Decision IG.23/7

Implementation of the Integrated Coastal Zone Management Protocol: Annotated Structure of the Common Regional Framework for Integrated Coastal Zone Management and Conceptual Framework for Marine Spatial Planning

The Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean and its Protocols at their twentieth meeting,

Having regard to the Protocol on Integrated Coastal Zone Management in the Mediterranean, and in particular articles 1, 17 and 18 thereof, on the Mediterranean Strategy for Integrated Coastal Zone Management,

Recalling decision IG.22/11, adopted by the Contracting Parties at their nineteenth meeting (COP 19) (Athens, Greece, 9-12 February 2016), by which the Contracting Parties mandated to define a common regional framework for integrated coastal zone management, including climate change issues, as appropriate,

Committed to strengthening cooperation for the promotion of sustainable development and integrated management of coastal zones, by ensuring that activities on the marine and land parts of coastal zones are compatible and mutually supportive, thus respecting the ecosystem integrity and achieving or maintaining good environmental status,

Acknowledging the efforts made by the Contracting Parties to develop a common regional framework for integrated coastal zone management to facilitate the coordinated planning and management of the marine and land parts of coastal zones, as defined by the article 3 of the Protocol on Integrated Coastal Zone Management in the Mediterranean,

Bearing in mind that the purpose of the Common Regional Framework for Integrated Coastal Zone Management is to provide guidance to the Contracting Parties for the coordinated and enhanced implementation of the Integrated Coastal Zone Management in the Mediterranean without expanding the legal obligations under the Protocol on Integrated Coastal Zone Management in the Mediterranean, and as a tool for its implementation,

Having considered the reports of the meetings of the national focal points of the Priority Actions Programme Regional Activity Centre, held in May and June 2017,

1. *Urge* the Contracting Parties that have not yet done so to ratify the Protocol on Integrated Coastal Zone Management in the Mediterranean as early as possible with a view to ensuring its entry into force for the entire Mediterranean region;

2. *Decide* to establish an Open-ended Working Group of Experts with the mandate to finalize the Common Regional Framework for Integrated Coastal Zone Management, based on the Annotated Structure to integrate and complement it, if needed, in accordance with the timetable set out in Annex I to the present decision, for submission to the Contracting Parties at their twenty-first meeting;

3. *Take note* of the Conceptual Framework for Marine Spatial Planning contained in Annex II to the present decision, as a guiding document to facilitate the introduction of this management tool into the implementation of the Integrated Coastal Zone Management through the relevant regional framework and within the system of the Barcelona Convention and its Protocols;

4. *Urge* the Contracting Parties to continue their work in developing or updating their National Integrated Coastal Zone Management Strategies;

5. *Request* the Secretariat to further strengthen cooperation and synergies with other Regional Seas conventions, by exchanging experiences on examples of good coordination practices and achievements on Marine Spatial Planning and Integrated Coastal Zone Management.

Annex I

General Structure and Elements of the Common Regional Framework for ICZM and Timetable of its Preparation

Annex I:
General Structure and Elements of the Common Regional Framework for ICZM

Part I: Principles, legal frame, geographical scope and scale, links with other strategic Barcelona Convention instruments

Legal frame

The ICZM Protocol provides the CRF legal basis, in particular by the combined provision of **Art. 1** on General obligations, according to which the "Parties shall establish a common framework for the integrated management of the Mediterranean coastal zone and shall take the necessary measures to **strengthen regional cooperation** for this purpose", and Art. 17 on Mediterranean strategy for integrated coastal zone management, stating that the Contracting Parties (CPs) "shall define, with the assistance of the Centre, **a common regional framework** for integrated coastal zone management in the Mediterranean **to be implemented by means of appropriate regional action plans and other operational instruments, as well as their national strategies**". In a chronological and consequential order, the forecast of the national strategy is contained in the following **Art. 18**, which provides that "**each Party shall** further strengthen or formulate **a national strategy** for integrated coastal zone management and coastal implementation plans and programmes **consistent with the common regional framework**".

The CRF shall operate without prejudice to the ICZM Protocol, so that the provisions of the Protocol will prevail.

Geographical scope and scale

The combined Art. 4 of the Barcelona Convention (BC) and Artt. 3 and 28 of the ICZM Protocol identify the geographical scope and scale of the CRF, inviting the CPs, individually or jointly, to take for the Mediterranean Sea area – as defined in Art. 1 of the BC within the geographical coverage as defined by ICZM Protocol – all appropriate measures to prevent, abate, combat and to the fullest possible extent eliminate pollution of the Mediterranean Sea Area and to protect and enhance the marine environment and the natural resources in that Area so as to contribute towards its sustainable development and, in particular, to promote the integrated management of coastal zones, taking into account the protection of areas of ecological and landscape interest and the rational use of natural resources, coordinating, where appropriate, bilaterally or multilaterally their national coastal strategies, plans and programmes related to contiguous coastal zones.

Guidance for the CRF

The ICZM Protocol provides the basic principles and obligations to be implemented by CPs, which can and should guide also the definition of the CRF. The recommendations of this latter, when adopted, are expected to provide strategic orientations on how the ICZM Protocol is jointly implemented using coordinated and harmonized approaches and, where appropriate, indicating time limits for completion. Therefore, the CRF is aimed to provide in particular guidelines and/or recommendations including measures to strengthen regional cooperation for:

- Processes: to accelerate achievement of results agreed and outcomes/outputs set out;
- Indicators: essential tools for tracking progress, supporting policy evaluation and informing the public and decision makers;
- Methods and practices: to achieve Objectives and the General Principles of the ICZM Protocol.

Scope of the CRF (Recitals 3-6 and 8, Art. 1-3, 5-6, 17-18):

Within the geographical coverage between the external limit of the territorial sea of Parties and the limit of the competent coastal units as defined by the Parties, strengthen the cooperation among CPs for the coordinated implementation of the ICZM Protocol, requiring a specific integrated approach at the level of the Mediterranean Basin as a whole and within its coastal States, whose national ICZM strategies shall be consistent with the CRF using coordinated mechanisms.

Objectives and General Principles of the CRF

In order to promote ICZM through the CRF and achieve sustainable development of coastal zones by ensuring that the environment and landscapes are taken into account in harmony with economic, social and cultural development, the following objectives with related general principles are to be envisaged:

a) **Use the ecosystem-based management** to ensure **sustainable development and integrity of the coastal zone, its ecosystems and related services and landscapes,** by**:**

- taking into account in an integrated manner all coastal zone elements to respect carrying capacity, address cumulative impacts and prevent and/or reduce negative effects of natural disasters or risks and of development;
- taking into account **land-sea interactions** as a natural dynamic phenomenon, as a criterion for defining areas to be managed and as a parameter in planning processes and procedures;
- formulating appropriate **land/sea use strategies, plans and programmes**, for activities in the coastal zone, also through appropriate tools, in particular Marine Spatial Planning (MSP), Strategic Environmental Assessment (SEA) and Trans-boundary Environmental Impact Assessment (TEIA), to prevent and reduce negative impacts on coastal zone;
- promoting cooperation between and among CPs in Environmental Impact Assessment (EIA) procedures related to activities under their jurisdiction or control which are likely to have a significant adverse effect on the marine and coastal environment of other CPs or areas beyond the limits of national jurisdiction, on the basis of notification, exchange of information and consultation (Art. 4, para 3, lett. d) of the BC).

b) Address **natural hazards and the effects of natural disasters**, in particular **coastal erosion** and **climate change** by:

- preparing timely adaptation and management plans to prevent, reduce and minimize negative impacts to coastal zones.

c) Achieve **good governance** among actors involved in and/or related to coastal zones by:

- ensuring appropriate governance schemes, in particular cross-sectorial and multi-level institutional coordination and proper participation of all stakeholders in a transparent decision-making process;
- ensuring coherence of all strategies, policies, plans, initiatives, planning processes and funding at all levels affecting coastal zones: to this end, further strengthening cooperation among components of the BC system, ensuring synergies with other related strategic documents and promoting integration and harmony among coastal environment, relevant socio-economic activities and human communities living in the coastal zones;
- promoting appropriate coordination between the various authorities competent for both the marine and the land parts of coastal zones in the different administrative services, at all relevant levels;

- organising the acquisition, exchange and use of the best available relevant information and data based in particular on Shared Environmental Information System (SEIS) principles;
- promoting consistency and coherence of ICZM across marine regions and, as identified by CPs and as appropriate, sub-regions, ensuring trans-boundary cooperation where appropriate, in particular between the CPs sharing a marine region;
- ensuring complementarity and consistency of all UNEP/MAP policies and actions through a coordinated effort of all Components in order to achieve effective results and rational use of funding;
- ensuring cooperation with all relevant/competent international and regional Organizations.

