



# THE WAY TO A REGIONAL FRAMEWORK FOR ICZM IN THE MEDITERRANEAN 2017-2021

– Background Document –

December 2016

## Note

The preparation of this Report was initiated by PAP/RAC, following a decision of COP19.

Its authors were:

*Dr Athena Mourmouris, Mr Christophe Le Visage and Prof Maria Snoussi (during the first phase), Dr Athena Mourmouris, Mr Christophe Le Visage, Prof Samir Grimes and Mr Emiliano Ramieri (during the second and final phase).*

The following members of PAP/RAC have contributed with comments:

*Ms Zeljka Skaricic, Dr Marko Prem, Ms Marina Markovic and Ms Daria Povh.*

The UNEP/MAP RACs as well as the PAP National Focal Points have been consulted on several occasions before finalization of the Regional Framework. A first consultation meeting took place in Barcelona on 28-29/9/2016, back-to-back with the MedCoast Day, with the participation of other Mediterranean and EU experts as well. Views expressed in this context have been taken into account.

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## ACRONYMS AND ABBREVIATIONS

ABNJ	Areas Beyond National Jurisdiction
BC	Barcelona Convention
BP/RAC	Blue Plan RAC
CAMPs	Coastal Area Management Programmes
CBD	Convention on Biological Diversity
ClimVar & ICZM	Integration of climate variability and change into national strategies for the implementation of the ICZM Protocol in the Mediterranean (GEF project)
COP	Conference of Parties
CP(s)	Contracting Party (-ies)
CP/RAC	Cleaner Production RAC (now SCP /RAC)
CZ	Coastal Zone
DEPI	Division of Environmental Policy Implementation (UNEP)
EA	Ecological Approach (broadly speaking)
EBSA	Ecologically and Biologically Significant Area
EC	European Commission
EcAp	Implementation of the Ecosystem Approach in the Mediterranean (EU Project. UNEP/MAP-led transposition of the MSFD to the entire Mediterranean region)
ECP	Executive Coordination Panel (MAP)
EEA	European Environment Agency
EIA	Environmental Impact Assessment
EU	European Union
FAO	Food and Agriculture Organisation of the United Nations
FFEM	French Global Environment Fund (Fonds Français pour l'Environnement Mondial)
FP(s)	Focal Points
FRA(s)	Fisheries Restricted Areas
GEF	Global Environment Facility
GES	Good Environmental Status
GFCM	General Fisheries Commission for the Mediterranean (FAO)
GWP-Med	Global Water Partnership – Mediterranean
H2020	Horizon 2020 Programme (EU)
HELCOM	Baltic Marine Environment Protection Commission – Helsinki Commission
HW	Hazardous Wastes
ICZM	Integrated coastal zone management
IAEA	International Atomic Energy Agency
IHP	International Hydrological Programme (UNESCO)
IMO	International Maritime Organisation
IMP	Integrated Maritime Policy
Info/MAP	UN Mediterranean knowledge platform
INFO/RAC	Regional Activity Centre for Information and Communication

IOC	International Oceanographic Committee (UNESCO)
IUCN	International Union for Conservation of Nature
LBS	Land Based Sources
LSI	Land-Sea Interactions
LSP	Land Spatial Planning
MAP	Action Plan for the Protection and Development of the Mediterranean Basin
MARPOL	International Convention for the Prevention of Pollution from Ships
MCSD	Mediterranean Commission for Sustainable Development
MED POL	Programme for the Assessment and Control of Marine Pollution in the Mediterranean
MedPAN	Network of Managers of Marine Protected Areas in the Mediterranean
MedPartnership	Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem (GEF Project also referred to as Regional Component of the Strategic Partnership)
MIO-ECSDE	Mediterranean Information Office for Environment, Culture and Sustainable Development
MOOC	Massive Open Online Course
MPA	Marine Protected Area
MSFD	Marine Strategy Framework Directive (EU)
MSP	Marine (or, Maritime) Spatial Planning
MSSD	Mediterranean Strategy for Sustainable Development
MTF	Mediterranean Trust Fund (MAP)
MTS	UNEP/MAP Mid-Term Strategy 2016-2021
NAP	National Action Plan
NFPs	National Focal Points
NGO	Non-Governmental Organisation
NSSD	National Strategy for Sustainable Development
OSPAR	Oslo and Paris Conventions (Full name not in common use)
PAP/RAC	Priority Actions Programme RAC
PEGASO	People for Ecosystem-based Governance in Assessing Sustainable development of Ocean and coast (an EU FP7 Project)
PoW	Programme of Work
RAC	Regional Activity Centre
REMPEC	Regional Marine Pollution Emergency Response Centre
RF	Regional Framework for ICZM (in the Mediterranean)
RCP	Representative Concentration Profiles (CC)
SAP	Strategic Action Programme
SAP-BIO	Strategic Action Programme for the Conservation Biological Diversity in the Mediterranean Region
SAP-MED	Strategic Action Programme to Address Pollution from Land-Based Activities
SCP	Sustainable Consumption and Production
SCP/RAC	Sustainable Consumption and Production RAC (formerly, CP/RAC)
SDG	Sustainable Development Goals (UN)

