"> • supports the setting up of a network of Maritime Clusters in the Mediterranean by over half a million euro
Marine Protected Areas (MPAs) managers	MEDPAN (network of Marine Protected Areas managers in the Mediterranean) http://www.medpan.org/ <ul style="list-style-type: none"> • partnership approach to promote the sustainability and operation of a network of Marine Protected Areas in the Mediterranean (ecologically representative, connected, managed effectively) to reduce rate of marine biodiversity loss. • a network for knowledge, information, anticipation and synthesis • >90 MPAs in 18 Mediterranean countries
Conservation Biodiversity management Sustainable development	IUCN – Med Programme, IUCN Centre for Mediterranean Cooperation http://www.iucn.org/about/union/secretariat/offices/iucnmed/iucn_med_programme/ <ul style="list-style-type: none"> • since 2011 • Make knowledge, information and experience available regarding the conservation and management of Mediterranean biodiversity and natural resources for sustainable-use and rehabilitation efforts. • Strengthen and support IUCN members and Commissions in the region to mainstream social, economic and environmental dimensions in policy-making, management, and the conservation of biodiversity and natural resources. • Promote, both globally and regionally, Mediterranean policies on conservation and sustainable development, and supporting mechanisms for their implementation.
Stability, security, economic opportunity	EU Emergency Trust Fund for stability http://europa.eu/rapid/press-release_MEMO-15-6056_en.htm <ul style="list-style-type: none"> • so far 1.9 billion euros dedicated to address root causes of irregular migration and promote economic opportunities, including on the Southern coast of the Mediterranean.
Jobs, growth, investment	EU Infrastructure Investment Plan (“Junker Plan”) http://ec.europa.eu/priorities/jobs-growth-investment/plan/index_en.htm >300 billion euros <ul style="list-style-type: none"> • To support connectivity needs in the region through financing, e.g. international energy grids or telecommunications networks.

2015). Investors need a stable governance framework, which ensures business certainty. Considering the huge differences among Mediterranean countries in economic, cultural, societal and legislative setup, these aims are very ambitious and hard to reach. To create new opportunities while keeping focused on the common goals, the challenges need to be tackled collectively by countries, businesses, and citizens. The Mediterranean governance framework

would improve through (1) ensuring legitimacy of the institutions involved in management actions; (2) enhancing coordination of maritime affairs inside countries (between ministries and institutions as well as between European, national and regional administrations); (3) establishing coordination schemes among countries (at bilateral and multilateral level); and (4) ensuring cross-sectorial coordination of maritime policies through existing regional organisations, projects and activities.

The MAP and Barcelona Convention together with the specific Mediterranean EU policies, regulations and strategies do represent an impressive governance framework, focusing on protection/restoration of the Mediterranean Sea ecosystem as well as on fostering sustainable development, a sustainable blue economy and blue growth (Cinnirella 2014). The implementation of MSP and ICZM is critical for the preservation of biodiversity and the co-location of different maritime activities. However, policy goals on paper are still far from being met in reality: Environmental problems in the Mediterranean sea are aggravating instead of improving and Mediterranean marine ecosystem services are degrading (Coll et al. 2010, 2012). For example, 93% of the assessed fish stocks in the Mediterranean are not sustainably fished.

Fisheries should be managed in more efficient ways, tackling the overfishing problem and improving the critical state of Mediterranean fish stocks in closer strategic cooperation with partner countries (Vella 2015). Also, marine aquaculture and biotechnologies need to develop further; marketing and communication are needed to allow for the economic viability of the exploitation of fish and seafood products; innovative, high-quality tourist offers should be developed to ameliorate negative impacts from mass tourism; and technology transfer (e.g. traceability in the food industry, eco-labelling of products, fuel efficiency, eco-tourism, security of water supply through desalination, etc.) should be enhanced to warrant the ecological sustainability of economic activities.

The full delimitation of maritime zones in the Mediterranean Sea can also contribute to improving the governance framework. Disputes around contended borders of EEZs need to be settled at sea-basin level. The benefits expected from establishing full EEZs in the Mediterranean considerably exceed the costs, likely offering “synergy and costs saving efficiencies with regard to control and possibly monitoring and data collection” – under the crucial prerequisite that there is political will amongst countries and their neighbours (MRAG et al. 2013, p. 219).

Institutional support, long-term political vision and continuous engagement of stakeholders are still lacking at the regional scale (Cinnirella 2014).

This is a priority for the future development of strategic sectors such as tourism, energy, blue biotechnologies and fisheries. The Mediterranean Sea holds diverse ecosystems providing substantial goods (like food supply) and services (like protection from coastal erosion) to coastal societies from ancient times. However, on-going environmental and ecological degradation erode the potential of the Mediterranean region for Blue Growth because pristine environments and healthy ecosystems constitute important assets for some of the most promising economic activities: Tourism, which contributes most to GDP at regional level, has traditionally taken advantage of the particularly long history of human occupation, huge cultural heritage, mild climate and scenic landscapes of the Mediterranean region. Yet, increasing human pressures are leading to significant degradation of the Mediterranean ecosystems, ultimately putting at risk the continuity of those assets, which traditional tourism is based upon. Innovative eco-tourism approaches, offering distinct cultural and traditional experiences, depend on an intact, sustainably managed and diverse environment. Also sectors such as biotechnology and fisheries heavily rely on the continuity of the delivery of natural goods and the maintenance of the processes supporting them. Some Mediterranean areas appear particularly well suited for the production of renewable energy, such as wind, tidal, or solar. Raising awareness, education and training across all sectors is necessary in order to solve these issues in the medium and long-term. All in all, a picture emerges that shows substantial potential for positive synergies among environmental protection, ecological integrity, cultural diversity and economic growth under a shared political vision for the Mediterranean region.

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