8. Governance

Worldwide, a multitude of cooperation mechanisms exist in the field of sustainable development. The most prominent and overarching agreement is the 2015 consensus by the UN General Assembly on "Transforming Our World: The 2030 Agenda for Sustainable Development" (2030 Agenda) and its 17 Sustainable Development Goals.

In the Mediterranean region, countries have joined efforts for more than 40 years for the protection of the Mediterranean marine and coastal environment, under the Barcelona Convention and its 7 Protocols. They have jointly developed a Mediterranean "translation" of the 2030 Agenda through the Mediterranean Strategy for Sustainable Development, and have adopted over the years a series of frameworks, tools, action plans and strategies in an effort to improve cooperation and decision-making towards sustainable development. The implementation of these common frameworks relies on regulations, planning tools, economic and financial instruments, as well as information, education and awareness-raising activities.

Long-term cooperation among national governments and with the European Union is progressively paralleled with cooperation within stakeholder networks (of NGOs, local governments, private sector, parliamentarians, etc.). Inclusive governance, public participation and access to environmental information are also increasingly mainstreamed into the tools adopted at national and regional levels. Science policy Interfaces (SPIs) provide significant potential for better-informed decision-making and increasing SPI effectiveness has now been identified as a major lever for enhanced governance.

Only little is known about the actual effects of these mechanisms on the ground. The continuing degradation of the Mediterranean environment suggests that the enforcement of measures is likely to be a major challenge also in absence of effective environmental police and sanctioning mechanisms that could support implementation at the local level. In addition to ex ante environmental impact assessment, which is a requirement of the Barcelona Convention, ex post environmental and social assessment of policies, programmes and projects could further fill significant knowledge gaps on the obstacles for implementation and lead to better policies and decision-making.

8.1 Most global environmental agreements have been largely adopted in Mediterranean countries, with notable exceptions

8.1.1 Global environmental agreements

With regard to cooperation mechanisms for supporting decision-making and action related to the environment, environmental governance became a global issue at the UN Conference on the Human Environment in 1972 (Stockholm Conference), which decided to create the United Nations Environment Programme (UNEP). To date, hundreds of Multilateral Environmental Agreements (MEAs) have been negotiated with the support of UNEP.

Many global MEAs are of major importance for the protection of the marine and coastal environment, including in the field of Climate Change (UN Framework Convention on Climate Change (UNFCCC) and Paris Agreement), Biological Diversity (Convention on Biological Diversity (CBD) and its protocols), Wetlands (Ramsar Convention), Migratory species (Bonn Convention on the Conservation of Migratory Species of Wild Animals (CMS)), Waste (Basel Convention), and harmful substances, such as mercury (Minamata Convention), and other hazardous chemicals and pesticides (Rotterdam Convention), persistent organic pollutants (Stockholm Convention) or pollution from ships (MARPOL Convention). MEAs are instrumental in addressing important environment issues and the thematic network they form continues to grow. Eighteen regional sea programmes (14 of which are based on legally binding conventions) also support environmental governance in all oceans.

In addition, UNEP coordinated many actions in the field of marine environment, including actions to address land-based pollution (e.g. the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA)[124]), protect coral reefs (e.g. The International Coral Reef Initiative (ICRI)[125]), develop marine protected areas (MPAs) and reduce marine litter.

Ratification rates of Multilateral Environmental Agreements (MEAs) are generally high throughout in Mediterranean countries. The Convention on the protection of World Cultural and Natural Heritage (adopted by the General Conference of UNESCO in 1972), Basel Convention, Convention on Biological Diversity, United Nations Framework Convention on Climate Change (UNFCCC) and United Nations Convention to Combat Desertification (UNCCD) have been ratified by all 21 Mediterranean riparian countries and the European Union. Other conventions and agreements on biodiversity conservation and pollution reduction are strongly supported in the region, such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Bonn Convention on the Conservation of Migratory Species (CMS), African-Eurasian Migratory

[124] The Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA) was adopted by 108 Governments and the European Commission at an intergovernmental conference convened for this purpose in Washington, D.C., United States of America, in 1995. https://www.unenvironment.org/explore-topics/oceans-seas/what-we-do/addressing-land-based-pollution/governing-global-programme.

[125] The International Coral Reef Initiative (ICRI) is an informal partnership among States, international organizations and NGOs to help protect coral reefs globally. It aims to implement Chapter 17 of Agenda 21, Aichi Target 10 of the Convention on Biological Diversity's 10-year Strategic Plan, and other relevant internationally agreed objectives and targets.

BOX 87 The Convention on Biological Diversity (CBD)

The Convention on Biological Diversity (CBD) was inspired by the world community's growing commitment to sustainable development, opened for signature at the UN Conference on Environment and Development (the Rio Earth Summit) in June 1992 and entered into force in December 1993. It has three main objectives: (i) the conservation of biological diversity; (ii) the sustainable use of the components of biological diversity; and (iii) the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.

The CBD covers all ecosystems, species and genetic resources, and addresses the field of biotechnology, including technology transfer and development, benefit-sharing and biosafety. It sets policies and general obligations, and organizes technical and financial cooperation. Implementation is required at the national level and responsibility rests with national governments.

In 2010, the CBD Conference of Parties adopted a revised and updated Strategic Plan for Biodiversity for the 2011-2020 period. This Plan provides an overarching framework on biodiversity, not only for the biodiversity-related conventions, but for the entire United Nations system and all other partners engaged in biodiversity management and policy development. The Parties agreed to translate this overarching international framework into revised and updated national biodiversity strategies and action plans, covering 20 targets developed under the following 5 strategic goals: (i) address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society; (ii) reduce the direct pressures on biodiversity and promote sustainable use; (iii) improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity; (iv) enhance the benefits to all from biodiversity and ecosystem services; (v) enhance implementation through participatory planning, knowledge management and capacity building.

In 2020, the CBD will adopt a post-2020 global biodiversity framework as a stepping stone towards the 2050 Vision of "Living in harmony with nature" whereby "by 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people". The preparation of the post-2020 global biodiversity framework is supported by a comprehensive and participatory process.

The theme of the 2019 International Day for Biological Diversity, hosted by the CBD, is "Our Biodiversity, Our Food, Our Health", which clearly shows the systemic approach that underlies the CBD, while contributing to Sustainable Development Goals, including climate change mitigation and adaptation, ecosystems restoration, cleaner water and zero hunger, among others.

Waterbird Agreement (AEWA), the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic Area (ACCOBAMS) and the Stockholm Convention (persistent organic pollutants).

Some conventions or their protocols remain under-ratified, with less than 50% of the Mediterranean countries having adopted them *(Table 35)*. This is the case in particular of the Nagoya Protocol[126], Minamata Convention[127], Aarhus Convention[128] and Espoo Convention[129].

In addition, MEAs often reach their limits when it comes to addressing causes, beyond effects and impacts, as most pressures on the environment are related to economic development (consumption and production patterns) and cannot be fully addressed by responses negotiated only through environmental governance.

8.1.2 Environmental and social assessments

Environmental and social assessments are broadly accepted planning tools for preventing adverse environmental and social impacts of human activities. Environmental impact studies stand as a requirement in Article 4.3.c of the Barcelona Convention. Generally less costly and leading to better outcomes than curative measures, ex ante environmental assessments aim at (i) identifying the negative and positive relationships between development Projects, Plans, Programmes and Policies (PPPP), environmental protection and human rights, and (ii) designing and implementing prevention, mitigation and assessment follow-up activities that ensure that PPPPs have net positive social and environmental impacts, or at least only minor negative social and environmental impacts. Environmental Impact Assessments (EIAs) constitute such a tool and take place at the project/local level. They are distinguished from Strategic Environmental Assessments (SEAs), which apply to development plans, programmes and policies and are used to control systemic effects when implemented timely and at the strategic decision-making level (e.g. ex ante SEA prior to adoption of a law).

While all Mediterranean countries have adopted legislation requiring EIAs, around three quarters of Mediterra-

[126] Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (linked to the Convention on Biological Diversity) (2014).

[127] Minamata Convention on Mercury (2017).

[128] UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (2001), and Protocol on Pollutant Release and Transfer Registers (PRTRs) (2009). The Aarhus Convention and its Protocol on PRTRs are the only legally binding global instruments on environmental democracy, empowering people with the rights to access information, participate in decision-making in environmental matters and to seek justice.

[129] Convention on Environmental Impact Assessment in a Transboundary Context (1997). The Espoo Convention sets out the obligations of Parties to assess the environmental impact of certain activities at an early stage of planning. It also lays down the general obligation of States to notify and consult each other on all major projects under consideration that are likely to have a significant adverse environmental impact across boundaries.

nean countries also require SEAs by law. In the absence of adopted legislation or while it is being developed, some Mediterranean countries have implemented pilot applications of SEA (Egypt, Morocco, Tunisia), as shown in *Figure 195.*

MEA Acronym	Entry into force	AL	BA	CY	DZ	EG	ES	FR	GR	HR	IL	IT	LB	LY	MA	MC	ME	MT	PS	SI	SY	TN	TR
CBD	1993	*	*														d		*				
Cartagena Protocol	2003	*	*	*				AA					*	*			d	*	*		*		
Nagoya Protocol	2014	*								*								*			*		
Nagoya - Supplementary Protocol	2018	*																			*		
ITPGRFA	2004	*			*			AA		*				*			*			*			
Ramsar Convention	1975	*	d	*	*		*		*	d			*	*		*	d	*		d	*	*	*
WHC	1975		d	A			A	A		d	A						d	A		d	A		
CITES	1975	*	*		*	*	*	AA	*	*			*	*		*	d	*		*	*		*
CMS	1983																						
AEWA	1999																						
ACCOBAMS	2001																						
UNCLOS	1994	*	d							d							d		*	d			
UNCCD	1996	*	*	*						A						*	*		*	*			
UNFCCC	1994	*	*							A							d		*		*		*
Kyoto Protocol	2005	*	*	*	*			AA					*	*	*		*				*	*	*
Paris Agreement	2016																				*		
Vienna Convention	1988	*	d	*	*		*	AA		d	*		*	*		*	d	*		d	*	*	*
Montreal Protocol	1989	*	d	*	*			AA		d			*	*		*	d			d	*	*	*
Basel Convention	1992	*	*		*	*		AA		*				*	*	*	d	*	*	*		*	
Stockholm Convention	2004			*				AA						*					*				
Rotterdam Convention	2004	*	*					AA		*			*	*	*		*	*	*				
Minamata Convention	2017												*										
Aarhus Convention	2001		*					AA									*						
PRTR Protocol	2009	*						AA			*							*					
Espoo Convention	1997		*	*				AA		*							*	*		*			
Protocol on SEA	2010																	*					
MARPOL	1983	*		*	*	*		AA	*		*	*	*	*	*	*	d	*		d	*	*	
Barcelona Convention	1978	*	d		*	AA		AA		d			*				*			*	*		

* Accession: the state accepts the offer or the opportunity to become a party to a treaty already negotiated and signed by other states.
A Acceptance
AA Approval
d Succession
Ratification
Signature
No Signature

Table 35 - Ratification of Multilateral Environmental Agreements (MEAs) in Mediterranean countries
(Source: United Nations, accessed 13 February 2019)

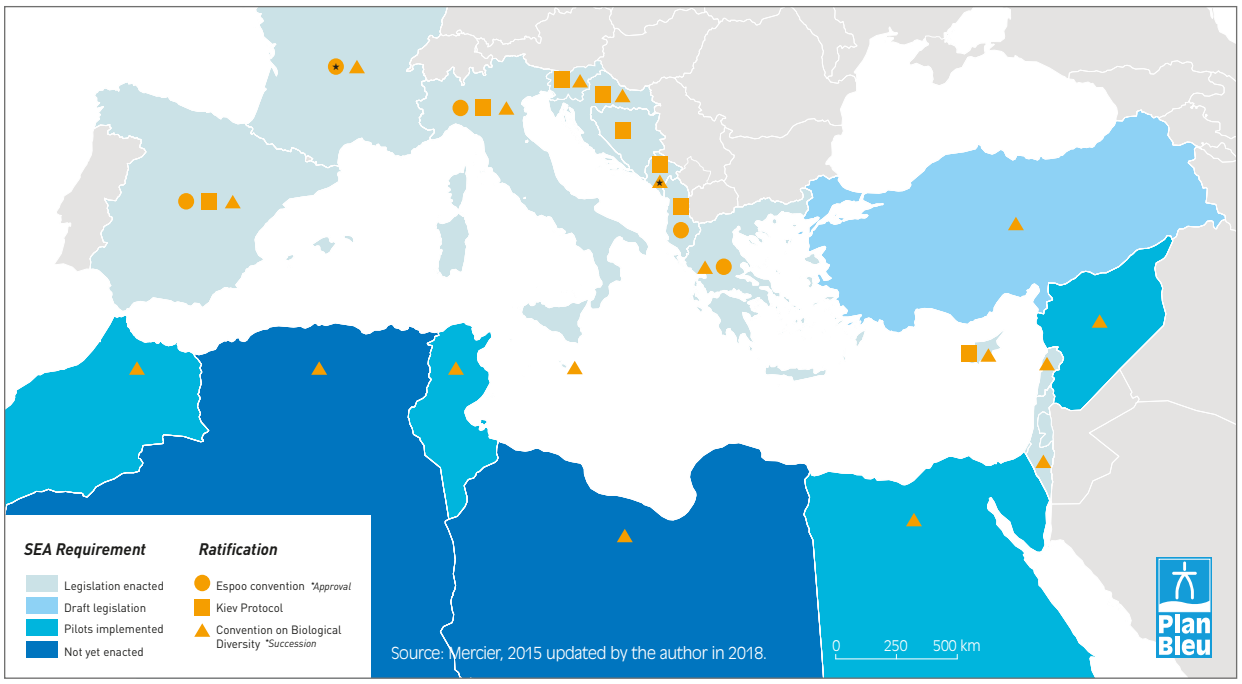

Figure 195 - Implementation status of SEA in the Mediterranean, and ratification of the Espoo Convention, Kiev Protocol and CBD, 2018
(Source: Mercier, 2015 and updates by the author in 2018)

In addition to national and EU legislation on EIA and SEA, several international Conventions and Protocols include obligations concerning the assessment of environmental impacts of certain activities[130]. This is the case for the Espoo Convention, the Kiev Protocol and the CBD for which the ratification status of Mediterranean countries is reflected in *Table 35*.

The Convention on Environmental Impact Assessment in a Transboundary Context (informally called the Espoo Convention) lays down the obligations of Parties to carry out an environmental impact assessment (EIA) of certain activities at an early stage of planning. It also sets out the general obligation of States to notify and consult each other on all major projects under consideration that are likely to have a significant adverse environmental impact across boundaries.

The Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context (Kiev Protocol to the Espoo Convention), requires its Parties to evaluate the environmental consequences of their official draft plans and programmes, and thus to conduct SEAs.

The Convention on Biological Diversity's Article 14 focuses on impact assessment and minimizing adverse impacts. It sets out that Parties shall introduce appropriate procedures requiring environmental impact assessment of their proposed projects and appropriate arrangements to ensure that the environmental consequences of their programmes and policies are duly taken into account.

In recent years, assessment and planning tools have been evolving to adopt increasingly integrated assessment approaches, drawing together biophysical and socioeconomic aspects. In this sense, EIA and SEA more and more include social and health impacts and changes to Environmental and Social Impact Assessment (ESIA) and Strategic Environmental and Social Assessment (SESA).

There is currently no comprehensive assessment to evaluate the level of effective application of these assessment tools in the Mediterranean region. However, their development towards ESIA and SESA, the level of public participation in the assessments, as well as implementation of the recommendations resulting from these assessments remain challenging but key to achieving transformative change.

