



UNITED  
NATIONS

**EP**

UNEP/MED WG.461/23



UNEP



UNITED NATIONS  
ENVIRONMENT PROGRAMME  
MEDITERRANEAN ACTION PLAN

17 May 2019  
Original: English

Fourteenth Meeting of SPA/BD Thematic Focal Points

Portorož, Slovenia, 18-21 June 2019

**Agenda Item 7: Implementation of the Ecosystem Approach (EcAp) Roadmap**

**7.3 Methodological Guidance of the Common Regional Framework for ICZM in the Mediterranean**

**Methodological Guidance for Reaching Good Environmental Status (GES) Through ICZM**

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UNEP/MAP  
SPA/RAC - Tunis, 2019



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## Methodological Guidance for Reaching Good Environmental Status (GES) Through ICZM

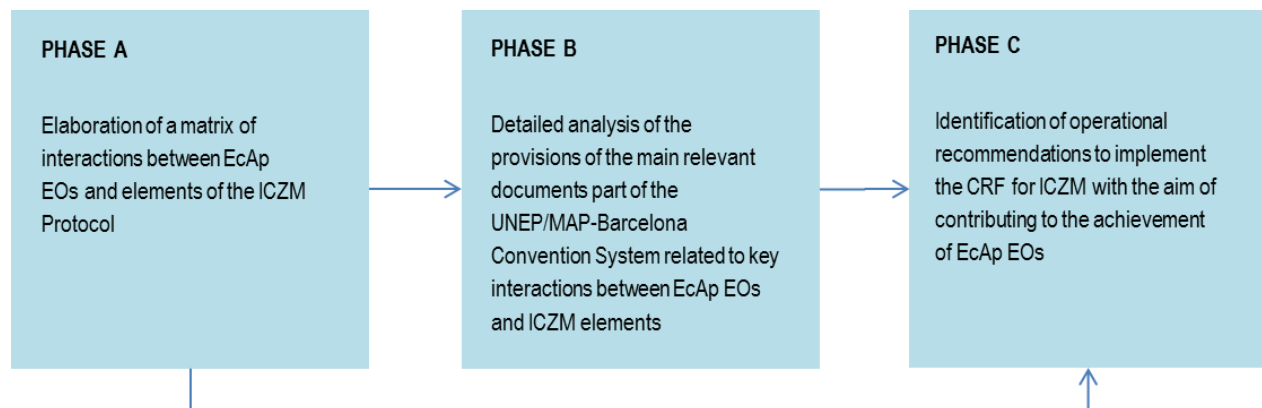
### 1. Introduction

The Common Regional Framework (CRF) on Integrated Coastal Zone Management (ICZM), as a strategic instrument meant to facilitate the implementation of the ICZM Protocol, provides guidance mainly for the regional (Mediterranean) and sub-regional (four Mediterranean sub-regions, according to EcAp) levels, based on a flexible approach that can be replicated at lower geographical levels (national, sub-national).

The present methodological guidance aims to support the implementation of the ICZM Protocol, within the CRF, towards the achievement of EcAp Ecological Objectives (EO), in a coordinated and integrated manner with the UNEP/MAP-Barcelona Convention System (thus considering the other Protocols and related key documents), and in light with the relevant international instruments.

The proposed methodological guidance is based on three major phases (Figure 1):

- **Phase A** - Elaboration of a **matrix of interactions** between the EcAp EOs and the economic activities and natural and cultural elements that have great relevance for the coastal areas, according to the content of the ICZM Protocol (hereafter briefly called “elements of the ICZM Protocol”).
- **Phase B** - Detailed **analysis of the provisions of the main relevant documents** part of the UNEP/MAP-Barcelona Convention System related to key interactions between EcAp EOs and ICZM elements. The analysis is performed by clusters of EOs: 1. Biodiversity, 2. Fisheries, 3. Coast and Hydrography, 4. Pollution and Litter.
- **Phase C** –Identification of operational **recommendations to implement the CRF on ICZM** with the aim of contributing to the achievement of EcAp Eos and GES, coherently with other instruments of the Barcelona Convention System.



**Figure 1:** Phases of the methodological guidance.

The present document therefore proposes a methodology which aims to finally identify (in Phase C) a set of operational recommendations, if needed and as appropriate, which shall be calibrated on the specific considered **geographic** and **temporal** context, as well as on the **cumulative impact integration rules**, and **regularly updated**.

Considering that the CRF on ICZM should be seen and managed as a practical instrument (which operationally interprets the provisions of the ICZM Protocol in an integrated and synergic manner with the UNEP/MAP-Barcelona Convention System and the other connected instruments governing matters related

to ICZM, translating it at the regional, sub regional and national levels) **a specific interactive IT platform** should be set up as an operational tool to support the implementation of the process. This IT tool should be coordinated and supported by an existing data information centre and integrated into an existing platform. The platform would provide access to decision makers and relevant institutions to:

- Find and download all relevant material, documentation, data and information;
- Upload the requested information and data;
- Use specially designed tools (e.g. evaluation matrices, indicators, etc.);
- Periodically update the information and data entered.

## 2. Phase A - Matrix of interactions

The first Phase of the methodological guidance consists in the elaboration of a matrix of interactions between EcAp EOs and elements of the ICZM Protocol. The proposed matrix is based on the **principle of ecosystem-based management to reach GES**, as well as on the **principles of integration and cumulative impact**, and consists on cross-check elements of the ICZM Protocol with the EOs organised in four clusters: 1. Biodiversity, 2. Fisheries, 3. Coast and Hydrography, 4. Pollution and Litter. The matrix is developed and should be directly utilized as an assessment tool supporting decision-making mechanisms at the different levels (regional, sub-regional, national, sub-national): the **identification of the spatial and temporal** (short, medium and long-term) scales is therefore an essential initial step of the overall analysis (from Phase A to Phase C), including the elaboration of the matrix of interactions.

For the analysis at the regional scale (i.e. entire Mediterranean), the matrix contained in the COP20 Decision IG.23/7 was updated and further integrated based on suggestions expressed by the National Focal Points at the meeting held in Split on 26-27 September 2018 and the outcome of the analysis of the key documents considered in Phase B (Figure 2).<sup>1</sup> The matrix is organized as follows.

**In the first cell on the top left hand** the abbreviated version of the three main objectives of the CRF on ICZM are indicated; namely: (i) Using the ecosystem-based management to ensure sustainable development and integrity of the coastal zone, its ecosystems and related services and landscapes; (ii) Addressing natural hazards and the effects of natural disasters, in particular coastal erosion and climate change; (iii) Achieving good governance.

They are recalled in the matrix to provide a logical link with the overall scope of the CRF on ICZM and the ICZM Protocol, since the beginning of the analysis (Phase A). As described in Phase C, these objectives are also used to frame the formulation of the operational recommendations for the identified key interactions of the matrix.

In the **VERTICAL AXIS**, the **economic activities and the natural (ecosystems) and cultural (landscape, cultural heritage) elements** that have great relevance for the coastal areas, according to the ICZM Protocol, are identified. Such elements are clustered in the three main components which make a continuum throughout the coastal zone (**coastal zone landward, land-sea interface, coastal zone**

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<sup>1</sup> In particular, few lines along the vertical axis have been added: specifically, the element “maritime activities” was split in various lines to properly take care of the heterogeneity and different characteristics of such activities. Minor revisions of the matrix were also introduced based on the outcome of the analysis of the key documents considered in Phase B (see Table 5 in Appendix). Contents of the matrix were double checked with the 2017 Mediterranean Quality Status Report (QSR).

**seaward**, plus a specific category referring to **islands**) consistently with what has been developed in the field of ICZM, MSP and LSI. Despite this distinction, the analysis of interactions between EcAp EOs and elements of the ICZM Protocol shall always take in consideration the integrity (interconnections) of the entire coastal zone. Moreover, the considered elements of the ICZM Protocol are distinguished in two categories: “**pressures**” (i.e. activities causing pressure on the coastal and marine environment), which in the matrix are indicated in blue; and “**state**” (components of the environment, i.e. coastal landscapes, coastal forests and woods, cultural heritage, water quality, habitat, etc.) or “**impacts**” (i.e. coastal erosion), which in the matrix are indicated in black.

In the **HORIZONTAL AXIS**, the EcAp EOs are listed and grouped in four clusters identified by different colours. Biodiversity and Fisheries clusters are both in blue, but differentiated with 2 shades of this colour, since they are strongly connected.

**Colours of the cells** identify the relevance of interactions between EcAp EOs and elements of the ICZM Protocol: red indicates high relevance, yellow moderate relevance, blue low relevance, whereas white is related to absence of interactions. The level of relevance should be evaluated considering the knowledge on both existing interactions and interactions that are expected in the future as a consequence of known strategic programmes and plans.

It shall be noted that the matrix of Figure 2 illustrates the current understanding of interactions among ICZM elements and EOs at the scale of the entire Mediterranean (regional scale). Such evaluation can change in response to the specific dimensional, geographic and temporal conditions considered by the analysis. Therefore, three main aspects should be taken in consideration in any application of the matrix tool:

1. **Dimensional** aspects, referring to the considered scale of analysis, i.e.: regional (entire Mediterranean), sub-regional, national or sub-national level.
2. **Geographic** aspects, referring to the specific characteristic of the area under evaluation. Geographical aspects should be considered along the landward - interface - seaward transect, in order to follow the geographical continuum of the coastal zone (from land to sea; adding islands as a specific component when relevant).
3. **Temporal**, referring to the period of the analysis; this might take in consideration the short, medium or long-term perspective.

Indeed, the matrix is a **dynamic tool** even when the scale and the geographic and temporal dimensions of the analysis are fixed. As soon as new data, information and knowledge become available, there might be the need to update the matrix evaluation.

The matrix itself can be improved and more detailed depending on the availability of information and the priorities identified: coastal and maritime activities, considered in the provisions of the ICZM Protocol and indicated in the matrix of Figure 1, can be further detailed based on the pressures they generate and the way they affect the ecosystem. Various tools can be used to support the matrix updating and improvement. One of these has been developed by MEDPOL, based on the well-known DPSIR (Driver-Pressure-State-Impact-Response) approach, which is also recommended for assessment under the umbrella of the UN Environment/MAP-Barcelona Convention System. A brief description of the tool is included in Box 1, while a more detailed illustration is contained in the information document “Example of overall interrelationships between the IMAP and the DPSIR framework applied to the coastal and marine ecosystem” (UNEP/MED WG. 463/Inf.9).

Objectives of the CRF on ICZM		Ecological Objective (GES/EcAp)										
		EO1: Biodiversity	EO2: Non-indigenous species	EO6: Sea-floor integrity	EO3: Commercial fish and shellfish	EO4: Food webs	EO7: Hydrographic conditions	EO8: Coastal ecosystems and habitats	EO5: Eutrophication	EO9: Contaminants	EO10: Marine and coastal litter	EO11: Noise
1. Integrity of the coastal zone												
2. Addressing natural hazards and the effects of natural disasters												
3. Achieving good governance												
Economic activities and natural and cultural elements of the ICZM Protocol	<b>LANDWARD</b>											
	Agriculture	Red	Blue	Yellow	Blue	Yellow	Blue	Red	Red	Red	Yellow	Blue
	Industry	Red	Blue	Yellow	Blue	Yellow	Blue	Red	Red	Red	Yellow	Blue
	Utilization of natural resources: mining	Red	Blue	White	Blue	Yellow	Blue	Red	Red	Red	Blue	White
	Urban sprawl	Red	Blue	Red	Blue	Blue	Red	Red	Red	Red	Red	Red
	Coastal landscapes	Red	White	Blue	Blue	White	Red	Yellow	Blue	Blue	Blue	Yellow
	Coastal forests and woods	Yellow	White	White	White	White	Red	Red	White	Blue	Yellow	Blue
	Cultural heritage	Blue	Blue	White	Blue	White	Red	Red	White	Blue	Yellow	Blue
	<b>INTERFACE</b>											
	Infrastructures: ports, coastal defence and others	Red	Red	Yellow	Blue	Blue	Red	Red	Blue	Red	Red	Red
	Energy infrastructures	Red	Red	Yellow	Blue	Blue	Red	Blue	Blue	Red	Red	Red
	Tourism, sporting, recreational activities	Yellow	Red	Red	Blue	Blue	Red	Red	Yellow	Yellow	Red	Yellow
	Util. of natural resources: desalination plants	Yellow	White	White	Blue	Yellow	Red	Yellow	Blue	Blue	Blue	Blue
	Wetlands and estuaries	Red	Yellow	Blue	Blue	Blue	Yellow	Red	Yellow	Red	Red	Red
	Dunes	Yellow	White	White	White	White	Red	Red	White	Blue	Yellow	Blue
	Cultural heritage	Blue	Blue	White	Blue	White	Red	Red	White	Blue	Yellow	Blue
	Coastal erosion	Red	White	White	White	White	White	Red	White	Yellow	Blue	Blue
	<b>SEAWARD</b>											
	Fishing	Red	Red	Red	Red	Red	Blue	Red	Yellow	Red	Red	Yellow
	Aquaculture	Red	Red	Red	Yellow	Yellow	Blue	Red	Red	Red	Red	Blue
	Tourism, sporting, recreational activities	Yellow	Red	Red	Blue	Blue	Red	Red	Yellow	Yellow	Red	Red
	Maritime activities: shipping	Red	Red	Blue	Blue	Blue	Red	Blue	Blue	Blue	Red	Red
	Maritime activities: offshore energy	Red	Red	Red	Red	Blue	Red	Blue	Red	Red	Yellow	Red
	Maritime activities: sand / mineral mining	Red	Blue	Red	Red	Blue	Red	Blue	Blue	Red	Yellow	Red
	Maritime activities: cables and pipelines	Red	Red	Red	Blue	Blue	Red	Blue	Blue	Blue	Blue	Blue
	Marine habitats and species	Red	Red	Red	Red	Red	Yellow	Red	Red	Red	Red	Yellow
	Cultural heritage	Blue	Blue	White	Blue	White	Red	Red	White	Blue	Yellow	Blue
	<b>ISLAND</b>											
	Cultural heritage	Blue	Blue	White	Blue	White	Red	Red	White	Blue	Yellow	Blue
	Coastal erosion	Red	White	White	White	White	White	Red	White	Yellow	Blue	Blue

Figure 2: Matrix of interactions between elements of the ICZM Protocol and EOs (red = interaction of high relevance; yellow = interactions of moderate relevance; blue = interactions of low relevance; white = not relevant).

**Box 1 – Example of a tool for the detailed analysis of interactions between EcAp EOs and elements of the ICZM Protocol**

The tool elaborated by MEDPOL considers that semi-quantitative methodologies - as the scorecards system here considered - are recommended and can be applied when quantitative assessment is not or is only partially feasible. Although these systems are not quantitative, they rely on the best available expert judgment and provide a basis for identifying the interrelation among drivers, pressures, impacts, state and responses. Given the fact that monitoring and assessment scales of IMAP must still to be updated/agreed and tested, the semi-quantitative scorecards methodology is considered useful to address driver-pressure-state-impact assessments of complex processes, such as those occurring in the coastal zone.

According to the proposed scorecard methodology and as illustrated in the template of Table 6 (reported in Appendix 2), human activities insisting on the coast are categorised as drivers. The template discriminates each activity in specific typologies and for each typology indicate related pressures, affected states and generated impacts. Coherently with the approach used in the matrix of Figure 2, the DPSIR analysis is implemented along the land to sea transect of the coastal zone.

For each chain of elements part of the analysis (Economic Driver > Activity type > Pressure > State > Impacts) the table template provides the link to the related Ecological Objective (EOs) and Common Indicators (CIs) of the Barcelona Convention measurements system (i.e. IMAP) adopted by the Contracting Parties in its decision IG.22/7 at the 19<sup>th</sup> Ordinary Meeting (COP 19, Athens, Greece, 9-12 February 2016). The added value of the proposed methodology is to provide a clear vision of requirements and responsibilities from the perspective of both the managerial and measurement systems. In particular, the Table 6 of Appendix 2 details the activity types (originated by main drivers), which are commonly known and aligned with the current IMAP multidimensional measurement system (with their Ecological Objectives and Common Indicators) to address current scenarios of pressures-state-impacts.

The above described approach is then complemented by an Excel tool which can be used for an expert-based evaluation. The structure of the Excel file reflects the content of the template provided in Table 6 (see Appendix 2). In one hand, one of the Excel spreadsheet (Table 7, in Appendix 2) allows to estimate (in %) how many items (Economic Driver > Activity type > Pressure > State > Impacts) occurring in the coastal zone have the potential to threaten it. Experts involved in such evaluation can provide an assessment for each activity type through a 0/1 score: 1 indicates the presence of the potential risk and 0 its absence. The final score is then expressed in percentage, dividing the sum of all scores by the number of scored items (activity types).

On the other hand, a different spreadsheet (Table 8, in Appendix 2) enables to estimate the magnitude of impacts (in %). For each activity type, experts involved in the evaluation are invited to express a 0 to 3 score: 0 indicates the absence of the impact, while 1, 2 and 3 respectively indicate the presence of an impact with low, moderate and high magnitude. Similarly to the analysis on the occurrence of potential threats, the final score is expressed in percentage and is obtained dividing the sum of all scores by the maximum theoretical score (equal to the number of scored items x 3). It should be noted, that the proposed tool does not provide an *a priori* definition of the length of the coastal stretch where the same should be applied; this has to be previously defined by the users.

The complete analysis is available in the information document “Example of overall interrelationships between the IMAP and the DPSIR framework applied to the coastal and marine ecosystem” (UNEP/MED WG. 463/Inf.9).



### **3. Phase B - Analysis of the provisions of the main relevant documents of the UNEP/MAP-Barcelona Convention System**

The initial part of Phase B relates to the identification of the most relevant interactions between EcAp EOs and elements of the ICZM Protocol, based on the analysis performed in Phase A. It shall be noted that different approaches and methods can be applied to identify such interactions, which also depends on the specific scale of analysis (regional, sub-regional, national, sub-national). Examples of prioritization methods may include: (i) selection of the elements of the ICZM Protocol with the highest number of red cells in the matrix; or (ii) selection of the elements of the ICZM Protocol with at least a minimum number of red cells in the matrix; etc. Prioritization could also focus on very important interactions among pressure factors (human activities) and EOs (and related status of the environment) strongly and clearly emerging from the analysis of the available information and expert knowledge (e.g. the existence of a specific a very well-known environmental problem in a given context).