Part II: Synergies between the ICZM Protocol and the BC system aiming to achieve and maintain a Good Environmental Status (GES) of coastal and marine areas

Framework

Part II of the CRF is meant to facilitate:

1. the development and harmonisation of policies and measures needed to ensure the sustainable use and management of coastal zones, ensuring that the economic activities related to coastal zones minimise the use of natural resources and are adapted to the fragile nature of coastal zones – in order to protect from pollution and to preserve the coastal natural habitats, landscapes, natural resources and ecosystems and cultural heritage, raise awareness, enhance education, training and research, in compliance and synergy with international and regional legal instruments (ICZM Protocol-Part II, Art. 8-15); and

2. the development of policies and the adoption of measures for the prevention of natural hazards, prevention and mitigation of the negative impacts of coastal erosion, and response to natural disasters, based on international cooperation and scientific data exchange (ICZM Protocol-Part IV, Artt. 22-24).

Reaching Good Environmental Status through ICZM

The objective of reaching a Good Environmental Status (GES) of the Mediterranean Sea and Coast has been adopted by UNEP/MAP Barcelona Convention, and CPs have committed to apply the Ecosystem Approach (EcAp) as an overarching principle. A considerable number of sectorial policies and related tools have been developed within the BC system addressing pollution, biodiversity, socio-economic aspects, marine litter, key economic sectors, etc. whose implementation contribute to the protection of the coastal zone.

Achieving Ecological Objectives (EOs) and GES requires an integrated approach in order to address combined pressures and cumulative impacts in coastal and marine areas. The ICZM Protocol provides for reaching GES, in particular with regard to the targets such as: (i) negative impacts due to new structure with no influence on the larger scale coastal system; (ii) physical disturbance to sandy coastal areas induced by human activities should be minimized; (iii) natural dynamic nature of coastlines is respected, and coastal areas are in good condition; (iv) integrity and diversity of coastal ecosystem, landscapes, and their geomorphology are preserved.

Therefore, this Part II should explain how to reach the added value of a CRF for ICZM as an integrative process that provides a framework in which sectoral policies affecting the coastal zones can be brought together and harmonised, thus preventing overlaps or contradictions or filling the gaps among them and contributing to the rationalization of effort, resources and time. It should provide for better coherence to maximize synergies and increase coordinated implementation of sectoral policies (see Annex I.2 as an initial indicative methodological model for defining the most relevant issues for which guidance is to be provided in priority) with a view to ensuring the integrity of ecosystems, as well as adequately addressing land-sea interactions (LSI) and ensuring the compatibility of land and sea uses by implementing MSP and clarifying its links with ICZM.

Three main interactions should be considered when dealing with LSI processes: land-sea natural processes; land and sea uses and activities at operational level; and planning processes at strategic level (see Annex I.3 as a preliminary indication).

LSI need to be addressed at a variety of spatial scales: (i) local scale to deal with specific issues and implement related actions, (ii) sub-national and national scales where strategies and plans can orientate specific LSI-related efforts, (iii) sub-regional where transnational cooperation may produce a common strategy for guiding national LSI efforts and address transboundary issues.

ICZM tools that will be elaborated in detail in the Part III are of particular importance for defining the management and planning areas and promoting consensus among all Parties involved in the use of coastal and marine resources. Given their complexity, additional efforts will be required to improve methodologies and tools addressing LSI including the ecosystem services assessment tools, as well as the capacity building and operationalization of the research outcomes and tools, sharing of good practices, etc. as key approaches capable to correlate ICZM and MSP.

Finally, the CRF may consider the development of additional coastal indicators to complement the existing, predominantly marine-oriented EcAp indicators.

Part III: Tools and instruments to implement the CRF

Framework

Part III of the CRF is meant to facilitate:

(ICZM Protocol-Part II, Art. 8-15)

1. the definition of indicators of the development of economic activities to ensure sustainable use of coastal zones and reduce pressures that exceed their carrying capacity;

2. the promotion of codes of good practice among public authorities, economic actors and non-governmental organisations;

3. the development of educational programmes, training and public education on ICZM in the Mediterranean regional frame;

4. the provision for interdisciplinary scientific research on ICZM and on the interaction between activities and their impacts on coastal zones in the Mediterranean regional frame; and

(ICZM Protocol-Part III, art. 16-21, and Part V, Artt.25-29)

1. the use, strengthening and creation of appropriate mechanisms for regularly monitoring and observation of the state of evolution of coastal zones, of the resources and activities, institutions, legislation and planning that may influence coastal zones, taking all necessary means to ensure public access to these information;

2. the exchange of scientific and technical information and experience, data and good practices, cooperating for the provision of scientific and technical assistance, as well as in the training of scientific, technical and administrative personnel and in the coordination of their research programmes on themes of common interest, within a Mediterranean coastal zone network (Artt. 16, 25, 26, 27); and therefore:

- the definition of coastal management indicators, taking into account existing ones, and the cooperation in the use of such indicators;
- the establishment and maintenance of up-to-date assessments of the use and management of coastal zones;
- the carrying out of activities of common interest, such as demonstration projects of ICZM;

3. the implementation of environmental assessments (SEA; TEIA), taking into consideration the cumulative impacts on the coastal zones and their carrying capacities, adopting by means of cooperation guidelines for the determination of procedures for notification, exchange of information and consultation at all stages of the process (Art. 4 para 3 lett d) of BC and Artt. 19 and 29 of the ICZMP Protocol).

Tools and instruments

Some tools and instruments are of major importance for implementing the ICZM Protocol, but also for implementing other important policies and strategies in the Mediterranean coastal zones: BC in general, including its other Protocols and strategies, and for EU Member States (MS) several important pieces of legislation related to coastal zones e.g. Marine Strategy Framework Directive (MSFD), Water Framework Directive (WFD), MSP.

Among these instruments, the following ones are of particular importance and their relevance, use and particular features will be addressed in the CRF:

a) Monitoring of activities and environment (Art. 16)

There is a need to monitor in a consistent way the environment of the coastal zone *and* the human activities (terrestrial or marine, coastal or not) that are likely to have an impact on it (individually or cumulatively):

- monitoring of *environment* should include the Integrated Monitoring and Assessment Programme (IMAP) but also, as appropriate, binding monitoring based on EIA and SEA;
- monitoring of *activities* (land and maritime coastal activities) is needed, monitoring information should be accessible to all coastal stakeholders.

b) Environmental Assessment (Art. 19)

Environmental assessment (at strategic level: SEA for policies, plans and programmes; and at operational level: EIA for individual projects and activities) must support the achievement of GES:

- guidance is needed for developing the following issues to apply SEA and EIA for the purposes of ICZM with particular attention to transboundary implications:
    - Carrying capacity and cumulative impacts;
    - EcAp-based EOs and related targets;
    - LSI aspects;
    - Coastal erosion;
    - Climate change effects;
    - Life cycle analysis.

c) Coordination of planning processes and governance mechanisms (Artt.6 d-e, 7, 14, 20, 28 & 29)

To achieve the objectives of ICZM and facilitate integration through rational planning, there is a need for cross-sectorally organized institutional coordination of the various administrative authorities competent in coastal zones, covering both the marine and the land parts. There is also a need to put in place appropriate governance schemes allowing adequate and timely participation in transparent decision-making of local populations and stakeholders concerned. To this aim,

- exchange of effective good practices including on:
    - administrative schemes and processes, legal forms of promotion/setting out of such processes, participation and networking procedures, as appropriate;
    - connection of appropriate land policy to the process of planning;
    - coordination, where appropriate, of national coastal strategies, plans and programmes related to contiguous coastal zones; and
    - provide guidance for notification, exchange of information and consultation in cases of transboundary environmental assessment.

d) Marine Spatial Planning

There is a need to better address planning and management issues in the marine part of coastal zone: MSP should support implementation of ICZM in this area, in line with general framework of the BC and its Protocols:

- guidance needed for using MSP to support ICZM implementation, [based on the Conceptual Framework for MSP].

e) Land policy (Art. 20)

For the purpose of promoting ICZM land policy instruments and measures, including the process of planning, shall be adopted by the CPs. Exchange of experiences and good practices on land policy instruments and measures (acquisition, cession, donation, transfer of land to the public domain and easement of properties) should be encouraged at this end. Consideration of LSI and consistency with MSP need to be ensured.

f) Economic, financial and fiscal instruments (Art. 21)

Among the major issues: sustainable funding of ICZM (strategies, policies, plans and programmes), environmental fiscal instruments in coastal zones (application to land and maritime activities of e.g. polluter/payer principle and internalization of costs):

- exchange experiences and good practices on financial and fiscal instruments in support of ICZM, including voluntary funding from public and private sector;
- guidance needed for consideration of ecosystem services including through cost-efficiency analysis and payment for ecosystem services.