SEA	Strategic Environmental Assessment
SEIS	Shared Environmental Information System (EU)
SLR	Sea Level Rise
SMART	Specific, Measurable, Attainable, Relevant and Time-bound
SPAs	Specially Protected Areas
SPA/RAC	Specially Protected Areas RAC
SPAMIs	Specially Protected Areas of Mediterranean Importance
SWITCH-Med	Switching to more sustainable consumption and production in the Mediterranean (EU Project)
SWIM	Sustainable Water Integrated Management (EU Project)
TEST	Transfer of environmentally sound technologies
UfM	Union for the Mediterranean
UNCLOS	United Nations Convention on the Law of the Sea
UNEA	United Nations Environment Assembly
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific, and Cultural Organisation
UNFCCC	United Nations Framework Convention for Climate Change
UNIDO	United Nations Industrial Development Organisation
WB	World Bank
WHO	World Health Organisation
WSSD	World Summit on Sustainable Development
WWF-MedPO	World Wide Fund for Nature – Mediterranean Programme Office

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# INTRODUCTION AND CONTEXT

## The mandate

In Art. 17 of the Protocol on Integrated Coastal Zone Management in the Mediterranean (ICZM Protocol), the Contracting Parties (CPs) commit themselves to *„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 through their national strategies”*.

In the first version of the Mediterranean Strategy for Sustainable Development (MSSD), *„the coastal issues were given particular attention. The preparation and adoption of the ICZM Protocol is probably the only objective achieved at 10%. Therefore, the MSSD 2016-2025 has been identified as the most appropriate document to give a regional strategic context to ICZM... There is still a need to push for ICZM to be presented in an adequate way, as a management approach that offers tools and methods that can lead to sustainable coastal development.”*

ICZM constitutes Cross-Cutting Theme 1 of the UNEP/MAP Mid-Term Strategy 2016-2021, approved at COP19 in February 2016, it corresponds to the first and partly third objectives of the MSSD and it is related to Sustainable Development Goals (SDGs) 9, 11, 14 and 15. Reference to ICZM remaining in the MSSD 2016-2025 still at a general objectives level, the CPs decided at the same COP to include the preparation of a Regional Framework for ICZM (RF) in their Programme of Work (PoW) for the next biennium, in view of its adoption at the next COP.

One of the **main objectives and tasks** of the RF is to examine and clarify the relationships between the ICZM process and some basic related documents (e.g., Barcelona Convention and its other Protocols and strategic documents approved) and the approaches and measures they imply. Other internationally binding documents being reflected already and downscaled to the Mediterranean Basin through the Barcelona system strategies and plans, such a clarification will also position the ICZM Protocol and its implementation in relation to a large majority of these international documents too.

Once that all elements are examined, guidance will be provided on how each of them and all together can support the implementation of the ICZM Protocol, and vice versa: how the holistic ICZM approach contributes to reaching the objectives of all the other legal and policy documents considered by the RF. This will feed the national strategies and plans, which should obviously be consistent with the RF. This will also allow to (re)examine which specific tools and mechanisms

already exist or need to be developed or fine-tuned to facilitate the implementation of ICZM at regional (Mediterranean), national and sub-national (local) levels.

The UNEP/MAP PoW approved for 2016-2017 envisages also the preparation of the **Conceptual Framework for Marine Spatial Planning (MSP)** as an emerging issue in the entire Mediterranean Region. Given the intrinsic relations existing between terrestrial and marine parts of the coastal zone, as defined by Art. 3 of the ICZM Protocol, it seemed wise to work on the two tasks in parallel.