The second part of Phase B provides a detailed analysis of the provisions of the main relevant documents part of the UNEP/MAP-Barcelona Convention System related to key interactions between EcAp EOs and the elements of the ICZM Protocol previously identified. For the purpose of this Regional level (entire Mediterranean) assessment key interactions were identified by considering the elements of the ICZM Protocol that shows at least one highly relevant interaction (those in red in the matrix of Figure 2) with one of the EOs. This approach brought to select all the elements of the ICZM Protocol included in the matrix of Phase A for the specific purpose of Phase B analysis at the regional scale

For each of the element of the ICZM Protocol, the analysis has identified the main relevant documents and instruments part of the UNEP/MAP-Barcelona Convention System (Table 1) to be considered and major strategic elements/provisions included in these documents. Table 1 also provides an indication of the grade of priority (1 or 2) of each listed document, as well as the link to the official version of the document. The analysis focused on level 1 documents. Level 2 documents have not been analysed in details, but these documents have been quoted for some specific ICZM aspects.

As an overarching framework, the main international and EU references on the different considered subjects are also taken into consideration and listed in Table 2. These documents have been considered as a basis to correctly frame the interpretation of the analysed documents of Table 1 - which remain the core of the analysis - being aware that not all the Contracting Parties to the Barcelona Convention are part of them.

Table 3 provide the template that has been used to scan the priority documents listed in Table 1 (specifically those identified by Id n. 1-16). For each of the element of the ICZM Protocol, which is characterised by a relevant interaction with the EOs, the table requires the identification of:

- References to the ICZM Protocol (third column);
- Priority documents listed in Table 1 which are relevant for that specific interaction (fourth column);
- Provisions and guidelines included in each of the documents which assume relevance for the interaction (fifth column).

Reference to more specific documents of level 2 listed in Table 1 is also included, when relevant.

Results of the performed analysis of key documents are reported in Table 5 (see Appendix 1 to this document), which is meant **to provide a sort of “manual” to be consulted by users according to their specific focus.**

Finally, it shall be noted that Table 1 includes other two key documents: “EcAp Implementation Roadmap” (id 17) and “Progress Report on the implementation of Decision IG.22/7 on the Integrated Monitoring and Assessment Programme of the Mediterranean Sea and Coast and Related Assessment Criteria (IMAP)” (id 18) which are cross-cutting/cross-sector by nature. Therefore, these two documents should support the entire analysis and can be used, together with the results of Phase B, to draft the operational recommendations, coherently with the entire referred system, according to the process of Phase C.

The same process should be followed in applying Phase B analysis at a different spatial scale. Beyond those listed in Table 1 (and in Table 2), other relevant documents and instruments might assume particular relevance at a more detailed scale and should be considered in Phase B.

**Table 1:** Documents part of the UNEP/MAP-Barcelona Convention System taken into account in Phase B of the analysis, categorized by level of priority (1 or 2)

Id	Document	Priority	Link
<b>Protocols</b>			
1	Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA/BD Protocol)	1	<a href="http://www.rac-spa.org/sites/default/files/protocole_aspdb/protocol_eng.pdf">http://www.rac-spa.org/sites/default/files/protocole_aspdb/protocol_eng.pdf</a>
2	Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources and Activities (LBS Protocol)	1	<a href="http://wedocs.unep.org/bitstream/handle/20.500.11822/7096/Consolidated_LBS96_ENG.pdf?sequence=5&amp;isAllowed=y">http://wedocs.unep.org/bitstream/handle/20.500.11822/7096/Consolidated_LBS96_ENG.pdf?sequence=5&amp;isAllowed=y</a>
3	Protocol Concerning Cooperation in Preventing Pollution from Ships and, in Cases of Emergency, Combating Pollution of the Mediterranean Sea (Prevention and Emergency Protocol)	1	<a href="https://wedocs.unep.org/rest/bitstreams/2190/retrieve">https://wedocs.unep.org/rest/bitstreams/2190/retrieve</a>
4	Protocol for the protection of the Mediterranean Sea against pollution resulting from exploration and exploitation of the continental shelf and the seabed and its subsoil (Offshore Protocol)	1	<a href="https://wedocs.unep.org/rest/bitstreams/2336/retrieve">https://wedocs.unep.org/rest/bitstreams/2336/retrieve</a>
5	Protocol on the prevention of pollution of the Mediterranean Sea by transboundary movements of hazardous wastes and their disposal (Hazardous Wastes Protocol)	1	<a href="https://wedocs.unep.org/rest/bitstreams/2593/retrieve">https://wedocs.unep.org/rest/bitstreams/2593/retrieve</a>
6	Protocol for the Prevention and Elimination of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft or Incineration at Sea (Dumping Protocol)	1	<a href="http://wedocs.unep.org/bitstream/id/53181/95ig6_7_dumping_protocol_eng.pdf">http://wedocs.unep.org/bitstream/id/53181/95ig6_7_dumping_protocol_eng.pdf</a>
<b>Regional Strategies</b>			
7	Mediterranean Strategy for Sustainable Development 2016-2025	1	<a href="https://planbleu.org/sites/default/files/publications/mssd_2016-2025_final.pdf">https://planbleu.org/sites/default/files/publications/mssd_2016-2025_final.pdf</a>

Id	Document	Priority	Link
8	Strategic Action Programme to address pollution from land-based activities (SAP-MED)	1	Sent by MEDPOL on 28.10.2018
9	Strategic Action Plan for the conservation of marine and coastal biodiversity in the Mediterranean - (SAP BIO (2003):	1	<a href="http://sapbio.rac-spa.org/sapbioeng.pdf">http://sapbio.rac-spa.org/sapbioeng.pdf</a>
	SAP BIO update on climate change (2009)	2	<a href="http://www.rac-spa.org/sites/default/files/doc_climate_change/cca_med_adriatic.pdf">http://www.rac-spa.org/sites/default/files/doc_climate_change/cca_med_adriatic.pdf</a> <a href="http://www.rac-spa.org/sites/default/files/doc_climate_change/ccb_north_med_non_adriatic_and_israel.pdf">http://www.rac-spa.org/sites/default/files/doc_climate_change/ccb_north_med_non_adriatic_and_israel.pdf</a> <a href="http://www.rac-spa.org/sites/default/files/doc_climate_change/ccc_med_arab.pdf">http://www.rac-spa.org/sites/default/files/doc_climate_change/ccc_med_arab.pdf</a> <a href="http://www.rac-spa.org/sites/default/files/doc_climate_change/ccd_synthesis.pdf">http://www.rac-spa.org/sites/default/files/doc_climate_change/ccd_synthesis.pdf</a>
10	Regional Strategy for the Prevention of and Response to Marine Pollution from Ship (2016-2021)	1	<a href="http://www.rempec.org/rempec.asp?theIDS=1_87&amp;theName=ABOUT%20REMPEC&amp;theID=6&amp;daChk=2&amp;pgType=1">http://www.rempec.org/rempec.asp?theIDS=1_87&amp;theName=ABOUT%20REMPEC&amp;theID=6&amp;daChk=2&amp;pgType=1</a>
<b>Other Regional Frameworks</b>			
11	Regional Climate Change Adaptation Framework for the Mediterranean Marine and Coastal Areas (RFCCA)	1	<a href="http://wedocs.unep.org/bitstream/id/56761/rccaf_eng.pdf">http://wedocs.unep.org/bitstream/id/56761/rccaf_eng.pdf</a>
<b>Thematic Action Plan (AP)</b>			
12	Sustainable Consumption and Production (SCP) AP	1	<a href="https://wedocs.unep.org/bitstream/handle/20.500.11822/20731/unepmap_SCPAP_eng_web.pdf?sequence=1&amp;isAllowed=y">https://wedocs.unep.org/bitstream/handle/20.500.11822/20731/unepmap_SCPAP_eng_web.pdf?sequence=1&amp;isAllowed=y</a>
13	Mediterranean Offshore AP in the framework the "Offshore Protocol"	1	<a href="http://www.rempec.org/rempec.asp?theIDS=1_165&amp;theName=ABOUT%20REMPEC&amp;theID=6&amp;daChk=3&amp;pgType=1">http://www.rempec.org/rempec.asp?theIDS=1_165&amp;theName=ABOUT%20REMPEC&amp;theID=6&amp;daChk=3&amp;pgType=1</a>
14	Mediterranean Strategy on Ships' Ballast Water Management	1	<a href="http://www.rempec.org/admin/store/wyswigImg/file/Prevention/Invasive%20species%20and%20ballast%20water/Strategy%20-%20ballast%20water/ANNEX%20II_Decision%2011%20-%20Ballast%20waters.pdf">http://www.rempec.org/admin/store/wyswigImg/file/Prevention/Invasive%20species%20and%20ballast%20water/Strategy%20-%20ballast%20water/ANNEX%20II_Decision%2011%20-%20Ballast%20waters.pdf</a>
19	AP for the management of the Monk Seal	2	AP: <a href="http://www.rac-spa.org/sites/default/files/action_plans/monkap.pdf">http://www.rac-spa.org/sites/default/files/action_plans/monkap.pdf</a> Strategy: <a href="http://www.rac-spa.org/sites/default/files/doc_monackus/monk_seal_strategy.pdf">http://www.rac-spa.org/sites/default/files/doc_monackus/monk_seal_strategy.pdf</a>
20	AP for the conservation of marine turtles	2	AP: <a href="http://www.rac-spa.org/sites/default/files/action_plans/marine_turtles_ap_fr_en.pdf">http://www.rac-spa.org/sites/default/files/action_plans/marine_turtles_ap_fr_en.pdf</a> Timetable: <a href="http://www.rac-spa.org/sites/default/files/doc_turtles/turtles_timeplan.pdf">http://www.rac-spa.org/sites/default/files/doc_turtles/turtles_timeplan.pdf</a>

Id	Document	Priority	Link
21	AP for the conservation of cetaceans	2	<a href="http://www.rac-spa.org/sites/default/files/action_plans/ap_cetaceans_en.pdf">http://www.rac-spa.org/sites/default/files/action_plans/ap_cetaceans_en.pdf</a>
22	AP for the conservation of marine vegetation	2	AP: <a href="http://www.rac-spa.org/sites/default/files/action_plans/apveg2012en.pdf">http://www.rac-spa.org/sites/default/files/action_plans/apveg2012en.pdf</a> Timetable: <a href="http://www.rac-spa.org/sites/default/files/doc_vegetation/veg_work_program_01_06_2012.pdf">http://www.rac-spa.org/sites/default/files/doc_vegetation/veg_work_program_01_06_2012.pdf</a>
23	AP for the conservation of bird species registered in annex II of the SPA/BD Protocol	2	AP: <a href="http://www.rac-spa.org/sites/default/files/action_plans/bird.pdf">http://www.rac-spa.org/sites/default/files/action_plans/bird.pdf</a> Timetable: <a href="http://www.rac-spa.org/sites/default/files/doc_birds/birds.pdf">http://www.rac-spa.org/sites/default/files/doc_birds/birds.pdf</a>
24	AP for the conservation of cartilaginous fishes ( <i>Chondrichthyans</i> ) in the Mediterranean Sea	2	<a href="http://www.rac-spa.org/sites/default/files/action_plans/elasmo.pdf">http://www.rac-spa.org/sites/default/files/action_plans/elasmo.pdf</a>
25	AP concerning species introduction and invasive species	2	<a href="http://www.rac-spa.org/sites/default/files/action_plans/pa_alien_en.pdf">http://www.rac-spa.org/sites/default/files/action_plans/pa_alien_en.pdf</a>
26	AP for the conservation of the coralligenous and other calcareous bio-concretions in the Mediterranean Sea	2	<a href="http://www.rac-spa.org/sites/default/files/action_plans/pa_coral_en.pdf">http://www.rac-spa.org/sites/default/files/action_plans/pa_coral_en.pdf</a>
27	AP for the conservation of habitats and species associated with seamounts, underwater caves and canyons, aphotic hard beds and chemo-synthetic phenomena in the Mediterranean Sea	2	<a href="http://www.rac-spa.org/sites/default/files/action_plans/dark_habitats_ap.pdf">http://www.rac-spa.org/sites/default/files/action_plans/dark_habitats_ap.pdf</a>
<b>Regional Plans (RP) adopted in line with the provisions under the SAP MED</b>			
15	RP on Marine Litter Management in the Mediterranean	1	Decision IG.21/7 - Regional Plan on Marine Litter Management in the Mediterranean in the Framework of Article 15 of the Land Based Sources Protocol ((sent by Zeljka on 29.10.2018) Decision IG.22/10 - Implementing the Marine Litter Regional Plan in the Mediterranean (sent by Zeljka on 29.10.2018)

Id	Document	Priority	Link
28	RP on the reduction of inputs of Mercury; RP on the reduction of BOD5 in the food sector; on the phasing out of Hexabromodiphenyl ether, Hetabromodiphenyl ether, Tetrabromodiphenyl ether, and Pentabromodiphenyl ether; RP on the on the phasing out of lindane and endosulfane; RP on the phasing out of perfluorooctane sulfonic acid, its salts, and perfluorooctane sulfonyl fluoride; RP on the elimination of Alpha hexachlorocyclohexane, Betahexachlorocyclohexane, Chlordecone, Hexabromobiphenyl, and Pentachlorobenzene	2	Draft decision IG.20/8 - Regional Plans in the framework of Article 15 of the Land Based Sources and Activities Protocol of the Barcelona Convention (sent by MEDPOL on 28.10.2018)
29	RP on the Phasing Out of DDT; RP on the reduction of BOD5 from urban waste water; RP on the elimination of Aldrin, Chlordane, Dieldrin, Endrin, Heptachlor, Mirex, and Toxaphene	2	Decision IG.19/9 "Regional Plan on the phasing out of DDT in the framework of the implementation of Article 15 of the LBS Protocol" (sent by MEDPOL on 28.10.2018) Decision IG.19/7 "Regional Plan on the reduction of BOD5 from urban waste water in the framework of the implementation of Article 15 of the LBS Protocol" (sent by MEDPOL on 28.10.2018) Decision IG.19/8 "Regional Plan on the elimination of Aldrin, Chlordane, Dieldrin, Endrin, Heptachlor, Mirex and Toxaphene in the framework of the implementation of Article 15 of the LBS Protocol" (Sent by MEDPOL on 28.10.2018)
<b>Roadmaps</b>			
16	MPAs Roadmap	1	<a href="http://www.rac-spa.org/sites/default/files/action_plans/fdr_en.pdf">http://www.rac-spa.org/sites/default/files/action_plans/fdr_en.pdf</a>
17	EcAp Implementation Roadmap	1	Decision IG.20/4 - Implementing MAP ecosystem approach roadmap: Mediterranean Ecological and Operational Objectives, Indicators and Timetable for implementing the ecosystem approach roadmap (sent by SPA-RAC)
<b>Others</b>			
18	Progress Report on the implementation of Decision IG.22/7 on the Integrated Monitoring and Assessment Programme of the Mediterranean Sea and Coast and Related Assessment Criteria (IMAP)	1	Sent by MEDPOL on 19.10.2018

**Table 2:** Main international and EU references on the subject, to be considered to frame the detailed analysis

Id	For the overarching framework, International and EU level references	
a	UN Convention on the Law of the Sea (UNCLOS)	<a href="http://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf">http://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf</a>
b	IMO system (conventions adopted under the auspices of IMO. i.e. MARPOL 73/78, London Convention and London Protocol)	<p data-bbox="877 354 1087 378"><a href="http://www.imo.org">http://www.imo.org</a></p> <p data-bbox="877 391 1136 415"><b>Key IMO Conventions</b></p> <ul data-bbox="877 431 1885 597" style="list-style-type: none"> <li data-bbox="877 431 1885 456">• International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended</li> <li data-bbox="877 472 1885 529">• International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto and by the Protocol of 1997 (MARPOL)</li> <li data-bbox="877 545 1885 597">• International Convention on Standards of Training, Certification and Watch keeping for Seafarers (STCW) as amended, including the 1995 and 2010 Manila Amendments</li> </ul> <p data-bbox="877 613 1808 638"><b>Other conventions relating to maritime safety and security and ship/port interface</b></p> <ul data-bbox="877 654 1915 1287" style="list-style-type: none"> <li data-bbox="877 654 1915 711">• Convention on the International Regulations for Preventing Collisions at Sea (COLREG), 1972</li> <li data-bbox="877 727 1709 751">• Convention on Facilitation of International Maritime Traffic (FAL), 1965</li> <li data-bbox="877 768 1476 792">• International Convention on Load Lines (LL), 1966</li> <li data-bbox="877 808 1671 833">• International Convention on Maritime Search and Rescue(SAR), 1979</li> <li data-bbox="877 849 1915 930">• Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation (SUA), 1988, and Protocol for the Suppression of Unlawful Acts Against the Safety of Fixed Platforms located on the Continental Shelf (and the 2005 Protocols)</li> <li data-bbox="877 946 1545 971">• International Convention for Safe Containers (CSC), 1972</li> <li data-bbox="877 987 1791 1011">• Convention on the International Maritime Satellite Organization (IMSO C), 1976</li> <li data-bbox="877 1027 1892 1141">• The Torremolinos International Convention for the Safety of Fishing Vessels (SFV), 1977, superseded by the 1993 Torremolinos Protocol; Cape Town Agreement of 2012 on the Implementation of the Provisions of the 1993 Protocol relating to the Torremolinos International Convention for the Safety of Fishing Vessels</li> <li data-bbox="877 1157 1860 1214">• International Convention on Standards of Training, Certification and Watch keeping for Fishing Vessel Personnel (STCW-F), 1995</li> <li data-bbox="877 1230 1915 1287">• Special Trade Passenger Ships Agreement (STP), 1971 and Protocol on Space Requirements for Special Trade Passenger Ships, 1973</li> </ul> <p data-bbox="877 1304 1566 1328"><b>Other conventions relating to prevention of marine pollution</b></p> <ul data-bbox="877 1344 1915 1393" style="list-style-type: none"> <li data-bbox="877 1344 1915 1393">• International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties (INTERVENTION), 1969</li> </ul>