International cooperation

The success of ICZM largely relies on the cooperation among CPs supported by international organisations, institutions and fora. Many instruments and tools are already provided or foreseen within the BC system, for which guidance should be provided in particular to enhance synergies among them for the purpose of implementing the ICZM Protocol and the CRF:

a) In the field of monitoring and observation (Art. 16)

- IMAP with GES set as the ultimate environmental goal to be reached by managing anthropogenic pressures on coastal and marine environment in an attempt to ensure sustainability;
- Standardised and harmonised national coastal inventories, as well as reporting on state and evolution of coastal zones;
- Reporting processes on the implementation of the BC and its Protocols;
- Mediterranean coastal zone network including an ICZM Platform as a hub for ICZM-labelled initiatives, CAMP and other projects, information, documentation, as well as a networking device for decision- and policy-makers, practitioners and other ICZM-prone actors at all levels.

b) In the field of ICZM/coastal strategies preparation and implementation (Art. 28)

- Mediterranean Strategy for Sustainable Development (MSSD), which relies on the BC system for its Objective 1 on Ensuring sustainable development in marine and coastal areas and its Strategic Direction 1.1. Strengthen implementation of and compliance with the Protocols of the BC and other regional policy instruments and initiatives supplemented by national approaches;
- Regional strategies, plans and programmes for contiguous coastal zones, which will use SEA and EIA in transboundary context as one of the main tools (Art. 28).

c) In the field of training and research, technical and scientific cooperation (Artt. 25-27)

- MedOpen virtual training course as an excellent way of teaching on ICZM principles, objectives and ways of implementation;
- Info/MAP platform for stocking and exchange of interoperable data and information;
- Cooperation within research projects tailored for the need of multi-sectoral coastal zone management, focused on science-policy interface.

The establishment of a multi-level governance mechanism is fundamental for achieving these complex and ambitious goals as it sets the scene for efficient management and cooperation. Success will depend on mutual feeding between international- and national-level cooperation frames as well as forging partnerships and linking local-scale initiatives to higher-level policies. Achieving a balance between strategic and local concerns is perhaps one of the most difficult issues that we face in coastal zone management.

Part IV: CRF implementation and evaluation (processes and projects) at regional, bilateral/multilateral and national scale

Rationale

The Part IV is meant to provide specific support on which tools and processes are necessary to implement the guidance established by Parts I, II and III of the CRF to strengthen regional cooperation for the integrated management of the Mediterranean Coastal Zones, implementing the ICZM Protocol by means of appropriate Regional Action Plans, other operational instruments and national strategies (Art. 1 and 17).

It is to be noted that the present Part IV will be developed and finalized once the main elements and instruments of the Parts I, II and III of the CRF are defined. At this stage, it seems useful to list the elements that are to be kept in mind:

Tools and processes for CRF implementation and evaluation

1. Means of implementation

CPs, with the assistance of the Organization, should support the international and Mediterranean legal framework for the protection and management of the coastal-marine environment by acceding to, implementing, coordinating and enforcing the instruments that are already in force, as well as adapting them as necessary; further integrated actions are required even if some measures have been already adopted also at regional level.

1.a Strategic level

In the context of national and regional strategies take into account major commitments within the BC system, like:

- Regional or sub-regional Action Plans, such as the Regional Plan on Marine Litter Management in the Mediterranean; Regional Plans for priority contaminants;
- Strategies, such as the MSSD[1], the Strategy on ship's Ballast Water Management (BWM); the Regional Strategy for prevention of and response to marine pollution from ships;
- Strategic Action Programmes (SAPs), such as the Strategic Action Programme for the Conservation of Biological Diversity in the Mediterranean SAP/BIO; the Strategic Action Programme to Address Pollution from Land-Based Activities in the Mediterranean Region SAP/MED.

[1]Decision IG.22/2, the revised "Mediterranean Strategy for Sustainable Development (2016-2025)".

1.b Operational/coordination level

Other operational instruments, taking into account the specific nature and function of the different categories of tools:

- **Other Regional Frameworks**, such as the Regional Climate Change Adaptation Framework for the Mediterranean Marine and Coastal Areas (RFCCA[2]);
- **Thematic Action Plans (APs)**, such as the Offshore AP; the Invasive Alien Species (IAS) AP, the AP on introductions of Species and Invasive Species and related guidelines; the Sustainable Consumption and Production (SCP) AP; the SAP/BIO-related Action Plans adopted at regional level in order to ensure better protection of specific species and habitats, including the Mediterranean Monk Seal, Mediterranean Marine Turtle, Cetaceans, Marine vegetation, Bird species listed in Annex II of the SPA/BD Protocol, Cartilaginous fish, Coralligenous and other calcareous bio-concentrations, Dark habitats; the Action Plan for Marine Vegetation;
- Regional Plans (RPs) adopted in line with the provisions under the SAP MED and in the framework of the Article 15 of the LBS Protocol aiming at pollution prevention and reduction:
    - (2012) RP on the reduction of inputs of Mercury; RP on the reduction of BOD5 in the food sector; RP on the phasing out of Hexabromodiphenyl ether, Hetabromodiphenyl ether, Tetrabromodiphenyl ether, and Pentabromodiphenil ether; RP on the phasing out of lindane and endosulfane; RP on the phasing out of perfluorooctane solfonic acid, its salts, and perfluorooctane sulfonyl fluoride; RP on the elimination of Alpha hexachlorocyclohexane, Betahexachlorocyclohexane, Chlordecone, Hexabromobiphenyl, and Pentachlorobenzene;
    - (2009) 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.
- **Roadmaps**, such as the MPAs Roadmap[3], the EcAp Implementation Roadmap[4];
- **Bilateral or multilateral agreements**. As set forth in Art. 3, para 2 BC, the CPs may enter into bilateral or multilateral agreements, including regional or sub-regional agreements, provided that such agreements are consistent with the BC and the Protocols and conform to international law. Copies of such agreements shall be communicated to the Coordinating Unit (e.g. the Memorandum of Understanding (MoU) on Port State Control (PSC) in the Mediterranean region (Mediterranean MoU)).

1.c National level

- ICZM National Strategies based on the Guidelines for National ICZM Strategy[5], to consider and enhance their consistency with the CRF;
- National Action Plans (NAPs) to be developed in line with the provisions of the relevant Protocols, strategic APs and Regional APs.

[2] Decision IG.22/6 “Regional Climate Change Adaptation Framework for the Mediterranean Marine and Coastal Areas”.
[3] Decision IG.22/13 “Roadmap for a Comprehensive Coherent Network of Well-Managed Marine Protected Areas (MPAs) to Achieve Aichi Target 11 in the Mediterranean”.
[4] Decision IG.20/4 “The ecosystem approach Roadmap”.
[5] UNEP/MAP: Guidelines for the preparation of National ICZM Strategies required by the Integrated Coastal Zone Management (ICZM) Protocol for the Mediterranean. Split, Priority Actions Programme. 2015.http://pap-thecoastcentre.org/pdfs/National%20ICZM%20Guidelines.pdf and http://pap-thecoastcentre.org/pdfs/National%20ICZM%20Guidelines%20FR.pdf

2. Coordination among means of implementation

- Description of the relations among the means of implementation.
  Categorize the existing means of implementation:
  - Existing means of implementation adopted and implemented (part of International, BC system and national legislation and/or followed up by specific measures);
  - Existing means of implementation adopted but not yet implemented (not part of national legislation and/or not followed up by specific measures).
- Harmonised timeline among the means of implementation.