[130] Overarching for EU members: http://ec.europa.eu/environment/eia/index_en.htm; and http://www.unece.org/info/ece-homepage.html; https://www.unece.org/env/eia/resources/legislation.html; https://www.unece.org/env/eia/eia.html
Kiev Protocol Status of ratification: https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-4-b&chapter=27&clang=_en
Morocco, Tunisia, Egypt, Palestine, Lebanon: http://planbleu.org/sites/default/files/publications/manuel_eval_sociales_environnementales_en.pdf
More specifically: Morocco http://www.environnement.gov.ma/index.php/fr/service/etude-impact (in French)

Countries	EIA requirement	SEA requirement
Albania	Law No. 10 440, dated 7 July 2011, is approximated to the Council Directive 85/337/EEC of 27 June 1985.	Law on "strategic environmental assessments" (No. 91/2013).
Algeria	Original decree 1990 (90-78), revised 2007 (07/145).	Not yet enacted.
Bosnia and Herzegovina	Laws on Environmental Protection (2002 in Serb Republic in Bosnia and Herzegovina with revised version from 2012 and 2003 in Federation of Bosnia and Herzegovina, with subsequent amendments).	Law on Environmental Protection includes the main provisions from the Espoo Convention and Protocol on SEA.
Croatia	Environmental Protection Act (OG, No. 80/13, 153/13, 78/15, 12/18, 118/18) and Regulation on the EIA (OG, No. 61/14, 3/17).	Basic requirements for SEA are set in the Environmental Protection Act (OG, No. 80/13, 153/13, 78/15, 12/18, 118/18) and further elaborated in the Regulation on Strategic Environmental Assessment of Strategies, Plans and Programmes on the Environment (OG, No. 3/17).
Cyprus	Evaluation of the Consequences on the Environment of Certain Projects Law 140(I) of 2005, which was subsequently amended by Laws 42(I) of 2007, 47(I) of 2008, 80(I) of 2009, 137(I) of 2012 and 51(I) of 2014 (the EIA Law).	No. 102 (I)/2005 "Assessment of impacts on the environment from certain plans and/or programmes".
Egypt	Act 4 for the Protection of the Environment (1994) requires EIA to be carried out. The provisions for application are given in Decree No. 338 of 1995, and the law was revised in 2009.	Not yet enacted. A couple of pilot SE(S)A have been conducted.
France	Nature protection law of 1976, EIA decree of 1977, periodic transpositions of the 1985/337 European Directive as it evolves (latest version Directive 2014/52/EU).	Periodic transpositions of the 2001/42 European Directive on the environmental assessment of certain plans and programmes ("SEA Directive"), as the Directive itself evolves.
Greece	Originated with Law 1650/1986, updated to Law 3010/2002 and more recently to Law 4014/2011.	Joint Ministerial Decision 107017/2006 "on the assessment of the effects of certain plans and programmes on the environment" (Gov. Gazette B 1225).
Israel	1982 initial law, updated in 2003 (Environmental Impact Statements) Law 5763-2003.	Israel does not differentiate between SEAs and EIAs. The latter are mandatory for major infrastructure projects with potential environmental effects.
Italy	Started the implementation process of the EIA by Law 349/1986.	Decree No. 152/2006 (so-called Environmental Code) that transposed the SEA Directive, as further amended and supplemented by Legislative Decree No. 4/2008 and by Legislative Decree No. 128/2010.
Lebanon	Decree of 2012.	Decree of 2012.
Libya	Law No. 15 of 2003 awaiting implementation decrees.	Not yet enacted.
Malta	Subsidiary Legislation 549.46: The Environmental Impact Assessment Regulations.	Subsidiary Legislation 549.61: Strategic Environmental Assessment Regulations.
Monaco	Same requirements as France.	Same requirements as France.
Montenegro	Official Gazette of the Republic of Montenegro, No. 12/1996.	Official Gazette of Montenegro, No. 80/05 as of 28.12.2005.
Morocco	Act 12-03 of 2003 requires EIA to be conducted on a list of project types.	No requirements for SE(S)A. Some Strategic Environment Assessments (SEA) have been carried out with international funding.
State of Palestine	Environmental assessment policy in place since April 2000.	EA Policy includes provisions for the application of this approach for some plans and programmes. Annex 4 of the Policy includes a list of sectors/subsectors where initial scoping is required.
Slovenia	Environmental Protection Act *(Zakon o varstvu okolja - ZVO)* (Official Gazette of the Republic of Slovenia, No. 32/93 and 1/96).	Environmental Protection Act (Uradni list RS, št.39/06-uradno prečiščeno besedilo, 49/06-ZMetD, 66/06).
Spain	Initiated with RD 1131/1988 updated to RDL 1/2008.	Initiated with Law 9/2006 updated to Law 21/2013, December 9th, on environmental assessment.
Syrian Arab Republic	Draft decree from 1995 and Syria environmental law No. 50 of 2002, with executive EIA procedures adopted in 2008.	Not yet enacted.
Tunisia	Decree No. 2005-1991, updated from Decree No. 91-362 in application of Act No. 88-91.	Pilot studies conducted and capacity building activities implemented. No enactment yet.
Turkey	By-law on EIA (Official Gazette: 7 February 1993, no. 21489), followed by five revisions (latest Official Gazette no. 29186 dated 25 November 2014).	Draft by-law preparation and capacity building activities conducted with the objective of adapting EU Directive 2001/42.

Table 36 - Legal requirements for EIA and SEA in Mediterranean countries
(Source: Mercier, 2015 and updates by the author[131])

[131] Members of the European Union apply the rules of the 1985 and 2002 Environmental Assessment Directives or more stringent regulation.

8.1.3 Environmental measures in non-environmental agreements

Besides multilateral environmental agreements, important global agreements are linked to sustainable development of oceans and seas, such as the **UN Convention of the Law of the Sea** (UNCLOS) adopted in 1982, entered into force in 1994 and ratified by most of the Mediterranean States. Part XII of this Convention is devoted to the protection and preservation of the marine environment.

Protection of marine living resources belonging to straddling and highly migratory species is achieved through the **United Nations Fish Stocks Agreement** (UNFSA) (1995) also negotiated within the framework of the UN.

While UNCLOS is implemented mostly through national action, recent initiatives by the UN General Assembly are considering more coordinated approaches to the governance and management of oceans, for instance in areas beyond national jurisdiction (ABNJ). Regarding the governance of marine biodiversity in high seas, the UN at large has placed biodiversity conservation high on the global agenda towards an international legally binding instrument on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction.

In specialized areas, the work of the **International Maritime Organization** (IMO) and **Food and Agriculture Organization** (FAO) is notable. IMO has adopted widely ratified treaties on pollution of the marine environment by vessels (MARPOL, Ballast Water Convention), civil liability and compensation (CLC Convention) of damage (FUND Convention), ship recycling (Hong Kong Convention), and dumping (London Convention and Protocol). The FAO, apart from following the implementation of the UNFSA, has adopted treaties and soft law instruments to combat Illegal, Unreported, and Unregulated (IUU) fishing, which include the Compliance Agreement, the Agreement on Port State Measures to combat IUU fishing, the International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (FAO, 2001), and the Code of Conduct for Responsible Fisheries, as well as sets of guidelines.

8.2 The Barcelona Convention is a leading Regional Sea Convention, but gaps in implementation and enforcement remain

The UNEP Regional Seas Programme (1974) inspired the 1976 Barcelona Convention for the Protection of the Mediterranean Sea against Pollution (Barcelona Convention), which, in 1995, became the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean with a wider scope.

The UNEP/MAP - Barcelona Convention regional framework

In 1974, UNEP established its Regional Seas Programme with the scope of coordinating activities aimed at the protection of the marine environment through a regional approach. The United Nations Environment Programme/Mediterranean Action Plan (UNEP/MAP) was the first UNEP initiative to be developed under the Programme and became the model for other seas across the globe. In 1975, Mediterranean States and the European Communities approved the MAP as the institutional framework for cooperation in addressing common challenges related to marine environmental degradation. The MAP also endorsed the preparation of a framework convention for the protection of the marine environment against pollution (the Barcelona Convention), and related Protocols that provide a legal basis for action in protecting the Mediterranean marine environment against pollution.

In 1995, following the outcomes of the Rio Summit (1992), the Contracting Parties revised the MAP and its legal framework. The Conference of Plenipotentiaries on the Convention for the Protection of the Mediterranean Sea against Pollution and its Protocols (Barcelona, 9-10 June 1995) adopted the Action Plan for the Protection of the Marine Environment and the Sustainable Development of the Coastal Areas of the Mediterranean Basin (MAP Phase II)[132]. Furthermore, the Convention for the Protection of the Mediterranean against Pollution (Barcelona Convention), adopted in 1976, was amended in 1995 as the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean, which entered into force in 2004. The 22 Contracting Parties to the Barcelona Convention are Albania, Algeria, Bosnia and Herzegovina, Croatia, Cyprus, Egypt, France, Greece, Israel, Italy, Lebanon, Libya, Malta, Monaco, Montenegro, Morocco, Slovenia, Spain, Syrian Arab Republic, Tunisia, Turkey and the European Union.

The 22 Contracting Parties to the Barcelona Convention *(Box 88)* decide on the UNEP/MAP policies, strategies, programme of work and budget at their Ministerial level meetings (Conferences of the Parties), held every two years. They appoint Focal Points to review the progress of work and ensure the implementation of recommendations at the national level. A rotating Bureau of six representatives of the Contracting Parties provides guidance on the implementation of the programme of work in the interim period between the biennial meetings.

UNEP provides secretariat services to the Contracting Parties through the MAP Coordinating Unit, established in Athens, Greece, in 1982. The overall mandate of the Coordinating Unit, as provided for in Decision IG.17/5 of COP15 (Almeria, Spain, January 2008), is to promote and facilitate the implementation of the Barcelona Convention, its protocols and strategies, and the decisions and recommendations of the Contracting Parties. It ensures that the MAP system functions properly, develops and implements the programme of work, and supports the Contracting Parties in meeting their commitments under the Convention. MAP operates through the Secretariat of the Barcelona Convention, including the Coordinating Unit

[132] UNEP(OCA)/MED IG. 6/7. Barcelona Resolution on the Environment and Sustainable Development in the Mediterranean Basin.

Figure 196 - UNEP/MAP and the Regional Activity Centres

and seven implementing components: the Programme for the Assessment and Control of Marine Pollution in the Mediterranean (MED POL), under the Coordinating Unit, Athens; the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC), Malta; Plan Bleu Regional Activity Centre (PB/RAC), France; Priority Actions Programme Regional Activity Centre (PAP/RAC), Croatia; Specially Protected Areas Regional Activity Centre (SPA/RAC), Tunisia; Regional Activity Centre for Sustainable Consumption and Production (SCP/RAC), Spain; Regional Activity Centre for Information and Communication (INFO/RAC), Italy.

To facilitate and promote compliance with the obligations under the Barcelona Convention and its Protocols, the Barcelona Convention Compliance Mechanism: (1) Establishes a Compliance Committee dedicated to helping Parties implement the Barcelona Convention and its Protocols; (2) Establishes a procedure that is non-adversarial, transparent, preventive and non-binding in nature; (3) Takes into account the specific situation of each Party, paying particular attention to developing countries; (4) Considers specific situations of actual or potential non-compliance by individual Parties with a view to determining the facts and causes of the situation; (5) Promotes compliance and addresses cases of non-compliance by providing Parties with advice and non-binding recommendations; and (6) Considers, at the request of the Meeting of the Contracting Parties, general issues of compliance under the Barcelona Convention and its Protocols.

The Compliance Committee consists of seven Members and seven Alternate Members. Members and Alternate Members are both nominated by the Parties and elected by the Meeting of the Contracting Parties while taking into consideration equal geographical representation and ensuring rotation. The Members and Alternate Members of the Compliance Committee serve in their individual capacity, objectively and in the best interest of the Barcelona Convention and its protocols[133].

The Barcelona Convention urges Contracting Parties to individually or jointly adopt all appropriate measures to prevent, abate, combat and, to the fullest extent possible, eliminate pollution of the Mediterranean Sea Area, and to protect and enhance the marine environment in that area so as to contribute to its sustainable development (Article 4.1). This general obligation is reiterated, on the one hand, as regards the UNCLOS sources of pollution of the marine environment, i.e. pollution caused by dumping from ships and aircraft or incineration at sea (Article 5), pollution from ships (Article 6), pollution resulting from the exploration and exploitation of the continental shelf and the seabed and its subsoil (Article 7), pollution from land-based sources (Article 8), pollution resulting from emergency situations

[133] Parties, the Secretariat or the Compliance Committee can trigger the compliance mechanism as follows: (a) Self-trigger procedure: a Party may make a submission as to its own actual or potential situation of non-compliance; (b) Party-to-Party trigger procedure: a Party may make a submission as to another Party's situation of non-compliance; (c) Secretariat trigger procedure: the Secretariat may make a referral as to the difficulties faced by a Party in complying with its obligations under the Barcelona Convention and its Protocols; and (d) Committee trigger procedure: the Compliance Committee may make a referral as to any difficulties encountered by a Party in the implementation of the Barcelona Convention and its protocols. Under this procedure, communications are addressed to the Compliance Committee by the public and observers.

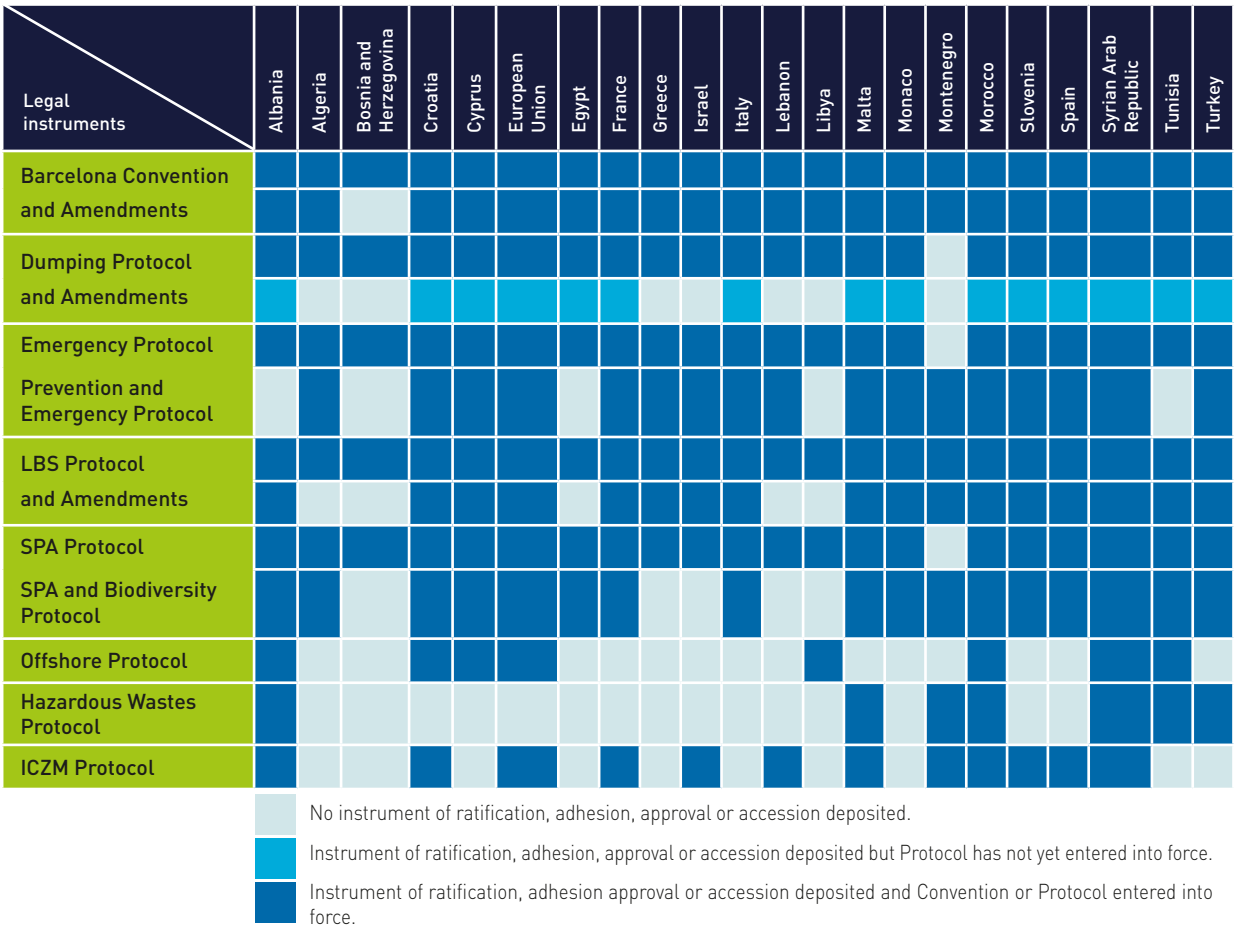

Table 37 - Ratification of Barcelona Convention and Protocols by the individual Contracting Parties, December 2019

(Article 9) and pollution resulting from the transboundary movement of hazardous wastes and their disposal (Article 11); and on the other hand, in relation to the conservation of biological diversity (Article 10). This has been translated into the adoption of the Protocols to the Barcelona Convention. Furthermore, in implementing the Barcelona Convention and the related Protocols, the Contracting Parties adopt strategies, action plans, programmes and measures.

Table 37 shows the status of ratification of the Barcelona Convention and its Protocols by the individual Contracting Parties as of December 2019. The 1995 Dumping Protocol is the only Protocol not yet in force out of seven Protocols. Three of the six Protocols in force have only been ratified by half or less than half of the Contracting Parties and still require particular attention to ensure full regional coverage. These include the Integrated Coastal Zone Management Protocol (11 ratifications), the Offshore Protocol (8 ratifications) and the Hazardous Wastes Protocol (7 ratifications).

Under Article 26 of the Barcelona Convention, the Contracting Parties shall submit reports on: (a) the legal, administrative and other measures they have taken for the implementation of the Barcelona Convention, its Protocols and the recommendations adopted by their meetings, and (b) the effectiveness of the measures taken, and problems encountered in the implementation of the Barcelona Convention and its Protocols. Reports are submitted on a biennial basis through the UN Mediterranean knowledge platform (INFO/MAP).

By submitting their national implementation reports, Contracting Parties not only meet their reporting obligations pursuant to Article 26 of the Barcelona Convention and relevant articles of its Protocols. They also provide to the meetings of the Contracting Parties an essential tool for keeping the implementation of the Barcelona Convention and its Protocols under review.

Overall reporting rates have steadily increased since the launch of the Barcelona Convention Reporting System (BCRS) in 2008. For the 2008-2009 biennium, 15 reporting Contracting Parties submitted their national implementation reports. This figure was raised to 19 reporting Contracting Parties for the 2014-2015 biennium. The submission of national implementation reports for the 2016-2017 biennium is still ongoing in preparation for the 21st Meeting of the Contracting Parties to the Barcelona Convention (COP 21) (Naples, Italy, 2-5 December 2019).