Id	For the overarching framework, International and EU level references
	<ul style="list-style-type: none"> <li>• Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (LC), 1972 (and the 1996 London Protocol)</li> <li>• International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC), 1990</li> <li>• Protocol on Preparedness, Response and Co-operation to pollution Incidents by Hazardous and Noxious Substances, 2000 (OPRC-HNS Protocol)</li> <li>• International Convention on the Control of Harmful Anti-fouling Systems on Ships (AFS), 2001</li> <li>• International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004</li> <li>• The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009</li> </ul> <p><b>Conventions covering liability and compensation</b></p> <ul style="list-style-type: none"> <li>• International Convention on Civil Liability for Oil Pollution Damage (CLC), 1969</li> <li>• 1992 Protocol to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (FUND 1992)</li> <li>• Convention relating to Civil Liability in the Field of Maritime Carriage of Nuclear Material (NUCLEAR), 1971</li> <li>• Athens Convention relating to the Carriage of Passengers and their Luggage by Sea (PAL), 1974</li> <li>• Convention on Limitation of Liability for Maritime Claims(LLMC), 1976</li> <li>• International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea (HNS), 1996 (and its 2010 Protocol)</li> <li>• International Convention on Civil Liability for Bunker Oil Pollution Damage, 2001</li> <li>• Nairobi International Convention on the Removal of Wrecks, 2007</li> </ul> <p><b>Other subjects</b></p> <ul style="list-style-type: none"> <li>• International Convention on Tonnage Measurement of Ships (TONNAGE), 1969</li> <li>• International Convention on Salvage (SALVAGE), 1989</li> </ul> <p><b>Convention establishing IMO</b></p> <ul style="list-style-type: none"> <li>• Convention on the International Maritime Organization</li> </ul>
c	<p>Espoo Convention and Kiev Protocol (SEA/EIA)</p> <p><a href="http://www.unece.org/fileadmin/DAM/env/eia/Publications/2015/ECE.MP.EIA.21_Convention_on_Environmental_Impact_Assessment.pdf">http://www.unece.org/fileadmin/DAM/env/eia/Publications/2015/ECE.MP.EIA.21_Convention_on_Environmental_Impact_Assessment.pdf</a></p>



Id	For the overarching framework, International and EU level references	
		<a href="https://www.unece.org/fileadmin/DAM/env/eia/documents/legaltexts/protocolenglish.pdf">https://www.unece.org/fileadmin/DAM/env/eia/documents/legaltexts/protocolenglish.pdf</a>
d	UNFCCC on climate change	<a href="https://unfccc.int">https://unfccc.int</a> Text of the Convention: <a href="http://unfccc.int/cop4/conv/conv_002.htm">http://unfccc.int/cop4/conv/conv_002.htm</a> Kyoto Protocol: <a href="http://unfccc.int/cop4/resource/docs/cop3/107a01.pdf">http://unfccc.int/cop4/resource/docs/cop3/107a01.pdf</a>
e	UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention)	<a href="https://www.unece.org/fileadmin/DAM/env/pp/documents/cep43e.pdf">https://www.unece.org/fileadmin/DAM/env/pp/documents/cep43e.pdf</a>
f	Convention on Biological Diversity	<a href="https://www.cbd.int/convention/text/">https://www.cbd.int/convention/text/</a>
g	Convention on the Conservation of Migratory Species of Wild Animals (CMS/Bonn Convention)	<a href="https://www.cms.int/sites/default/files/instrument/CMS-text.en_.PDF">https://www.cms.int/sites/default/files/instrument/CMS-text.en_.PDF</a>
h	Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention)	<a href="https://www.coe.int/en/web/conventions/full-list/-/conventions/rms/0900001680078aff">https://www.coe.int/en/web/conventions/full-list/-/conventions/rms/0900001680078aff</a>
i	Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	<a href="https://www.cites.org/sites/default/files/eng/disc/CITES-Convention-EN.pdf">https://www.cites.org/sites/default/files/eng/disc/CITES-Convention-EN.pdf</a>
j	Conventions and instruments adopted under the auspices of FAO and the General Fisheries Commission for the Mediterranean Strategy	FAO Code of Conduct for Responsible Fisheries ( <a href="#">CCRF</a> ) <a href="http://www.fao.org/3/a-i5450e.pdf">http://www.fao.org/3/a-i5450e.pdf</a> <a href="http://www.fao.org/3/a-i7340e.pdf">http://www.fao.org/3/a-i7340e.pdf</a>
k	EU Natura 2000 Directives (Birds and Habitat)	Birds Directive: <a href="http://ec.europa.eu/environment/nature/legislation/birdsdirective/index_en.htm">http://ec.europa.eu/environment/nature/legislation/birdsdirective/index_en.htm</a> Habitat Directive: <a href="http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm">http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm</a>
l	IMP	<b>EU Integrated Maritime Policy</b> , including the following extended list of documents (to be refined) <ul style="list-style-type: none"> <li>• <a href="#">Progress Report</a> (11.09.2012) and <a href="#">Annex to the Progress Report</a> (11.09.2012)</li> <li>• <a href="#">Integrated Maritime Policy work programme</a> (12.03.2012)</li> <li>• <a href="#">Regulation (EU) No 1255/2011 of the European Parliament and of the Council of 30 November 2011 establishing a Programme to support the further development of an Integrated Maritime Policy</a> (05.12.2011)</li> <li>• <a href="#">Progress Report</a> (15.10.2009) and <a href="#">Annex to the Progress Report listing all actions from the Action Plan</a> (15.10.2009)</li> </ul>

Id	For the overarching framework, International and EU level references	
		<ul style="list-style-type: none"> <li>• <a href="#">"Blue Book" - Communication on an Integrated Maritime Policy for the European Union (10.10.2007)</a></li> <li>• <a href="#">Guidelines to Member States on an Integrated Approach to Maritime Policy</a></li> <li>• <a href="#">Communication on the international dimension of the Integrated Maritime Policy</a></li> </ul>
m	EU Water Framework and Flood Directives	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32000L0060">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32000L0060</a> <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32007L0060">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32007L0060</a>
n	EU Marine Strategy Framework Directive	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32008L0056">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32008L0056</a>
o	EU MSP Directive	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014L0089">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014L0089</a>
p	The Common Fisheries Policy (CFP)	<a href="https://ec.europa.eu/fisheries/cfp_en">https://ec.europa.eu/fisheries/cfp_en</a>

**Table 3:** Table template for the analysis of main documents (Table 1) for key interactions related to pressure and state/impacts elements of the ICZM Protocol

Interactions addressing <i>activities</i> at stake ( <b>pressure</b> )				
Identified interactions		Relevant provisions of the ICZM Protocol	Relevant legal and policy instruments	Related provisions and guidelines
Coastal zone Landward	<i>Specify the identified key interaction highlighted in red in the matrix of Figure 2 e.g. Agriculture</i>	<i>Specify the main related relevant provisions of the ICZM Protocol Art., co., lett.</i>	<i>Id. and Name of the relevant documents of Table 1</i>	<i>Brief description of the main relevant related elements.</i>
Land-Sea Interface	<i>Specify the identified key interaction highlighted in red in the matrix of Figure 2. e.g. Infrastructures: Ports, Coastal defence and other Coastal infrastructures</i>	<i>Art., co., lett.</i>	<i>Id. and Name of the relevant documents of Table 1</i>	<i>Brief description of the main relevant related elements.</i>
Coastal zone Seaward	<i>Specify the identified key interaction highlighted in red in the matrix of Figure 2. e.g. fishing</i>	<i>Art., co., lett.</i>	<i>Id. and Name of the relevant documents of Table 1</i>	<i>Brief description of the main relevant related elements.</i>

Interactions related to *state of* and *impacts on* coastal and marine areas

Identified interactions		Relevant provisions of the ICZM Protocol	Relevant legal and policy instruments	Related provisions and guidelines
Coastal zone Landward	<i>Specify the identified key interaction highlighted in red in the matrix of Figure 2. e.g. coastal landscapes</i>	<i>Specify the main related relevant provisions of the ICZM Protocol Art., co., lett.</i>	<i>Id. and Name of the relevant documents of Table 1</i>	<i>Brief description of the main relevant related elements</i>
Land-Sea Interface	<i>Specify the identified key interaction highlighted in red in the matrix of Figure 2. e.g. coastal erosion</i>	<i>Art., co., lett.</i>	<i>Id. and Name of the relevant documents of Table 1</i>	<i>Brief description of the main relevant related elements</i>
Coastal zone Seaward	<i>Specify the identified key interaction highlighted in red in the matrix of Figure 2. e.g. marine habitats</i>	<i>Art., co., lett.</i>	<i>Id. and Name of the relevant documents of Table 1</i>	<i>Brief description of the main relevant related elements</i>

#### 4. Phase C - Identification of operational recommendations

Based on results of Phases A and B, the third Phase (C) of the methodological guidance aims to develop operational recommendations to implement the CRF on ICZM towards the achievement of EcAp EOs. It is worthwhile to remember that the operational recommendations are strictly dependent on the **spatial** (regional, sub-regional, national, sub-national or local) and **temporal** (short, medium and long-term) **scale of analysis**, that shall be identified at the beginning of the methodological process. Moreover, they have to focus on the **elements of the ICZM Protocol which show most relevant interactions with the EcAp EOs** (priority interactions), according to the previous phases and for which policy documents are analysed in Phase B.

Operational recommendations are therefore expected to be developed for each priority interaction and in relation with **the first two main objectives of the CRF on ICZM** (provided the third objective on ‘good governance’ is cross-cutting the two others):

- Ensure sustainable development and integrity of the coastal zone, its ecosystems and related services and landscapes, in such a way to:
  - address the process through which relevant sectors can ensure sustainable use of natural resources; and
  - improve protection of coastal and marine ecosystems and the preservation of related ecosystem services.
- Address natural hazards and the effects of natural disasters - in particular coastal erosion and other climate-related impacts - thus contributing to reduce, as much as possible, the factors of risks, which can prevent the achievement of the EcAp EOs.

It should be noted that some of the selected elements could be subject to the same or similar recommendations. In this case it is recommended to cluster them, as in the examples of clustering reported in the following Boxes 2 and 3, respectively for coastal and maritime activities and natural and cultural elements considered by the ICZM Protocol.

**Box 3 – Example of clustering of coastal and maritime activities**

Coastal and maritime activities (pressures) considered in the provisions of the ICZM Protocol can be clustered categorised as follows:

Landward activities, which can be further distinguished in:

- Land-based economic activities: (i) agriculture, with particular focus on hazardous substances and nutrients; (ii) industry, with particular focus on hazardous substances; (iii) mining, with particular focus on hazardous substances;
- Urban sprawl: focus on physical degradation (sediment turbidity) and production of wastes, hazardous substances (synthetic) and nutrients.

Activities mainly occurring at the land-sea interface, which are further distinguished in:

- Localised activities: (i) ports, coastal defence and other coastal infrastructures, with particular focus on physical degradation (sediment turbidity, abrasion of habitats) and hazardous substances; (ii) energy infrastructure along the coast, with particular focus on physical degradation and biological perturbation; (iii) desalination plants, with particular focus on biological perturbation;
- Diffuse activities: tourism and recreational activities on the coast. Focus on direct (disturbance, use of biotic resources, etc.) and indirect (increase production of contaminants and marine litter, etc.) impacts on fauna, flora and natural habitats.

Seaward activities, which are further distinguished in:

- Activities based on natural resource: (i) fishing, with particular focus on physical degradation (trawling) and biological perturbation; (ii) marine aquaculture, with particular focus on physical degradation and release of nutrients and hazardous waste.
- Activities based on hard infrastructure and solutions: (i) offshore energy, with particular focus on physical degradation and hazardous substances; (ii) sand extraction and mineral mining, with particular focus on physical degradation and hazardous substance; (iii) marine cables and pipelines, with particular focus on physical degradation and biological perturbation.
- Vessel based activities: (i) tourism and recreational activities at the sea (including yachting and cruising), with particular focus on physical abrasion and disturb to fauna; (ii) shipping, with particular focus on noise pollution, waste and hazardous substances, disturb and direct impact (collision) to fauna, biological perturbation (introduction of non-indigenous species).

**Box 3 – Example of sub-categories for the major category “Preserving the natural and cultural heritage and addressing risks”**

State and impact issues (related to the natural environment and cultural heritage) considered in the provisions of the ICZM Protocol can be further categorised as follows:

- Preservation of biodiversity.
- Preservation of vulnerable ecosystems; the ICZM Protocol mentions the following specific coastal and marine ecosystems: coastal forests and woods, dunes, wetlands and estuaries, marine species and habitats, and islands.
- Preservation of cultural heritage, in particular the archaeological and historical heritage including the underwater cultural heritage.
- Preservation of coastal landscapes
- Improving knowledge on ecosystems, including: inventories, monitoring and observation mechanisms, and networks.
- Addressing risk, including in particular coastal erosion.

Operational recommendations can be of different nature and are expected to focus on **assessment and management aspects**. As **governance** aspects are at the core of the ICZM Protocol and the CRF document, each of these operational recommendations should also be considered from a governance point of view for their proper implementation.

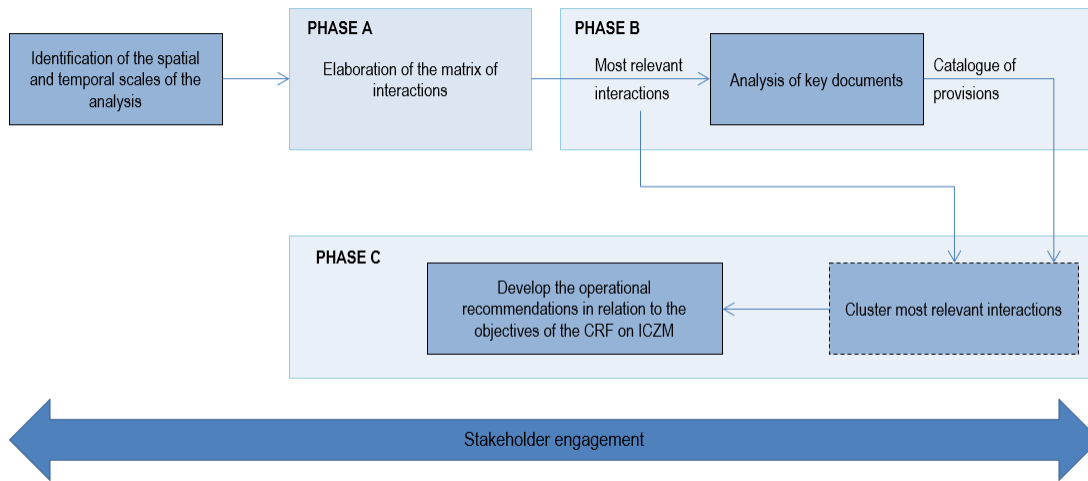
Once identified, operational recommendations can be **organised in the common template** proposed in Table 4. The template is organised as follows:

- the first column identifies the priority interaction (or cluster of interactions) for which operational recommendations are developed;
- the second column contains the operational recommendations;
- the third column enables to propose progress indicators to monitor the implementation of each operational recommendations;
- the fourth and fifth columns are used to indicate to which main objective of the CRF for ICZM the proposed recommendation is related to: either one of the two or even both of them can be selected;
- the sixth column can be used to specify the aspects covered by the identified operational recommendations: assessment (A), management (M) and/or governance (GO).

As it is expressly mentioned in the CRF on ICZM main document, it is well-known and commonly acknowledged that coordination and integration (across vertical levels of governance and horizontally among different sectors) as well as stakeholder participation are essential components of the ICZM process. The implementation of all phases of this methodological guidance, and in particular Phase C, therefore requires the creation or the use of an already shaped mechanisms enabling **stakeholder engagement and**

**improving policies, strategies, plan and practices integration and coordination.** This will enable the co-generation of the operational recommendations and improve their ownership, which is essential for their implementation.


Step-wise approach of all three phases is shown in Figure 3.