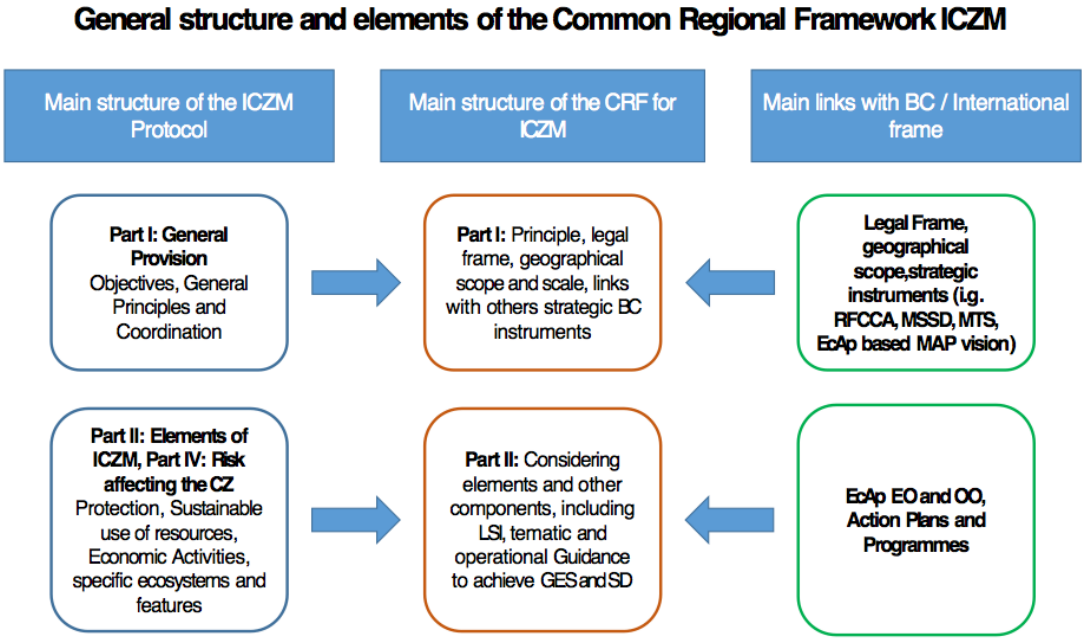
3. Projects and best practices

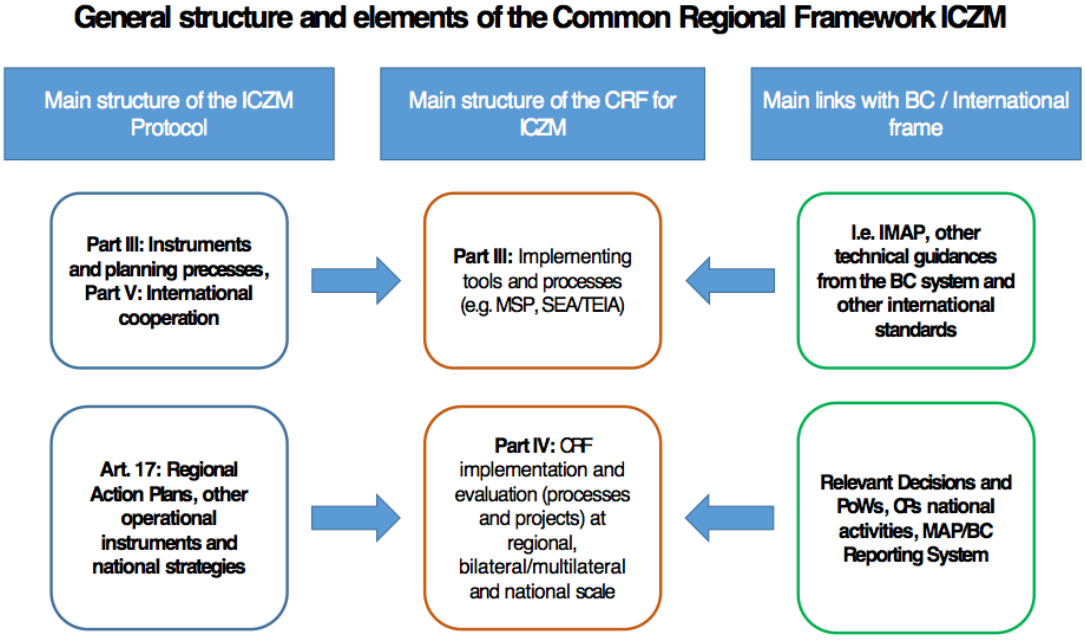
- CAMP and CAMP-alike projects;
- Network of CAMPs and CAMP-alike projects;
- Projects and best practices on relevant ICZM themes/aspects.

4. Evaluation and assessment of the implementation of the CRF

- Progress indicators: identification of indicators and/or assessment tools;
- Harmonised assessment of the implementation of the ICZM Protocol and the BC system (through IMAP)/international frame.

Annex I.1: General structure and elements of the CRF for ICZM





Annex I.2: Matrix of interactions between ICZM Protocol provisions of parts II and IV, Ecological Objectives and Main Regional Programmes and Plans

Provisions of ICZM Protocol / Ecological Objective (GES/EcAp) & Main Programmes and Action Plans	EO1: Biodiversity is maintained or enhanced	EO2: Non-indigenous species do not adversely alter the ecosystem	EO3: Populations of commercially exploited fish and shellfish are within biologically safe limits	EO4:Alterations to components of marine food webs do not have long-term adverse effects	EO5: Human-induced eutrophication is prevented	EO6:Sea-floor integrity is maintained	EO7: Alteration of hydrographic conditions does notadversely affect coastal and marine ecosystems	EO8: The natural dynamics of coastal areas are maintained and coastal ecosystems and landscapes are preserved	EO9: Contaminants cause no significant impact on coastal and marine ecosystems and human health	EO10: Marine and coastal litter does not adversely affect coastal and marine ecosystems	EO11:Noise from human activities cause no significant on marine and coastal ecosystems	Ecosystem Approach Roadmap	Strategic Action Programme for the conservation of Biodiversity (SAP BIO) & SPAMI	Sustainable Consumption and Production Action Plan	Address land-based pollution (SAP BIO and Regional Plans)	Marine Litter Regional Plan	Offshore Action Plan	Regional Climate Change Adaptation Framework	Action Plans on Species and Roadmap on MPA s
Part II																			
Non construction zone																			
Economic activities																			
Agriculture																			
Industry																			
Fish																			
Aquaculture																			
Tourism, sporting, recreational activities																			
Utilization of specific natural resources																			
Infrastructures, energy facilities, ports																			
Maritime activities																			
Specific coastal ecosystems																			
Wetlands and estuaries																			
Marine habitats																			
Dunes																			
Coastal landscapes																			
Islands																			
Cultural heritage																			
Part IV																			
Risks affecting the coastal zone																			
Natural hazards																			
Coastal erosion																			
Response to natural disasters																			
Risks from marine pollution and marine noise																			
Climate change																			

High relevance (level of interactions), need specific guidance

Medium relevance, require sub-regional, national considerations (depend on the cases)

Low relevance, no need for specific guidance

Annex I.3: Matrix Land-Sea Interaction (From CAMP Italy, with small modifications, to be tested and further developed within SIMWESTMED and SUPREME projects)

	SEA-LAND INTERACTION **~~Sea Land~~**	**LAND-SEA INTERACTION** **~~LandSea~~**
SPECIFIC HUMAN ACTIVITIES	• **Aquaculture in seawater** • **Fishing** • **Mining activities from seabed** (including sand and marine aggregates mining) • **Industry** (systems, including off-shore desalination, CO_2 capture and storage) • **Energy industry** (offshore (oil and gas) energy, offshore renewable energy (wind, waves, surge) • **Infrastructures** (ports, civil works of marine / coastal engineering [artificial reefs, breakwaters, etc.] • **Submarine cables and pipelines** • **Maritime activities in general, including dredging and storage of materials** • **Maritime transport** (maritime traffic, commercial, including ferries) • **Tourism and cruise boat** • **Recreation and Sports** • **Biotechnology** • **Marine Protected Areas (MPAs) & Specially Protected Areas of Mediterranean Importance (SPAMIs), Ecologically or Biologically Significant Areas (EBSAs), Biological Protection Zones (BPZ)** (and in general *"area based management tools, including marine protected areas*") • **Defence and security** • **Underwater cultural heritage**	• **Coastal and lagoon Aquaculture** • **River and lagoon fishing** • **Natural resource use** (water abstraction, removal of aggregates (quarries)) • **Farming and livestock farming** • **Industry** (food, manufacturing, on-shore plant, including desalination plant, CO_2 capture and storage) • **Energy industry** (onshore energy (oil and gas), onshore renewable energy (wind, sun, geothermal) • **Infrastructures** (river ports, including dredging activities, engineering work, including dam, bridges, remediation activities, railways and roads) • **Port activity** • **Transports** (river transport, road and rail transportation) • **Tourism, Sports and Recreation activities** (i.e. bathing stations, touristic facilities) • **Biotechnology** • **Natural Protected Areas** (Nature reserves, National Parks, Regional Parks, etc., on-shore or with off-shore boundaries) • **Defence and security**
GENERAL HUMAN ACTIVITIES	• **Waste (*marine litter*)**	• **Urban plants** (including pollution of water bodies that collect waste water) • **Waste** • **Services network** (i.e. sewage systems)
NATURAL	• **Extreme events** (storms, heavy tides, tsunami) • **Sea Level Rise** (global and local) • **Risks to coastal areas** (coastal erosion, marine flooding and saline intrusion) • **Algae bloom** • **Volcanic and tectonic activities** • **Sea water acidification** • **Sea temperature rise**	• **Soil erosion** (leaching, wind action) • **Natural subsidence** • **Hydrogeological instability** (including landslides) • **Transport od river sediments** • **Flooding** • **Volcanic and tectonic activities**