It is to point out here that maritime and marine issues are fully in the scope of the ICZM Protocol (Art. 3, 6 and 9) and are explicitly addressed by it. Nevertheless, the ICZM Protocol has been built on the basis of previous experience, and – even if the marine area is in the scope – the measures explicitly listed are often focused landwards. So, there is a need for working further on the implementation of the ICZM Protocol in the marine part of the coastal areas. This fact advocates strengthened integration.

Given the character of the sea (it has no physical borders, it is a common good) and the difficulty of the subject (integrated management of marine areas is still a very new issue in the Mediterranean), there are good reasons to work on these aspects in a coordinated way for the whole Mediterranean Region (hence the „regional framework”).

The **recommendations** that will be formulated at the end of this task will focus mostly on:

- a) orientation of actions after the expiration of the Action Plan for the implementation of the ICZM Protocol in 2012-2019;
- b) ways to better take into consideration the land/sea interactions further strengthening integration; and
- c) ways to efficiently implement the Protocol at national and sub-national levels.

## **The Mediterranean context**

The fact that the preparation of the RF for ICZM starts at this stage, **8 years after the signature of the ICZM Protocol**, makes a difference. The RF is not meant to orient the first steps of the Protocol’s implementation. During these 8 years, several CAMP projects have been adapted to reflect the Protocol provisions (*see Fig. 1*) and to define appropriate methodologies for the development of national strategies (e.g., Croatia, Montenegro and Algeria), guidelines have been formulated, several related studies have been carried out – and this by different RACs – stock-taking exercises have taken place, an Action Plan for ICZM has been adopted, a number of CPs proceed with respective National Strategies,

while several relevant policy documents and Action Plans are elaborated and adopted in parallel in the UNEP/MAP context or outside it, calling for more clarity on how each one of them would affect the others at regional and national levels. Ensuring **coherence** of what looks like proliferation of initiatives related to ICZM would be a major benefit of the preparation, adoption and implementation of the RF.



**Fig. 1:** The CAMP projects geographical distribution (Source: PAP/RAC website)

The total **population** of the Mediterranean countries grew from 276 million in 1970 to 412 million in 2000 (a 1.35% increase per year) and to 466 million in 2010. The population is predicted to reach 529 million by 2025. The Mediterranean region's population is concentrated near the coasts. More than a third lives in coastal administrative entities totaling less than 12% of the surface area of the Mediterranean countries. The population of the coastal areas of the Mediterranean grew from 95 million in 1979 to 143 million in 2000, and could reach 174 million by 2025 (UNEP/MAP/BP/RAC, 2005).

The Mediterranean **GDP** share of the world's GDP has slightly decreased during the last 20 years, from more than 13.5% in 1990 to 11.5% in 2010. Meanwhile, when compared to the world's population, the share of Mediterranean population has remained constant, at about 7% (Joint EEA/UNEP/MAP report, 2014).

As recalled in the UNEP/MAP Mid-Term Strategy 2016-2021, the Mediterranean comprises a vast set of **coastal and marine ecosystems** that deliver valuable benefits to all of its coastal inhabitants, including brackish water lagoons, estuaries, transitional areas, coastal plains, wetlands, rocky shores and near shore coastal areas, seagrass meadows, coralligenous communities, frontal systems and

upwellings, seamounts, and pelagic systems (*State of the Mediterranean Marine and Coastal Environment, UNEP/MAP, 2012*).