**Figure 3:** Step-wise process towards development of the operational recommendations



**Table 4:** Template for the identification of the operational recommendations

 <b>UNITED NATIONS ENVIRONMENT PROGRAMME MEDITERRANEAN ACTION PLAN</b>					
<b>Priority interactions (or cluster of interactions)</b>	<b>Operational recommendations</b>	<b>Progress indicators</b>	<b>Integrity of the coastal zone</b>	<b>Addressing natural hazards and disasters</b>	<b>Nature of the recommendation</b>

**Appendix 1**

**Table 5:** Analysis of main documents of Table 1 for interactions between ICZM issues and EOs (Figure 2).

Interactions addressing <i>activities</i> at stake ( <b>pressure</b> )				
Identified interactions		Relevant provisions of the ICZM Protocol	Relevant legal and policy instruments	Related provisions and guidelines
Coastal zone Landward	Agriculture	Art. 9, co. 1 and 2, lett. a Art. 5, co. 1, lett. c (water use) and Art. 6 Art. 8 Articles 17 and 18; 14, 19 and 27	2. LBS Protocol	Articles 5, 7 and 15: Parties shall elaborate <b>action plans, programmes and measures</b> to reduce LBS pollution, with priority to toxic, persistent, liable to bioaccumulation substances. Article 6: point source discharge strictly subjected to authorization and regulation. <b>Agriculture and animal husbandry</b> (Annex I) are sectors of activity to be taken into consideration to this regard.
			8. SAP-MED	Chapter 5: <b>Targets and proposed activities</b> at regional and national levels for the prevention, reduction and elimination of pollution; to be implemented through NAP (Chapter 10). Section 5.2.5 provides specific targets and actions for (intensive) <b>agriculture</b> and aquaculture in relation to <b>nutrient loads</b> .
			12. SCP AP	Operational objectives and actions 1 – focused also on agriculture, e.g.: adopt <b>good agriculture practices</b> (1.1), <b>life cycle approach</b> in food and fisheries processing (1.1), <b>green financing for sustainable farming</b> (1.2), information and education <b>campaigns</b> (1.3), etc.
			15. RP on Marine Litter	Article 17 – Major <b>agriculture stakeholders</b> shall be involved in the implement of the regional plan and related actions
			28. RP on the reduction of inputs of Mercury; RP on the reduction of BOD5 in the food sector; on the phasing out of Hexabromodiphenyl ether, Hetabromodiphenyl ether, Tetrabromodiphenyl ether, and Pentabromodiphenil ether; RP on the on the phasing out of lindane and endosulfane; RP on the phasing out of perfluorooctane sulfonic acid, its salts, and perfluorooctane sulfonyl fluoride; RP on the elimination of Alpha hexachlorocyclohexane, Beta hexachlorocyclohexane, Chlordecone, Hexabromobiphenyl, and Pentachlorobenzene.	
			29. RP on the Phasing Out of DDT; RP on the reduction of BOD5 from urban waste water; RP on the elimination of Aldrin, Chlordane, Dieldrin, Endrin, Heptachlor, Mirex, and Toxaphene.	
			5. Hazardous Wastes Protocol	Article 8: regional cooperation for <b>clean production method</b> concerning wastes from production, formulation and use of <b>biocides and phytopharmaceuticals</b> (Annex I) in agriculture including land treatment (Annex III)
			1. SPA/BD Protocol	Even with respect to activities such as agriculture, all the necessary measures shall be taken to <b>protect, preserve and manage in a sustainable and environmentally sound way threatened or endangered species of flora and fauna, and areas of particular natural or cultural value</b> (Art. 3). In the planning process that could significantly affect protected areas, species and their habitats, evaluate and take into consideration the possible direct or indirect, immediate or long-term, impact, including the cumulative impact of the projects and activities being contemplated through the <b>environmental impact assessment</b> (Art. 17)
			9. SAP BIO	SAP BIO is the <b>background document of CRF</b> and EcAp, which provides principles, measures and concrete and coordinated priority actions, relevant targets, objectives, and specific actions at national, transboundary and regional level for the <b>conservation of the Mediterranean marine and coastal biodiversity</b> , within the framework of sustainable use and through the implementation of the SPA/BD Protocol. <b>Objectives:</b> improving knowledge; management of Marine and Coastal PAs; protection of endangered species and habitats; reinforcement of legislation and capacity building; fund-raising efforts. Among others, endorses concrete and practical actions aiming at promoting bio-conservation-friendly sector policies, procedures and techniques, in particular related to <b>agriculture</b> .
			7. MSSD 2016-2025	<b>Objective (Obj.) 1 (Sustainable Development Goal-SDG14):</b> Ensuring sustainable development in marine and coastal areas. <b>Strategic Directions (SD)</b> complemented by national and regional actions: Strengthen implementation of and compliance with the Barcelona System and related; Establish and enforce regulatory mechanisms, including MSP, to prevent and control unsustainable open ocean resource exploitation. <b>Obj.2 (SDG 2, 15, 6):</b> Promoting resource management, food production and food security through sustainable forms of rural development. <b>SD:</b> conservation and use of indigenous or traditional plant varieties and domestic animal breeds, valuing traditional knowledge and practices in rural management decisions, access of local producers to distribution channels and markets, including the tourism market. <b>Obj.4 (SDG 13):</b> Addressing climate change as a priority issue for the Mediterranean. <b>SD:</b> Increase scientific knowledge, raise awareness, develop technical capacities to deal with climate change and ensure informed decision-making at all levels, recognising and protecting the climate adaptation and mitigation services of natural ecosystems; Accelerate the uptake of climate smart and climate resilient responses; Leverage existing and emerging climate finance mechanisms, including international and domestic instruments, and enhance the engagement of the private and finance sectors; Encourage institutional, policy and legal reforms for the effective mainstreaming of climate change responses into national and local development frameworks, particularly in the energy sector. <b>Obj.5 (SDG 8 9, 12):</b> Transition towards a green and blue economy. <b>SD:</b> Create green and decent jobs for all; Review the definitions and measurement of development, progress and well-being; Promote sustainable consumption and production patterns; Encourage environmentally-friendly and social innovation; Promote the integration of sustainability principles and criteria into decision-making on public and private investment; Ensure a greener and more inclusive market that integrates the true environmental and social cost of products and services to reduce social and environmental externalities. <b>Target:</b> By 2025, the majority of Mediterranean Countries are committed to green or sustainable public procurement programmes.
11. RFCCA	Strategic Direction 4.1 (Understanding vulnerability) – Priorities include: vulnerability and <b>interactions of sectors</b> , including <b>agriculture</b> and forestry, as well as of <b>water resource management</b> .			

Identified interactions	Relevant provisions of the ICZM Protocol	Relevant legal and policy instruments	Related provisions and guidelines	
Industry	Art. 9, co. 1 and 2, lett. a Articles 5 and 6 Art. 8 Art 23, co. 2	2. LBS Protocol	Articles 5, 7 and 15: Parties shall elaborate <b>action plans, programmes and measures</b> to reduce LBS pollution, with priority to toxic, persistent, liable to bioaccumulation substances. Article 6: point source discharge strictly subjected to authorization and regulation. <b>Industry</b> (Annex I) is one of the sectors of activity to be taken into consideration to this regard.	
	Articles 17 and 18; 14, 19 and 27	8. SAP-MED	Chapter 5: <b>Targets and proposed activities</b> at regional and national levels for the prevention, reduction and elimination of pollution, to be implemented through NAP (Chapter 10). Chapter 5.2 focuses on <b>industry</b> : (1) substances that are toxic, persistent and liable to bioaccumulation, (2) other heavy metals, (3) organohalogen compounds, (4) radioactive substances, (5) nutrients and suspended solids, (6) hazardous waste.	
		12. SCP AP	Operational objectives and actions 2 – focused on goods manufacturing, e.g.: promote <b>Best Available Technologies (BAT)</b> and <b>Best Environmental Practices (BEPs)</b> (2.1), in particular in waste management, <b>cost accounting</b> and market-based instruments (2.2), etc.	
		15. RP on Marine Litter	Article 17 – Major <b>industry stakeholders</b> shall be involved in the implement of the regional plan and related actions. Article 9 Prevention of marine litter - (3g): establish procedures and manufacturing methodologies together with <b>plastic industry</b> to minimize the decomposing characteristics of plastics, to reduce micro-plastic.	
			28. RP on the reduction of inputs of Mercury; RP on the reduction of BOD5 in the food sector; on the phasing out of Hexabromodiphenyl ether, Hetabromodiphenyl ether, Tetrabromodiphenyl ether, and Pentabromodiphenil ether; RP on the on the phasing out of lindane and endosulfane; RP on the phasing out of perfluorooctane sulfonic acid, its salts, and perfluorooctane sulfonyl fluoride; RP on the elimination of Alpha hexachlorocyclohexane, Beta hexachlorocyclohexane, Chlordecone, Hexabromobiphenyl, and Pentachlorobenzene. 29. RP on the Phasing Out of DDT; RP on the reduction of BOD5 from urban waste water; RP on the elimination of Aldrin, Chlordane, Dieldrin, Endrin, Heptachlor, Mirex, and Toxaphene.	
		5. Hazardous wastes Protocol	Article 8: regional cooperation for <b>clean production method</b> concerning all <b>hazardous wastes</b> (Annex I), all characteristics (Annex II), and all disposal operations listed (Annex III).	
		1. SPA/BD Protocol	Even with respect to activities such as industry, all the necessary measures shall be taken to <b>protect, preserve and manage in a sustainable and environmentally sound way threatened or endangered species of flora and fauna, and areas of particular natural or cultural value</b> (Art. 3). In the planning process that could significantly affect protected areas, species and their habitats, evaluate and take into consideration the possible direct or indirect, immediate or long-term, impact, including the cumulative impact of the projects and activities being contemplated through the <b>environmental impact assessment</b> (Art. 17).	
		7. MSSD 2016-2025	<b>Obj.1 (SDG 14)</b> : Ensuring sustainable development in marine and coastal areas. <b>SD</b> : Strengthen implementation of and compliance with the Barcelona System and related; Establish and enforce regulatory mechanisms, including MSP, to prevent and control unsustainable open ocean resource exploitation. <b>Obj. 5 (SDG 8, 9, 12)</b> : Transition towards a green and blue economy. <b>SD</b> : Create green and decent jobs for all; Review the definitions and measurement of development, progress and well-being; Promote sustainable consumption and production patterns; Encourage environmentally-friendly and social innovation; Promote the integration of sustainability principles and criteria into decision-making on public and private investment; Ensure a greener and more inclusive market that integrates the true environmental and social cost of products and services to reduce social and environmental externalities. <b>Target</b> : By 2025, the majority of Mediterranean Countries are committed to green or sustainable public procurement programmes.	
	Utilization of specific natural resources: mining	Art. 9, co. 1 and 2, lett. e Articles 5 and 6 Article 8 Art 23, co. 2	2. LBS Protocol	Articles 5, 7 and 15: Parties shall elaborate <b>action plans, programmes and measures</b> to reduce LBS pollution, with priority to toxic, persistent, liable to bioaccumulation substances. Article 6: point source discharge strictly subjected to authorization and regulation. <b>Mining</b> (Annex I) is one of the sectors of activity to be taken into consideration to this regard.
		Articles 17 and 18; 14, 19 and 27	12. SCP AP	Operational objectives and actions identified for good manufacturing (2) and for housing and construction (3) apply also to <b>mining</b> , as specified in the introduction.
			28. RP on the reduction of inputs of Mercury; RP on the reduction of BOD5 in the food sector; on the phasing out of Hexabromodiphenyl ether, Hetabromodiphenyl ether, Tetrabromodiphenyl ether, and Pentabromodiphenil ether; RP on the on the phasing out of lindane and endosulfane; RP on the phasing out of perfluorooctane sulfonic acid, its salts, and perfluorooctane sulfonyl fluoride; RP on the elimination of Alpha hexachlorocyclohexane, Beta hexachlorocyclohexane, Chlordecone, Hexabromobiphenyl, and Pentachlorobenzene. 29. RP on the Phasing Out of DDT; RP on the reduction of BOD5 from urban waste water; RP on the elimination of Aldrin, Chlordane, Dieldrin, Endrin, Heptachlor, Mirex, and Toxaphene.	
		5. Hazardous wastes Protocol	Article 8: regional cooperation for clean production method concerning residues arising from <b>industrial waste disposal operations</b> (Annex I), toxic and ecotoxic (Annex II), and deposit into or onto land (Annex III).	
		1. SPA/BD Protocol	Even with respect to activities such as the utilization of specific natural resources, in particular mining, all the necessary measures shall be taken to <b>protect, preserve and manage in a sustainable and environmentally sound way threatened or endangered species of flora and fauna, and areas of particular natural or cultural value</b> . (Art. 3). In the planning process that could significantly affect protected areas, species and their habitats, evaluate and take into consideration the possible direct or indirect, immediate or long-term, impact, including the cumulative impact of the projects and activities being contemplated through the <b>environmental impact assessment</b> (Art. 17).	
		7. MSSD 2016-2025	<b>Obj. 1 (SDG 14)</b> : Ensuring sustainable development in marine and coastal areas. <b>SD</b> : Strengthen implementation of and compliance with the Barcelona System and related; Establish and enforce regulatory mechanisms, including MSP, to prevent and control unsustainable open ocean resource exploitation. <b>Obj. 5 (SDG 8, 9, 12)</b> : Transition towards a green and blue economy. <b>SD</b> : Create green and decent jobs for all; Review the definitions and measurement of development, progress and well-being; Promote sustainable consumption and production patterns; Encourage	

Identified interactions	Relevant provisions of the ICZM Protocol	Relevant legal and policy instruments	Related provisions and guidelines	
	Urban sprawl	Articles 5 and 6 Art. 8 Art 23, co. 2 Articles 17 and 18; 14, 19 and 27	8. SAP-MED	environmentally-friendly and social innovation; Promote the integration of sustainability principles and criteria into decision-making on public and private investment; Ensure a greener and more inclusive market that integrates the true environmental and social cost of products and services to reduce social and environmental externalities. <b>Target:</b> By 2025, the majority of Mediterranean Countries are committed to green or sustainable public procurement programmes.
		12. SCP AP	Chapter 5: <b>Targets and proposed activities</b> at regional and national levels for the prevention, reduction and elimination of pollution, to be implemented through NAP (Chapter 10). Chapter 5.1 focuses on <b>urban environment</b> : (1) municipal sewage, (2) urban solid waste, (3) air pollution.	
		15. RP on Marine Litter	Operational objectives and actions 4 – focused on housing and construction, e.g.: <b>sustainable coastal urban development and green construction</b> for efficient use or resources and protection of ecosystems (4.2).	
		28. RP on the reduction of inputs of Mercury; RP on the reduction of BOD5 in the food sector; on the phasing out of Hexabromodiphenyl ether, Hetabromodiphenyl ether, Tetrabromodiphenyl ether, and Pentabromodiphenyl ether; RP on the on the phasing out of lindane and endosulfane; RP on the phasing out of perfluorooctane sulfonic acid, its salts, and perfluorooctane sulfonyl fluoride; RP on the elimination of Alpha hexachlorocyclohexane, Beta hexachlorocyclohexane, Chlordecone, Hexabromobiphenyl, and Pentachlorobenzene. 29. RP on the Phasing Out of DDT; RP on the reduction of BOD5 from urban waste water; RP on the elimination of Aldrin, Chlordane, Dieldrin, Endrin, Heptachlor, Mirex, and Toxaphene.	Article 9 Prevention of marine litter - (1): base urban solid waste management on reduction at source, (4) establish <b>urban sewer, wastewater treatment plants, and waste management systems</b> to prevent run-off and riverine inputs of litter.	
		5. Hazardous wastes Protocol	Article 8: regional cooperation for clean production method concerning <b>household wastes</b> (Annex I), infectious and ecotoxic substances (Annex II), surface impoundment and release into water body and into seas/oceans (Annex III).	
		7. MSSD 2016-2025	<b>Obj.1 (SDG 14):</b> Ensuring sustainable development in marine and coastal areas. <b>SD:</b> Strengthen implementation of and compliance with the Barcelona System and related; Establish and enforce regulatory mechanisms, including MSP, to prevent and control unsustainable open ocean resource exploitation. <b>Obj.3 (SDG 11, 7):</b> Planning and managing sustainable Mediterranean cities. <b>SD:</b> Apply holistic and integrated spatial planning processes; Encourage inclusive urbanization; Enhance urban resilience in order to reduce vulnerability to risks from natural and human-induced hazards; Promote the protection and rehabilitation of historic urban areas; the sustainable waste management; the urban spatial patterns and technological options that reduce the demand for transportation and stimulate sustainable mobility; the green buildings and reduce ecological footprint of the built environment. <b>Target:</b> By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries; and substantially reduce waste generation through prevention, reduction, recycling and reuse. <b>Obj.4 (SDG 13):</b> Addressing climate change as a priority issue for the Mediterranean. <b>SD:</b> Increase scientific knowledge, raise awareness, develop technical capacities to deal with climate change and ensure informed decision-making at all levels, recognising and protecting the climate adaptation and mitigation services of natural ecosystems; Accelerate the uptake of climate smart and climate resilient responses; Leverage existing and emerging climate finance mechanisms, including international and domestic instruments, and enhance the engagement of the private and finance sectors; Encourage institutional, policy and legal reforms for the effective mainstreaming of climate change responses into national and local development frameworks, particularly in the energy sector. <b>Obj.6 (SDG 16, 17):</b> Improving governance in support of sustainable development. <b>SD:</b> Enhance international dialogue and cooperation, including on emergency-preparedness; and the regional capabilities for information management; Promote stakeholder engagement to secure inclusive processes and integrity in decision-making; implementation and compliance with environmental obligations and agreements, including through policy coherence based on inter-ministerial coordination; education and research. <b>Target:</b> By 2025, two-thirds of Mediterranean countries have acceded to the Aarhus Convention.	
		11. RFCCA	Strategic Direction 1.2 (Promoting adequate institutional and policy frameworks) – Priorities include: risk and impact assessment in relation to climate change prior to <b>major infrastructure investments</b> in coastal and marine areas. Strategic Direction 1.5 (Integrating climate adaptation into local plans for the protection and management of areas of special interest) – including <b>coastal mega-cities</b> Strategic Direction 4.1 (Understanding vulnerability) – Priorities include: vulnerability and <b>interactions of sectors</b> , including <b>urbanization</b> .	
Land-Sea Interface	Infrastructures: ports, coastal defence and other coastal infrastructures	Art. 9, co. 1 and 2, lett. f Articles 5 and 6 Art. 8 Art 23, co. 2 Articles 17 and 18; 14, 19 and 27	2. LBS Protocol	Articles 5, 7 and 15: Parties shall elaborate <b>action plans, programmes and measures</b> to reduce LBS pollution, with priority to toxic, persistent, liable to bioaccumulation substances. Article 6: point source discharge strictly subjected to authorization and regulation. <b>Harbour operation</b> (Annex I) is one of the sectors of activity to be taken into consideration to this regard.
		8. SAP-MED	Harbours are <b>not expressly mentioned</b> in the SAP-MED when defining targets and proposed activities. However, harbours can be assimilated to industry (Chapter 5.2). They are also mentioned among <b>hot-spots</b> (chapter 11).	
		15. RP on Marine Litter	Article 17 – Major <b>maritime sector stakeholders</b> shall be involved in the implement of the regional plan and related actions. Article 9 Prevention of marine litter - (5): implement means to charge <b>cost for the use of port reception facilities</b> and apply <b>No-Special-Fee system</b> .	
		5. Hazardous wastes Protocol	Article 6 relates to transboundary movement and notification procedures whilst Article 8 encourages regional cooperation for clean production method, and Article 9 condemn illegal traffic. Here are potentially concerned all hazardous wastes <b>including hydrocarbons</b> (Annex I), with varied hazardous characteristics (Annex II), and all	