Annex I.4:
Timetable for the Working Group (WG)

Mid-January 2018	Nomination of WG members and 1st meeting of the WG to decide on the modalities of work and distribution of tasks
End April 2018	1st draft of the CRF prepared by the WG
Mid-May 2018	2nd meeting of the WG to discuss and amend the 1st draft of the CRF
End June 2018	1st draft of the CRF ready for translation
End July 2018	English and French versions of the CRF 1st draft ready for dissemination to PAP/NFPs
End September 2018	Consultation Workshop with PAP/RAC NFPs
End January 2019	2nd draft of the CRF prepared by the WG reflecting the conclusions and recommendations of the Consultation Workshop
End February 2019	English and French versions of the CRF 2nd draft ready for dissemination to PAP/NFPs
Mid-April 2019	Discussion of the 2nd draft of the CRF at the PAP/RAC NFPs meeting
End May 2019	Preparation of the final version of the CRF reflecting the outcome of the PAP/RAC NFPs meeting
End June 2019	English and French versions of the final version of CRF ready for dissemination to MAP NFPs
September 2019	Discussion and approval of the CRF by the MAP NFPs meeting
November 2019	Submission of the CRF to COP21 for adoption

Annex II

Conceptual Framework for MSP in the Mediterranean

Annex II:
Conceptual Framework for MSP in the Mediterranean

Acronyms

BD	Biodiversity
CAMP	Coastal Area Management Programme
CF	Conceptual Framework for MSP
COP	Conference od Parties
CP(s)	Contracting Party (-ies)
EcAp	Ecosystem Approach
EIA	Environmental Impact Assessment
EU	European Union
EUSAIR	European Union Strategy for the Adriatic and Ionian Region
FAO	Food and Agriculture Organisation
GES	Good Environmental Status
ICZM	Integrated Coastal Zone Management
IMAP	Integrated Monitoring and Assessment Programme
IOC	Intergovernmental Oceanographic Commission
LSI	Land Sea Interactions
MAP	Mediterranean Action Plan
MSFD	Marine Strategy Framework Directive
MSP	Marine Spatial Planning or Maritime Spatial Planning
MTS	Mid-Term Strategy
PoW	Programme of Work
SEA	Strategic Environmental Assessment
SPA	Specially Protected Areas
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific, and Cultural Organisation

1. INTRODUCTION

As reported in the UNEP/MAP Mid-Term Strategy 2016-2021 (MTS), the Contracting Parties, at COP 18 recommended to strengthen MAP activities in the field of Marine Spatial Planning (MSP)[6] in order to contribute to GES, investigate in more details connections between land and sea areas and propose coherent and sustainable land and sea-use planning frameworks relating with key economic sectors and activities that may affect the coastal and marine resources. The elaboration of a Conceptual Framework (CF) for MSP as an emerging issue in the entire Mediterranean Region is envisaged by the UNEP/MAP PoW approved for 2016-2017, with the main aim of introducing MSP within the Barcelona Convention.

Although MSP is not expressly mentioned in the Protocol on ICZM in the Mediterranean, spatial planning of the coastal zone is considered an essential instrument of the implementation of the same Protocol. One of the main objective of ICZM is to "*facilitate, through the rational **planning of activities**, the sustainable development of coastal zones by ensuring that the environment and landscapes are taken into account in harmony with economic, social and cultural development*" (art. 5). Planning is recalled also in other articles of the Protocol, as in the case articles dealing with the protection of wetlands, estuaries and marine habitats (art. 10) or the protection of coastal landscape (art. 11).

According to art. 3 the area to which the Protocol applies (i.e. the coastal zones) is the area between:

- the seaward limit of the coastal zone, which shall be the external limit of the territorial sea of Parties; and
- the landward limit of the coastal zone, which shall be the limit of the competent coastal units as defined by the Parties.

The geographic scope of the Protocol includes both the land and the sea and it follows that planning should be equally applied to both components of the coastal zones. While MSP is a relatively new term within the Barcelona Convention frame, it is clear that planning of the marine space is a concept already taken on board by the Protocol. In this perspective MSP can be considered the main tool/process for the implementation of ICZM in the marine part of the coastal zone and specifically for its sustainable planning and management. Art. 3 of the ICZM Protocol also defines the geographic scope of the operational application of MSP that shall focus on the marine area following within the territorial sea of a country. Requirement to take land-sea interactions into account is specified in Art. 6.

Also, MSP is considered as one of the tools to implement the EcAp as a strategic approach towards sustainable development in the region that integrates all of its three components, i.e. environmental, social and economic. MSP should guarantee that they are in balance.

Given the definition of the coastal zones in the ICZM Protocol, almost all other Protocols of the Barcelona Convention are related in one or the other way to it. ICZM can and should provide support to the implementation of several of these Protocols, and the relevant objectives and provisions of these Protocols should be taken into account in all ICZM projects, plans and strategies. Given these links, the application of MSP within the framework and the geographic scope of the ICZM Protocol can contribute to the goals defined by other protocols, as in the case of identification, planning and

[6] In this document, Marine Spatial Planning and Maritime Spatial Planning are used interchangeably. In fact, there is no different meaning of the two concepts. Marine Spatial Planning is used all around the world, while Maritime Spatial Planning is the term mainly used within the EU and for the relevant Directive, in particular. Both concepts deal with the sustainable management of marine ecosystems and maritime human activities and related socio-economic benefits.

management of protected areas according to the SPA/BD Protocol or the protection of the Mediterranean Sea against pollution resulting from exploration and exploitation of the continental shelf and the seabed and its subsoil (so called Offshore Protocol).

2. OBJECTIVES OF THE CONCEPTUAL FRAMEWORK

The Conceptual Framework on MSP has two main objectives:

- To introduce MSP in the framework of the Barcelona Convention, and in particular link it to ICZM, considering MSP as the main tool/process for the implementation of ICZM in the marine part of the coastal zone and specifically for planning and managing maritime human activities according to EcAp goals (as specifically addressed by section 3 of the CF).
- To provide a common context to CPs for the implementation of MSP in the Mediterranean Region.

The CF is intended to be a short and easy-to-use document, a sort of guiding reference for the implementation of MSP, based on common principles, contents and steps. Several customized step-by-step methodologies have been developed (e.g. by PlanCoast, SHAPE, ADRIPLAN, THAL-CHOR projects), used together with technical tools in pilot cases to test them in Mediterranean conditions (e.g. “Paving the road to MSP in the Mediterranean”) and are available for MSP implementation in the Mediterranean. Other on-going projects (e.g. SUPREME and SIMWESTMED) will provide further methodological input. Moreover, the UNESCO-IOC guidebook on MSP represents an overarching inspiring document and the European wide MSP Platform provides a rich catalogue of MSP practices. The challenge is to capitalize available experiences rather than develop new step-by-step methodologies.

Contents of the CF have been developed building also on experience from the above-mentioned projects. They can be used as a checklist to verify that needed elements of the MSP process are taken in consideration, referring to above mentioned and other methodologies for specific details. However, in no case such guidelines shall be considered prescriptive, as each MSP process needs to be tailored according to specific characteristics of its geographic scope, objectives and expected results.

3. ECAP AS A GUIDING PRINCIPLE FOR MSP

The Ecosystem Approach (EcAp) is the guiding principle to MAP Mid-term Strategy and the biennium Programme of Work and all policy implementation and development undertaken under the auspices of UNEP/MAP Barcelona Convention, with the ultimate objective of achieving the Good Environmental Status (GES) of the Mediterranean Sea and Coast. This also applies to the ICZM Protocol and the related planning of land and sea based marine activities, therefore including MSP implementation.

EcAp can be defined as the integrated management of land, water and living resources that provides sustainable delivery of ecosystem services in an equitable way. It goes beyond examining single issues, species, or ecosystem functions in isolation. Instead, it recognizes ecological systems for what they are: rich mixes of elements that interact with each other continuously. This is particularly important for coasts and seas, where the nature of water keeps systems and functions highly connected. Indeed, links between EcAp, MSP and ICZM principles are wide and articulated (Figure 1).

Even the Directive 2014/89/EU establishing a framework for MSP clearly recall the importance of applying the requirement of the ecosystem based approach, both in the preamble and under the article provisions; i.e. art. 5 "*When establishing and implementing maritime spatial planning, Member States shall consider economic, social and environmental aspects to support sustainable development and growth in the maritime sector, applying an ecosystem-based approach, and to promote the coexistence of relevant activities and uses*."