Dumping Protocol. The Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships

BOX 89

Main findings from national Barcelona Convention implementation reports, reported for 2016-2017

(Source: UNEP/MAP, 2019)

Based on the national implementation reports received for the 2016-2017 biennium, a report has been prepared by the Secretariat and relevant MAP components on the "General Status of Progress in the Implementation of the Barcelona Convention and its Protocols: Synthesis of the Information Contained in the National Implementation Reports for the 2016-2017 Biennium".

The report's main findings highlight that all reporting Contracting Parties have incorporated the following tools and principles into their domestic law, through a variety of instruments: the precautionary principle and the polluter pays principle, Environmental Impact Assessment (EIA) and/or Strategic Environmental Assessment (SEA) laws and associated regulations, Environmental monitoring programmes, public access to environmental information, public participation and consultation in environmental legislation decision-making processes, as well as Integrated Coastal Zone Management (ICZM) principles. Many reporting Contracting Parties indicated having put in place the legal and regulatory framework for the use of Best Available Technology (BAT) and Best Environmental Practices (BEP) and most reporting Contracting Parties have cooperation mechanisms for notifying, exchanging information and consulting the relevant states in cases of transboundary EIA.

The report also underlines that **cooperation in the fields of science and technology** needs to be further reinforced, as only some reporting Contracting Parties have indicated action in this field. The same holds true for the promotion of research on, access to and transfer of environmentally sound technology, including clean production technologies. Also, less than half of reporting Contracting Parties have answered affirmatively to the question on the implementation of the **Guidelines for the Determination of Liability and Compensation for Damage** resulting from Pollution of the Marine Environment in the Mediterranean Sea Area.

A general finding is that data collection through the existing INFO/MAP system and its further development should be enhanced, which suggests that Contracting Parties require additional support in terms of capacity-building for facilitating the collection and submission of data for reporting purposes.

Main findings also show that **reporting on enforcement measures** is extremely scarce and represents a major lead for improvement.

and Aircraft was adopted in 1976 and has been in force since 1978. Its objective is to take all appropriate measures to prevent, abate and eliminate to the fullest extent possible pollution of the Mediterranean Sea by dumping of waste or other matter. To that end, a "black- and grey-list approach" is applied, under which the dumping of waste or other matter listed in Annex I to the Protocol ("black list") is prohibited (Article 4), the dumping of waste or other matter listed in Annex II to the Protocol ("grey list") requires a prior special permit from a designated national authority, provided that certain conditions are met (Article 5, Annex III), and for all other waste or other matter, dumping is subject to a prior general permit from a designated national authority, provided that certain conditions are met (Article 7, Annex III).

In 1995, the Dumping Protocol was amended, resulting in the Protocol for the Prevention and Elimination of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft or Incineration at the Sea. The 1995 Protocol has not yet entered into force. Under the 1995 Dumping Protocol, a "reverse list" approach is adopted, so all dumping is prohibited, except for the following waste or other matter listed in Article 4.2 of the Protocol: dredged material, fish waste, vessels (until 31 December 2000), platforms and other human-made structures at sea, and inert, uncontaminated geological materials. Applications to the designated national authority to dump the listed waste or other matter have to give appropriate consideration to the factors set forth in Annex III to the Protocol (i.e. Characteristics and Composition of the Matter, Characteristics of Dumping Site and Method of Deposit and General Considerations and Conditions) and the Guidelines adopted by the Contracting Parties (Article 6). Specific guidelines have been developed for all waste and other matter listed in the 1995 Protocol[134].

These Guidelines contain step-by-step procedures to evaluate waste and other matter considered for sea disposal. The Programme for the Assessment and Control of Marine Pollution in the Mediterranean (MED POL) assists Contracting Parties in meeting their obligations under the Dumping Protocol.

Prevention and Emergency Protocol. The Protocol Concerning Cooperation in Combating Pollution of the Mediterranean Sea by Oil and other Harmful Substances in Cases of Emergency was adopted in 1976 and entered into force in 1978. In 2002, the 1976 Protocol was replaced by the Protocol Concerning Cooperation in Preventing Pollution from Ships and, in Cases of Emergency, Combating Pollution of the Mediterranean Sea, which has been in force since 2004.

The Prevention and Emergency Protocol provides a regional framework for international cooperation and mutual assistance in preparing for and responding to oil and hazardous and noxious substances pollution incidents. Contracting Parties to the Prevention and Emergency

[134] (1) COP Decision IG. 23/13: Updated Guidelines for the Management of Dredged Material, 2017; (2) UNEP(DEC)/MED IG.13/5: Guidelines for the Management of Fish Waste or Organic Materials Resulting from the Processing of Fish and other Marine Organisms, 2001; (3) UNEP (DEC)/MED IG.15: Guidelines for the Dumping of Platforms and other Man-Made Structures at Sea, 2003, and (4) UNEP(DEPI)/MED IG.16: Guidelines for the dumping of inert uncontaminated geological materials, 2005. UNEP/MAP website: http://web.unep.org/unepmap/meetings/search-meeting-documents

BOX 90

Main findings from the 2016-2017 national reports on the implementation of the Dumping Protocol

(Source: UNEP/MAP, 2019)

The report's main findings underline that with most reporting Contracting Parties, the prohibition of dumping waste or other matter, as well as the establishment of the required permitting system are in place and for nearly all reporting Contracting Parties, incineration is prohibited as per the Dumping Protocol. Findings call for action to strengthen the institutional structure to implement the Protocol, as only a limited number of reporting Contracting Parties have designated a competent national authority responsible for keeping records of the nature, quantities of the waste or other matter, dumping locations and methods. Further action is also needed for addressing critical and force majeure dumping at sea as per the conditions set out in the Protocol, and for enhancing data collection and capacity-building. Finally, findings reveal that strengthening cooperation between the Dumping Protocol and the London Convention and its Protocol would lead to synergies and positive outcomes.

BOX 91

Main findings from the 2016-2017 national reports on the implementation of the Prevention and Emergency Protocol

(Source: UNEP/MAP, 2019)

The report's main findings show that monitoring and surveillance programmes to detect accidental or operational pollution, as well as contingency plans and other means of preventing and combating oil and hazardous and noxious substances (HNS) have been adopted by nearly all reporting Contracting Parties. Reporting procedures to ensure that those required (e.g. ships, aircraft, offshore installations, and Port Facility Authorities) report on oil and HNS pollution incidents to the designated authorities and have contingency plans on board are in place for many reporting Contracting Parties. Communication to REMPEC and relevant Contracting Parties of information on oil and HNS pollution incidents is carried out by many reporting Contracting Parties. Conducting oil and HNS pollution incident assessments and taking every practical measure to prevent, reduce and, to the fullest possible extent, eliminate the effects of the pollution incident is part of the national contingency plans' requirements for many reporting Contracting Parties. Nearly all reporting Contracting Parties have available port reception facilities and are able to meet the needs of ships, including pleasure crafts. Many reporting Contracting Parties have assessed and taken measures to reduce the environmental risks, including via Vessel Traffic Services (VTS), and the designation and management of Particularly Sensitive Sea Areas (PSSAs). Most reporting Contracting Parties have adopted measures dealing with places of refuge for ships in distress. Many reporting Contracting Parties have response strategies for marine pollution incidents in place. National contingency plans cover both oil and HNS for half of the reporting Contracting Parties. The Prevention and Emergency Protocol's requirements in terms of disseminating and exchanging information have been generally achieved and should be further promoted.

Protocol are required to have contingency plans, either nationally or in cooperation with other countries, backed up by a minimum level of response equipment (Article 4), communications plans (Article 8) and reporting procedures in place (Article 9). This applies to ships, platforms and ports (Article 11). Contracting Parties to the Protocol are also called to provide assistance to others in the event of a pollution emergency (Article 12) and provision is made for the reimbursement of any assistance provided (Article 13). This adds to the requirement to ensure adequate port reception facilities (Article 14) and the obligation to define national, regional or subregional strategies for places of refuge for ships in need of assistance (Article 16). In 2016, within the framework of the Protocol, Contracting Parties adopted the Regional Strategy for the Prevention of and Response to Marine Pollution from Ships (2016-2021)[135]. This comprehensive Strategy is complemented by other measures addressing specific issues under the Protocol[136]. The Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC) assists Contracting Parties in meeting their obligations under the Prevention and Emergency Protocol[137].

Land-Based Sources and Activities (LBS) Protocol. The Protocol for the Protection of the Mediterranean Sea Against Pollution from Land-Based Sources was adopted in 1980 and entered into force in 1983. In 1996, the Land-Based Sources Protocol was amended by the Protocol for the Protection of the Mediterranean Sea Against Pollution from Land-Based Sources and Activities, which has been in force since 2006.

The objective of the LBS Protocol is to take all appropriate measures to prevent, abate and eliminate to the fullest extent possible pollution of the Mediterranean Sea from land-based sources and activities, by reducing and phasing out substances that are toxic, persistent and liable to bioaccumulate listed in Annex I to the Protocol (Article 5). Under the LBS Protocol, point source discharges and pollutant releases are subject to an authorization or regulation system by countries (Article 6), taking into account factors ranging from the characteristics and composition of the discharges to the potential impairment of marine ecosystems and seawater uses (Annex II). Regional Action Plans and National Action Plans containing specific measures and timetables have been developed to implement the LBS

[135] COP Decision IG.22/04: Regional Strategy for the Prevention of and Response to Marine Pollution from Ships (2016-2021). This Strategy updated and further developed the previous Strategy adopted in 2005. http://www.rempec.org/

[136] COP Decision IG.20/11: Regional Strategy addressing Ship Ballast Water Management and Invasive Species, 2012 , and COP Decision IG. 17/10: Guidelines on the Decision-Making Process for Granting Access to a Place of Refuge for Ships in Need of Assistance, 2008. http://www.rempec.org/

[137] REMPEC website http://www.rempec.org/

BOX 92

Main findings from the 2016-2017 national reports on the implementation of the LBS Protocol

(Source: UNEP/MAP, 2019)

The report's main findings underlined that the legal and regulatory measures to eliminate pollution from Land-based Sources (LBS) and phase out Persistent Organic Pollutants (POPs), as well as environmental monitoring programmes that assess the effectiveness of measures under the Protocol are reported to be in place for most of the reporting Contracting Parties. However, findings highlight ongoing difficulties in data collection and the need for capacity-building.

For all reporting Contracting Parties, discharges and pollutant releases are subject to authorization or regulation and measures to reduce to a minimum the risk of accidental pollution are reported to be in place. All reporting Contracting Parties also indicated having an inspection system to assess compliance with authorizations and regulations and to impose sanctions in the event of non-compliance.

Very few reporting Contracting Parties provided data on **enforcement** measures taken to implement the Protocol, suggesting the need to take action in this area.

BOX 93

Main findings from the 2016-2017 national reports on the implementation of the SPA/BD Protocol

(Source: UNEP/MAP, 2019)

The report's main findings highlight that most reporting Contracting Parties have designated Marine Protected Areas (MPAs), as well as the measures for their protection, preservation and sustainable management (including regulatory measures for endangered or threatened species; national strategies and action plans for the conservation of biological diversity components; inventories of the components of biological diversity; regulatory measures concerning dumping, passage and anchoring of ships, offshore activities, sampling of species and scientific research in SPAs; planning, management, supervision and monitoring measures for SPAs, measures dealing with the deliberate or accidental introduction into the wild of non-indigenous or genetically modified species; diverse funding mechanisms for the management and promotion of protected areas including income-generating activities compatible with the protection measures), and established new SPAs in their territories during 2016-2017. Reporting Contracting parties have taken action with regard to 8 Regional Action Plans (Cartilaginous Fishes, Invasive Species, Bird Species, Marine Vegetation, Conservation of the Monk Seal, Turtles, Dark Habitats, Coralligenous and other Calcareous Bio-concretions) and additional efforts are required for full implementation of these plans.

Identified leads for improvement include strengthening SPA **management effectiveness**, enhancing **monitoring** of the Biodiversity related Ecological Objectives within the framework of the Integrated Monitoring Assessment Programme (IMAP), and **capacity-building** to improve the submission of information and data.

Protocol[138]. Among them, the Regional Plan on Marine Litter Management in the Mediterranean stands out. It is a legally binding pioneering instrument in its category, setting specific measures and operational targets to achieve Good Environmental Status in the Mediterranean Sea, including a basin-wide marine litter reduction target of 20% for beach litter by 2024[139]. The Programme for the Assessment and Control of Marine Pollution in the Mediterranean (MED POL) assists Contracting Parties in meeting their obligations under the LBS Protocol.

SPA/BD Protocol. The Protocol Concerning Mediterranean Specially Protected Areas was adopted in 1982 and replaced by the Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean, the SPA/BD Protocol for short, adopted in 1995 and in force since 1999. The SPA/BD Protocol provides the regional framework for the conservation and sustainable use of biological diversity in the Mediterranean. Under the Protocol, Parties are called: (1) to protect areas of particular natural or cultural value, by the establishment of Specially Protected Areas (SPAs) or Specially Protected Areas of Mediterranean Importance (SPAMIs), and (2) to protect the threatened or endangered species of flora and fauna listed in the Protocol. Annex I to the Protocol sets the common criteria for the establishment of SPAMIs, Annexe II provides the list of endangered and threatened species and Annex III the list of species whose exploitation is regulated. Annexes II and III are amended to keep them up to date with the evolving status of species. Regional Action Plans with specific actions to protect, preserve and manage the species listed in the SPA/BD Protocol have been developed, such as the Plan for the Conservation of Mediterranean Marine Turtles and the Plan for the Management of the Mediterranean Monk Seal[140]. The Specially Protected Areas Regional Activity Centre (SPA/RAC) assists Contracting Parties in meeting their obligations under the SPA/BD Protocol.

Offshore Protocol. The Protocol for the Protection of the Mediterranean Sea against Pollution Resulting from the

[138] (1) COP Decisions IG. 19/8, 19/9, adopted in 2009 and COP Decision IG. 20/8.3, adopted in 2012: Regional Action Plans on Persistent Organic Pollutants (POPs); (2) COP Decision IG. 19/7, adopted in 2009 and COP Decision IG. 20/8.2, adopted in 2012: Regional Action Plans on the Reduction of Biochemical Oxygen Demand (BOD) from urban wastewater and in the food sector; (3) COP Decision IG. 20/8.1, adopted in 2012: Regional Plan on the Reduction of Inputs of Mercury; and (4) COP Decision IG. 22/5, adopted in 2016: Regional Action Plan on Sustainable Consumption and Production in the Mediterranean. UNEP/MAP website http://web.unep.org/unepmap/meetings/search-meeting-documents

[139] COP Decision IG. 21/7: Regional Plan on Marine Litter Management in the Mediterranean, 2016. http://web.unep.org/unepmap/meetings/search-meeting-documents

[140] 1) COP Decision IG. 21/4: Action Plan for the conservation of Cartilaginous Fishes (Chondrichthyans) in the Mediterranean Sea, 2013; (2) COP Decision IG. 22/12: Updated Action Plan concerning Species Introductions and Invasive Species in the Mediterranean Sea, 2016 http://web.unep.org/unepmap/meetings/search-meeting-documents (3) COP Decision IG. 22/12: Updated Action Plan for the Conservation of Cetaceans in the Mediterranean Sea, 2016; (4) COP Decision IG. 20/6: Action Plan for the conservation of Marine Vegetation in the Mediterranean Sea, 2012; (5) COP Decision IG. 21/4: Action Plan for the Conservation of Bird Species listed in Annex II of the SPA/BD Protocol in the Mediterranean, 2013; (6) COP Decision 21/4: Action Plan for the Management of the Mediterranean Monk Seal, 2013; (7) COP Decision IG. 21/4: Action Plan for the Conservation of Mediterranean Marine Turtles, 2013; (8) COP Decision IG. 22/12: Updated Action Plan for the Conservation of the Coralligenous and Other Calcareous Bio-concretions in the Mediterranean Sea, 2016, and (9) COP Decision IG. 21/4: Dark Habitats Action Plan, 2013. http://www.rac-spa.org/

BOX 94

Main findings from the 2016-2017 national reports on the implementation of the Offshore Protocol

(Source: UNEP/MAP, 2019)

The report's main findings point out that for all reporting Contracting Parties, offshore activities are subject to prior authorization as required by the Offshore Protocol. For some reporting Contracting Parties, the use and storage of offshore chemicals is approved by the competent national authority on the basis of the Chemical Use Plan as required by Article 9 of the Offshore Protocol. Legal and regulatory measures are reported to be in place for some reporting Contracting Parties, calling upon operators to remove disused offshore installations and pipelines. Some reporting Contracting Parties reported having adopted special measures to prevent offshore pollution in specially protected areas.

Further improvement is found to be necessary to streamline submission of data through capacity-building.

BOX 95

Main findings from the 2016-2017 national reports on the implementation of the Hazardous Wastes Protocol

(Source: UNEP/MAP, 2019)

The report's main findings show that all reporting Contracting Parties indicated having adopted measures to reduce to a minimum and possibly eliminate the amount of hazardous waste subject to transboundary movement, at the heart of their national legislation on waste management. The notification procedure sets out in Article 6 of the Hazardous Wastes Protocol in cases of transboundary movement of hazardous waste is reported to be in place for all reporting Contracting Parties. Restrictions on the export and import of hazardous waste are indicated to be in place for more than half of the reporting Contracting Parties.

Data collection and transmission, as well as capacity building in this area, are identified as leads for improvement.

Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil, the Offshore Protocol for short, was adopted in 1994 and has been in force since 2011.
The Offshore Protocol addresses all aspects of offshore oil and gas activities in the Mediterranean. This includes measures to reduce pollution from all phases of offshore activities (e.g. reduction of oil in produced water, substantial restrictions on the use and discharge of drilling fluids and chemicals and removal of disused offshore installations) (Articles 4 to 14 and Article 20), to respond to offshore pollution incidents (Articles 15 to 18) and concerning liability and compensation (Article 27). The Offshore Protocol is complemented by the Mediterranean Offshore Action Plan[141]. The Protocol provides for the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC) to play an important coordinating role.

Hazardous Wastes Protocol. The Protocol on the Prevention of Pollution of the Mediterranean Sea by Transboundary Movements of Hazardous Wastes and their Disposal, the Hazardous Wastes Protocol for short, was adopted in 1996 and has been in force since 2008.

The overall objective of the Hazardous Wastes Protocol is to protect human health and the marine environment against the adverse effect of hazardous waste. The provisions of the Protocol address the following principal aims: (1) the reduction and, where possible, the elimination of hazardous waste generation (Article 5), (2) the reduction of the amount of hazardous waste subject to transboundary movement (Article 5), and (3) a regulatory system applying to cases where transboundary movements are permissible (Articles 6 and 9). The Programme for the Assessment and Control of Marine Pollution in the Mediterranean (MED POL) assists Contracting Parties in meeting their obligations under the Hazardous Wastes Protocol.

ICZM Protocol. The Protocol on Integrated Coastal Zone Management in the Mediterranean, the ICZM Protocol for short, was adopted in 2008 and entered into force in 2011.
The ICZM Protocol provides the legal framework for the integrated management of the Mediterranean coastal zone. Under the Protocol, Parties are called to take the necessary measures to strengthen regional cooperation to meet the objectives of integrated coastal zone management (Article 5). Measures range from those aimed at protecting the characteristics of certain specific coastal ecosystems (e.g. wetlands and estuaries, marine habitats, coastal forests and woods and dunes) (Articles 10 to 12) to those devised to ensure the sustainable use of the coastal zone (Article 8), and those aimed at ensuring that the coastal and maritime economy is adapted to the fragile nature of coastal zones (Article 9). In 2012, within the framework of the Protocol, Contracting Parties adopted the Action Plan for the Implementation of the ICZM Protocol (2012-2019)[142]. The Priority Actions Programme Regional Activity Centre (PAP/RAC) assists Contracting Parties in meeting their obligations under the ICZM Protocol.

8.3 Other regional cooperation mechanisms, including stakeholder networks, call for strong synergies and collaboration

8.3.1 Institutional cooperation

Various UN entities and other intergovernmental organizations (IGOs) are active in the field of Mediterranean environmental protection. The UNEP/MAP - Barcelona Convention system cooperates with several of them. To

[141] COP Decision IG. 22/3: Mediterranean Offshore Action Plan, 2016. http://www.rempec.org/
[142] COP Decision IG. 20/2: Action Plan for the Implementation of the ICZM Protocol (2012-2019) http://web.unep.org/unepmap/meetings/search-meeting-documents For additional information, consult the PAP/RAC website https://www.pap-thecoastcentre.org/

BOX 96

Main findings from the 2016-2017 national reports on the implementation of the ICZM Protocol

(Source: UNEP/MAP, 2019)

ICZM is mainly implemented through a large number of individual projects. Half of the reporting Contracting Parties have adopted a national ICZM or coastal strategy, and none of them has established a specific ICZM centre, which would guarantee the sustainability of the ICZM effort. All reporting Contracting Parties have legal measures for controlling urban development along the coastline, but the **enforcement and control** of the application of these measures, in particular the 100-meter setback zone, remain a challenge.

In addition to a lack of **coastal observatories,** the use of **indicators** for coastal management is limited, in particular regarding the evaluation of economic impacts on the coastal zone. When there is a national ICZM or coastal strategy, some indicators are used for monitoring the implementation of the ICZM Protocol. Protection measures appear to be the prevalent type of action and only a few countries have taken measures to **restore** coastal wetlands and islands, as well as underwater sites. Mechanisms for management of coastal land in the public domain exist and are operational for the majority of the reporting Contracting Parties while the use of **economic and/or financial instruments** to support ICZM is very limited.

Risks and emergency situations seem to be of a major concern for most reporting Contracting Parties that have established national contingency/emergency plans and undertaken comprehensive coastal risk assessments. While progress is noticed in terms of integration of climate change into coastal and marine strategies and planning schemes, there is still considerable room for increasing resilience and adaptive capacity, first of all to sea level rise. The establishment of the 100-meter setback zone is considered extremely useful.

Awareness-raising, education, training and international cooperation are considered crucial for making progress. The cooperation established via the preparation of the Common Regional Framework for ICZM is recognized as important and further support is deemed crucial, especially with regard to **Marine Spatial Planning** (MSP) and **adaptation to climate change.**

this end, UNEP/MAP has signed individual Memoranda of Understanding with organizations such as the International Union for Conservation of Nature (IUCN), the Union for the Mediterranean (UfM), the Agreement on the Conservation of Cetaceans of the Black Sea and contiguous Atlantic Area (ACCOBAMS), the Permanent Secretariat of the Commission on the Protection of the Black Sea Against Pollution (BSC PS), and the General Fisheries Commission for the Mediterranean (GFCM).

The Union for the Mediterranean (UfM) is an intergovernmental Euro-Mediterranean organization which brings together all 28 countries of the EU and 15 countries of the Southern and Eastern Mediterranean. The creation of the UfM in 2008 built on the principles of the Euro-Mediterranean Partnership, also known as the Barcelona Process launched in 1995: "turning the Mediterranean basin into an area of dialogue, exchange and cooperation guaranteeing peace, stability and prosperity" (Barcelona Declaration, 1995). "Union for the Mediterranean aims to build on that consensus to pursue cooperation, political and socioeconomic reform and modernization on the basis of equality and mutual respect for each other's sovereignty" (Paris Declaration, 2008). In a globalized world, the objective is to reduce the gap between developed and developing countries, while strengthening commitment, solidarity, and integration between Northern, Southern, and Eastern Mediterranean countries. The scope of this governance framework includes contribution to achieving SDGs in the region.

The Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area (ACCOBAMS) entered into force in 2001. It resulted from consultations between the Secretariats of four Conventions, namely the Barcelona Convention, the Bonn Convention on the Conservation of Migratory Species of Wild Animals, the Bern Convention on the Conservation of European Wildlife and Natural Habitats, and the Bucharest Convention on the Protection of the Black Sea Against Pollution.

Global agreements concluded in the field of fisheries are applied in the Mediterranean through the **General Fisheries Commission for the Mediterranean** (GFCM), which is a Regional Fisheries Management Organization (RFMO) under the FAO.[143] The adoption of an ecosystem-based approach for fisheries by FAO has prompted cooperation between Regional Seas Programmes (RSPs) and RFMOs in various parts of the world, including the Mediterranean. A Memorandum of Understanding (MoU) was signed in 2012 between the MAP and the GFCM, which cooperate on area-based management measures, including ongoing work on harmonization of existing respective criteria to identify Specially Protected Areas of Mediterranean Importance (SPAMIs) and Fisheries Restricted Areas (FRAs), in particular those located partially or entirely in areas beyond national jurisdiction (ABNJ).

European Union. As most of the Northern Mediterranean States are European Union Member States (EU MSs), EU policies influence regional policies, including the Marine Strategy Framework Directive (MSFD), which aims to achieve or maintain Good Environmental Status (GES) in all areas under the sovereignty and jurisdiction of EU MSs, the Maritime Spatial Planning Directive, and many other directives that directly or indirectly tackle environmental issues, e.g. Directive on Environmental Impact Assessment (EIA), Directive on Strategic Environmental Assessment (SEA), Water Framework Directive, NATURA 2000 Directive, EU Common Fisheries Policy (CFP) etc. These policies

[143] The International Commission for the Conservation of Atlantic Tunas (ICCAT) is also responsible for managing tuna in the Mediterranean.

should be considered in the broader framework of the EU Integrated Maritime Policy, which supports and underlies many thematic or cross-cutting policies, instruments and initiatives such as Marine Spatial Planning, H2020 on research and innovation, etc. Regional cooperation mechanisms support the adoption and implementation of coherent measures beyond EU boundaries, within the framework of the European Neighbourhood Policy[144] between the EU and Southern Mediterranean countries. European States are also bound by the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, which links protection of the environment and human rights, and by the Espoo Convention, which provides for the obligation to conduct EIAs in certain circumstances involving transboundary activities.

Bilateral or multilateral cooperation, for instance the **Arab Maghreb Union** (AMU) or **League of Arab States** (LAS), support growing cooperation in the broader region on issues linked to sustainable development and environment. At a sub-basin level, the **Dialogue 5+5** offers a framework for intergovernmental cooperation between Western Mediterranean countries, along with initiatives supported by the EU to develop common strategies in the Adriatic-Ionian (EUSAIR) and in the Western Mediterranean (WESTMED).

A legally binding instrument has been adopted by France, Italy and Monaco, establishing the **Pelagos Sanctuary for Mediterranean Marine Mammals** in the north-western Mediterranean.

Other environmental agreements such as the CBD or the **Ramsar Convention on Wetlands of International Importance** are applied in the Mediterranean region through various regional instruments, including in the framework of the Barcelona Convention (e.g. management of Ecologically or Biologically Significant Marine Areas) or the **Mediterranean Wetlands Initiative** (MedWet), which is one of the 15 regional initiatives recognized under the Ramsar Convention.

Three of the five **UN Regional Economic Commissions** cover Mediterranean countries, i.e. UN Economic Commission for Africa (ECA), UN Economic Commission for Europe (UNECE), and UN Economic and Social Commission for Western Asia (ESCWA). They convene regional forums for Sustainable Development, supporting peer learning processes and the implementation of the 2030 Agenda/SDGs. They also undertake numerous activities on SDG implementation, including data management and assessments, knowledge-sharing and capacity-building. Further collaborations between the UN Regional Commissions and the Mediterranean Commission on Sustainable Development (MCSD, see below) represent potential levers for the follow-up and implementation of 2030 Agenda/SDGs in the Mediterranean basin.

BOX 97

Addressing pollution from ships through regulations and collaboration

Given that the Mediterranean hosts one of the world's most important sea traffic lanes, global arrangements addressing pollution from ships are particularly relevant for the region. The International Maritime Organization (IMO) is the UN specialized agency in charge of setting standards for the safety, security and environmental performance of international shipping. Under IMO's coordination, there are more than 20 international conventions addressing the prevention of and response to pollution from ships. The most important of these is the International Convention on the Prevention of Pollution from Ships, commonly known as the MARPOL Convention, and its six annexes, which provide regulations on the prevention of pollution by oil (Annex I), the control of pollution by noxious liquid substances in bulk (Annex II), the prevention of pollution by harmful substances carried by sea in packaged form (Annex III); the prevention of pollution by sewage from ships (Annex IV), the prevention of pollution by garbage from ships (Annex V), and the prevention of air pollution from ships (Annex VI).

Alongside International Conventions, more than 20 pieces of relevant European legislation as well as relevant Protocols of the Barcelona Convention address prevention and response to pollution from ships in Mediterranean waters.

A number of gaps remain in Mediterranean coastal States' ratification of the relevant international conventions. In order to establish and maintain the comprehensive legal basis that would enable coastal States to take the necessary action to prevent and respond to cases of pollution by ships in the Mediterranean Sea, it is therefore essential that all Mediterranean coastal States take action, where necessary, to ratify and simultaneously ensure the effective implementation and enforcement of these conventions.

To ensure coherence between the international and regional levels, the Barcelona Convention Regional Activity Centre dealing with the prevention of pollution from ships REMPEC is hosted by IMO.

In addition to regional and subregional cooperation mechanisms, **national initiatives** are multiplying, with several coastal States working on the preparation of a national maritime policy integrating the blue economy. A growing number or States now claim **Exclusive Economic Zones** (EEZs) in the Mediterranean, which could result in the gradual disappearance of ABNJs in the Mediterranean and strengthen the importance of cooperation and progress towards stronger integration of national policies and regulations. This integration could be supported by coordinated strategic planning mechanisms such as MSP that can be instrumental for the consistent transboundary management of shared areas with common concerns related to the marine environment and management of marine resources.

8.3.2 Stakeholder mobilization

Informed participation of non-state and sub-state actors in the decision-making process can lead to (i) better decisions, as the government or implementing agencies take into account valuable information from the public

[144] In 2003, the EU launched a policy instrument, the European Neighbourhood Policy (ENP), which addressed through its financial instrument, the European Neighbourhood and Partnership Instrument (ENPI), cooperation with the neighbouring countries of the EU including those of the Mediterranean area.

concerned and (ii) enhanced public confidence and acceptance of governmental decisions. Dialogue with and active involvement of civil society and the private sector, as well as local governments at all stages of policymaking and implementation are particularly crucial, because the current situation requires systemic changes in the behaviour of all actors if sustainability is to be achieved in the Mediterranean region. The 2030 Agenda advocates for both multi-stakeholder and multi-level governance in the pursuit of the SDGs.

Inclusive development must pay attention to inequalities and involve civil society in decision-making and action. Women can play a major role: (i) in promoting sustainable household consumption and investment (e.g. in food/agriculture, in energy), and (ii) in entrepreneurship and economic development. Mediterranean policies increasingly integrate participatory and multi-stakeholder tools. Younger generations and their demands and potential for action are key to short-term and longer-term progress, including in countries with strong demographic trends today and tomorrow.

Since Rio 1992 and the 2015 Paris Agreement, stakeholder mobilization on sustainable development goals has begun to thrive, with the emergence of numerous stakeholder networks and governance forums. In the Mediterranean, networks often bring together stakeholders of similar profile, and governance forums often focus on a specialized theme. Interrelations between different types of stakeholders and across governance forums are generally limited in time and dependent on externally funded projects. The few exceptions include the Egyptian Sustainable Development Forum at the national level, the *Parlement de la Mer* in the French Region of *Occitanie* at the local level, and, at the regional level, the Mediterranean Commission on Sustainable Development, which recommended the creation of a Mediterranean Forum on Sustainable Development. Efforts are required to develop long-term or permanent interlinkages.

Since its inception, UNEP/MAP has recognized the value of public awareness and support from civil society in fulfilling its mission. To this end, Contracting Parties have developed fruitful working relationships with civil society organizations by granting them Observer and Partner status, thus encouraging their participation in meetings and activities, while UNEP/MAP provides assistance to partners from developing Mediterranean countries with a view to further strengthening their capacities. With Decision IG.19/6 of COP 16, the Contracting Parties adopted the criteria and procedures for admission of international, national, and local civil society organizations/NGOs as MAP Partners.

The Contracting Parties to the Barcelona Convention have a series of commitments to engage stakeholders and the public in consultations and participatory governance. These commitments concern all countries of the region, and should lead to the implementation of participatory processes for Environmental Impact Assessment (EIA), Strategic Environmental Assessment (SEA), Integrated Water Resources Management (IWRM), management of specially protected areas, adaptation to climate change, etc. Participatory and information/communication processes are also related to and supported by the Mediterranean Strategy on Education for Sustainable Development (MSESD)[145] and its Action Plan[146], both of which are endorsed and constitute integral parts of the MSSD.

Accession to the UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention) also provides a solid and comprehensive framework for governance to engage the public effectively. The Aarhus Convention is widely accepted to be the leading example of implementation of Principle 10 of the Rio Declaration. Apart from engaging the public, accession to the Convention can facilitate the design and implementation of National Strategies for Sustainable Development, green economy strategies and 2030 Agenda and SDGs at the national level[147]. Being a Party to the Aarhus Convention significantly contributes to countries' efforts to promote citizen-centred and environmentally sound policies. Twelve of the 22 Contracting Parties to the Barcelona Convention are Parties to the Aarhus Convention *(Table 35)*. The Aarhus Convention is open for accession to any UN Member State[148]. The familiarization with and possible accession to the Aarhus Convention requires first and foremost a strong political will from governments to fulfil commitments concerning access to information, public participation and access to justice in environmental matters.

8.3.3 Multi-level governance, local governments

Multi-level governance involves planning and management in line with the principle of subsidiarity, by virtue of which issues should be dealt with at the closest or most local level consistent with their resolution, for example in a local area rather than a whole country if the issue can be adequately managed at this level. With observed and projected

[145] http://ufmsecretariat.org/wp-content/uploads/2014/05/Mediterranean-Strategy-on-Education-for-sustainable-development-.pdf

[146] http://www.esdmedcyprus.pi.ac.cy/files/ENG_Action_Plan.pdf

[147] Owing to their cross-cutting nature, the Aarhus Convention and its Protocol on Pollutant Release and Transfer Registers (PRTRs) have multiple benefits to the successful implementation of the 2030 Agenda/SDGs and are directly linked to a very wide array of issues and policies such as ending poverty (SDG 1), health protection (SDG 3), water and sanitation management (SDG 6), clean energy (SDG 7), green economy (SDGs 8, 9 and 12), reduction of inequalities (SDG 10), sustainable consumption and production (SDG 12), climate action (SDG 13), tourism (SDGs 8, 12, 14 and 15), urban planning (SDGs 11 and 13), and the promotion of effective, accountable and transparent institutions, effective access to information, effective and inclusive public participation and transparency in national and international decision-making and effective and equal access to justice for all (SDG 16).