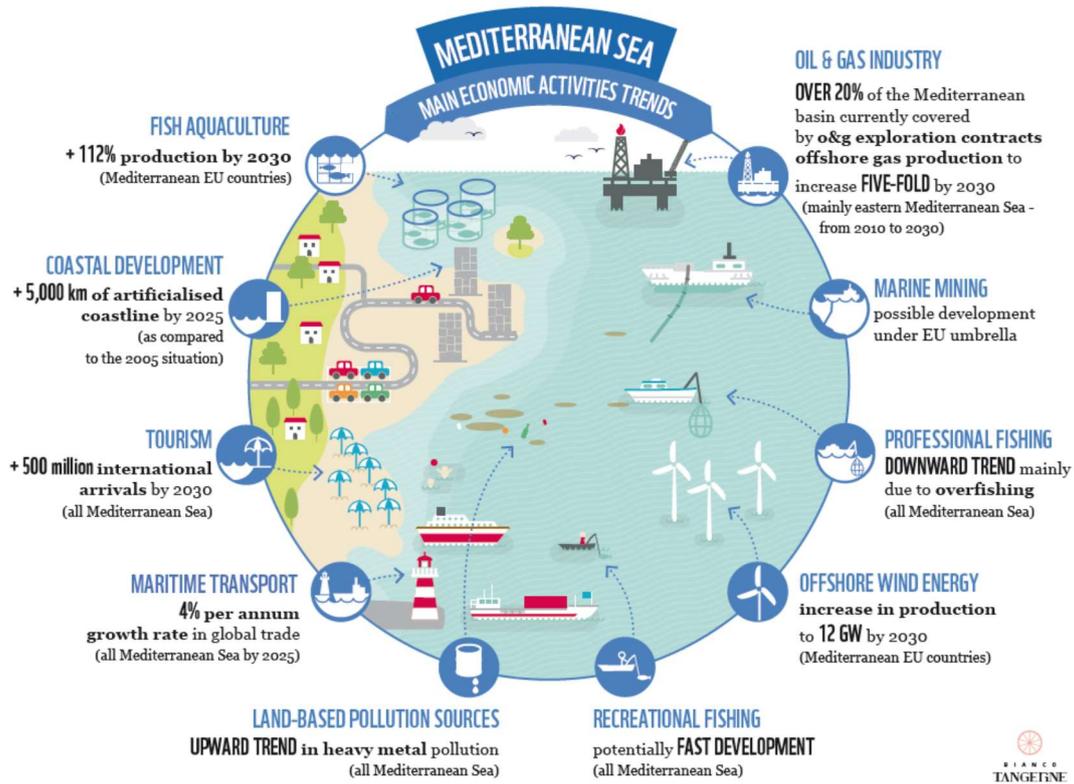
The Mediterranean region is one of the world's 25 top biodiversity hotspots characterized as an **area of exceptional biodiversity value**, with a large number of endemic species (i.e. native only to the region) and critical levels of habitat loss. The Mediterranean also hosts a diverse array of habitats of commercial, ecological, and cultural importance.

According to some research, „*the Mediterranean region currently uses approximately 2.5 times more natural resources and ecological services than their ecosystems can provide... Countries highly dependent on natural resource imports expose their economies to the macroeconomic consequences of price volatility.*“ (*Global Footprint Network, „Physical limits to resource access and utilization and their economic implications in Mediterranean economies“, 2015*).

The Mediterranean region is facing **intensive demographic, social, political, safety, cultural, economic and environmental challenges**. The **main drivers** affecting the economic development in the Mediterranean are urbanization, tourism, industry, maritime transport, agriculture and forestry, fisheries and aquaculture, water resources and energy. Population growth combined with the growth of coastal (peri-)urban hubs generates multiple environmental pressures stemming from increased demand for water, energy resources and soil, generation of air and water pollution in relation to wastewater discharge or sewage overflows, waste generation, land consumption and degradation of habitats, landscapes and coastlines. These pressures are further amplified by the development of tourism, often concentrated in Mediterranean coastal areas.

Moreover, one should also keep in mind that, because of some policies applied in the Mediterranean, there are – beyond the dramatic social consequences (wars, massive migrations, refugees, ...) – also strong direct and indirect impacts on the environment in the Mediterranean Region, adding new pressures mainly concentrated in the coastal zones (pollution, non-sustainable management of resources, water quality, etc.).

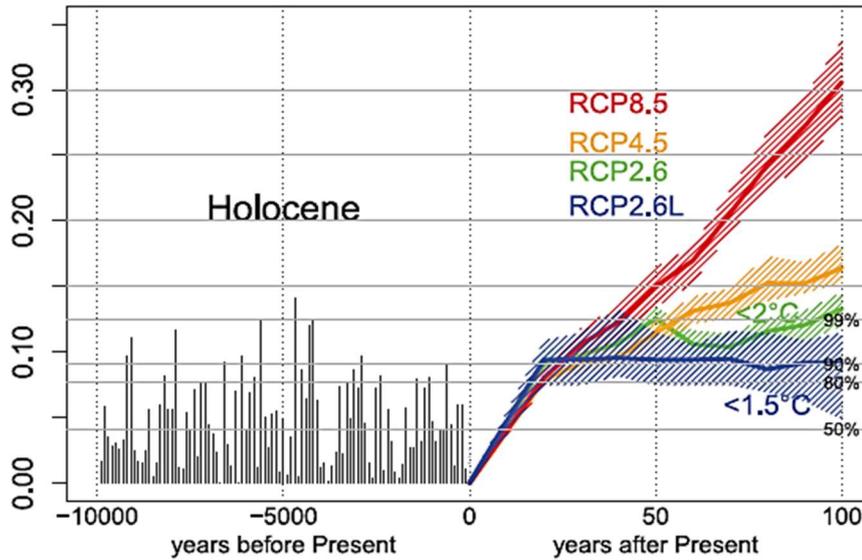
Despite compelling evidence of the importance of services delivered by Mediterranean coastal and marine systems, the Mediterranean ecosystem continues to be degraded (*UNEP/MAP Barcelona Convention Initial Integrated Assessment, 2011*). The state of the Mediterranean coastal and marine environment varies from place to place, but all parts of the Mediterranean are subject to multiple pressures acting simultaneously and in many cases chronically. The graph in *Fig. 2* offers a good picture of the perspectives in the Mediterranean, if further action is not taken.