Some guidelines can be suggested to apply EcAp within the MSP process, including the following ones:

- Establish clear links between MSP objectives and ecological objectives, targets and indictors defined within EcAp.
- As far as possible, define the planning and management area considering the limits of ecosystem functioning.
- EcAp does not stop at sea, it involves land too. Taking EcAp in consideration in the MSP process also implies a strong focus on land-sea interactions (LSI) and in particular on interactions among terrestrial and marine ecosystems, habitats and species.
- Establish MSP (allocation of maritime activities) on best available scientific knowledge about the ecosystem and its dynamics, and assess major information gaps and related uncertainties.
- Identify the ecosystem services provided by the considered marine area and how they underpin human maritime activities and human well-being in general.
- Evaluate various effects of human activities on the ecosystem, as: direct and indirect, cumulative, short and long-term, permanent and temporary, positive and negative effects, also taking land-sea interaction in consideration.

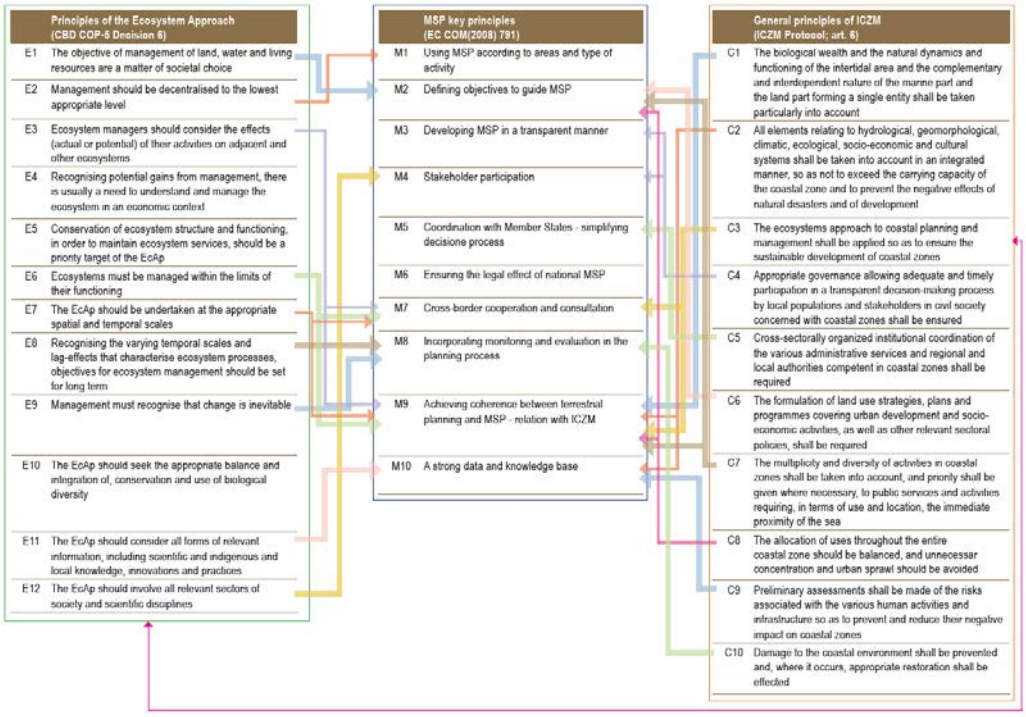


Figure 1 – Link between EcAp, MSP and ICZM principles

- Include in MSP the evaluation of cumulative impacts on the sea that may results from the combination of different (current and future) maritime and land-based activities.
- Capitalize and tailor existing methods and tools to operationalize the EcAp concepts within MSP, as: guidelines for implementation of EcAp, indicators, checklist, vulnerability assessment, evaluation of cumulative impacts, ecosystem service mapping and quantification, identification of blue corridors, EcAp based monitoring and evaluation program, etc.

Indeed, the relationship between EcAp and MSP is a two-way relation, as the second can contribute to the overall objective of achieving the GES, also through the identification of related spatial measures. Proper planning of maritime activity can:

- Reduce marine-based source of pressure affecting the marine environment through spatial efficiency and control of temporal distribution of human activities;
- Reduce conflicts between maritime uses and protection of areas with high naturalistic and ecological relevance;
- Identify areas to be protected in order to preserve processes and functions that are essential in achieving the GES;
- Identify environmental hotspot areas at sea where more intense measures are necessary;
- Avoid unsustainable uses in protected areas and identify synergies that can provide win-to-win solutions for socio-economic development and environmental protection;
- Identify connecting elements among relevant habitats through blue corridors.

4. COMMON PRINCIPLES AND CONTENTS

Available methodologies and scientific literature propose a wide range of MSP definitions. Ehler and Douvere (2009)[7] includes one of the most quoted one, according to which MSP can be defined as "*a practical way to create and establish a more rational organization of the use of marine space and the interactions between its uses, to balance demands for development with the need to protect marine ecosystems, and to achieve social and economic objectives in an open and planned way*". Another definition very often taken on board is the one given by art. 3 of Directive 2014/89/EU establishing a framework for MSP: "*a process by which the relevant Member State's authorities analyse and organise human activities in marine areas to achieve ecological, economic and social objectives*". Expected benefits of MSP are:

- Increased horizontal and vertical coordination between administrations and among different sectors using a single process (MSP) to balance the development of a range of maritime activities;
- Reduction of conflicts and exploitation of synergies among different uses of the marine space;
- Contribution to the equitable access to marine resources;
- Increased stakeholder involvement, public participation and information sharing;
- Encouragement of investment, by instilling predictability, transparency and clearer rules;
- Improved protection of the environment, through early identification and reduction of impacts as well as promotion of opportunities for multiple use of the same marine space;

[7]Ehler C., and F. Douvere, 2009. Marine Spatial Planning: a step-by-step approach towards ecosystem-based management. IOC Manual and Guide n. 53, ICAM Dossier n. 6, Paris, UNESCO.

- Identification of (spatial) measures that can support the achievement of the Good Environmental Status (see section 3);
- Improve protection of cultural heritage and preservation of intangible values of the sea.

Independently on the considered definition and the specific objectives and expected benefits, a number of common principles and general contents for the implementation of MSP are identified below (some of them totally or partially overlapping with ICZM ones). When dealing with MSP implementation this list should be reviewed and tailored according to the specific scope and goals of the MSP process and the characteristics of its area of application.

4.1 Adaptive approach

The adaptive approach is an interactive and systematic process for continually improving policies, plans and management practices by learning from the outcome of previous steps and cycles. Through this approach policies, plans and programmes are identified on the basis of the best available knowledge, and are then implemented, monitored, periodically evaluated and improved based on evaluation results. This approach is particularly useful in dealing with complex, dynamic and uncertain issues, including planning of current and future uses of the sea. Indeed, MSP does not lead to a one-time plan; it is a continuing iterative process that adapts over time. The following guidelines can be suggested to shape MSP according to an adaptive approach:

- Design the MSP process including monitoring, evaluation and revision steps since its beginning;
- Possibly, promote *active* adaptive management, which includes the evaluation and comparison of alternative hypothesis (e.g. scenarios) about the future evolution of the considered marine area;
- Develop MSP indicators linked to clear objectives and targets, including: governance or process, socio-economic and ecological-environmental indicators;
- Adopt a medium/long-term perspective to properly deal with the strategic and anticipatory nature of MSP and allow to plan, implement, adapt and plan again action over a period long enough to get concrete results.

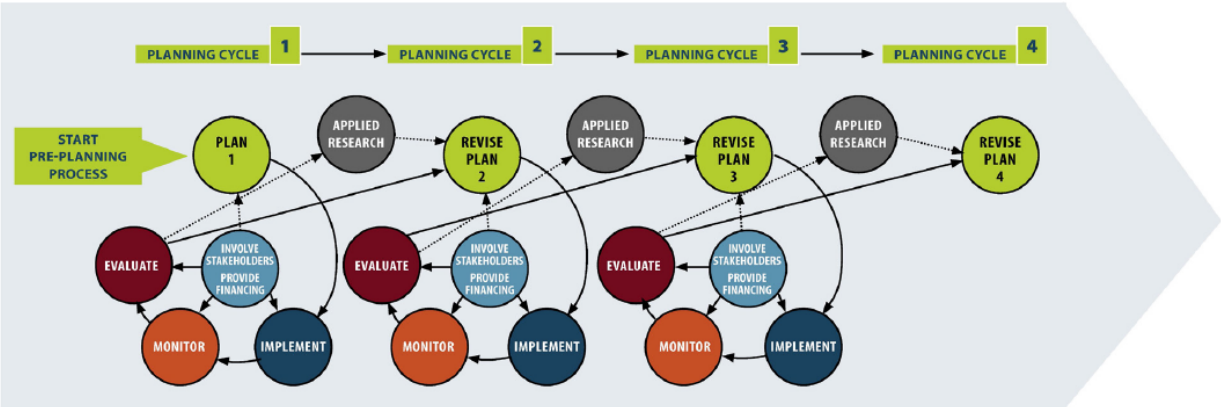


Figure 2 – The iterative MSP cycle (source: Ehler and Douvere, 2009)[8]

[8] GESAMP – Joint Group of Experts on the Scientific Aspects of Environmental Protection, 1996. The contributions of sciences to integrated coastal zone management. Report and studies n. 61. Rome: Food and Agriculture Organisation (FAO) of the United Nations.