[148] For States which are not Members of UNECE, accession requires an approval by the Aarhus Convention's Meeting of the Parties. In recent years, the Parties to the Aarhus Convention have made clear their strong encouragement for countries outside the UNECE region to join

environmental and climate changes, local resilience and local risk management have become more challenging than ever. Exposure to environmental and climate risks, resilience and the adaptive capacity of local communities vary significantly around the Mediterranean basin. Local planning approaches are often best tailored to reflect these specificities by integrating locally held knowledge about specific local contexts.

Local planning and management can either be ensured by developing local offices of the national government or empowering local authorities to engage local citizens in decision-making, and strong consideration of local specificities and concerns. In practice, several Mediterranean countries have already transferred key responsibilities over sustainable development planning and implementation to local governments, or are in the process of doing so. Waste, wastewater and drinking water management are often decentralized responsibilities. Others depend on specific country policies and evolve over time. Albania, for example, has transferred the 80% of forest area ownership and management responsibility from the central government to local governments (Kacani & Peri, 2019), with the exception of protected areas. In Tunisia, the new 2014 Constitution sets ambitious decentralization targets.

Decentralization can only function if local governments have the financial and human capacities to sustainably manage often complex environmental and development challenges. Decentralization thus requires support via both capacity-building and funding programmes. Mobilizing specific local tax revenues, suitable to equitably manage environment and natural resources, is often a constraint, especially in Southern and Eastern Mediterranean Countries (SEMCs), and requires transfers from the central government.

Institutionalization of local planning at the national level is important because it is often a condition for long-term national funding. As long as local planning is not institutionalized at the State level, its implementation is not factored into the national budget system. As a result, its funding needs to come from a sector or international and bilateral donors.

Another important factor is the way the environmental dimension is taken into account in local planning processes. While most sustainable development strategies and commitments are designed and adopted at the national or international level, it is actually at the local level that concrete action for conservation and management of natural resources for human well-being can be taken. This is particularly true for adaptation to environmental and climate change to which the Mediterranean region is very vulnerable. Clear mechanisms to mainstream international commitments into local planning often lack effective tools that need to be catered to the differing stages of decentralization in Mediterranean countries. A gap often remains between the ambition of international agreements and their implementation at the local level. Coordination between local administrations and central and decentralized sectoral technical services, as appropriate, requires further capacity-building and implementation support to become more effective. In addition, environmental enforcement is critical in many Mediterranean countries where illegal activities raise strong environmental concerns (illegal logging, waste disposal, sand mining, protected species collection, discharge in the environment, building in coastal setback zones, etc.). Enforcing national laws and international agreements can rarely be a decentralized responsibility only.

Increasing resilience can also be strengthened by promoting innovative local-level systems and governance models, around emerging (or re-emerging) value chains. Collective organization and citizen-led innovations in sustainable agriculture, aquaculture, fisheries and ecotourism sectors, creating jobs and diversifying the economy, can be further strengthened and supported. The value chain approach encourages the participation of local producers, who are "vulnerable" individually, by grouping together to act collectively to overcome market barriers and increase revenue. A local value chain approach can also help identify opportunities for achieving a circular economy.

8.3.4 Towards strengthened cooperation

From the analysis of changes in global and regional governance in recent years, some trends are emerging and call for changes to environmental governance in the Mediterranean region. There is a clear trend to multiply governance forums in the Mediterranean, at all scales, many of which aim to support sustainable development, including in maritime and coastal areas. Most of them focus more on development (economic and social drivers) than environmental protection. It is increasingly apparent that the environmental governance supported by the UNEP/MAP - Barcelona Convention system, despite its many positive outcomes, can succeed in achieving its environmental objectives only by simultaneously addressing economic and social objectives that are the drivers of most pressures on the environment. Furthermore, pressures from land-based activities on the marine and coastal environment are still predominant, and must be addressed in an integrated way, which calls for better regional integration between land and marine governance.

Building on the experience gained in the region and beyond, it seems that integration should be further developed to bring more consistency into regional/Mediterranean environmental governance and efficiently mobilize it in order to achieve SDGs in the region. It should be considered along several lines, including:

- *Integration of regional governance,* establishing stronger links between all relevant regional frameworks, particularly the UNEP/MAP - Barcelona Convention system, FAO-GFCM, ACCOBAMS and UfM by supporting common strategies and coordinated action plans including spatial plans;
- *Vertical integration of governance,* establishing top-down and bottom-up mechanisms to ensure coordination between high-level regional policies and objectives such

as SDGs, and strategies and action plans carried out at all other scales and levels, including the local/municipal level;
- *Land-sea integration*, through better consideration of land-sea interactions and related governance issues.

These kinds of changes should be in line with the trend observed at the overall level to shift from fragmented governance of maritime affairs towards more inclusive governance of sustainable development, fully considering protection of the marine environment and natural heritage as a primary policy objective.

8.4 2030 Agenda and SDGs renewed the recognition of the cross-cutting and integrated nature of environmental and development issues

The UN Conference on Sustainable Development in 2012 (Rio+20) decided to expand the Millennium Development Goals, which were reaching their deadline, with a set of universal Sustainable Development Goals (SDGs). This decision was followed by unprecedented public engagement and intense involvement of UN Member States across the globe. This process came to an end in September 2015, with an agreed consensus by the UN General Assembly on "Transforming Our World: The 2030 Agenda for Sustainable Development" (2030 Agenda), with 17 SDGs and 169 targets. The agreement on the SDGs is a recognition of the interconnectivity of socioeconomic development and environmental protection. Opportunities offered by a green and blue economy were explicitly recognized. For the first time, an international development goal was dedicated to the oceans. SDG 14 (Life Below Water) aims to "Conserve and sustainably use our oceans, seas and marine resources for sustainable development". Other SDGs are directly or indirectly linked to marine issues, e.g. climate action (SDG 13), responsible production and consumption (SDG 12), affordable and clean energy (SDG 7), clean water (SDG 6), conserve biodiversity (SDG 15), etc. Half of the SDGs directly focus on environmental issues or address the sustainability of natural resources. Over 86 of the SDG Targets pertain to environmental sustainability, including at least one in each of the 17 SDGs. The 2030 Agenda also takes on board the commitments of the Paris Agreement on Climate (2015).

Furthermore, the 2030 Agenda welcomes the cooperation of regional and subregional commissions and organizations for follow-up and review, and encourages States to identify the most suitable regional forum in which to engage. The Mediterranean Commission on Sustainable Development (MCSD) provides such a cooperation framework in the Mediterranean region.

The **Mediterranean Commission on Sustainable Development** (MCSD) was established in 1995 as a multi-stakeholder advisory body to assist the Contracting Parties to the Barcelona Convention in their efforts to integrate environmental issues in socioeconomic programmes and to promote sustainable development policies in the Mediterranean region. The MCSD is unique in its composition, which includes, on an equal footing, 40 representatives from governments, local authorities, socioeconomic actors, the scientific community, IGOs, NGOs, and parliamentarians. The MCSD coordinated the preparation of the Mediterranean Strategy for Sustainable Development (MSSD), which was adopted by the Contracting Parties in 2005 and 2016.

The **Mediterranean Strategy for Sustainable Development** (MSSD) 2016-2025 (Decision IG.22/02) was adopted in 2016 by COP 19 as a strategic guiding document for all stakeholders and partners to translate the 2030 Agenda and SDGs at the regional, subregional, national and local levels.

Developed through a highly inclusive process in which all Contracting Parties and key stakeholders had the opportunity to participate, the MSSD aims to provide a strategic policy framework to secure a sustainable future for the Mediterranean region, adapt international commitments to regional conditions, guide national strategies and stimulate regional cooperation to achieve sustainable development goals, and link the need to protect the environment with socioeconomic development.

As highlighted by its subtitle "Investing in environment sustainability to achieve social and economic development",

BOX 98 The Regional/Mediterranean Dimension as a Bridge Between Global Processes and National Policies for Sustainable Development

The UNEP/MAP - Barcelona Convention system has a leading role in facilitating the coordinated implementation of the 2030 Agenda and SDGs at the regional level, and in ensuring the transition towards a green and blue economy in the Mediterranean. It supports long-standing mechanisms and structures that adapt the global processes to the Mediterranean dimension:

- In line with SDG 12 on Sustainable Consumption and Production (SCP), the Mediterranean Strategy for Sustainable Development (MSSD) 2016-2025 supports investment in the environment as the optimum way to secure long-term sustainable jobs and socioeconomic development;
- As a regional forum for discussion and exchange of best available practices, the MCSD represents a unique mechanism in the panorama of Regional Seas worldwide that looks at sustainable development in its entirety and gives a strong voice to actors that work towards sustainability in the Mediterranean region;
- The Simplified Peer Review Mechanism (SIMPEER) is an innovative framework for promoting dialogue and experience sharing on National Strategies on Sustainable Development among Mediterranean countries. SIMPEER is an adaptive tool which supports the preparation and follow-up of the Voluntary National Reviews (VNRs) presented to the UN High-level Political Forum (HLPF). The SIMPEER pilot edition was carried out in 2016-2017 with the voluntary participation of France, Montenegro and Morocco. Albania, Egypt and Tunisia joined the second edition in 2018-2019.

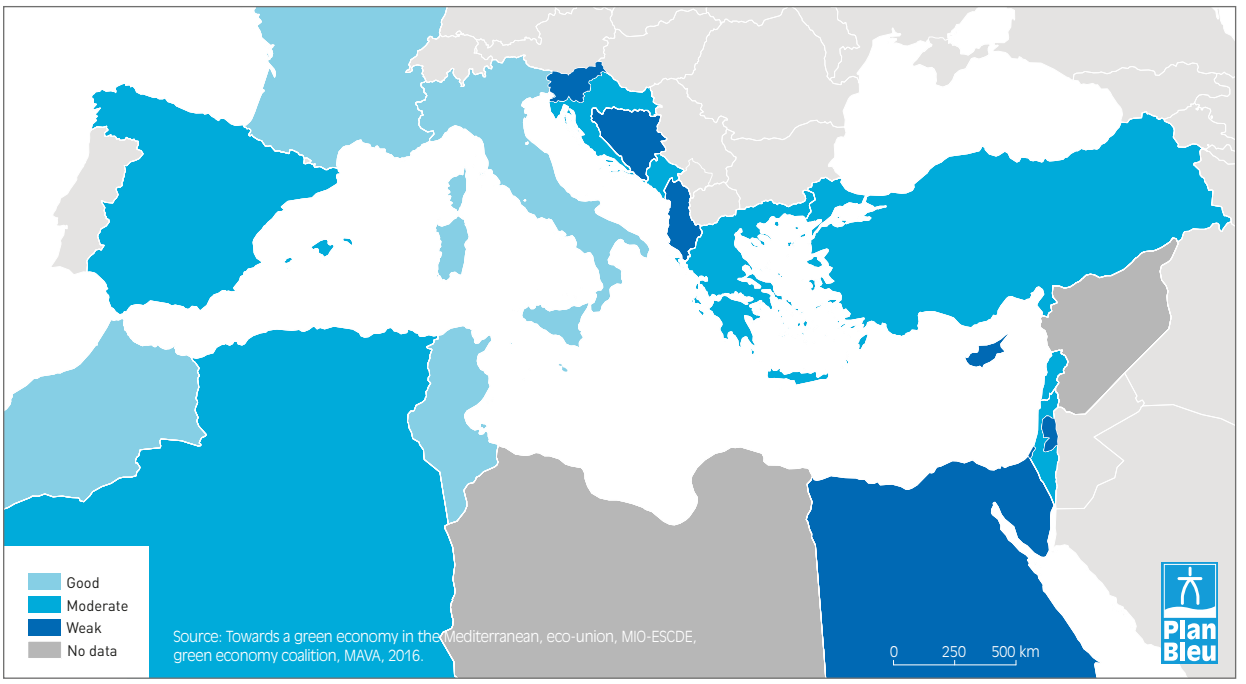

Figure 197 - Assessment of published national strategies
(Source: Fosse et al. 2016)

the vision of the MSSD[149] is based on the principle that socioeconomic development needs to be harmonized with the environment and protection of natural resources; *"Investing in environment is the best way to secure long-term sustainable job creation: an essential process for the achievement of sustainable socioeconomic development for the present and future generations"* (MSSD). The vision of the MAP Medium-Term Strategy 2016-2021 (MTS 2016-2021) (Decision IG.22/1) - *"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"* - is inspired by the vision of the MSSD.

The MSSD addresses key areas impacted by human activity, from the marine and coastal environments, using an ecosystem-based approach and planning tools such as Integrated Coastal Zone Management (ICZM) and Marine Spatial Planning (MSP), to urban settlements and the rural and agricultural systems. It also focuses on climate change, which is expected to severely impact the Mediterranean. The MSSD also introduces emerging approaches that help in turning political intentions into reality: e.g. green and blue economy approach combined with Sustainable Consumption and Production (SCP).

The MSSD follows a structure based on six objectives that lie at the interface between environment and development. The first three objectives of the Strategy reflect a territorial approach, while the three other objectives are cross-cutting approaches[150]. A set of strategic directions is formulated for each of the six overall objectives. The strategic directions are complemented by national and regional actions, as well as flagship initiatives and targets. The MSSD also looks into the means for financing implementation and measuring effects, as well as the governance prerequisites. A monitoring system is also provided through the establishment of a Mediterranean Sustainability Dashboard, including socioeconomic indicators aligned with SDG indicators.

The most recent comprehensive assessment of National Strategies on Sustainable Development (NSSDs) in the Mediterranean region was conducted in 2016 (Fosse et al. 2016). It covers NSSDs and national Green Economy strategies and concludes that the majority of Mediterranean States have outdated or incomplete strategies, which are often vague, and do not give clear definitions, objectives, budgets or indicators. Only four countries (France, Italy, Morocco and Tunisia) can claim to have detailed strategies with concrete roadmaps, or - in the case of Italy - supporting legislation in place. Seven countries (Albania, Bosnia and Herzegovina, Cyprus, Egypt, State of Palestine,

[149] "A prosperous and peaceful Mediterranean region in which people enjoy a high quality of life and where sustainable development takes place within the carrying capacity of healthy ecosystems. This must be achieved through common objectives, strong involvement of all stakeholders, cooperation, solidarity, equity and participatory governance".

[150] The six MSSD Objectives are the following: 1. Ensuring sustainable development in marine and coastal areas; 2. Promoting resource management, food production and food security through sustainable forms of rural development; 3. Planning and managing sustainable Mediterranean cities; 4. Addressing climate change as a priority issue for the Mediterranean; 5. Transition towards a green and blue economy; 6. Improving governance in support of sustainable development.

BOX 99

The Moroccan Pact for Exemplarity of the Administration for Sustainable Development

(Source: Kingdom of Morocco, 2019)

As part of the implementation of its National Strategy for Sustainable Development (NSSD), the Moroccan government aims to set an example by implementing the sustainability recommendations recommended for all economic and social actors within its own institutions. The government's exemplary approach is based on objectives for sustainable public procurement, eco-responsibility and social responsibility. In order to operationalize the first strategic direction of the SNDD, which aims to make the exemplary nature of the administration a lever for the implementation of sustainable development, Morocco has undertaken several actions, including:

- Development of a Pact for the Exemplarity of the Administration (PEA) based on 6 strategic objectives;
- Development of a methodological guide as a toolbox that has been made available to all ministerial departments;
- A memo sent from the Head of Government to all public administrations urging them to conduct environmental audits of their buildings and propose a ministerial plan for the Exemplarity of the Administration in terms of sustainable development;
- The establishment of three working groups to make proposals on specific topics (the first group on sustainable construction techniques, the second group on responsible public employment and the third group on sustainable mobility);
- All ministerial plans will be grouped together to develop the National Sustainable Development Plan, which will set the targets to be achieved by 2021 in terms of energy efficiency, sustainable mobility, waste recycling, sustainable procurement, etc.

Countries	Year of VNR
Albania	2018
Algeria	2019
Bosnia and Herzegovina	2019
Croatia	2019
Cyprus	2017
Egypt	2016, 2018
France	2016
Greece	2018
Israel	2019
Italy	2017
Lebanon	2018
Libya	2020
Malta	2018
Monaco	2017
Montenegro	2016
Morocco	2016, 2020
Slovenia	2017, 2020
Spain	2018
Tunisia	2019
Turkey	2016, 2019

Table 38 - Year of Voluntary National Review of 2030 Agenda implementation in Mediterranean countries
(Source: United Nations Sustainable Development Knowledge Platform, Voluntary National Reviews Database, accessed October 2019)

Slovenia and Spain) have outdated green economy/ sustainable development strategies or none at all. NSSDs are not the only way to guide decision-making regarding sustainable development in national policies. Courses for achieving SDGs can be set in many different ways and do not necessarily materialize in an NSSD.

As part of the follow-up and review mechanisms of the 2030 Agenda for Sustainable Development, states are encouraged to "conduct regular and inclusive reviews of progress at the national and sub-national levels, which are country-led and country-driven", referred to as Voluntary National Reviews (VNRs). VNRs aim to both facilitate the sharing of experiences and to mobilize multi-stakeholder support and partnerships for the implementation of the Sustainable Development Goals. The Contracting Parties to the Barcelona Convention that have undergone and/ or will go through the VNR process are listed in the table below.

8.5 Governance is increasingly supported by research, innovation and education for sustainable development; dissemination is a key challenge for a sustainability transition

Good decisions rely on sound knowledge, targeted research and innovation, and call for education and dissemination of knowledge to all stakeholders.