Identified interactions	Relevant provisions of the ICZM Protocol	Relevant legal and policy instruments	Related provisions and guidelines
			operations listed in regard to resource recovery, recycling, reclamation, direct reuse or alternative uses.
		3. Prevention and Emergency Protocol	<b>Port reception facilities</b> (Article 14) are concerned in meeting the needs of ships: they should be adequate and operate efficiently to limit any impact of discharges to the marine environment.
		10. Strategy on pollution from ships	Under section 4, several <b>specific objectives</b> (Nb. 4, 5, 6) are directly related to <b>ports</b> including MoU on port State Control (4), provision of reception facilities in ports (5), and delivery of ship-generated wastes (6). This imply that each Contracting Party maintains its mandate to REMPEC (4), enabling the use of adequate reception and facilities at a reasonable fee for garbage, oily wastes, NLS, sewage, ozone-depleting substances and exhaust gas cleaning residues, ballast water and sediments (5), establishing a system of notification to a vessel's next port of call of the status of its on-board retention substances (6).
		14. Strategy on ballast water	In Annex I, two important <b>port-related 'Action points'</b> are mentioned: 1) for establishing a solid Port State Control and Compliance Monitoring and Enforcement (CME) system in the Mediterranean region, and 2) for establishing a survey, biological monitoring and risk assessment system for Mediterranean ports under the guidance of REMPEC.
		1. SPA/BD Protocol	Even with respect to infrastructures and the related activities, all the necessary measures shall be taken to <b>protect, preserve and manage in a sustainable and environmentally sound way threatened or endangered species of flora and fauna, and areas of particular natural or cultural value</b> (Art. 3). In the planning process that could significantly affect protected areas, species and their habitats, evaluate and take into consideration the possible direct or indirect, immediate or long-term, impact, including the cumulative impact of the projects and activities being contemplated through the <b>environmental impact assessment</b> (Art. 17).
		7. MSSD 2016-2025	<p><b>Obj.1 (SDG 14):</b> Ensuring sustainable development in marine and coastal areas</p> <p><b>Obj.3 (SDG 11, 7):</b> Planning and managing sustainable Mediterranean cities. <b>SD:</b> Apply holistic and integrated spatial planning processes; Encourage inclusive urbanization; Enhance urban resilience in order to reduce vulnerability to risks from natural and human-induced hazards; Promote the protection and rehabilitation of historic urban areas; the sustainable waste management; the urban spatial patterns and technological options that reduce the demand for transportation and stimulate sustainable mobility; the green buildings and reduce ecological footprint of the built environment. <b>Target:</b> By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries; and substantially reduce waste generation through prevention, reduction, recycling and reuse.</p> <p><b>Obj.4 (SDG 13):</b> Addressing climate change as a priority issue for the Mediterranean. <b>SD:</b> Increase scientific knowledge, raise awareness, develop technical capacities to deal with climate change and ensure informed decision-making at all levels, recognising and protecting the climate adaptation and mitigation services of natural ecosystems; Accelerate the uptake of climate smart and climate resilient responses; Leverage existing and emerging climate finance mechanisms, including international and domestic instruments, and enhance the engagement of the private and finance sectors; Encourage institutional, policy and legal reforms for the effective mainstreaming of climate change responses into national and local development frameworks, particularly in the energy sector.</p> <p><b>Obj.5 (SDG 8, 9, 12):</b> Transition towards a green and blue economy. <b>SD:</b> Create green and decent jobs for all; Review the definitions and measurement of development, progress and well-being; Promote sustainable consumption and production patterns; Encourage environmentally-friendly and social innovation; Promote the integration of sustainability principles and criteria into decision-making on public and private investment; Ensure a greener and more inclusive market that integrates the true environmental and social cost of products and services to reduce social and environmental externalities. <b>Target:</b> By 2025, the majority of Mediterranean Countries are committed to green or sustainable public procurement programmes.</p>
		11. RFCCA	<p>Strategic Direction 1.2 (Promoting adequate institutional and policy frameworks) – Priorities include: Integrated approach for the reduction of <b>non-climate related threats</b> that undermine the capacities of communities and ecosystems to adapt to climate change, including <b>damming</b>.</p> <p>Strategic Direction 1.2 (Promoting adequate institutional and policy frameworks) – Priorities include: risk and impact assessment in relation to climate change prior to <b>major infrastructure investments</b> in coastal and marine areas.</p> <p>Strategic Direction 3.1 – Priorities include: avoidance of maladaptive actions and <b>non-efficient "hard" infrastructures</b> to low-regret measures to improve climate resilience.</p> <p>Strategic Direction 4.1 (Understanding vulnerability) – Priorities include: vulnerability and <b>interactions of sectors</b>, including <b>key infrastructure and transport</b>.</p>
Energy infrastructures along the coast	Art. 9, co. 1 and 2, lett. f Articles 5 and 6 Art. 8 Art 23, co. 2 Articles 17 and 18; 14, 19 and 27	2. LBS Protocol	Articles 5, 7 and 15: Parties shall elaborate <b>action plans, programmes and measures</b> to reduce LBS pollution, with priority to toxic, persistent, liable to bioaccumulation substances. Article 6: point source discharge strictly subjected to authorization and regulation. <b>Energy production</b> (Annex I) is one of the sectors of activity to be taken into consideration to this regard.
		8. SAP-MED	<b>Energy production is considered within the industry sector</b> , for which Chapter 5.2 defines targets and proposed activities at regional and national levels for the prevention, reduction and elimination of pollution (See Industry), to be implemented through NAP (Chapter 10).
			<p>28. RP on the reduction of inputs of Mercury; RP on the reduction of BOD5 in the food sector; on the phasing out of Hexabromodiphenyl ether, Hetabromodiphenyl ether, Tetrabromodiphenyl ether, and Pentabromodiphenil ether; RP on the on the phasing out of lindane and endosulfane; RP on the phasing out of perfluorooctane sulfonic acid, its salts, and perfluorooctane sulfonyl fluoride; RP on the elimination of Alpha hexachlorocyclohexane, Beta hexachlorocyclohexane, Chlordecone, Hexabromobiphenyl, and Pentachlorobenzene.</p> <p>29. RP on the Phasing Out of DDT; RP on the reduction of BOD5 from urban waste water; RP on the elimination of Aldrin, Chlordane, Dieldrin, Endrin, Heptachlor, Mirex, and Toxaphene.</p>

Identified interactions	Relevant provisions of the ICZM Protocol	Relevant legal and policy instruments	Related provisions and guidelines
		1. SPA/BD Protocol	Even with respect to energy infrastructures and the related activities, all the necessary measures shall be taken to <b>protect, preserve and manage in a sustainable and environmentally sound way threatened or endangered species of flora and fauna, and areas of particular natural or cultural value</b> (Art. 3). In the planning process that could significantly affect protected areas, species and their habitats, evaluate and take into consideration the possible direct or indirect, immediate or long-term, impact, including the cumulative impact of the projects and activities being contemplated through the <b>environmental impact assessment</b> (Art. 17).
		7. MSSD 2016-2025	<b>Obj.1 (SDG 14):</b> Ensuring sustainable development in marine and coastal areas. <b>Obj.5 (SDG 8, 9, 12):</b> Transition towards a green and blue economy. <b>SD:</b> Create green and decent jobs for all; Review the definitions and measurement of development, progress and well-being; Promote sustainable consumption and production patterns; Encourage environmentally-friendly and social innovation; Promote the integration of sustainability principles and criteria into decision-making on public and private investment; Ensure a greener and more inclusive market that integrates the true environmental and social cost of products and services to reduce social and environmental externalities. <b>Target:</b> By 2025, the majority of Mediterranean Countries are committed to green or sustainable public procurement programmes.
		11. RFCCA	Strategic Direction 1.2 (Promoting adequate institutional and policy frameworks) – Priorities include: risk and impact assessment in relation to climate change prior to <b>major infrastructure investments</b> in coastal and marine areas. Strategic Direction 3.1 – Priorities include: avoidance of maladaptive actions and <b>non-efficient “hard” infrastructures</b> to low-regret measures to improve climate resilience. Strategic Direction 4.1 (Understanding vulnerability) – Priorities include: vulnerability and <b>interactions of sectors, including energy.</b>
Tourism, sporting, recreational activities: Activities along the coast	Art. 9, co. 1 and 2, lett. d Articles 5 and 6 Art. 8 Art 23, co. 2 Articles 17 and 18; 14, 19 and 27	2. LBS Protocol	Articles 5, 7 and 15: Parties shall elaborate <b>action plans, programmes and measures</b> to reduce LBS pollution, with priority to toxic, persistent, liable to bioaccumulation substances. Article 6: point source discharge strictly subjected to authorization and regulation. <b>Tourism</b> (Annex I) is one of the sectors of activity to be taken into consideration to this regard.
		8. SAP-MED	In the Mediterranean region, <b>pollution related to the urban context is exacerbated by tourism.</b> This sector is considered in chapter 5 which identifies targets and proposed activities at regional and national levels for the prevention, reduction and elimination of pollution (see urban sprawl), to be implemented through NAP (Chapter 10).
		12. SCP AP	Operational objectives and actions 3 – focused on tourism, e.g.: <b>sustainable tourism</b> s and network of sustainable destinations (3.1), <b>diversification</b> (3.1), <b>eco-taxes and eco-fees</b> (3.2), tourism carrying capacity assessment (3.2), etc.
		15. RP on Marine Litter	Article 17 – Major <b>tourism stakeholders</b> shall be involved in the implement of the regional plan and related actions.
		10. Strategy on pollution from ships	Under section 4, one specific objective (Nb.9) is related to the reduction of <b>pollution generated by pleasure craft activities</b> , more particularly (high priority) the implementation of the Guidelines concerning Pleasure Craft Activities and the Protection of the Marine Environment in conjunction with the relevant provisions of the MARPOL Convention and the Regional Plan on Marine Litter Management
		1. SPA/BD Protocol	Even with respect to activities such as tourism, sporting etc., all the necessary measures shall be taken to <b>protect, preserve and manage in a sustainable and environmentally sound way threatened or endangered species of flora and fauna, and areas of particular natural or cultural value</b> (Art. 3). In the planning process that could significantly affect protected areas, species and their habitats, evaluate and take into consideration the possible direct or indirect, immediate or long-term, impact, including the cumulative impact of the projects and activities being contemplated through the <b>environmental impact assessment</b> (Art. 17).
		9. SAP BIO	SAP BIO is the <b>background document of CRF</b> and EcAp, which provides principles, measures and concrete and coordinated priority actions, relevant targets, objectives, and specific actions at national, transboundary and regional level for the <b>conservation of the Mediterranean marine and coastal biodiversity</b> , within the framework of sustainable use and through the implementation of the SPA/BD Protocol. <b>Objectives:</b> improving knowledge; management of Marine and Coastal PAs; protection of endangered species and habitats; reinforcement of legislation and capacity building; fund-raising efforts. Among others, endorses concrete and practical actions aiming at promoting bio-conservation-friendly sector policies, procedures and techniques, in particular related to <b>tourism.</b>
		16.MPAs Roadmap	The Roadmap includes recommended actions fully in line with the EcAp process, with the following main objectives (O): <b>O.3:</b> Promote the sharing of environmental and socio-economic benefits of Mediterranean MPAs and the MPAs integration into the broader context of sustainable use of the marine environment and the implementation of the ecosystem and MSP approaches. <b>Suggested actions:</b> Promote cross-sectorial policies and mechanisms for integrating the MPA national strategies and policies with other human activity sectors, in particular fisheries and tourism, through the development of appropriate governance frameworks, including the related legal and institutional arrangements. These could include, but will not be limited to, cross-sectorial coordination, MSP legislation, support groups from the business sectors for MPA management, and legal instruments for public-private partnerships.
		7. MSSD 2016-2025	<b>Obj.1 (SDG 14):</b> Ensuring sustainable development in marine and coastal areas. <b>SD:</b> Strengthen implementation of and compliance with the Barcelona System and related; Establish and enforce regulatory mechanisms, including MSP, to prevent and control unsustainable open ocean resource exploitation. <b>Obj.2 (SDG 2, 15, 6):</b> Promoting resource management, food production and food security through sustainable forms of rural development. <b>SD:</b> access of local producers to distribution channels and markets, including the tourism market.

Identified interactions	Relevant provisions of the ICZM Protocol	Relevant legal and policy instruments	Related provisions and guidelines	
	Utilization of specific natural resources: desalination plants	Art. 9, co. 1 and 2, lett. e Articles 5 and 6 Art. 8 Art 23, co. 2 Articles 17 and 18; 14, 19 and 27		<p><b>Obj.4 (SDG 13):</b> Addressing climate change as a priority issue for the Mediterranean. <b>SD:</b> Increase scientific knowledge, raise awareness, develop technical capacities to deal with climate change and ensure informed decision-making at all levels, recognising and protecting the climate adaptation and mitigation services of natural ecosystems; Accelerate the uptake of climate smart and climate resilient responses; Leverage existing and emerging climate finance mechanisms, including international and domestic instruments, and enhance the engagement of the private and finance sectors; Encourage institutional, policy and legal reforms for the effective mainstreaming of climate change responses into national and local development frameworks, particularly in the energy sector.</p> <p><b>Obj.5 (SDG 8, 9, 12):</b> Transition towards a green and blue economy. <b>SD:</b> Create green and decent jobs for all; Review the definitions and measurement of development, progress and well-being; Promote sustainable consumption and production patterns; Encourage environmentally-friendly and social innovation; Promote the integration of sustainability principles and criteria into decision-making on public and private investment; Ensure a greener and more inclusive market that integrates the true environmental and social cost of products and services to reduce social and environmental externalities. <b>Target:</b> By 2025, the majority of Mediterranean Countries are committed to green or sustainable public procurement programmes.</p>
			11.RFCCA	Strategic Direction 4.1 (Understanding vulnerability) – Priorities include: vulnerability and interactions of sectors, including tourism.
			1. SPA/BD Protocol	Even with respect to the utilization of specific natural resources and the related activities, all the necessary measures shall be taken to <b>protect, preserve and manage in a sustainable and environmentally sound way threatened or endangered species of flora and fauna, and areas of particular natural or cultural value</b> (Art. 3). In the planning process that could significantly affect protected areas, species and their habitats, evaluate and take into consideration the possible direct or indirect, immediate or long-term, impact, including the cumulative impact of the projects and activities being contemplated through the <b>environmental impact assessment</b> (Art. 17).
7. MSSD 2016-2025	<p><b>Obj.1 (SDG 14):</b> Ensuring sustainable development in marine and coastal areas.</p> <p><b>Obj.5 (SDG 8, 9, 12):</b> Transition towards a green and blue economy. <b>SD:</b> Create green and decent jobs for all; Review the definitions and measurement of development, progress and well-being; Promote sustainable consumption and production patterns; Encourage environmentally-friendly and social innovation; Promote the integration of sustainability principles and criteria into decision-making on public and private investment; Ensure a greener and more inclusive market that integrates the true environmental and social cost of products and services to reduce social and environmental externalities. <b>Target:</b> By 2025, the majority of Mediterranean Countries are committed to green or sustainable public procurement programmes.</p>			
Coastal zone Seaward	Fishing	Art 9, co. 1 and 2, lett. b Articles 5 and 6	12. SCP AP	Operational objectives and actions 1 – focused also on fisheries, e.g.: <b>adopt sustainable fishing practices</b> (1.1), <b>life cycle approach</b> in food and fisheries processing (1.1), <b>green financing</b> for sustainable fisheries (1.2), information and education <b>campaigns</b> (1.3).
		Art. 8, co. 1 Articles 17 and 18; 14, 19 and 29, 27 and 28	15. RP on Marine Litter	Article 17 – Major <b>fisheries stakeholders</b> shall be involved in the implement of the regional plan and related actions. Article 9 Prevention of marine litter - (3e): establishment of deposits, return and restoration system for expandable <b>polystyrene boxes</b> ; (6) implement the <b>fishing for litter</b> practice; (7) implement “ <b>gear marking</b> to indicate ownership” and “ <b>environmental neutral</b> upon degradation nets and traps” concepts.
		6. Dumping Protocol	Article 4: Dumping of wastes and other matter from ships and aircraft is prohibited with the exception of those in Article 4.2, which also include <b>fish waste and organic materials</b> resulting from the processing of fish and other marine organisms. Their dumping requires <b>special permit</b> (Article 5).	
		5. Hazardous wastes Protocol	Article 8 encourage regional cooperation for clean production method concerning <b>waste oils/water, hydrocarbons/water mixtures</b> (Annex I) of ecotoxic nature (Annex II), and <b>disposal operations</b> including release into a water body (port); release into the sea (Annex III).	
		13. Offshore AP	Appendix III Indicative Potential Research and Development Topic: <b>Fisheries:</b> Short-term and long-term impact of the oil and gas (O&G) industry on Mediterranean fisheries.	
		1. SPA/BD Protocol	Even with respect to fishing and the related activities, all the necessary measures shall be taken to <b>protect, preserve and manage in a sustainable and environmentally sound way threatened or endangered species of flora and fauna, and areas of particular natural or cultural value</b> (Art. 3). In the planning process that could significantly affect protected areas, species and their habitats, evaluate and take into consideration the possible direct or indirect, immediate or long-term, impact, including the cumulative impact of the projects and activities being contemplated through the <b>environmental impact assessment</b> (Art. 17).	
		9. SAP BIO	SAP BIO is the <b>background document of CRF</b> and EcAp, which provides principles, measures and concrete and coordinated priority actions, relevant targets, objectives, and specific actions at national, transboundary and regional level for the <b>conservation of the Mediterranean marine and coastal biodiversity</b> , within the framework of sustainable use and through the implementation of the SPA/BD Protocol. <b>Objectives:</b> improving knowledge; management of Marine and Coastal PAs; protection of endangered species and habitats; reinforcement of legislation and capacity building; fund-raising efforts. Among others, endorses concrete and practical actions aiming at promoting bio-conservation-friendly sector policies, procedures and techniques, in particular related to <b>fisheries</b> .	
		16. MPAs Roadmap	The Roadmap includes recommended actions fully in line with the EcAp process, with the following main objectives (O): <b>O.3:</b> Promote the sharing of environmental and socio-economic benefits of Mediterranean MPAs and the MPAs integration into the broader context of sustainable use of the marine environment and the implementation of the ecosystem and MSP approaches.	