4.2 Multi-scale approach

The operational application of MSP within the frame of the Barcelona Convention shall focus on the marine area following within the territorial sea of a country, according to the geographic scope of the Protocol on ICZM in the Mediterranean (art. 3). This operational application can be embedded into a multi-scale approach, combining top-down and bottom-up perspectives. The multi-scale approach includes the following different scales:

- Mediterranean scale addressing the whole sea basin through cooperation among CPs in the frame of the Barcelona Convention to approach the strategic level of MSP, as for example: (i) definition of elements for a common vision and related objectives, (ii) identification of priority areas and issues to be approached at a transboundary level, (iii) identification of initiatives (e.g. projects) to address transboundary areas and issues;
- Sub-regional scale – where relevant and possible – approaching transboundary MSP issues (elements for a common vision, objectives, priorities and initiatives) in sub-Mediterranean regions, also linking to sub-regional strategies and plans (e.g. EUSAIR and the West Med maritime initiative) for coordinated implementation;
- National scale, fully implementing the MSP process – according to common principles and coherently with the Mediterranean and sub-regional approaches – in marine areas falling within national jurisdiction, with particular reference to the territorial sea according to the geographic scope of the ICZM Protocol;
- Sub-national and local scales, fostering MSP applications aiming to provide evidence of concrete and visible environmental, social and economic benefits of MSP. Pilot activities at the sub-national and/or local scale could focus on priority areas, such as: highly vulnerable areas, areas with major conflicts among uses, areas with high potential for synergies among uses and multi-use opportunities. Pilot activities could be also useful to develop and test new overarching or item-specific methodologies, including through next generation of CAMP projects better integrating marine areas through MSP.

4.3 Integration

Integration is an essential feature of MSP; it can assume different meanings:

- MSP is not only dealing with blue economy. Environmental, social, economic and governance aspects have to be all taken into consideration to pursue sustainability goals;
- Integration among sectors is needed to go beyond sector policies, plans and regulations;
- Vertical and horizontal cooperation among administrations and technical agencies is required to proceed towards coordination and integration of sector policies and plans;
- Integration between land-based and marine planning is essential to harmonize and ensure coherence among parts of the same coastal system, interacting each other in different ways.

4.4 Land-Sea Interactions

Understanding and addressing land-sea interactions (LSI) is crucial to ensure sustainable management and development of coastal areas and coherent planning of land and sea-based activities. Although there is not a single and recognized definition of LSI, land-sea interactions can be defined as "interactions in which land-based natural phenomena or human activities have an influence or an impact on the marine environment, resources and activities and *vice versa* interactions in which marine natural phenomena or human activities have an influence or an impact on the terrestrial environment, resources and activities". As a consequence of the above definition, three main levels of LSI should be taken on board when dealing with MSP:

- Interactions related to land-sea natural processes. Implication of such processes on coastal management and planning of alternatives for land and marine activities have to be identified and assessed, considering their dynamic nature. At the same time, human activities can interfere with natural processes, impacting on the coastal and marine environment. The analysis of expected impacts of land and marine activities – within the SEA framework – should include the evaluation of their effects on LSI natural processes and the potential consequent impacts on natural resources and ecosystem services.
- Interactions among land and sea uses and activities. Almost all maritime uses need support installations on land, while several uses existing mostly on the land part expand their activities to the sea as well. These interactions have to be identified and mapped, assessing their cumulative impacts, benefits and potential conflicts and synergies. Interactions between land and sea activities can extend further beyond the coastal zones, for example in terms of long-distance connections related to transport and energy distribution or fish migration up-stream and stemming need for blue corridors. Although the primary focus is on costs, identification and mapping of those wider connections and assessment of their environmental, social and economic implications is also important. It is important to note that the Art.9 of the Protocol requires that CPs »shall accord specific attention to economic activities that require immediate proximity to the sea«. This is also one of the general principles of ICZM (Art.6 para g).
- Interactions of planning processes and plans for land and sea areas. It is important to ensure that legal, administrative, consultation and technical processes are coordinated (and hopefully linked) to avoid unnecessary duplications, incoherence, conflicts, waste of resources and/or excessive demand of stakeholders' efforts. The challenge is to plan and manage inshore and offshore activities in harmonized manner considering the functional integrity of the land-sea continuum. This also implies allocation of land space (and related infrastructure and services) to some maritime activities (and/or the allocation of maritime space to some land-based activities. Finally, the achievement of this coherence also requires alignment/integration of the different approaches, methodologies and tools applied respectively on land and at sea.

4.5 Four dimension of MSP

MSP operates in three spatial dimensions, taking in consideration maritime uses and related conflicts operating on the: ocean surface, water column and seabed. Time can be taken into account as a fourth dimension. In terms of MSP implementation, this may imply:

- For each maritime use identification of the most relevant spatial dimensions and assessment of the compatibility with other uses that mainly occur in other dimensions (e.g. shipping and sand extraction from the sea-bed);
- Synergies and compatibilities among different uses can also be enabled through temporal zoning and regulation, as for example enabling access to military restricted areas to shipping or recreational activities, if there are not military operations and safety is ensured;
- Proper assessment of the 4 dynamic needs of each maritime use to evaluate whether compatibilities are really possible and conflicts are minimized.

4.6 Knowledge based project

MSP must rely on high-quality data, focusing on key relevant information, as also stressed by EcAp and the adaptive management approach. To this regard the following guidelines are suggested:

- Use best available knowledge to promote the definition of the most appropriate geographic scale and scope for MSP strategies and/or plans, also taking EcAp/IMAP into consideration (i.e. ecosystem limits) and considering LSI an essential element of MSP;
- Focus on the collection of data and information which are really essential for MSP;

- Identify the specific gaps that might hamper the MSP and that require specific actions;
- Take in consideration any form of "good quality" knowledge. This comes primarily from scientific sources and institutionalized monitoring activities and datasets, but should also capitalize private sources of information, including knowledge generated by people living and working at the sea;
- Improve transparent access to accurate and complete information;
- Go from data and knowledge to information really useful for the planning and decision-making process required by MSP. Spatial-based tools are particularly useful to this regard.

4.7 Suitability and spatial efficiency

Suitability of maritime activities and spatial efficiency in distributing these activities are key guiding concepts for MSP, aiming at improving the sustainability of the use of marine resources (including the marine space), minimize conflicts among uses (including nature protection) and exploit possible synergies. To this regard the following guidelines are suggested:

- Use the sea space for those uses which really depend on marine resources or that can be more efficiently operated at sea (i.e. it is worth transferring a land-based use to the sea if this generates higher benefits and lower impacts and conflicts);
- When dealing with planning, start identifying immovable and not-renounceable uses and functions that normally have priority in space allocation;
- Encourage co-use or multi-use of the same marine area as much as possible, provided that this implies higher benefits, lower impacts and reduced conflicts;
- Spatial efficiency should also imply a fair distribution of MSP-related socio-economic benefits in the whole planned marine area.

4.8 Connectivity

MSP does not only focus on proper and efficient spatial allocation of maritime uses, but also deals with connectivity. Improved connections aim to generate social, economic, environmental and governance benefits; the following guidelines are suggested:

- Consider in the MSP plan connections between linear elements as for example shipping lanes to develop an integrated maritime transport system, energy grid to improve energy distribution efficiency or blue corridors to connect natural habitats;
- Consider in the MSP plan connections of patches, areas with similar or interrelated uses or functions as in the case of networking of marine protected areas or the preservation of connected habitats which are vital for marine species;
- Beyond planning of maritime uses, do not forget to create connections among MSP operators in terms of knowledge sharing, cooperation and coordination.

Assessment and planning of connectivity elements is particularly relevant for LSI aspects.

4.9 Cross-border cooperation

Although MSP can be seen primarily as a country-based process, cross-border cooperation is essential to ensure the MSP plans are coherent and coordinated across the coastal zones and the marine regions. This implies cooperation at the methodological (common methods, data and information sharing, tools sharing, MSP practice exchange, capacity building), strategic (common vision, shared principles and

possible common objectives) and implementation (e.g. planning of marine bordering areas, etc.) levels.