8.5.1 Supporting governance through research and innovation for sustainable development

Education, research, innovation and capacity-building are inherently interconnected and offer significant opportunities for Mediterranean countries and people to develop and exploit their natural and cultural assets for the benefit of their economies and their societies, acting as drivers of development. Increased knowledge, coupled with skills development through capacity-building, research and innovation could significantly strengthen and support the various components of sustainable development. These are also keys to the successful deployment of solutions which, in turn, may address the many environmental and socio-political challenges of the region and deliver economic benefits on a wider scale, while safeguarding environmental integrity and social cohesion and well-being.

Despite the fact that for thousands of years, the Mediterranean was cradle of knowledge generation, education, research and innovation, and without ignoring the excellent records of several Mediterranean countries, the region as a whole, in modern times, is lagging behind, in comparison with other areas, e.g. Northern Europe or the US.

In the second half of the 20th century, many strong national academic and research institutions are relatively well-connected with industry and other economic activities in countries and deploy efforts to collaborate at many levels with other nations. Some Mediterranean-wide organizations have been established, supporting science, technology or institution-building and international governance, such as the Mediterranean Science Commission (CIESM), initially with strong links with the Monaco Museum of Oceanography, the *"Pacem in Maribus"* established by Elisabeth Mann Borgese and operating from Malta in the 1970's, etc.

Gradually, the educational, research and development models applied have been challenged and changed, several times. Nearly all of them have been now deeply affected by the globalization of the world economy, the rapid expansion of information technologies and the role of international cooperation schemes, which are by far better supported financially for research and innovation than for education.
Within the UNEP/MAP - Barcelona Convention system, MED POL and RACs have played an important role for many decades in stimulating research and monitoring, particularly on pollution assessment and abatement issues. A series of capacity-building activities were, and still are, part of MAP activities. Several of them have also been connected to educational activities of Universities or other appropriate scientific institutions. Although science and research do not directly fall within the scope of the Barcelona Convention and its protocols, a series of programmes and projects coordinated by MAP lie within the borderline between applied research and policy formulation and implementation. One of these projects is the MedPartnership (2009-2015), the Global Environment Facility (GEF) and MAP Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem that aimed at reversing the degradation trends which affect the Mediterranean's unique large marine ecosystem, including its coastal habitats and biodiversity. Within this project, some of the biggest organizations working in the field of sustainable development in the Mediterranean joined forces and, through a coordinated and strategic approach, including the use of scientific results from research, strived to catalyse policy, legal and institutional reforms along with investments.

The follow up of MedPartnership is being developed within the MedProgramme[151], a flagship initiative supported by the GEF and 9 Countries in the region, addressing land-based pollution in coastal hotspots, sustainability and climate resilience in the coastal zone, marine biodiversity, and knowledge management. The MedProgramme is putting words into actions by engaging one investment bank (European Investment Bank - EIB) and one development bank (European Bank for Reconstruction and Development - EBRD) in MAP activities. This is the culmination of a process that exemplifies how regional governance and private/financial institutions can work together for sustainability: (i) the governance and regulatory framework is provided by the Barcelona Convention and its protocols; (ii) the technical and scientific assessments identified the main pressures in the Mediterranean and defined Strategic Action Programmes to address them; and (iii) the countries developed National Action Plans to define the hotspots requiring intervention.

National and bilateral initiatives in the areas of science and innovation on "green issues" are also important with impacts on the Mediterranean environment and development, particularly when they are connected to major investments such as large renewable energy parks. A major impetus for Euro-Mediterranean cooperation in science, technology and innovation was provided by the launching of the Barcelona Process in 1995. A Group of Senior Officials (GSO) (Former Monitoring Committee - MoCo) for Euro-Mediterranean cooperation was created in 1995 within the framework of the Barcelona Process to monitor and promote cooperation in research, technology and development. The EU-Med GSO was tasked with making recommendations for the joint implementation of research policy priorities and is an important bi-regional policy dialogue platform which brings together EU Member States and all the non-EU Mediterranean (partner) countries. The last meeting of the EU-MED GSO took place in 2015 and emphasized the crucial role of innovation as a game-changer in the Mediterranean. It also highlighted the importance of stepping up efforts towards a common Mediterranean research and innovation agenda.

The European Neighbourhood and Partnership Instrument (ENPI)136, was followed by association agreements signed between the EU and individual Southern Mediterranean countries, thus creating the entry point for the establishment of Science and Technology Cooperation Agreements with the EU. To date, the EU has signed science and technology cooperation agreements with Algeria (2013), Egypt (2008), Morocco (2005), and Tunisia (2004).

A milestone in Euro-Mediterranean dialogue in research and innovation is the adoption of the Cairo Declaration (2007) Towards a Euro-Mediterranean Higher Education and Research Area, at the first Ministerial Conference on higher education and research. In May 2011, the High Representative of the Union for Foreign Affairs and Security Policy and the EC published a joint communication (COM (2011) 303) presenting a new approach to strengthen the partnership. For research and innovation, the communi-

[151] The MedProgramme is the final step of a clear, politically supported and technically consistent strategy, which will provide an example to establish similar and even bigger operative partnerships between countries, international organizations, financial institutions, the private sector and NGOs.

cation suggests working towards the establishment of a Common Knowledge and Innovation Space (CKIS), which pulls together policy dialogue, national and regional capacity-building, cooperation in research and innovation and increased mobility of researchers.

The Union for the Mediterranean (UfM) reinvigorated the partnership between the Euro-Mediterranean countries and identified higher education and research as one of its six priority areas. The strategic value of increasing integration among Euro-Mediterranean and national research programmes and the need for greater investments in research and innovation in the Mediterranean basin was further stressed at the Euro-Mediterranean Conference held in Barcelona in 2012. The Conference affirmed the political aim to better integrate research and innovation in the Euro-Mediterranean area through a co-designed, co-financed and co-owned joint programme on commonly agreed topics. At the Conference, the EC suggested the need for an initiative based on Article 185 of the Treaty on the Functioning of the EU, in order to define a long-term, strategic and integrated Research and Innovation Programme focused on the implementation of a common strategic agenda and the alignment of the relevant national research and innovation programmes.

Within this policy context, several mechanisms and tools have been set in motion with the aim to advance research and innovation for Sustainable Development in the Mediterranean:

- **The EU Framework Programmes for Research and Innovation** (i.e. FP7, Horizon 2020 Research) constitute the backbone for Euro-Mediterranean cooperation in research and innovation. **The European Neighbourhood Partnership Instrument (ENPI)** and its successor, **the European Neighbourhood Instrument (ENI)** are, from a resources point of view, the most important instruments for regional Mediterranean cooperation. Research and innovation for sustainable development are a high priority for these instruments[152].
- **The Cross-Border Cooperation for the Mediterranean (CBC-Med)** programme currently implemented under the ENI aims to strengthen cooperation in the Mediterranean area during the 2014-2020 period.
- **The Interreg MED Programme** (funded by the European Regional Development Fund, the Instrument of Pre-Accession and national co-funding) aims to promote sustainable growth in the Mediterranean area by fostering innovation and supporting social integration through an integrated and territorially based cooperation approach.

Some of the main challenges for strengthening and substantially advancing research and innovation in the Mediterranean include:

- The need for further streamlining the different instruments to address the sustainable development-related issues the Mediterranean is facing. This requires better information for the people and organizations involved and enhanced coordination between different types and scales of research and innovation programmes, including those that are EU-funded.
- The need to strengthen the science policy interface and develop research and innovation projects that produce 'fit-for-purpose' information to feed into the various stages of the policy cycle.
- The need for sharing data and outputs produced by research and innovation projects more effectively through suitable platforms.
- The need for enhancing efficient science to policy communication via capacity-building activities targeting policy and decision makers.
- The need to develop new mechanisms for dialogue to allow research projects and policy actors to interact more, be more aware of the strategic policy contexts of projects, and jointly identify ways in which evidence and research outcomes can be incorporated into the management processes vital for the sustainable development of the region.

8.5.2 Education for sustainable development

Education for Sustainable Development (ESD) was developed during the Rio-1992 process, justified and promoted through Chapter 36 of Agenda 21, with the key objective of supporting the introduction and implementation of the concept of sustainable development through formal (schooling systems) and informal (awareness-raising) channels, taking into account the relevant experience of pre-existing environmental education.

The First International Working Conference on "Reorienting Environmental Education for Sustainable Development" was organized jointly by UNESCO, UNEP/MAP, MIO-ECSDE and the University of Athens (1996), and marked the needed appropriate shift from Environmental Education towards Education for Sustainable Development (ESD). The landmark UNESCO International Conference on Environment and Society: Education and Public Awareness for Sustainability (Thessaloniki, Greece, 1997) promoted ESD as an "umbrella" type of education. In 1998, the Mediterranean Workshop on Education and Public Awareness for Environment and Sustainability further promoted ESD as an education approach that is essential for supporting the implementation of the sustainable development agenda.

From 1998 until the Johannesburg Summit (2002), the educational community of the Mediterranean gained valuable experience through participation in regional networks and projects, sharing knowledge and practices, co-creation and making the agenda on ESD policy and teaching more specific and concrete. The decision about the UN Decade of

[152] Under ENI, a project entitled SWIM-H2020 SM (Sustainable Water Integrated Management and Horizon 2020 Support Mechanism 2016-2019) was funded with the aim of contributing to reduced marine pollution and sustainable use of scarce water resources in the Mediterranean region with emphasis on the countries of North Africa and the Middle East (Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, State of Palestine, Syrian Arab Republic and Tunisia) (Vlachogianni, Roniotes, & Alampei, 2018).

ESD, suggested at the Johannesburg Summit (2002), was prepared and promoted in collaboration with Mediterranean networks, while the Mediterranean Education Initiative for Environment and Sustainability (MEdIES), the main Mediterranean Network on ESD (which brings together more than 6,500 educators) was established as a UN Type II Partnership[153]. The UN Decade of ESD (2005-2014) provided a solid framework for mainstreaming, boosting and applying ESD. It was suggested that Regional ESD Strategies be adopted to help countries introduce and implement ESD[154]. The Mediterranean region was the first to respond to this call, drafting the Mediterranean Strategy on ESD (MSESD) from 2005 to 2014. In 2014, the strategy was endorsed by the UfM Ministerial Meeting on Environment and Climate Change.

Although the MSESD was developed through a long participatory process, it is still unevenly implemented in the various countries. An Action Plan for the implementation of the MSESD, serving as a flexible framework for the fulfilment of countries' national ESD, as well as regional/global agendas were developed and adopted at the Conference of Ministers of Education (Cyprus, 8-9 December, 2016). To ensure efficient regional governance and communication, the countries have appointed focal points to communicate with the Mediterranean Committee for ESD. UNEP/MAP, UfM, UNESCO, LAS and UNECE are members of the Committee.

ESD is widely recognized in the region as a key tool for promoting sustainable development. In many countries, inter-ministerial committees established for the promotion and implementation of the SDGs also include the promotion of ESD. The majority of Mediterranean countries have already developed National Strategies or Plans on ESD. The Action Plan of the MSESD provides an appropriate and useful framework to complement, improve and adapt national policies on ESD.

Despite all the aforementioned initiatives and progress in networking, cooperation involving ESD research needs further mainstreaming and enhancement, especially to include maritime education, and should be considered a main priority. It is equally important to enhance "citizen science", including a cooperative inquiry and participatory action research approach as a method for shifting from "research on/about people" to "research with people".

Despite the gradual progress achieved in implementing ESD, some common challenges are identified by most Mediterranean countries. Strengthening much-needed interdepartmental and cross-sectoral collaboration and effective coordination of the various ESD initiatives, including education on maritime issues, are among these challenges. Another major challenge is the lack of adequate human and financial resources for the promotion of ESD. What is stressed by the countries is the need for continued efforts at the regional level, connecting regional initiatives to the national and local level, including "trainings of trainers" as a major tool in a more systematic and intensive manner.

It is critical that MSESD and its Action Plan receive more political support and become better known among decision makers, as a prerequisite for the promotion of sustainable development and the SDGs in the region.

8.5.3 Knowledge and partnerships for environment and development

The capacity to generate knowledge has tremendously increased and new cost-effective sources of information have emerged throughout the last decades. Big and open data, widespread use of remote sensing and GIS, aerial and underwater drones, etc. have considerably increased the capacity to generate and process new data at relatively low cost. Whether or not an environmental component can be observed remotely has now become one of the most significant limiting or enabling factors for its regular and affordable surveillance. At the same time, the booming coverage of Internet access, social networks and open-source software including mobile applications have revolutionized knowledge generation, dissemination and management.

Citizen science projects have emerged in the context of booming Internet access as a virtual and physical place where citizens, researchers and decision makers can cooperate to monitor the state of the environment in the Mediterranean, especially in relation to conservation biology or ecology (e.g. COMBER[155], CIGESMED[156]). The information thereby collected can provide a strong basis for short- and long-term planning and decision-making in the region, while educating the public and enhancing public participation. Integrating citizen science as a source for evidence-based decision-making has become a major lever for action.

Overall, the information landscape in the region is characterized by an abundance of organized or dispersed, sometimes redundant and sometimes contradictory or inconsistent sets of information from multiple sources with varying levels of reliability. Critical knowledge is generated in knowledge hubs, universities, local assessments or research programmes, or is held by local communities and practitioners. This information is often insufficiently

[153] Type II partnerships, which were meant to complement Type I outcomes or agreements and commitments made by Governments, are characterized as 'collaborations between national or sub-national governments, private sector actors and civil society actors, who form voluntary transnational agreements in order to meet specific sustainable development goals. Source: https://www.un.org/en/ecosoc/newfunct/pdf15/2015partnerships_background_note.pdf

[154] This acknowledged the pioneering work of the UNECE region which managed to prepare a Strategy adopted in Vilnius in 2005 benefiting from the UNECE Strategy.

[155] Citizens' Network for the Observation of Marine Biodiversity.

[156] Coralligenous based indicators to evaluate and monitor the "Good Environmental Status" of Mediterranean coastal waters.

or ineffectively transmitted to public and private decision makers and citizens, leading to significant amounts of knowledge that is "wasted". Given the diffuse nature of information sources and data collection processes, the abundance of information needs to be organized effectively to feed into commonly agreed observatories, as well as monitoring and surveillance frameworks at the regional and national level. This may include the development of new indicators or the adaptation of existing or setting-up of new sustainable surveillance processes, platforms, institutions and partnerships. Transmitting project results to common existing platforms and generating data and knowledge in consistency with agreed methodologies as a condition for project and public research funding can be a major lever for action.

In the Mediterranean region, despite the development of various instruments for scientific cooperation (in research and innovation), with strong support from the European Union, significant disparities remain in the level of monitoring and innovation support between NMCs and SEMCs. When science policy-practice collaboration and information-sharing exist, they are often project dependant and thus short-lived with important initial costs and limited capitalization over time. Recent initiatives such as the MedECC scientific network on climate and environmental change pave the way towards further consolidated and "user-ready" knowledge resources.

Common monitoring and assessment frameworks that have been adopted to improve information-based decision-making in the framework of the UNEP/MAP system are also important ways to streamline and prioritize data collection and aggregation.

- **The INFOMAP system.** INFOMAP is being designed as the UN Mediterranean knowledge platform to provide and share data, information services and knowledge for the benefit of the UNEP/MAP components and Contracting Parties. Its purpose is to: (i) Provide access to the reporting system; (ii) Harmonize data structure and models; (iii) Create a common catalogue of resources; (iv) Integrate data with interoperability layer; (v) Create a common platform to view, query and analyse data; (vi) Produce tools to support data and information dissemination.
- **The Integrated Monitoring and Assessment Programme (IMAP).** IMAP is being developed with support from the MAP system, as part of the implementation of the Ecosystem Approach (EcAp) to assess progress towards achieving Good Environmental Status of the Mediterranean Sea and coast. IMAP is based on eleven Ecological Objectives (EO), corresponding to 28 operational objectives and their related 27 agreed common indicators covering three clusters (i) pollution and marine litter, (ii) biodiversity and non-indigenous species and (iii) coast and hydrography. The initial implementation phase of the IMAP (2016-2019) resulted in the development of the first 2017 Mediterranean Quality Status Report (MED QSR).
- A **shared environmental information system with EU countries.** Mediterranean countries collaborate to improve data availability and access to environmental information. The EU-supported Shared Environmental Information System (SEIS) for the reduction of marine pollution fosters the regular production and sharing of quality-assessed environmental data, indicators and information in Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine, and Tunisia. This complements information available in EU countries.
- The **European Marine Observation and Data Network (EMODnet)** is a network of organizations supported by the EU's integrated maritime policy. These organizations work together to observe the sea, process data according to international standards and make that information freely available as interoperable data layers and data products. EMODnet covers issues linked to geology, bathymetry, seabed habitats, chemistry, biology, physics and human activities. Originally focused on European countries only, EMODnet also increasingly includes data related to neighbouring countries, including SEMCs.

8.5.4 Science Policy Interfaces

Science Policy Interfaces (SPIs) are tools that can be used to improve environmental governance, conservation and management in the Mediterranean region. UNEP defines an SPI as a structure or process that aims to improve the identification, formulation and evaluation of policies to improve the effectiveness of governance (UN Environment, 2009).

SPIs involve deliberate interactions between scientists and policymakers to build a common understanding of policy-relevant issues. Instead of just communicating information, scientists and policymakers interact and exchange ideas. In this arrangement, policymakers can inform scientists about their knowledge needs and expectations, their analysis of issues and current policymaking processes and bottlenecks, while scientists can clarify the scope of their scientific results and the way it can be translated into recommendations, concrete measures and future research *(Figure 197)*.