Identified interactions	Relevant provisions of the ICZM Protocol	Relevant legal and policy instruments	Related provisions and guidelines
			<p><b>Suggested actions:</b> Promote cross-sectorial policies and mechanisms for integrating the MPA national strategies and policies with other human activity sectors, in particular <b>fisheries</b> and tourism, through the development of appropriate governance frameworks, including the related legal and institutional arrangements. These could include, but will not be limited to, cross-sectorial coordination, MSP legislation, support groups from the business sectors for MPA management, and legal instruments for public-private partnerships.</p>
		25. AP concerning species introduction and invasive species	
Aquaculture	Art 9, co. 1 and 2, lett. b Articles 5 and 6 Art. 8, co. 1 Art 23, co. 2 Articles 17 and 18; 14, 19 and 29, 27 and 28	7. MSSD 2016-2025  11. RFCCA  2. LBS Protocol  8. SAP-MED  12. SCP AP  15. RP on Marine Litter  5. Hazardous wastes Protocol  1. SPA/BD Protocol  7. MSSD 2016-2025	<p><b>Obj.1 (SDG 14):</b> Ensuring sustainable development in marine and coastal areas. <b>SD:</b> Strengthen implementation of and compliance with the Barcelona System and relates; Establish and enforce regulatory mechanisms, including MSP, to prevent and control unsustainable open ocean resource exploitation. <b>Target:</b> By 2020, effectively regulate harvesting and end over fishing, IUU fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristic.</p> <p><b>Obj.2 (SDG 2, 15, 6):</b> Promoting resource management, food production and food security through sustainable forms of rural development. <b>SD:</b> conservation and use of indigenous or traditional, domestic animal breeds, valuing traditional knowledge and practices in rural management decisions, access of local producers to distribution channels and markets, including the tourism market.</p> <p><b>Obj.4 (SDG 13):</b> Addressing climate change as a priority issue for the Mediterranean. <b>SD:</b> Increase scientific knowledge, raise awareness, develop technical capacities to deal with climate change and ensure informed decision-making at all levels, recognising and protecting the climate adaptation and mitigation services of natural ecosystems; Accelerate the uptake of climate smart and climate resilient responses; Leverage existing and emerging climate finance mechanisms, including international and domestic instruments, and enhance the engagement of the private and finance sectors; Encourage institutional, policy and legal reforms for the effective mainstreaming of climate change responses into national and local development frameworks, particularly in the energy sector.</p> <p><b>Obj.5 (SDG 8, 9, 12):</b> Transition towards a green and blue economy. <b>SD:</b> Create green and decent jobs for all; Review the definitions and measurement of development, progress and well-being; Promote sustainable consumption and production patterns; Encourage environmentally-friendly and social innovation; Promote the integration of sustainability principles and criteria into decision-making on public and private investment; Ensure a greener and more inclusive market that integrates the true environmental and social cost of products and services to reduce social and environmental externalities. <b>Target:</b> By 2025, the majority of Mediterranean Countries are committed to green or sustainable public procurement programmes.</p> <p>Strategic Direction 1.2 (Promoting adequate institutional and policy frameworks) – Priorities include: Integrated approach for the reduction of <b>non-climate related threats</b> that undermine the capacities of communities and ecosystems to adapt to climate change, including <b>overfishing</b>.</p> <p>Strategic Direction 4.1 (Understanding vulnerability) – Priorities include: vulnerability and <b>interactions of sectors</b>, including <b>fisheries</b>.</p> <p>Articles 5, 7 and 15: Parties shall elaborate <b>action plans, programmes and measures</b> to reduce LBS pollution, with priority to toxic, persistent, liable to bioaccumulation substances. Article 6: point source discharge strictly subjected to authorization and regulation. <b>Aquaculture (including mariculture?)</b> is a sector of activity to be taken into consideration to this regard.</p> <p>Chapter 5: <b>Targets and proposed activities</b> at regional and national levels for the prevention, reduction and elimination of pollution. Section 5.2.5 provides specific targets and actions for agriculture and (intensive) aquaculture (<b>including mariculture?</b>) in relation to <b>nutrient loads</b>, to be implemented through NAP (Chapter 10).</p> <p>Operational objectives and actions 1 identified for fisheries apply also to <b>aquaculture</b>, as specified in the introduction.</p> <p>Article 17 – Major <b>aquaculture stakeholders</b> shall be involved in the implement of the regional plan and related actions. Some of article 9 actions on fisheries are also relevant for aquaculture.</p> <p>Article 8 encourage regional cooperation for clean production method regarding <b>waste pharmaceuticals (antibiotics)</b> (Annex I), of ecotoxic nature (Annex II), released into seas/oceans (Annex III).</p> <p>Even with respect to aquaculture and the related activities, all the necessary measures shall be taken to <b>protect, preserve and manage in a sustainable and environmentally sound way threatened or endangered species of flora and fauna, and areas of particular natural or cultural value</b> (Art. 3). In the planning process that could significantly affect protected areas, species and their habitats, evaluate and take into consideration the possible direct or indirect, immediate or long-term, impact, including the cumulative impact of the projects and activities being contemplated through the <b>environmental impact assessment</b> (Art. 17).</p> <p><b>Obj.1 (SDG 14):</b> Ensuring sustainable development in marine and coastal areas <b>Obj.2 (SDG 2, 15, 6):</b> Promoting resource management, food production and food security through sustainable forms of rural development. <b>SD:</b> conservation and use of indigenous or traditional, domestic animal breeds, valuing traditional knowledge and practices in rural management decisions, access of local producers to distribution channels and markets, including the tourism market.</p> <p><b>Obj.4 (SDG 13):</b> Addressing climate change as a priority issue for the Mediterranean. <b>SD:</b> Increase scientific knowledge, raise awareness, develop technical capacities to deal with climate change and ensure informed decision-making at all levels, recognising and protecting the climate adaptation and mitigation services of natural ecosystems; Accelerate the uptake of climate smart and climate resilient responses; Leverage existing and emerging climate finance mechanisms, including international and domestic instruments,</p>



Identified interactions	Relevant provisions of the ICZM Protocol	Relevant legal and policy instruments	Related provisions and guidelines
			<p>and enhance the engagement of the private and finance sectors; Encourage institutional, policy and legal reforms for the effective mainstreaming of climate change responses into national and local development frameworks, particularly in the energy sector.</p> <p><b>Obj.5 (SDG 8, 9, 12):</b> Transition towards a green and blue economy. <b>SD:</b> Create green and decent jobs for all; Review the definitions and measurement of development, progress and well-being; Promote sustainable consumption and production patterns; Encourage environmentally-friendly and social innovation; Promote the integration of sustainability principles and criteria into decision-making on public and private investment; Ensure a greener and more inclusive market that integrates the true environmental and social cost of products and services to reduce social and environmental externalities. <b>Target:</b> By 2025, the majority of Mediterranean Countries are committed to green or sustainable public procurement programmes.</p>
Tourism, sporting, recreational activities: yachting and cruising	Art. 9, co. 1 and 2, lett. d Articles 5 and 6 Art. 8 Art 23, co. 2 Articles 17 and 18; 14, 19 and 29, 27 and 28	12. SCP AP	Operational objectives and actions 3 – focused on tourism, e.g.: <b>sustainable tourism</b> s and network of sustainable destinations (3.1), <b>diversification</b> (3.1), <b>eco-taxes and eco-fees</b> (3.2), tourism carrying capacity assessment (3.2), etc.
		15. RP on Marine Litter	Article 17 – Major <b>tourism stakeholders</b> shall be involved in the implement of the regional plan and related actions.
		6. Dumping Protocol	Article 3: Provision of the Protocol also applies to <b>yachting and cruising</b> vessels. Dumping of wastes and other matter is prohibited (See “ <i>Maritime activities: shipping</i> ” for more information).
		10. Strategy on pollution from ships	Under section 4, one specific objective (Nb.9) is related to the <b>reduction of pollution generated by pleasure craft activities</b> , more particularly (high priority) the implementation of the Guidelines concerning Pleasure Craft Activities and the Protection of the Marine Environment in conjunction with the relevant provisions of the MARPOL Convention and the Regional Plan on Marine Litter Management.
		1. SPA/BD Protocol	Even with respect to tourism, sporting etc., all the necessary measures shall be taken to <b>protect, preserve and manage in a sustainable and environmentally sound way threatened or endangered species of flora and fauna, and areas of particular natural or cultural value</b> (Art. 3). In the planning process that could significantly affect protected areas, species and their habitats, evaluate and take into consideration the possible direct or indirect, immediate or long-term, impact, including the cumulative impact of the projects and activities being contemplated through the <b>environmental impact assessment</b> (Art. 17).
		9. SAP BIO	SAP BIO is the <b>background document of CRF</b> and EcAp, which provides principles, measures and concrete and coordinated priority actions, relevant targets, objectives, and specific actions at national, transboundary and regional level for the <b>conservation of the Mediterranean marine and coastal biodiversity</b> , within the framework of sustainable use and through the implementation of the SPA/BD Protocol. <b>Objectives:</b> improving knowledge; management of Marine and Coastal PAs; protection of endangered species and habitats; reinforcement of legislation and capacity building; fund-raising efforts. Among others, endorses concrete and practical actions aiming at promoting bio-conservation-friendly sector policies, procedures and techniques, in particular related to <b>tourism</b> .
		16. MPAs Roadmap	The Roadmap includes recommended actions fully in line with the EcAp process, with the following main objectives (O): <b>O.3:</b> Promote the sharing of environmental and socio-economic benefits of Mediterranean MPAs and the MPAs integration into the broader context of sustainable use of the marine environment and the implementation of the ecosystem and MSP approaches. <b>Suggested actions:</b> Promote cross-sectorial policies and mechanisms for integrating the MPA national strategies and policies with other human activity sectors, in particular fisheries and <b>tourism</b> , through the development of appropriate governance frameworks, including the related legal and institutional arrangements. These could include, but will not be limited to, cross-sectorial coordination, MSP legislation, support groups from the business sectors for MPA management, and legal instruments for public-private partnerships.
		7. MSSD 2016-2025	<p><b>Obj.1 (SDG 14):</b> Ensuring sustainable development in marine and coastal areas</p> <p><b>Obj.4 (SDG 13):</b> Addressing climate change as a priority issue for the Mediterranean. <b>SD:</b> Increase scientific knowledge, raise awareness, develop technical capacities to deal with climate change and ensure informed decision-making at all levels, recognising and protecting the climate adaptation and mitigation services of natural ecosystems; Accelerate the uptake of climate smart and climate resilient responses; Leverage existing and emerging climate finance mechanisms, including international and domestic instruments, and enhance the engagement of the private and finance sectors; Encourage institutional, policy and legal reforms for the effective mainstreaming of climate change responses into national and local development frameworks, particularly in the energy sector.</p> <p><b>Obj.5 (SDG 8, 9, 12):</b> Transition towards a green and blue economy. <b>SD:</b> Create green and decent jobs for all; Review the definitions and measurement of development, progress and well-being; Promote sustainable consumption and production patterns; Encourage environmentally-friendly and social innovation; Promote the integration of sustainability principles and criteria into decision-making on public and private investment; Ensure a greener and more inclusive market that integrates the true environmental and social cost of products and services to reduce social and environmental externalities. <b>Target:</b> By 2025, the majority of Mediterranean Countries are committed to green or sustainable public procurement programmes.</p>
11. RCCAF	Strategic Direction 4.1 (Understanding vulnerability) – Priorities include: vulnerability and <b>interactions of sectors, including tourism</b> .		
Maritime activities: shipping	Art 9, co. 1 and 2, lett. f and g Articles 5 and 6 Art. 8 Art 23, co. 2	12. SCP AP	Transport is one of the <b>transversal issues</b> (chapter 2) considered by the SCP AP and therefore approach by each of the 4 priority areas.
		15. RP on Marine Litter	Article 17 – Major <b>maritime sector stakeholders</b> shall be involved in the implement of the regional plan and related actions. See also actions related to ports (article 9).
		6. Dumping Protocol	Article 4: <b>Dumping of wastes</b> and other matter from <b>ships and aircraft is prohibited</b> with the exception of those in art. 4.2 (dredged material, fish waste and organic materials)

Identified interactions	Relevant provisions of the ICZM Protocol	Relevant legal and policy instruments	Related provisions and guidelines
	Articles 17 and 18; 14, 19 and 29, 27 and 28		resulting from the processing of fish, vessels until 31.12.2000, platforms and other man-made structures under specific conditions). Their dumping requires <b>special permit</b> (article 5)
		5. Hazardous wastes Protocol	Transboundary movement and notification procedures are described in Article 6, whilst Article 8 encourage regional cooperation for <b>clean production method, fight against illegal traffic</b> (Article 9), in regard of potentially all wastes identified (Annex I), with hazardous characteristics listed in Annex II, mainly release into a water body (port) and into seas/oceans (Annex III).
		3. Prevention and Emergency Protocol	Article 7 encourage disseminating and sharing information about new ways in which pollution from ships may be avoided, new measures for <b>combating pollution</b> , new developments in monitoring and research programmes, whilst Article 10 give the <b>operational measures</b> : any Party shall make the necessary assessments of nature, extent and possible consequences of pollution incident. As regards <b>emergency measures</b> (Article 11), necessary steps are to be taken to ensure that ships flying its flag have on board a pollution emergency plan, whilst environmental risks (Article 15) include the assessment of environmental risks of recognized routes used in maritime traffic.
		10. Strategy on pollution from ships	Two specific objectives (Nb. 10 and 11) are directly related to shipping by <b>reducing the risk of collisions</b> by establishing Ship's Routing Systems (10), and by <b>improving control of maritime traffic</b> (11). Where necessary, where and when possible, Contracting Parties should propose to IMO additional appropriate Routing Systems in accordance with international law and through articulated Marine Spatial Plans (MSP) under their jurisdiction (10), and should continuously improve technical cooperation among VTS Centres and exchange information about ships by using AIS in the common surveillance area (11).
		14. Strategy on ballast	In Annex I, there are two important shipping-related 'Action Points': 1) <b>ratification by Contracting Parties of the International Convention</b> for the Control and Management of Ships' ballast water and sediments (BWM Convention), and 2) adoption of <b>harmonised arrangements for ballast water exchange</b> in the Mediterranean with support from REMPEC.
		1. SPA/BD Protocol	Even with respect to shipping, all the necessary measures shall be taken to <b>protect, preserve and manage in a sustainable and environmentally sound way threatened or endangered species of flora and fauna, and areas of particular natural or cultural value</b> (Art. 3). In the planning process that could significantly affect protected areas, species and their habitats, evaluate and take into consideration the possible direct or indirect, immediate or long-term, impact, including the cumulative impact of the projects and activities being contemplated through the <b>environmental impact assessment</b> (Art. 17).
		7. MSSD 2016-2025	<b>Obj.1 (SDG 14)</b> : Ensuring sustainable development in marine and coastal areas. <b>Obj.5 (SDG 8, 9, 12)</b> : Transition towards a green and blue economy. <b>SD</b> : Create green and decent jobs for all; Review the definitions and measurement of development, progress and well-being; Promote sustainable consumption and production patterns; Encourage environmentally-friendly and social innovation; Promote the integration of sustainability principles and criteria into decision-making on public and private investment; Ensure a greener and more inclusive market that integrates the true environmental and social cost of products and services to reduce social and environmental externalities. <b>Target</b> : By 2025, the majority of Mediterranean Countries are committed to green or sustainable public procurement programmes.
Maritime activities: offshore energy (oil and gas, renewables)	Art 9, co. 1 and 2, lett. f and g Articles 5 and 6 Art. 8 Art 23, co. 2 Articles 17 and 18; 14, 19 and 29, 27 and 28	2. LBS Protocol	Article 4: The Protocol also applies to polluting discharges from <b>fixed man-made offshore structures</b> other than those used for exploration and exploitation of mineral resources; to be taken into account in action plans, programmes and measures for the elimination of LBS pollution (Article 5), with priority to toxic, persistent, liable to bioaccumulation substances.
		15. RP on Marine Litter	Article 17 – Major <b>maritime sector stakeholders</b> shall be involved in the implement of the regional plan and related actions.
		6. Dumping Protocol	Article 3: Provision of the Protocol also applies to <b>platforms and other man-made structures</b> at sea and their equipment. Dumping of wastes and other matter from ships and aircraft is in prohibited (See " <i>Maritime activities: shipping</i> " for more information).
		5. Hazardous wastes Protocol	Article 8 stipulate regional cooperation for clean production method essentially regarding <b>waste oils/water, hydrocarbons/water mixtures</b> (Annex I), of ecotoxic nature (Annex II), through disposal operations like release into a water body (port), release into the sea (Annex III).
		4. Offshore Protocol	<b>Measures for pollution</b> (the use, storage and discharge of harmful or noxious substances and materials) resulting from activities concerning exploration and/or exploitation of the resources shall be adopted, using best available, environmentally effective and economically appropriate techniques; required the <b>removal of installations</b> , including pipelines, abandoned or disused, taking into account existing guidelines and standards. (Articles 1, 3, 4, 5 and 6, 20; Section III, articles 8-14). Sanctions shall be prescribed to be imposed for breach of obligations (Art 7) <b>Safety measures</b> shall be taken with regard to the design, construction, placement, equipment, marking, operation and maintenance of installations, having adequate equipment and devices to prevent and combat accidental pollution and facilitating prompt response to an emergency; the related contingency plans shall be coordinated and established in accordance with guidelines adopted by the competent international organisation and with the provisions of Annex VII of the Offshore Protocol (Articles 15 and 16, Annex VII)
		13. Offshore AP	The AP aims to develop in conformity with EcAp and its relevant indicators a regional commonly agreed reporting and monitoring. <b>Specific objective (SO) 1</b> : To ratify the Offshore Protocol. <b>SO 2</b> : To designate CPs' Representatives to participate to the regional governing bodies.