Moreover, it is well-known that a relevant number of problems and challenges (e.g. maritime transport operation and safety, fish stock conservation and sustainable management, biodiversity protection and ecosystem preservation, future development of off-shore renewable energy production and distribution, etc.) have a transboundary dimension and might require the adoption of a common regional or sub-regional approach.

5. MSP STEPS

MSP has several definitions. The variety of definitions is reflected by the variety of available methodologies; i.e. there is not a single approach fitting to all marine contexts and responding to all strategic objectives. MSP should be shaped and based on the specificities of individual marine areas that are concretely approached in its implementation. However, there are common steps that are considered in most of MSP initiatives and guiding documents, as: data collection and analysis, stakeholder consultation and the participatory development of a plan, the subsequent phases of implementation, enforcement, evaluation and revision. The MSP steps correspond to a great extend with the steps of ICZM process implemented by PAP/RAC for coastal strategies and plans.

Several customized step-by-step methodologies have been developed for the Mediterranean regions and sub-regions. Based on the analysis of these methodologies, the following steps and sub-steps are suggested. In no case these steps shall be considered obligatory, as each MSP process needs to be tailored according to specific characteristics of its geographic scope, objectives and expected results. They can be considered a sort of checklist to select those elements which are considered relevant for the specific MSP process.

Step 1 – Starting the process and getting organised

- Assessment of MSP needs and identification of objectives and expected results, including links to ICZM;
- Organization of all aspects which are needed for the MSP process (setting the ground for MSP);
- Organization of data collection and management, coherently and possibly in synergy with data and information organisation needed for ICZM.

Step 2 – Assessing the context and defining a vision

- Analysis and evaluation of existing legal documents, policies, strategies and plans which are relevant for and can orientate MSP, including ICZM and LSI aspects;
- Definition of a strategic vision (high-level objectives) about how the marine area shall look like in the future, also thanks to the MSP process. The strategic vision should guide towards sustainable development of the planned marine area, considering all the relevant mechanisms already in place in the Barcelona Convention context and making synergies with them. It is deemed fundamental to develop a cross-dimensions (including environmental, social, economic and governance aspects) and cross-sectors vision, capturing the integrate nature of the MSP process. It is also highly important that the marine vision is coherent with vision/s on future development of the land component of the coastal system (towards a unique land-sea vision);
- Linking the strategic vision to the sustainable development of marine areas and the sustainable use of marine resources. The overall aim is ensuring that the collective pressure of all activities is kept within levels compatible with the achievement of good environmental status and that the

capacity of marine ecosystems to respond to human-induced changes is not compromised, while contributing to the sustainable use of marine goods and services by present and future generations;

- Linking the defined strategic vision with the upper scale (e.g. whole Mediterranean) and lower scale (i.e. input to sub-national and local MSP-related projects, including new CAMP projects).

Step 3 – Analysing existing conditions

- Identification of relevant information, selecting only those really needed for the analysis (focused approach);
- Analysis and mapping of current oceanographic and environment characteristics, focusing on those that have a real MSP implication (e.g. wind or wave regime for planning offshore renewable energy);
- Stocktaking and mapping of current maritime activities;
- Mapping of interactions between land and sea-based activities;
- Evaluation of interactions between land and sea-based activities in terms of intensity, economic relevance, fluxes, (cumulative) impacts on land, (cumulative) impacts on sea of both land-based and maritime activities;
- Analysis of conflicts and compatibilities among uses (matrix of compatibilities) as well as of coexistence and multi-use opportunities;
- Identification of hot-spot areas, i.e. highly impacted or vulnerable areas, areas with high number of conflicting activities, areas with high multi-use potential.

Step 4 – Analysis of future conditions

- Link to the vision: identification of main elements of the vision that might orientate the future evolution of the MSP planning area;
- Analysis of current trends and available projections and development options, in particular of maritime economic activities;
- Elaboration of possible alternative quantitative, semi-quantitative or qualitative scenarios on future maritime uses, coherent with the overarching vision;
- Analysis of developed scenarios in terms of coexistence, compatibility and conflicts among uses as well as cumulative impacts on the environment (link to SEA process – see step 6b);
- Identification of hot-spot areas (in future conditions), i.e. highly impacted or vulnerable areas, areas with high number of conflicting activities;
- Evaluation of interactions between land and sea-based activities in the future conditions (scenarios).

Step 5 – Identification of key issues

Sum-up of the outcome of the analytical phase (steps 3 and 4) and identification of key issues to be addressed in the design phase (6). This step aims to wrap-up key outcome of the analytical steps to be taken in the design phase of the MSP process.

Step 6a – Design phase: elaborating the MSP Plan

- Identification of planning objectives linked to strategic goals (i.e. the vision) and to the preferable scenario (if any and if scenarios have been developed);
- Identification and design of planning measures;
- Localization of the measures and zoning of the marine area (also including e.g.: priority areas, reserved areas, no go areas for all uses, no goes areas for a specific use, etc.). This phase should include an accurate analysis of LSI interactions with allocation of marine space for some land-based activities and allocation of land space for some maritime uses;
- Definition of regulation elements for the management and monitoring of the maritime activities aiming to maximize compatibilities in the 4D.

Step 6b – Strategic Environmental Assessment

Strategic Environmental Assessment is an important integral part of the preparation of the MSP plan, providing a mechanism for the strategic consideration of environmental effects of the plan, assessment of different planning alternatives and identification and evaluation of mitigation measures. It follows that SEA is a process to be implemented in close connection and in parallel to the plan elaboration, as it should be used to ensure the plan environmental sustainability. To this end, the SEA process should start at the very beginning of the MSP process (within the Step 2) and be done in an interactive manner. Espoo Convention and the related Protocol on Strategic Environmental Assessment (so called Kiev Protocol) provide a common frame for SEA implementation.

The environmental report is a fundamental aspect of the SEA, in which likely significant effects of implementing the plan on the environment are identified, described and evaluated together with alternatives taking into account the objectives and geographical scope of the plan. Alternatives could hereby be addressed with different scenarios within the plan (linking to step 4). The following elements should be considered when implementing the SEA process and elaborating the environmental report in particular:

- Actual availability of knowledge and methods of assessment, focusing on really needed information and highlighting critical gaps;
- Content and level of detail in the MSP, that should orientate the level of environmental assessment required;
- Stage in the decision-making process related to the MSP plan;
- Interest of the public;
- Related to previous points, the extent to which certain matters are more appropriately assessed within a more detailed Environmental Impact Assessment (EIA), which is often required for the licensing of specific projects ad activities after a Marine Spatial Plan has entered into force. An SEA has an important role in guiding EIAs because the challenges in reconciling issues at the EIA scale require a more strategic approach.

At general level, three more aspects should be stressed:

- A transboundary SEA process, including transboundary consultation, should be activated when the implementation of a MSP plan is expected to have significant trans-boundary environmental effects;
- SEA should not only assess impact on the sea, but consider also impacts of maritime activities on land, based on most relevant LSI identified;
- SEA forms an important part of the EcAp implementation.

Step 7 – Implementing, monitoring and evaluating the plan

In general plan implementation is not responsibility of spatial planners. However, the implementation is a critical step to give concreteness and credibility to the whole process and reach the expected benefits. The design of an implementation plan and dissemination of the MSP plan can support and facilitate the implementation phase. This step should clearly specify responsibilities for the implementation, i.e. which is the lead/main institution responsible for coordination of implementation and, which are other institutions and administrative levels involved. Existing mechanisms for coordination should be used. It is also very important that implementation is coupled with monitoring and evaluation according to the adaptive approach:

- Monitoring and evaluation of the ecological and environmental state of the marine area;
- Monitoring and evaluation of (socio-economic) benefits of the MSP process, including reduction of conflicts and development of synergies among uses;
- Monitoring and evaluation of the MSP process itself.

For all the three sub-steps proper indicators can be developed, making synergies with mechanisms in place within the Barcelona Convention system: EcAp indicator can be used for the first sub-step, while specific socio-economic and governance or process indicators can be used for sub-step 2 and 3 respectively[9].

Cross-step activity – Stakeholder consultation

Stakeholder identification, engagement and participation are cross-cutting activities affecting most of the MSP steps. Stakeholder consultation must be carefully planned and organized, including:

- Identification of stakeholders, ensuring involvement of all parties;
- Definition of engagement modalities and tools;
- Clear identification of expected stakeholders' contribution;
- Methods to keep stakeholders interest and engaged in the whole process;
- Awareness raising, training and education, if needed;
- Identification of synergy with other stakeholder involvement processes, including in particular ICZM.

[9]See also: Ehler, C., 2014. Guide to evaluating Marine Spatial Plans. IOC Manuals and Guides, 70, ICAM Dossier 8, Paris, UNESCO