Cooperation does not occur within two fully distinct spheres of activity. The scientific and political spheres have a continuous mutual influence on each other. The concept of SPI also calls for a common "space and time" between these two spheres to promote regular interactions and collaboration.

In the Mediterranean, the SPI approach is incorporated into a number of environmental institutions, networks and projects. Science policy interactions have achieved many results at both the national level (e.g. drafting of National Action Plans to address pollution) and regional level (e.g. MSSD Review Process). To go beyond occasional exchanges, the Contracting Parties called for a stronger SPI and for efforts to structure relationships between the UNEP/MAP - Barcelona Convention system and scientific communities by creating scientific committees and expert groups with an advisory role to support policymaking processes at their COP19 (Athens, Greece, February 2016).
This dialogue can be hindered by communication barriers

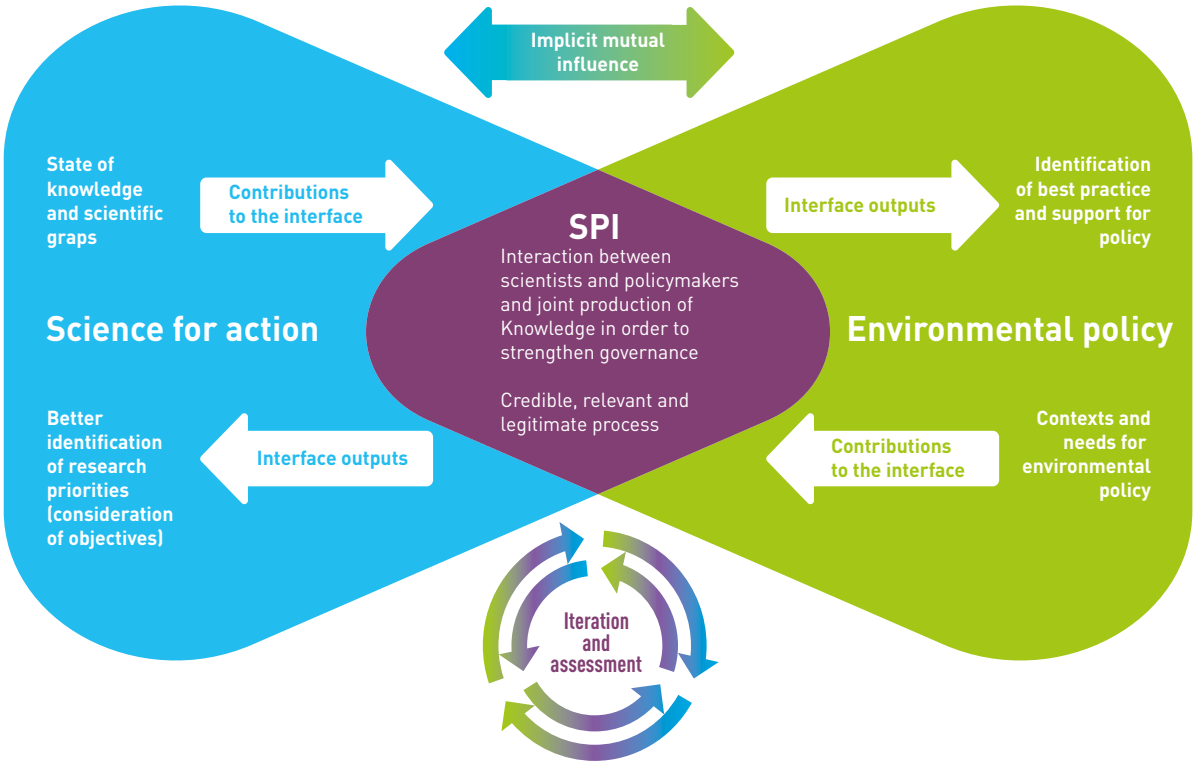

Figure 198 - Designing optimal Science policy Interfaces

between the scientific and political spheres. For instance, research timeframes are generally very different from policymaking timeframes. Policy decisions are made today based on present knowledge, whereas additional knowledge produced by research will be available only in the future. The production of knowledge is sometimes unbalanced since some fields receive more funding and are better documented than others due to a lack of initial discussion between scientists and policymakers to better identify where efforts should be placed.

8.6 Priority responses: balancing policy mixes, managing knowledge for action, enforcing existing commitments and regulation

Previous reports on the state and outlook of environment and development interactions in the Mediterranean published by Plan Bleu in 1989 and 2005 had identified three main policy challenges, falling under the overarching theme of governance: (i) strengthening regional cooperation; (ii) integrating environment into sectoral policies, and (iii) promoting sustainable local and territory-specific development. Despite the progress achieved, these three levers of action remain insufficiently addressed in 2019:

- Over the last decade, **regional cooperation** in the Mediterranean has experienced major difficulties due to geopolitical circumstances, but cooperation on environmental matters has remained active. Countries have adopted common objectives, commitments and monitoring frameworks. Stakeholder networks have also expanded and diversified. With increased relevant information sources and pilot experiences, cooperation will remain a key condition of environment and development progress in the upcoming decades, with permanent cooperation frameworks across different institutions and types of stakeholders being a key priority.
- With regards to **integrating the environment into sectoral policies,** progress has been achieved through the Barcelona Convention and the establishment of integrated tools, including the ICZM Protocol, the Ecosystem Approach and the Sustainable Consumption and Production (SCP) Action Plan. However, much remains to be done. As the importance of the environment in decision-making is not yet fully recognized, administrations in charge of the environment remain under-considered and underfunded compared to the magnitude of challenges and the comprehensiveness of plans and strategies they are to implement. They lack the necessary institutional clout that would allow firm and effective mainstreaming of environment and related long-term planning in sectoral management. With the rapid development of sectors impacting the environment, ensuring a transition towards environmentally sustainable and socially inclusive sectors remains a critical goal, as demonstrated by mobilization surrounding the blue, green and circular economy. Enhanced communication and awareness-raising about the issues associated with degradation or increasing inequalities on environmental, social and economic components via evaluations of key ecosystem services and socioeconomic impacts can contribute to better integration of environmental issues

in decision-making. Full involvement and support from economic sectors is crucially needed to succeed in integrating the environment into sectoral activities.

- **Territorial approaches** have been successfully strengthened with decentralization moving forward in some countries, and advocacy for local decision-making progressing through various forums. For example, local authorities play a crucial role in planning and implementing concrete climate change mitigation and adaptation measures. Much remains to be done in empowering local governments and mainstreaming environmental awareness into all levels of decision-making.

In addition to these challenges, major governance bottlenecks currently hindering sustainable development in the Mediterranean are linked to shortcomings in (i) policy design with coherent policy mixes and adequate funding mechanisms, (ii) action-oriented knowledge management, and (iii) enforcement of existing commitments and regulation.

8.6.1 Balancing policy mixes and ensuring adequate funding mechanisms

Efficient environmental policies require adjusted policy mixes, as systemic issues can rarely be solved by stand-alone regulatory measures. Environmental challenges associated with multiple pressures and activities, including strong economic interests, can be tackled only by a conjunction of coordinated instruments through policy mixes, associating regulatory measures with: (i) economic instruments, fiscal measures, extended producer responsibility in application of the polluter-pays principle, diverse funding mechanisms and partnerships (in line with the 2015 Addis Ababa agreement: national and international, public and private, conventional and non-conventional, microcredit, etc.); (ii) incentives for technological and social innovations development and dissemination / scaling-up, (iii) awareness-raising, education, certifications and voluntary agreements, as well as training programmes; and (iv) instruments supporting environmentally-friendly land tenure, land use and land use planning in areas under significant pressures and (v) surveillance measures to monitor factual progress.

Considering measures and policies not individually but as a coherent whole makes it possible to assess and share the expected co-benefits and trade-offs of decisions and to discuss them with relevant stakeholders. This will also identify ways in which the potential adverse effects of measures can be mitigated, ideally by applying a mitigation hierarchy aiming to first avoid, then reduce or eventually compensate remaining trade-offs.

Investing in policy platforms can help understand and share experience on suitable combinations of policy instruments. **Policy platforms** can also provide a context in which synergies and trade-offs between measures can be best dealt with and improve policy learning between countries. At the Mediterranean level, the upcoming seventh step of the EcAp roadmap aims to develop coherent

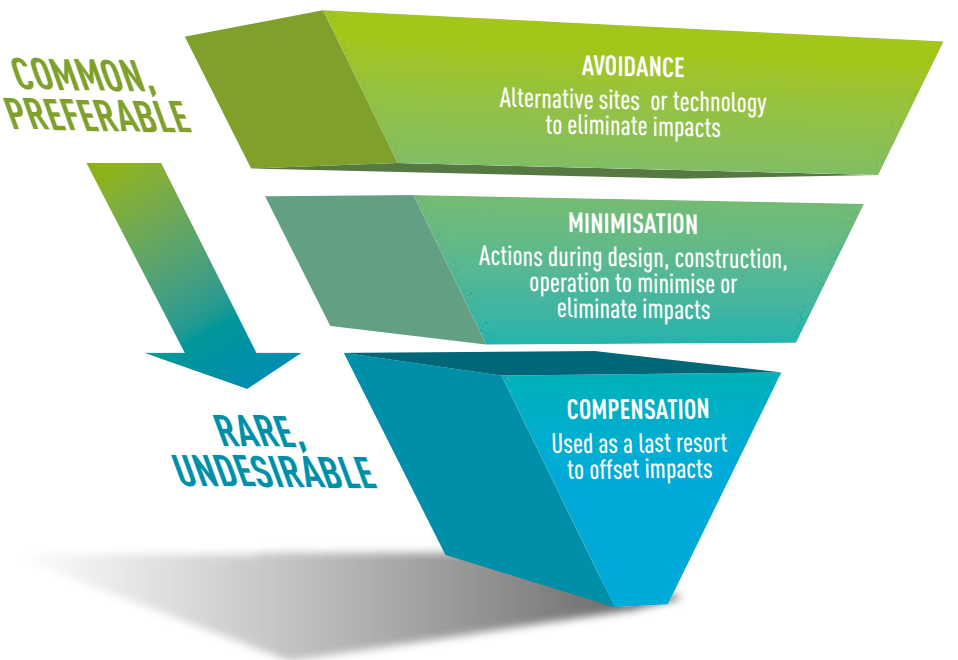

Figure 199 - The mitigation hierarchy at project level

(Source: Open online course on Environmental Impact Assessment of the United Nations University, RMIT University, and the United Nations Environment Programme (UNEP), University of the South Pacific, UNU-Global Virtual University, consulted in October 2019)

action plans and programmes of measures for achieving Good Environmental Status (GES) of the Mediterranean Sea and coast and can present an opportunity to re-think policy mixes in the region.

Appropriate funding mechanisms are a vital part of policy mixes. Many regional sustainability strategies, programmes and plans are designed without adequate funding plans and mechanisms. Investments in infrastructure development, including water drinking water supply, sanitation, wastewater treatment, waste management, and more recently renewable energy have been key to progress on sustainability indicators, in particular in SEMCs. Continuous need for investments is expected in these areas as populations continue to grow in SEMCs. Emerging challenges, including climate change, are also expected to require considerable public and private investment, with early action a condition to prevent major subsequent costs. As for other environmental policies, including biodiversity conservation, while investment costs may be limited, funding for recurring costs is a condition of effectiveness.

8.6.1.1 Economic and financial instruments

As defined by the United Nations Glossary of Environment Statistics (1997) *"Economic instruments are fiscal and other economic incentives and disincentives to incorporate environmental costs and benefits into the budgets of households and enterprises. The objective is to encourage environmentally sound and efficient production and consumption through full-cost pricing. Economic instruments include effluent taxes or charges on pollutants and waste, deposit—refund systems and tradable pollution permits."* The common element of all economic instruments is that they influence behaviour through their impact on market signals. They are a means of considering "external costs" (costs to the public incurred during the life cycle of various goods and services) in market prices. These "external costs" may include natural resource depletion, environmental degradation, health impacts or social impacts.

In the Mediterranean, the use of economic instruments has been studied in the framework of National Action Plans (NAPs) towards the achievement of Good Environmental Status (GES) of Mediterranean marine and coastal waters. Available information indicates that there is a range of experiences across the Mediterranean mainly linked to waste, wastewater, and marine litter. *Table 39* shows the number of economic instruments used in NAPs in some non-EU Mediterranean countries and *Table 40* indicates the economic instruments in use and planned in the same countries.

Relevant stakeholders can be encouraged to accept and take ownership of economic instruments for environmental management by demonstrating and communicating on the economic and social (including health) benefits of measures, and by providing comparison to scenarios of inaction. Natural capital, ecosystem and ecosystem services accounting could contribute in this case and should therefore be further developed as a component of national accounts.

Subsidies are another way of influencing market signals. It has been recognized since the 1980s and early 1990s that subsidies can stimulate economic activities that are environmentally harmful, such as subsidies for fossil fuel and electricity or marine capture fisheries and certain kinds of agriculture (OECD, 2017). It is estimated that the following amounts of subsidies with significant environmental footprints are granted, in the following sectors (OECD, 2017):

- Fossil fuel production and consumption: at least USD 400 billion per year, globally, leading to potential impacts such as land degradation (coal and petroleum production), spills (petroleum production), methane emissions (natural gas, deep-mined coal production), CO_2, sulphur and particulate emissions during consumption.
- Water use and treatment: around USD 450 billion globally in 2012, according to the IMF, leading to potential overuse (depleting aquifers, reducing flows in some rivers) and encouraging investment in unsustainable uses.

Countries	Legal	Institutional	Policy	Economic	Technical	Total
Albania	5	32	10	5	29	81
Algeria	6	21	7	15	14	63
Bosnia and Herzegovina	0	2	2	1	0	5
Egypt	2	2	3	-	33	40
Jordan	8	11	7	6	23	55
Lebanon	9	13	5	12	22	61
Montenegro	17	42	4	13	48	124
Morocco	8	11	2	9	19	49
State of Palestine	14	23	1	6	51	95
Tunisia	22	0	25	0	28	75
Total	91	157	63	70	267	648

Table 39 - Number and types of policy instruments in National Action Plans (NAPs) of some Mediterranean countries
(Source: UNEP/MAP, 2017)

Countries	In use	Planned
Albania	Water tariffs (issues: low tariffs, not based on consumption; metering, non-billed water; 34% of operational costs of utilities subsidized). Weak instruments in waste sector.	Implementation of water pollution charge. Fiscal and economic instruments to reduce use of plastic bags. Enforcement.
Algeria	Eleven taxes/charges for pollution, hazardous substances, petroleum products and fuels, plastic bags, tyres, lubricants + waste and water utilities.	Improve collection. Incentives for mercury waste management. Incentives for recycling.
Bosnia and Herzegovina	Charges for public services and natural resources; progress in waste sector. Issues: inadequate level, collection (legislative gaps, organizational weaknesses); Economic instruments not effective in changing behaviours.	Development of economic instruments to address marine litter, disposal of inert waste and separate collection of waste.
Egypt	Incentives provided to industries to adopt cleaner production technologies. Pollution taxes and fines (enforcement; low tariffs).	Application of economic instruments to irrigation.
Lebanon	Irrigation charges. Water tariff. Solid waste collection. Incentives for municipalities hosting landfills.	Tax breaks on recycled material and for recycling industries. Waste taxation, fines on plastic packaging. Water tariffs, wastewater discharge fees. Incentives for food sector; fines and incentives for cement industries.
Montenegro	Water/ waste tariffs + Charges for air pollutants, use of Ozone Depleting Substances, generation and disposal of hazardous waste, use of vehicles, aircrafts, vessels.	Fuel taxes. Instruments to stimulate recycling. Penalties/ noncompliance fees.
Morocco	Water abstraction. Wastewater discharges. Increasing block tariffs for water. Some waste instruments (e.g. waste disposal charge), but not applied. Eco-tax on plastic bags. Subsidies to reduce env. impact of irrigation and transport.	Enforcement of penalties (especially targeting illegal waste disposal). Incentives to chlor-alkali industry. Waste management instruments.
Tunisia	Environmental tax for plastics. Progressive tariffs for utilities. Tax exemptions/reduced rates for pollution abatement, recycling.	Achieve cost-recovery levels for water charges Introduction of water pollution tax.

Table 40 - Economic instruments in use and planned in some non-EU Mediterranean countries
(Source: UNEP/MAP, 2017)

- Agricultural production: around USD 100 billion in support considered potentially environmentally harmful provided by OECD countries in 2015, potentially leading to habitat destruction, land degradation, nutrient pollution (including via aquaculture).
- Fisheries: around USD 35 billion (including fuel subsidies) a year globally, potentially leading to over-fishing and associated externalities from fishing as well as damaging practices that are facilitated by low-cost fuel.
- Others: subsidies that favour the extraction of primary (non-energy) minerals and metals production, and for activities that indirectly lead to increased pressure on the environment (e.g., tax policies that encourage the provision of company cars and fuel credit cards in lieu of cash), leading to potential land degradation, water pollution and discouraging re-use and recycling.

While a comprehensive study of environmentally harmful subsidies has not yet been carried out for Mediterranean countries, they have committed to international agreements and targets addressing the issue of environmentally harmful subsidies, such as the Convention on Biological Diversity which adopted a Strategic Plan for 2011-20 that foresees that "by 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out, or reformed … ", or the Sustainable Development Goals (SDGs), which include targets relating to agricultural export subsidies (SDG target 2.b), fossil fuel subsidies (SDG target 12.C), and certain forms of fisheries subsidies that contribute to overcapacity and overfishing (SDG target 14.6).