Identified interactions	Relevant provisions of the ICZM Protocol	Relevant legal and policy instruments	Related provisions and guidelines
			<p><b>SO 3:</b> To establish a technical cooperation and CB programme, to cooperate with a view to formulating and implementing programmes of assistance to DCs.</p> <p><b>SO 4:</b> To mobilise resources for the implementation of the AP.</p> <p><b>SO 5:</b> To promote access to information and public participation in decision-making.</p> <p><b>SO 6:</b> To enhance the regional transfer of technology.</p> <p><b>SO 7:</b> To develop and adopt regional offshore standards. In particular: (a) EIA regional standards developed based on existing ones; (b) Common standards, on the use and discharge of harmful or noxious substances and material, in line with relevant international standards and conventions defining inter alia limits and prohibitions at regional level formulated and adopted; (c) Identification of the required modifications of Annex I, II and III and definition of which chemicals should be covered and not covered by such standards and under which conditions; (d) Common standards on the disposal of oil and oily mixtures and on the use and disposal of drilling fluids and cutting formulated and adopted, and revision of the limits set in Article 10 of the Offshore Protocol and the prescriptions referred in Annex V of the Protocol; (e) The method to be used to analyse the oil content is commonly agreed and adopted; (f) Procedures for contingency planning, notification of accidental spills and transboundary pollution established in accordance with the Emergency Protocol; (g) Special restrictions or conditions for SPAs defined and adopted; (h) Common criteria, rules and procedures for the removal of installations and the related financial aspects adopted; (i) Common criteria, rules and procedures for safety measures including health and safety requirements adopted; (j) Common minimum standards of qualification for professionals and crews adopted.</p> <p><b>SO 8:</b> To develop and adopt regional offshore guidelines. In particular:</p> <ul style="list-style-type: none"> <li>- Regional Guidelines on a. EIA; b. on the use and discharge of harmful or noxious substances and material; c. on the disposal of oil and oily mixtures and the use and disposal drilling</li> <li>- Fluids and cutting and analytical measurement; d. on removal of installations and the related financial aspects; e. on installation safety measures including health and safety requirements; f. on minimum standards of qualification for professionals and crews; g. on authorisation requirements based on the abovementioned Standards;</li> <li>- A report assessing national, regional and international rules, procedures and practices regarding liability and compensation for loss and damage resulting from the activities dealt with in the Offshore Protocol.</li> </ul> <p><b>SO 9:</b> To establish regional offshore monitoring procedures and programmes, to be developed in line with the EcAp Roadmap and in particular with the Integrated Monitoring and Assessment Programme.</p> <p><b>SO 10:</b> To report on the implementation of the Action Plan.</p>
Utilization of specific natural resources: sand extraction and mineral mining	Art. 9, co. 1 and 2, lett. e Articles 5 and 6 Art. 8 Art 23, co. 2 Articles 17 and 18; 14, 19 and 29, 27 and 28	15. RP on Marine Litter  5. Hazardous wastes Protocol  1. SPA/BD Protocol	<p>Even with respect to maritime activities such as offshore energy, all the necessary measures shall be taken to <b>protect, preserve and manage in a sustainable and environmentally sound way threatened or endangered species of flora and fauna, and areas of particular natural or cultural value</b> (Art. 3). In the planning process that could significantly affect protected areas, species and their habitats, evaluate and take into consideration the possible direct or indirect, immediate or long-term, impact, including the cumulative impact of the projects and activities being contemplated through the <b>environmental impact assessment</b> (Art. 17).</p> <p>27. AP for the conservation of habitats and species associated with seamounts, underwater caves and canyons, aphotic hard beds and chemo-synthetic phenomena in the Mediterranean Sea.</p> <p><b>Obj.1 (SDG 14):</b> Ensuring sustainable development in marine and coastal areas. <b>SD:</b> Strengthen implementation of and compliance with the Barcelona System and relates; Establish and enforce regulatory mechanisms, including MSP, to prevent and control unsustainable open ocean resource exploitation.</p> <p><b>Obj.5 (SDG 8, 9, 12):</b> Transition towards a green and blue economy. <b>SD:</b> Create green and decent jobs for all; Review the definitions and measurement of development, progress and well-being; Promote sustainable consumption and production patterns; Encourage environmentally-friendly and social innovation; Promote the integration of sustainability principles and criteria into decision-making on public and private investment; Ensure a greener and more inclusive market that integrates the true environmental and social cost of products and services to reduce social and environmental externalities. <b>Target:</b> By 2025, the majority of Mediterranean Countries are committed to green or sustainable public procurement programmes.</p> <p>Strategic Direction 1.2 (Promoting adequate institutional and policy frameworks) – Priorities include: risk and impact assessment in relation to climate change prior to <b>major infrastructure investments</b> in coastal and marine areas.</p> <p>Strategic Direction 4.1 (Understanding vulnerability) – Priorities include: vulnerability and <b>interactions of sectors</b>, including <b>energy</b>.</p> <p>Article 9 Prevention of marine litter - (8): measures to prevent <b>marine littering from dredging</b> activities in line with guidelines developed in the frame of the dumping protocol.</p> <p>Article 8 stipulate regional cooperation for clean production method regarding <b>wastes with heavy metals</b> (Annex I), of ecotoxic nature (Annex II), when release into seas/oceans (Annex III).</p> <p>Even with respect to the utilization of natural resources such as sand extraction and mineral mining, all the necessary measures shall be taken to <b>protect, preserve and manage in a sustainable and environmentally sound way threatened or endangered species of flora and fauna, and areas of particular natural or cultural value</b> (Art. 3). In the planning process that could significantly affect protected areas, species and their habitats, evaluate and take into consideration the possible direct or indirect, immediate or long-term, impact, including the cumulative impact of the projects and activities being contemplated through the <b>environmental impact assessment</b> (Art. 17).</p> <p>27. AP for the conservation of habitats and species associated with seamounts, underwater caves and canyons, aphotic hard beds and chemo-synthetic phenomena in the Mediterranean Sea.</p>



Identified interactions		Relevant provisions of the ICZM Protocol	Relevant legal and policy instruments	Related provisions and guidelines
			7.MSSD 2016-2025	<p><b>Obj.1 (SDG 14):</b> Ensuring sustainable development in marine and coastal areas. <b>SD:</b> Strengthen implementation of and compliance with the Barcelona System and relates; Establish and enforce regulatory mechanisms, including MSP, to prevent and control unsustainable open ocean resource exploitation.</p> <p><b>Obj.5 (SDG 8, 9, 12):</b> Transition towards a green and blue economy. <b>SD:</b> Create green and decent jobs for all; Review the definitions and measurement of development, progress and well-being; Promote sustainable consumption and production patterns; Encourage environmentally-friendly and social innovation; Promote the integration of sustainability principles and criteria into decision-making on public and private investment; Ensure a greener and more inclusive market that integrates the true environmental and social cost of products and services to reduce social and environmental externalities. <b>Target:</b> By 2025, the majority of Mediterranean Countries are committed to green or sustainable public procurement programmes.</p>
			11.RFCCA	Strategic Direction 1.2 (Promoting adequate institutional and policy frameworks) – Priorities include: Integrated approach for the reduction of <b>non-climate related threats</b> that undermine the capacities of communities and ecosystems to adapt to climate change, including <b>sand mining (at land?)</b> .
			4. Offshore Protocol	<p><b>Measures for pollution</b> (the use, storage and discharge of harmful or noxious substances and materials) resulting from activities concerning exploration and/or exploitation of the resources shall be adopted, using best available, environmentally effective and economically appropriate techniques; required the <b>removal of installations</b>, including pipelines, abandoned or disused, taking into account existing guidelines and standards. (Articles 1, 3, 4, 5 and 6, 20; Section III, articles 8-14). Sanctions shall be prescribed to be imposed for breach of obligations (Art 7).</p> <p><b>Safety measures</b> shall be taken with regard to the design, construction, placement, equipment, marking, operation and maintenance of installations, having adequate equipment and devices to prevent and combat accidental pollution and facilitating prompt response to an emergency; the related contingency plans shall be coordinated and established in accordance with guidelines adopted by the competent international organisation and with the provisions of Annex VII of the Offshore Protocol (Articles 15 and 16, Annex VII).</p>
			1. SPA/BD Protocol	Even with respect to maritime activities, all the necessary measures shall be taken to <b>protect, preserve and manage in a sustainable and environmentally sound way threatened or endangered species of flora and fauna, and areas of particular natural or cultural value</b> (Art. 3). In the planning process that could significantly affect protected areas, species and their habitats, evaluate and take into consideration the possible direct or indirect, immediate or long-term, impact, including the cumulative impact of the projects and activities being contemplated through the <b>environmental impact assessment</b> (Art. 17).
			7. MSSD 2016-2025	<p><b>Obj.1 (SDG 14):</b> Ensuring sustainable development in marine and coastal areas.</p> <p><b>Obj.5 (SDG 8, 9, 12):</b> Transition towards a green and blue economy. <b>SD:</b> Create green and decent jobs for all; Review the definitions and measurement of development, progress and well-being; Promote sustainable consumption and production patterns; Encourage environmentally-friendly and social innovation; Promote the integration of sustainability principles and criteria into decision-making on public and private investment; Ensure a greener and more inclusive market that integrates the true environmental and social cost of products and services to reduce social and environmental externalities. <b>Target:</b> By 2025, the majority of Mediterranean Countries are committed to green or sustainable public procurement programmes.</p>
			27. AP for the conservation of habitats and species associated with seamounts, underwater caves and canyons, aphotic hard beds and chemo-synthetic phenomena in the Mediterranean Sea.	

Interactions related to *state of* and *impacts on* coastal and marine areas

Identified interactions		Relevant provisions of the ICZM Protocol	Relevant legal and policy instruments	Related provisions and guidelines
Coastal zone Landward	Coastal landscapes	Art. 11 Articles 5 and 6 Art. 8, co. 1 Art 23 Articles 17 and 18; 14, 19 and 29, 27 and 28	15. RP on Marine Litter	Article 10 – (c) international <b>coastal clean-up campaigns</b> ; (d) “ <b>Adopt a beach</b> ” and similar practices to enhance awareness. Article 11 – (1) assess state of marine litter and the <b>impacts of marine litter</b> on the coastal and marine environment.
			1. SPA/BD Protocol	All the necessary measures shall be taken to <b>protect, preserve and manage in a sustainable and environmentally sound way threatened or endangered species of flora and fauna, and areas of particular natural or cultural value</b> (Art. 3). In the planning process that could significantly affect protected areas, species and their habitats, evaluate and take into consideration the possible direct or indirect, immediate or long-term, impact, including the cumulative impact of the projects and activities being contemplated through the <b>environmental impact assessment</b> (Art. 17). All the necessary <b>protection measures</b> shall be taken (Articles 6, 7, 11, 12 and 13, 15 and 16, 18) including continuous monitoring of ecological processes, population dynamics, landscapes, as well as the impacts of human activities (Article 7b).
			7. MSSD 2016-2025	<p><b>Obj.1 (SDG 14):</b> Ensuring sustainable development in marine and coastal areas</p> <p><b>Obj.4 (SDG 13):</b> Addressing climate change as a priority issue for the Mediterranean. <b>SD:</b> Increase scientific knowledge, raise awareness, develop technical capacities to deal with climate change and ensure informed decision-making at all levels, recognising and protecting the climate adaptation and mitigation services of natural ecosystems; Accelerate the uptake of climate smart and climate resilient responses; Leverage existing and emerging climate finance mechanisms, including international and domestic instruments, and enhance the engagement of the private and finance sectors; Encourage institutional,</p>

Identified interactions	Relevant provisions of the ICZM Protocol	Relevant legal and policy instruments	Related provisions and guidelines		
			policy and legal reforms for the effective mainstreaming of climate change responses into national and local development frameworks, particularly in the energy sector.		
	Coastal forests and woods	Art. 10, co. 3	SPA/BD Protocol	All the necessary measures shall be taken to <b>protect, preserve and manage in a sustainable and environmentally sound way threatened or endangered species of flora and fauna, and areas of particular natural or cultural value</b> (Art. 3). In the planning process that could significantly affect protected areas, species and their habitats, evaluate and take into consideration the possible direct or indirect, immediate or long-term, impact, including the cumulative impact of the projects and activities being contemplated through the <b>environmental impact assessment</b> (Art. 17). All the necessary <b>protection measures</b> shall be taken (Articles 6, 7, 11, 12 and 13, 15 and 16, 18) including continuous monitoring of ecological processes, population dynamics, landscapes, as well as the impacts of human activities (Article 7b).	
Land-Sea Interface	Wetland and estuaries	Art. 10, co. 1 Articles 5 and 6 Art. 8 Articles 17 and 18; 14, 19, 27	8. SAP-MED	In Chapter 5, the SAP-MED identified targets and priorities for the prevention, reduction and elimination of pollution. Chapter 5.3 focuses on physical alteration and destruction of habitats, with the aim of safeguarding ecosystem functions, habitats and species. <b>ICZM programmes are among proposed activities.</b>	
			12. SCP AP	Introduction – SCP AP addresses <b>key human activities</b> (food, fisheries and agriculture; goods manufacturing; tourism; housing and construction) which have impact on the marine and coastal environment; these are main upstream drivers of pollution generation and pressures on ecosystems.	
			28. RP on the reduction of inputs of Mercury; RP on the reduction of BOD5 in the food sector; on the phasing out of Hexabromodiphenyl ether, Hetabromodiphenyl ether, Tetrabromodiphenyl ether, and Pentabromodiphenyl ether; RP on the on the phasing out of lindane and endosulfane; RP on the phasing out of perfluorooctane sulfonic acid, its salts, and perfluorooctane sulfonyl fluoride; RP on the elimination of Alpha hexachlorocyclohexane, Beta hexachlorocyclohexane, Chlordecone, Hexabromobiphenyl, and Pentachlorobenzene. 29. RP on the Phasing Out of DDT; RP on the reduction of BOD5 from urban waste water; RP on the elimination of Aldrin, Chlordane, Dieldrin, Endrin, Heptachlor, Mirex, and Toxaphene.		
			5. Hazardous wastes Protocol 3. Prevention and Emergency Protocol	The 2017 Mediterranean Quality Status Report indicate heavy metal in coastal sediment (riverine inputs and coastal diffuse runoff; urban and industrial areas; shipping and port development), with chronic sources (illicit discharges) from ships (though source from accidents is decreasing). <b>Monitoring must be developed in heavy populated areas like estuaries and wetlands.</b>	
			1. SPA/BD Protocol	All the necessary measures shall be taken to <b>protect, preserve and manage in a sustainable and environmentally sound way threatened or endangered species of flora and fauna, and areas of particular natural or cultural value</b> (Art. 3). In the planning process that could significantly affect protected areas, species and their habitats, evaluate and take into consideration the possible direct or indirect, immediate or long-term, impact, including the cumulative impact of the projects and activities being contemplated through the <b>environmental impact assessment</b> (Art. 17). All the necessary <b>protection measures</b> shall be taken (Articles 6, 7, 11, 12 and 13, 15 and 16, 18).	
			7. MSSD 2016-2025	<b>Obj.1 (SDG 14):</b> Ensuring sustainable development in marine and coastal areas. <b>Obj.4 (SDG 13):</b> Addressing climate change as a priority issue for the Mediterranean. <b>SD:</b> Increase scientific knowledge, raise awareness, develop technical capacities to deal with climate change and ensure informed decision-making at all levels, recognising and protecting the climate adaptation and mitigation services of natural ecosystems; Accelerate the uptake of climate smart and climate resilient responses; Leverage existing and emerging climate finance mechanisms, including international and domestic instruments, and enhance the engagement of the private and finance sectors; Encourage institutional, policy and legal reforms for the effective mainstreaming of climate change responses into national and local development frameworks, particularly in the energy sector.	
			11. RFCCA	Introduction – the main objective of the RCCAF is to set a strategic approach to increase the resilience of the <b>Mediterranean marine and coastal natural and socio-economic systems</b> to climate change. Strategic Direction 1.5 (Integrating climate adaptation into local plans for the protection and management of areas of special interest) – including nature reserve, biodiversity and other <b>natural hot-spots</b> Strategic Direction 4.1 (Understanding vulnerability) – Priorities include: mapping and resilience role of <b>coastal ecosystems, sea level rise and saltwater intrusion</b> affecting groundwater and wetlands.	
	Dunes	Art. 10, co. 4 Articles 5 and 6	1. SPA/BD Protocol	All the necessary measures shall be taken to <b>protect, preserve and manage in a sustainable and environmentally sound way threatened or endangered species of flora and fauna, and areas of particular natural or cultural value</b> (Art. 3). In the planning process that could significantly affect protected areas, species and their habitats, evaluate and take into consideration the possible direct or indirect, immediate or long-term, impact, including the cumulative impact of the projects and activities being contemplated through the <b>environmental impact assessment</b> (Art. 17). All the necessary <b>protection measures</b> shall be taken (Articles 6, 7, 11, 12 and 13, 15 and 16, 18) including continuous monitoring of ecological processes, population dynamics, landscapes, as well as the impacts of human activities (Article 7b).	
			9. SAP BIO	SAP BIO is the <b>background document of CRF</b> and EcAp, which provides principles, measures and concrete and coordinated priority actions, relevant targets, objectives, and specific actions at national, transboundary and regional level for the <b>conservation of the Mediterranean marine and coastal biodiversity</b> , within the framework of sustainable use and through the implementation of the SPA/BD Protocol. <b>Objectives:</b> improving knowledge; management of Marine and Coastal PAs; protection of endangered species and habitats; reinforcement of legislation and capacity building; fund-raising efforts. Among others, endorses concrete and practical actions aiming at reducing the causes, modification of conditions (stress reduction), prevention or mitigation of impacts, that are adverse for <b>biodiversity conservation</b> ; implementing comprehensive joint actions of relevant MAP centres and programmes concerning wider aspects of <b>biodiversity conservation</b> ; promoting and implementing participatory actions,	

Identified interactions	Relevant provisions of the ICZM Protocol	Relevant legal and policy instruments	Related provisions and guidelines	
	Coastal erosion	Art. 23 Articles 5 and 6 Art. 8 Articles 17 and 18; 14, 19 and 27	7. MSSD 2016-2025	programmes and campaigns; information and raising of public awareness concerning <b>biodiversity conservation</b> . <b>Obj.1 (SDG 14):</b> Ensuring sustainable development in marine and coastal areas. <b>Obj.4 (SDG 13):</b> Addressing climate change as a priority issue for the Mediterranean. <b>SD:</b> Increase scientific knowledge, raise awareness, develop technical capacities to deal with climate change and ensure informed decision-making at all levels, recognising and protecting the climate adaptation and mitigation services of natural ecosystems; Accelerate the uptake of climate smart and climate resilient responses; Leverage existing and emerging climate finance mechanisms, including international and domestic instruments, and enhance the engagement of the private and finance sectors; Encourage institutional, policy and legal reforms for the effective mainstreaming of climate change responses into national and local development frameworks, particularly in the energy sector.
			11. RFCCA	Strategic Direction 1.2 (Promoting adequate institutional and policy frameworks) – Priorities include: integrated approach for the reduction of <b>non-climate related threats</b> that undermine the capacities of communities and ecosystems to adapt to climate change, including <b>sand mining and damming</b> . Strategic Direction 4.1 (Understanding vulnerability) – Priorities include: patterns affecting <b>shoreline dynamics</b> .
Coastal zone Seaward	Marine habitats and species	Art 10, co. 2 Art 16, co. 1 (inventories) Articles 5 and 6 Art. 8 Articles 17 and 18; 14, 19 and 29, 27 and 28	2. LBS Protocol	Potential <b>impacts on marine ecosystems, habitats and species</b> (Annex II) shall be taken in consideration when applying the Protocol and in particular when authorizing point source discharge (Article 6).
			8. SAP-MED	In Chapter 5, the SAP-MED identified targets and priorities for the prevention, reduction and elimination of pollution, considering these factors: (i) <b>degradation of the marine environment</b> , (ii) <b>perturbation of the biological diversity</b> , (iii) land-based origin, (iv) transboundary nature (Chapter 4). Chapter 5.3 focuses on physical alteration and destruction of habitats, with the aim of safeguarding the ecosystem functions, habitats and species. <b>ICZM programmes are among proposed activities</b> .
			12. SCP AP	Introduction – SCP AP addresses <b>key human activities</b> (food, fisheries and agriculture; goods manufacturing; tourism; housing and construction) which have impact on the marine and coastal environment; these are main upstream drivers of pollution generation and pressures on ecosystems.
			15. RP on Marine Litter	Article 4 – Objective (a): prevent and reduce <b>marine litter pollution</b> in the Mediterranean and its impact on ecosystem services, habitats and species. Article 10 – (a) identify <b>hot spots of marine litter</b> and implement programmes for their removal; (b) national <b>marine litter clean-up campaigns</b> . Article 11 – (1) assess state of marine litter and the <b>impacts of marine litter</b> on the coastal and marine environment.
				28. RP on the reduction of inputs of Mercury; RP on the reduction of BOD5 in the food sector; on the phasing out of Hexabromodiphenyl ether, Hetabromodiphenyl ether, Tetrabromodiphenyl ether, and Pentabromodiphenyl ether; RP on the on the phasing out of lindane and endosulfane; RP on the phasing out of perfluorooctane sulfonic acid, its salts, and perfluorooctane sulfonyl fluoride; RP on the elimination of Alpha hexachlorocyclohexane, Beta hexachlorocyclohexane, Chlordecone, Hexabromobiphenyl, and Pentachlorobenzene. 29. RP on the Phasing Out of DDT; RP on the reduction of BOD5 from urban waste water; RP on the elimination of Aldrin, Chlordane, Dieldrin, Endrin, Heptachlor, Mirex, and Toxaphene.
			6. Dumping Protocol	Dumping of wastes and other materials is prohibited (Article 4). Dumping (Article 3) is defined as any “ <b>deliberate disposal at sea</b> of wastes or other matter from ships and aircraft” as well as any “deliberate disposal or storage and burial of wastes or other matter on the <b>seabed</b> or in the marine <b>subsoil</b> ”. Protection of marine habitats is one goal of the Protocol.
			5. Hazardous wastes Protocol 3. Prevention and Emergency Protocol	<b>Chronic sources</b> (illicit discharges) from ships whilst source from accidents is decreasing (2017 Mediterranean Quality Status Report).
			10. Strategy on pollution from ships	Under section 4, there are 3 specific <b>objectives related to habitats and marine life</b> (Nb. 2, 12, 13) regarding <b>ships’ biofouling</b> in order to minimize the transfer of invasive aquatic species (2), the identification of <b>Particularly Sensitive Sea Areas –PSSA-</b> (12), and the reduction of <b>marine noise</b> caused by ships (13). This imply that the application of the 2011 Guidelines for control and management of ship’s biofouling and report to IMO accordingly (2), initiate the process of requesting IMO to enable the designation of PSSAs with support from REMPEC and RAC/SPA (12), and urge designers, shipbuilders, and operators to implement noise mitigation strategies on board their ships.
			14. Strategy on ballast water	Consistent with the requirements and standards of the BWM Convention, this strategy is focused on ship’s ballast water control and management in regard to the possible release of ‘ <b>invasive alien species</b> ’, meaning ‘ <b>harmful aquatic organisms and pathogens</b> ’ as defined in Article 1.8 of the 2004 International Convention for the Control and Management of Ships’ ballast Water and Sediments (BWM Convention). A first assessment of the strategy was made by REMPEC (REMPEC/WG.41/7, 10 May 2017).
			4. Offshore Protocol	Special measures shall be taken to prevent, abate, combat and control <b>pollution arising from activities concerning exploration and/or exploitation of the resources</b> , including special restrictions or conditions when granting authorisations, such as the <b>EIA</b> and the elaboration of <b>special provisions concerning monitoring, removal of installations and prohibition of any discharge</b> ; and intensified exchange of information among operators, the competent authorities, Parties and the Organisation regarding matters which may affect protected areas. (Art 21)
13. Mediterranean Offshore AP	Appendix III - Indicative Potential Research and Development Topics: EIA on noise generated by offshore activities; marine environment monitoring; response to marine pollution through EIA of multiple in situ burning operations on major oil spills from offshore platforms, EIA of extended use if dispersants on major oil spills from offshore platforms, oil spill monitoring and forecasting modelling, Mediterranean offshore oil spill risk assessment study and tool.			



Identified interactions	Relevant provisions of the ICZM Protocol	Relevant legal and policy instruments	Related provisions and guidelines
		1. SPA/BD Protocol	<p>Measures shall be taken to <b>protect, preserve and manage in a sustainable and environmentally sound way threatened or endangered species of flora and fauna, and areas of particular natural or cultural value</b> (Art. 3). To this end, some specific tools and process are needed: cooperation; identification and compilation of inventories of the components of biological diversity important for its conservation and sustainable use; adoption of strategies, plans and programmes including the conservation of biological diversity and the sustainable use of marine and coastal biological resources; monitoring the components of biological diversity, identifying processes and categories of activities which have or are likely to have a significant adverse impact on the conservation and sustainable use of biological diversity, and monitoring their effects. (Articles 3, 4 and 5).</p> <p>In the planning process that could significantly affect protected areas, species and their habitats, evaluate and take into consideration the possible direct or indirect, immediate or long-term, impact, including the cumulative impact of the projects and activities being contemplated through the <b>environmental impact assessment</b> (Art. 17).</p> <p><b>Protection measures</b> shall be taken, in particular prohibiting the dumping or discharge of wastes and other substances likely directly or indirectly to impair the integrity of the area; regulating the passage of ships and any stopping or anchoring; regulating the introduction of not indigenous species, genetically modified species, and species which are or have been present in the area; regulating or prohibiting any activity of exploration or modification of the soil or the exploitation of the subsoil of the land part, the seabed or its subsoil; regulating the scientific research activity; regulating or prohibiting fishing, hunting, taking of animals and harvesting of plants or their destruction, trade in animals, parts of animals, plants, parts of plants, which originate in the area; regulating and prohibiting any other activity or act likely to harm or disturb the species or that might endanger the state of conservation of the ecosystems or species or might impair the natural or cultural characteristics of the area; adopting any other measure aimed at safeguarding ecological and biological processes and the landscape; adopting planning, management, supervision and monitoring measures, inventories, guidelines and common criteria (Articles 6, 7, 11, 12 and 13, 15 and 16, 18).</p>
		9. SAP BIO	<p>SAP BIO is the <b>background document of CRF</b> and EcAp, which provides principles, measures and concrete and coordinated priority actions, relevant targets, objectives, and specific actions at national, transboundary and regional level for the <b>conservation of the Mediterranean marine and coastal biodiversity</b>, within the framework of sustainable use and through the implementation of the SPA/BD Protocol. <b>Objectives:</b> improving knowledge; management of Marine and Coastal PAs; protection of endangered species and habitats; reinforcement of legislation and capacity building; fund-raising efforts. Among others, endorses concrete and practical actions aiming at reducing the causes, modification of conditions (stress reduction), prevention or mitigation of impacts, that are adverse for <b>biodiversity conservation</b>; implementing comprehensive joint actions of relevant MAP centres and programmes concerning wider aspects of <b>biodiversity conservation</b>; promoting and implementing participatory actions, programmes and campaigns; information and raising of public awareness concerning <b>biodiversity conservation</b>.</p>
		16. MPAs Roadmap	<p>The Roadmap includes recommended actions fully in line with the EcAp process, with the following main objectives (O):</p> <p><b>O.1:</b> Strengthen networks of PAs at national and Mediterranean levels, including in the high seas and in 8 ABNJ, as a contribution to the relevant globally agreed goals and targets</p> <p><b>O.2:</b> Improve the Mediterranean MPA network through effective and equitable management</p> <p><b>O.3:</b> Promote the sharing of environmental and socio-economic benefits of Mediterranean MPAs and the MPAs integration into the broader context of sustainable use of the marine environment and the implementation of the ecosystem and MSP approaches</p> <p><b>O.4:</b> Ensure the stability of the Mediterranean MPA network by enhancing their financial sustainability</p>
		7. MSSD 2016-2025	<p><b>Obj.1 (SDG 14):</b> Ensuring sustainable development in marine and coastal areas. <b>SD:</b> Strengthen implementation of and compliance with the Barcelona System and relates; Establish and enforce regulatory mechanisms, including MSP, to prevent and control unsustainable open ocean resource exploitation. <b>Target:</b> By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on best available scientific information.</p> <p><b>Obj.2 (SDG 2, 15, 6):</b> Promoting resource management, food production and food security through sustainable forms of rural development. <b>SD:</b> promotion of networks of ecologically protected areas, enhancing stakeholder awareness on the value of ecosystem services and the implications of biodiversity loss. <b>Target:</b> Take urgent and significant action to reduce the degradation and fragmentation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species, and take further action as needed by 2030.</p> <p><b>Obj.4 (SDG 13):</b> Addressing climate change as a priority issue for the Mediterranean. <b>SD:</b> Increase scientific knowledge, raise awareness, develop technical capacities to deal with climate change and ensure informed decision-making at all levels, recognising and protecting the climate adaptation and mitigation services of natural ecosystems; Accelerate the uptake of climate smart and climate resilient responses; Leverage existing and emerging climate finance mechanisms, including international and domestic instruments, and enhance the engagement of the private and finance sectors; Encourage institutional, policy and legal reforms for the effective mainstreaming of climate change responses into national and local development frameworks, particularly in the energy sector.</p>
11. RFCCA	<p>Introduction – the main objective of the RCCAF is to set a strategic approach to increase the resilience of the <b>Mediterranean marine and coastal natural and socio-economic systems</b> to climate change.</p> <p>Strategic Direction 1.5 (Integrating climate adaptation into local plans for the protection and management of areas of special interest) – including nature reserve, biodiversity and other <b>natural hot-spots</b></p>		

Identified interactions		Relevant provisions of the ICZM Protocol	Relevant legal and policy instruments	Related provisions and guidelines
				Strategic Direction 4.1 (Understanding vulnerability) – Priorities include: <b>sensitivity and adaptive capacity of marine species</b> and ecosystems (including alien species introduction), mapping and resilience role of <b>marine ecosystems</b> , vulnerability of <b>MPAs</b> .
				19.AP for the management of the Monk Seal 20 AP for the conservation of marine turtles 21 AP for the conservation of cetaceans 22.AP for the conservation of marine vegetation 23.AP for the conservation of bird species registered in annex II of the SPA/BD Protocol 24.AP for the conservation of cartilaginous fishes ( <i>Chondrichthyans</i> ) in the Mediterranean Sea 25.AP concerning species introduction and invasive species 26.AP for the conservation of the coralligenous and other calcareous bio-concretions in the Mediterranean Sea 27.AP for the conservation of habitats and species associated with seamounts, underwater caves and canyons, aphotic hard beds and chemo-synthetic phenomena in the Mediterranean Sea
Other elements	Cultural heritage ( <i>from land to sea</i> )	Art 13, co. 1 and 2 (in situ conservation), co. 3 (underwater cultural heritage) Articles 5 and 6 Art. 8 Articles 17 and 18; 14, 19, 27	-----	Analysed key documents of Table 1 do not contain specific provisions or guidelines related to cultural heritage. Besides being addressed clearly by the ICZM Protocol, the issue is somehow considered in the Barcelona Convention that refers to: “Partnership in social, cultural and human affairs: developing human resources, promoting understanding between cultures and exchanges between civil societies”. Additional important references are: (i) the 2001 UNESCO Convention on the protection of the underwater cultural heritage, inviting States to cooperate at the regional level to foster in situ conservation and to prohibit the commercial exploitation of underwater cultural heritage; (ii) the 2003 UNESCO Convention for safeguarding intangible cultural heritage.
	Islands	Art. 12 Articles 5 and 6 Art. 8 Articles 17 and 18; 14, 19, 27	-----	As the Mediterranean includes 162 islands of over 10 km <sup>2</sup> and almost 4,000 smaller islets, the ICZM Protocol (art. 12) encourages special management and protection of these areas, taking into account their specific characteristics. This does not necessarily imply the development of strategies, plans and programmes particularly focused on these areas, but means that their specific nature must at least be taken into consideration in programme-based instruments. This also implies that all key documents of Table 1 and their provision/guidelines analysed in above lines of the present Table 5 might be relevant (based on site-specific characteristics) for these areas, in particular taking into consideration four key areas for islands: biodiversity, water resources, energy supply, and disaster prevention.



**Appendix 2**

**Table 6:** Template to frame coastal and maritime activities according to the DPSIR approach and links them to the Barcelona Convention measurements system (MAP/IMAP). Below template include agriculture as an example.

	LANDWARD – INLAND					COASTAL AREA					SEAWARD – LAGOONS – ISLANDS – OFFSHORE				
Economic Driver		Pressure	State	Impact (ES)	IMAP EOs CIs		Pressure	State	Impact (ES)	IMAP EOs CIs		Pressure	State	Impact (ES)	IMAP EOs CIs
	Activity type				Pressure, Impact and State-based indicators	Activity type				Pressure, Impact and State-based indicators	Activity type				Pressure, Impact and State-based indicators
1) Agriculture	Crops (any)	Hydrological alterations	River diversions	Habitats deterioration	COAST (EO8): cCI25	Crops (any)	Runoff/River (organochlorinated and other chemicals)	Coastal contamination/pollution Eutrophication	Habitats deterioration Seafood contamination	BIODIVERSITY (EO1): CI1-CI5 EUTROPHICATION (EO5): CI13-CI14 CONTAMINATION (EO9):CI17, CI18, CI20	Crops (effects seaward)	Runoff/River (organochlorinated and other chemicals)	Coastal and offshore contamination/pollution Eutrophication	Ecosystems deterioration Seafood contamination	BIODIVERSITY (EO1): CI1-CI5 EUTROPHICATION (EO5):CI13-CI14 CONTAMINATION (EO9):CI17, CI18, CI20
		Geomorphological changes	Land alteration	Loss of biodiversity Population (species) decreases	COAST (EO8): cCI25	Crops (any)	Runoff (river litter)	Costal litter occurrence (beach, surface and seabed)	Species threaten Natural resources affected Landscape visual impairment	BIODIVERSITY (EO1): CI1-CI5 MARINE LITTER (EO10):CI22, CI, cCI24	Crops (effects seaward)	Runoff (river litter)	Costal litter occurrence (surface, water column, seabed and deep-sea bed)	Long-lived species threaten Natural resources affected Marine ecosystems deterioration	BIODIVERSITY (EO1): CI1-CI5 MARINE LITTER (EO10):CI22, CI, cCI24
	Land crops	Land use	Land degradation	Soil degradation (contaminated, inert)	COAST (EO8): cCI25	Crops (any)	Seaward sediment flux alterations	Coastal erosion	Coastal surface decrease (beaches, dunes, etc.)	CI16	Crops (effects seaward)	Seaward sediment flux alterations	Subsidence, sediment dynamics	Loss of coastline	CI16
	Wetland crops	Wetlands use	Wetlands degradation	Flooding vulnerability Clean water provision	COAST (EO8): cCI25	Deltaic crops	Delta use	Delta degradation (contaminated, inert)	Exploited resources affected	CI16	Crops (harvesting)	Coastal micro- and macro algae harvesting	Habitat alterations	Natural resources affected	N/A

**Table 7:** Excel spreadsheet for the evaluation of the number of items potentially treating the coastal zone. Below template include agriculture as an example.<sup>2</sup>

ITEM SCORES		Yes (1)		NO (0)													
(choose YES/NO)																	
<b>Overall items (Ecosystem Services) affecting the ICZM (%)</b>														<b>98.3</b>			
LANDWARD - INLAND					ITEMS SCORE	COASTAL AREA					ITEMS SCORE	SEAWARD - LAGOONS - ISLANDS - OFFSHORE					ITEMS SCORE
Economic (Driver)	Pressure	State	Impact (Ecosystem)	% of total items	Activity type	Pressure	State	Impact (Ecosystem)	% of total items	Activity type	Pressure	State	Impact (Ecosystem)	% of total items			
	Activity type			100.0	Activity type				98.0	Activity type				97.5			
1) Agriculture	Crops (any)	Hydrological alterations	River diversions	Habitats deterioration	1	Crops (any)	Runoff/River (organochlorinated and other chemicals)	Coastal contamination/pollution Eutrophication	Habitats deterioration seafood contamination	0	Crops (effects seaward)	Runoff/River (organochlorinated and other chemicals)	Coastal and offshore contamination/pollution Eutrophication	Ecosystems deterioration Seafood contamination	0		
	Crops (any)	Geomorphological changes	Land alteration	Loss of biodiversity/Population (species) decreases	1	Crops (any)	Runoff (river litter)	Costal litter occurrence (beach, surface and seabed)	Species threaten Natural resources affected Landscape visual impairment	1	Crops (effects seaward)	Runoff (river litter)	Costal litter occurrence (surface, water column, seabed and deep-sea bed)	Long-lived species threaten Natural resources affected Marine ecosystems deterioration	1		
	Land crops	Land use	Land degradation	Soil degradation (contaminated, inert)	1	Crops (any)	Seaward sediment flux alterations	Coastal erosion	Coastal surface decrease (beaches, dunes, etc.)	1	Crops (effects seaward)	Seaward sediment flux alterations	Subsidence, unsustained costaline	Loss of coastline	1		
	Wetland crops	Wetlands use	Wetlands degradation	Flooding vulnerability / Clean water provision	1	Deltaic crops	Delta use	Delta degradation (contaminated, inert)	Exploited resources affected	1	Crops (harvesting)	Coastal micro- and macro algae harvesting	Habitat alterations	Natural resources affected	1		

<sup>2</sup> Table 7 and Table 8 represent just the initial parts of longer Excel spreadsheets, which include a complete analysis of the entire set of activities affecting the coast. The percentage scores included in both Tables refer to the entire analysis (i.e. the one contained in the Excel spreadsheets) and are not coherent with the limited information reported as example in such tables. The complete analysis is available in the information document "Coupling of management systems and measurement systems for an operational framework of the ICZM Protocol in the Mediterranean Sea".

**Table 8:** Excel spreadsheet for the evaluation of the magnitude of impacts. Below template include agriculture as an example.<sup>3</sup>

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<sup>3</sup> See previous footnote.