In the Mediterranean region, priorities for phasing-out such environmentally harmful subsidies include continuing to remove subsidies on **non-renewable energies** (showing an upward trend at a global level after a period of significant decrease), **unsustainable fisheries** and **groundwater extraction. Adequately targeting direct consumption support to the poorest and most vulnerable groups** would help improve the efficiency of environmental measures, in particular in the water and energy sectors of critical importance in the Mediterranean.

8.6.2 Action-oriented knowledge management

Knowledge about different sustainability issues of concern in the Mediterranean has greatly increased throughout

recent decades. However, much of this knowledge is neither generated nor managed in a harmonized way, but generally in a disparate manner, making it difficult to collect and compare. Common agreed knowledge platforms to which both temporary projects and longer-term initiatives and institutions report are needed to reduce "knowledge waste" and allow decision makers to put existing knowledge to use.

Building on existing common frameworks is a condition for efficiently following-up on recent efforts. In the context of the Barcelona Convention, priorities for action-oriented knowledge management include implementing **national monitoring programmes in alignment with IMAPs** to fill priority knowledge gaps[157], establishing data exchange protocols, covering issues of emerging concern (mineral extraction and other emerging activities at sea, proliferation of pollutants of emerging concern), and expanding monitoring to also cover drivers, pressures, impacts and responses (including policy platforms) in order to provide integrated information for the effective design of measures to achieve GES.

The prevailing type of environmental information that is shared through common platforms relates to the state of the environment. Even though information concerning drivers, pressures, impacts and responses is also collected, it is less often shared and compared with environmental status and impact information via permanent knowledge sharing platforms that go beyond a project logic which is generally limited in scope and time. Therefore, extending existing initiatives to drivers, pressures, impacts and responses can lead to significant improvement.

In fact, addressing the necessary transitions also requires a precise understanding of non-environmental issues and challenges, including economic and employment benefits and impacts, as well as operational, social, cultural and behavioural aspects associated with the sectors or issues being addressed. This most likely requires working with the private sector and local communities of targeted subregions. It also requires strengthened knowledge in the field of **behavioural sciences**, as sustainability can only be achieved through profound changes in human behaviour at all levels.

Furthermore, information about responses and their effectiveness in tackling environmental issues can be collected to show examples of good practices, **capitalizing on lessons learned** from projects or from the implementation of innovative policies. This can take the form of policy platforms, ideally integrated into existing monitoring networks.

For any type of knowledge-sharing, developing sustainable platforms and networks can only be achieved through **permanent collaboration frameworks** at the sub-national, national and regional level. The sustainability of cooperation mechanisms should be a key concern from the design stage of any knowledge platform. As most cooperation mechanisms are currently dependant on project funding, innovation is required to design agile, mutually beneficial and long-term institutional initiatives. This would especially apply to necessary long-term science policy interfaces.

To influence decision-making and design efficient measures, and in addition to carrying out *ex ante* EIA and SEA (see above), it is key to conduct in *itinere* and *ex post* evaluation of measures and policies. This identifies successes, failures, and difficulties in the way environmental issues are addressed in decision-making. Evidence from appraisal conducted during and after policy implementation can largely contribute to better informed and more effective policies, more interdisciplinary approaches and accountability, and

BOX 100 The UN Sustainable Development Solutions Network (SDSN)

The UN Sustainable Development Solutions Network (SDSN) mobilizes global scientific and technological expertise to promote practical problem solving for sustainable development. The SDSN has operated under the auspices of the UN Secretary General since 2012. It is committed to supporting the implementation of the SDGs at local, national, and global scales. UN SDSN mobilizes the academic community to translate the latest expertise in sustainable development into action. To this end, UN SDSN includes a global network of universities, research centres, and other knowledge institutions. Spanning six continents, the SDSN Networks Programme draws upon the knowledge and educational capacity of over 800 member institutions.

SDSN Mediterranean is the regional sub-network of UN SDSN that aims to boost knowledge on the Agenda 2030 and the SDGs in the Mediterranean area, promoting research, innovative teaching, youth leadership, and engaging in a wide array of projects and partnerships with over 70 Universities and research institutions from the Mediterranean countries. In the field of research and innovation, **"PRIMA"** is an example of an initiative developed to implement the Agenda 2030 and the SDGs. PRIMA means Partnership for Research and Innovation in the Mediterranean Area. It involves 19 countries from the Med Region aiming to develop a 10-year programme to fund research and innovation projects in the field of sustainable water use, agriculture, and the food value chain as a driver of regional and local development. In the field of Education for Sustainable Development, SDSN Mediterranean understands that innovative and high quality teaching methods are essential to shape the common values required to improve social inclusion and to leave no one behind. To this end, the network has kick-started several education projects, including the **Massive Open Online Course (MOOC)** "Sustainable Food Systems: a Mediterranean Perspective" and the first **Siena Summer School on Sustainable Development.** The MOOC has been developed in collaboration with the Barilla Foundation and the SDG Academy, showcasing a successful model of public-private partnership. The flagship project of SDSN Mediterranean is the Plastic Busters Project. The nature and effects of plastic litter on the marine ecosystem, fisheries, and human health are largely unknown and are important issues to be investigated. The **Plastic Busters Project** aims to enhance stakeholder awareness and change perceptions and attitudes regarding waste. In the field of IT innovation tools, SDSN Mediterranean promotes the **Prima Observatory on Innovation (POI)** in agrifood. POI is a digital platform designed to monitor and report on the state of research, innovation, and education within the context of agrifood development in the Mediterranean area.

[157] Identified in the 2017 MED QSR.

potentially reduce the regulatory burden. Rather than general processes and statistics alone, evaluation at all stages of policy implementation should consider some practical applications on the ground, and discuss with practitioners to identify lessons learned, adaptations (to be) made during implementation, and bottlenecks. In the Mediterranean region, the Barcelona Convention provides for a comprehensive policy evaluation mechanism for measures taken by Contracting Parties in application of the Convention. However, it is only partially implemented and does not currently allow conclusions to be drawn on the effectiveness of the Contracting Parties' actions. By virtue of Article 26 of the Barcelona Convention, Contracting Parties commit to report *ex post* on the measures taken for the implementation of the Convention, its Protocols and of the recommendations from the Conference of Parties as well as on the effectiveness of these measures. Article 27 further stipulates that, on the basis of these elements, the Conference of Parties shall evaluate compliance with the Barcelona Convention and its Protocols and recommend potential corrective measures. This policy evaluation mechanism is crucial for the effective implementation of the Convention and its tools and requires further support for Contracting Parties for full application of the provisions of the Convention.

Data gaps are likely to remain a reality in the future and should not prevent decision makers from taking action. In accordance with the precautionary principle stipulated in the Barcelona Convention, stakeholders are invited to take evidence-based action embracing the different available data sources, without delaying the implementation of critical measures when data is incomplete.

8.6.3 Enforcement of existing commitments and regulation

Mediterranean countries have adopted ambitious objectives including some legally binding agreements (some of which are Protocols under the Barcelona Convention) on sustainability, but critical gaps remain in implementing and enforcing them. The Barcelona Convention provides a twofold mechanism to ensure enforcement of its provisions, yet to be fully enacted:

- **The Compliance Committee.** The Compliance Committee of the Barcelona Convention and its Protocols was created in 2008 to help identify implementation and compliance difficulties as early as possible. The Compliance Committee can be triggered by Contracting Parties, the Secretariat and the Committee itself. It has not been triggered to date.
- **Reports by Contracting Parties on measures implemented and their effectiveness** (Article 26) reviewed by the COP to recommend potential corrective measures (Article 27): national reporting of measures taken and evaluation of their effectiveness is insufficient to date, with a significant number of unsubmitted or incomplete national reports. The Barcelona Convention does not provide for a sanctioning mechanism in case of non-compliance. Strengthening the fulfilment of Articles 26 and 27 presents an opportunity to close the adaptive policy cycle from planning, to implementation, enforcement, monitoring and evaluation, based on commonly agreed measures.

Mediterranean coastal States increasingly declare Exclusive Economic Zones (EEZ) at sea. This can facilitate enforcement in these areas, as States can apply national laws for environmental violations. For example, violations from ships sailing under foreign flags in an EEZ can be handled by the respective Mediterranean State, rather than having to wait for action from the State under whose flag the ship sails.

Still, enforcement of environmental legislation on land and at sea remains limited at the national level, where human resources, training and budgets in this area are often insufficient to provide effective solutions, and sanctioning mechanisms are often inexistent or ineffective. At the European level, the Barcelona Convention and its Protocols are part of the European legal order and the European Court of Justice can

BOX 101

The European Court of Justice ruling on the case of l'Etang de Berre for more effective enforcement of the Barcelona Convention and its Protocols

The Etang de Berre, close to Marseille, France, consists of salt-marshes and salt farms around the Berre lagoon and is an important wetland site. The site is threatened by tourism as well as by urban and industrial development (Daumalin, 2018), with significant water pollution from industry. A group of fishermen who saw the Berre ecosystem and their professional activity impacted, complained before a French domestic court against discharges by an electricity company that was polluting the Etang de Berre with fresh water and sediments from the river Durance. The fishermen stated that the discharges were in violation of Article 6(3) of the Land-Based Sources Protocol to the Barcelona Convention, to which France and the European Union are Parties.

The French *Cour de Cassation* requested a preliminary ruling from the European Court of Justice (ECJ) on the question of whether or not Article 6(3) of the Protocol has direct effect. The ECJ ruled that Article 6(3) of the Protocol lays down clear obligations as to discharges of certain substances and that a permit for the discharges is needed. The ECJ also ruled against France for failing to implement the same Convention and Protocol, with violations of Article 6(1) (obligation to rigorously reduce pollution) and Article 6(3). In its ruling, the ECJ has made the Barcelona Convention and the Protocol part of the EU Community legal order, even though they had not yet been implemented into European law. The ECJ also allowed individuals to rely on the provisions of the Barcelona Convention before the national courts of the EU Member States, thus allowing both the Commission and individuals to enforce compliance by the EU Member States in the implementation of the Barcelona Convention and its protocols (Hildering, Keessen & van Rijswick, 2009).

sanction EU countries for non-compliance with the Barcelona Convention and its Protocols *(Box 101)*. Cases of rulings by the European Court of Justice with regard to the Barcelona Convention are rare. The systematic inclusion of operational implementation and enforcement instruments into environmental policies remains a key gap and calls for increased efforts and capacity-building.

Other critical areas for increased enforcement include environmental crimes such as illegal waste disposal and trafficking (including criminal activities), illegal mining (including illegal sand extraction and smuggling (UNEP, 2019)), illegal fishing (including in Marine Protected Areas, with enforcement needed along the value chain), illegal construction in coastal zones and protected coastal areas, etc. Recent enforcement measures (e.g. on air pollution by ships) and subregional collaborations (e.g. on illegal discharge at sea) can serve as examples for upscaling surveillance and legal action on environmental regulations.

Leads for strengthening enforcement include:

- developing and testing of a set of criteria and associated indicators to assess compliance (including with the Barcelona Convention and its Protocols);
- adopting necessary provisions in national legislation to allow for legal action, including notions of precautionary principles, environmental prejudice, non-regression on environmental regulations, environmental prevention, and adopting effective legal and administrative mechanisms to implement these principles;
- building capacities for surveillance and intervention at land and sea, particularly offshore (ships and airplanes) and enlarge maritime surveillance to not only cover safety and security but also compliance with environmental regulations;
- strengthening cooperation between judiciary and administrative bodies;
- building capacities of judiciary and administrative resources along the enforcement chain, on environmental legal frameworks, jurisprudence, environmental and economic issues, with both a general awareness programme and specialized training;
- developing cooperation and synergies with other MEA Compliance Committees in areas of common concern including joint activities to promote and facilitate compliance;
- exploring the (potential) role of non-governmental actors, such as NGOs and broader civil society, in the enforcement of environmental regulation; and
- developing judicial cooperation at the Mediterranean level.

Judicial cooperation for environmental protection in the Mediterranean: The case of the Mediterranean Network of Law Enforcement Officials (MENELAS)

In the framework of the Barcelona Convention, promising leads for administrative and judicial cooperation have developed with regard to detecting and sanctioning intentional pollution from maritime transport at the Mediterranean level. The Mediterranean Network of Law Enforcement Officials relating to the International Convention for the Prevention of Pollution from Ships (MARPOL) within the framework of the Barcelona Convention (MENELAS) has been exploring the possible development of regional jurisdictional and judicial cooperation in the Mediterranean. It has also discussed a common report that would enable the courts of the Contracting Parties to the Barcelona Convention to prosecute all individuals, irrespective of the place of pollution. MENELAS has also been considering the possibility of accompanying this judicial cooperation with the establishment of a regional "Blue Fund", to which a part of the pecuniary sanctions would be transferred. Stakeholders have mentioned aligning the level of sanctions or nature of acceptable proofs as potential areas for future progress.

This type of judicial cooperation could be further extended to other policy areas of common interest.

Climate change litigation and the role of civil society

Several cases of judicial litigation have been recorded in EU Mediterranean countries, 40 of which were brought before the European Court of Justice, 13 in Spain and 4 in France (UNEP & Columbia University, 2017). One of the trends in climate change litigation is related to holding governments to their legislative and policy commitments, thereby enforcing climate engagements via legal action. The most famous of such cases took place in the Netherlands, where a Dutch environmental group, the Urgenda Foundation and 900 Dutch citizens sued the Dutch government to require it to do more to prevent global climate change. The court in the Hague agreed with the plaintiffs and ordered a limitation of greenhouse gas emissions to 25% below 1990 levels by 2020 finding the set goal of 17% to be insufficient with regard to the Paris Agreement. The court concluded that the state has a duty to take climate change mitigation measures due to the "severity of the consequences of climate change and the great risk of climate change occurring." In reaching this conclusion, the court cited (without directly applying) Article 21 of the Dutch Constitution, EU emissions reduction targets, principles under the European Convention on Human Rights, the "no harm" principle of international law, the doctrine of hazardous negligence, the principle of fairness, the precautionary principle, and the sustainability principle embodied in the UN Framework Convention on Climate Change, and the principle of a high protection level, the precautionary principle, and the prevention principle embodied in the European climate policy.

A similar case filed in France is pending judgment.

BOX 104

Environmental Compliance Assurance in the EU

As part of environmental governance, environmental compliance assurance describes ways in which public authorities promote, monitor and enforce compliance with such rules.

- *Promote* means helping stakeholders to comply: awareness-raising, guidance, advice;
- *Monitor* means using inspections and other checks to collect information about levels of compliance and provide evidence for enforcement: routine environmental inspections, police investigations and environmental audits by public audit bodies, examination of complaints from the public;
- *Enforce* means stopping those who violate the rules, sanctioning them and obliging them to rectify the damage: audit recommendations, official warnings, cease-and-desist orders, administrative fines, criminal prosecutions and demands to take remedial action.

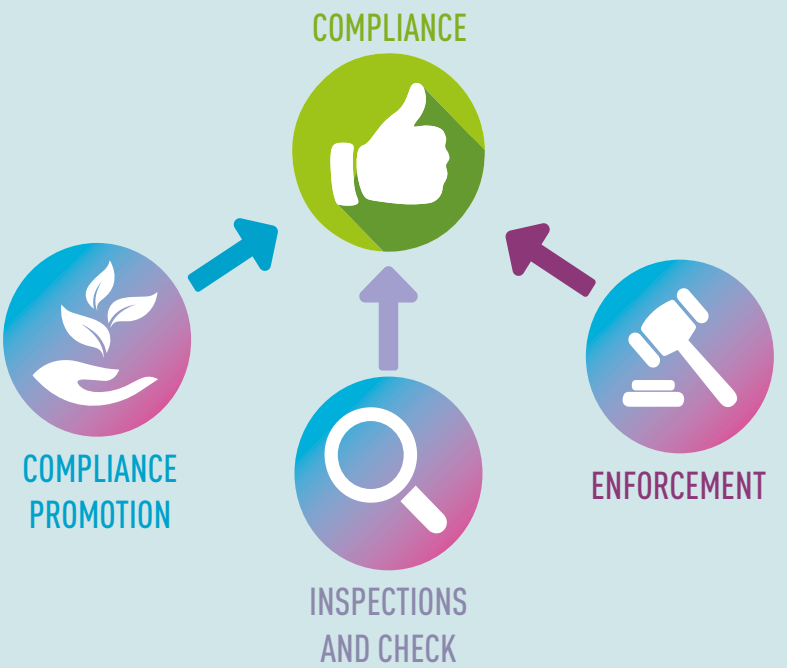

Figure 200 - Three steps of Environmental Compliance Assurance
(Source: European Commission, 2019)

Based on this environmental compliance assurance framework, in January 2018, the European Commission adopted a 9-point Action Plan to increase compliance with and improve governance on EU environmental rules on activities. The actions are implemented with the help of EU countries and European networks of environmental agencies, inspectors, auditors, police, prosecutors and judges. The actions aim to:

- help inspectors and law officers to combine forces, including through joint inspections and enforcement actions,
- improve professional training,
- provide guidance on combating environmental crime, complaint handling at the national level, inspecting extracting waste facilities, compliance assurance in rural areas, and using satellite images and other spatial data to detect crimes like illegal waste disposal,
- improve Commission information to Member States and practitioners.