**Fig. 2:** Main Trends in the Mediterranean (Source: WWF, MedTrends, 2015)

Furthermore, Climate Change (CC) is emerging these last years as one of the key drivers of environmental change in the Mediterranean region. In its Fifth Assessment Report, the IPCC has identified Mediterranean ecosystems among the most impacted ones by global climate change. A recent study demonstrates that regional temperatures in the Mediterranean basin are now approximately 1.3°C higher than during 1880-1920 (see Fig. 3), compared to an increase of approximately 0.85°C worldwide (Guiot and Cramer, 2016). These authors consider that the difference between (global) warming of 1.5°C and >2°C above preindustrial levels is critically important for adaptation policies in the Mediterranean region.

Guiot and Cramer (2016) have simulated the climate change impacts in one century, anthropogenic climate change without ambitious mitigation measures, and showed that climate change will alter ecosystems in the Mediterranean in a manner beyond any comparison as regards the past 10 millennia. Despite known uncertainties in climate models, GHG emission scenarios at the level of country commitments before the UNFCCC Paris Agreement will lead to the substantial expansion of deserts in much of southern Europe and northern Africa. The Mediterranean region has been identified as one of the most sensitive regions in the world to climate change. The high sensitivity of the hydrological cycle to climate change is a consequence of both the location of the region in a transition zone between a temperate climate in the mid-latitudes and the hotter-drier North African climate and its specific physiographic features (Ducrocq, 2016).



**Fig. 3:** Proportion of grid cells with a biome change relative to the preindustrial period for the Mediterranean area. The horizontal axis represents the time scale, in years before the present (20<sup>th</sup> century) for the past (negative numbers) and in years after the present (CE 2000-2010) for the future (positive numbers). Holocene biomes (in black) are based on reconstructions from pollen data. Coloured lines are given by the BIOME4 model as applied to the RCP projections (see text). Horizontal lines represent the 50<sup>th</sup>, 80<sup>th</sup>, 90<sup>th</sup>, and 99<sup>th</sup> percentiles of the Holocene values. The coloured areas illustrate the interquartile interval provided by the intermodel variability (*Source: Guiot and Cramer, 2016*).

Analyses of observation-based data show that the Mediterranean region has tended to be warmer and drier during the last half century, associated with an increase in evaporation and a decrease in runoff. Global and regional climate model projections indicate that warming and drying will likely continue, with the amplitude of the changes after 2050 being highly dependent on the emission scenario. The climate models also predict a general increase in temperature extremes for the end of the 21<sup>st</sup> century. However, the exact spatial distribution of changes in temperature and much more in precipitation remains uncertain (*Ducrocq, 2016*). Sea level rise and possibly acidification of marine water are major challenges for the Mediterranean Sea, where risks related to coastal erosion and coastal flooding are already a source of concern, and where many human, cultural, industrial and environmental assets are concentrated near the coastline (*Guiot, 2016*).

The analysis of recent climatic changes clearly shows that the effects of Climate Change are becoming more important. They are increasingly causing the recurrence of climatic anomalies and extreme phenomena. Globally, four consequences of the effects of Climate Change have been identified:

- the scarcity of water resources;
- degradation of vegetation cover and soils, and its impact on increased soil erosion and accelerating desertification;
- the increase in the frequency of extreme weather events; and
- disturbance of coastal areas and marine environments, especially by sea level rise, coastal erosion and invasive/toxic species.

Managing effectively and in an integrated way the Mediterranean coastal zones and the coastline of 46,000 km requires taking into consideration some additional **global and/or emerging issues** in the region, like the Climate Change (CC) issues mentioned above and the need for regional and national adaptations, the possible Sea-Level Rise (SLR), the links with MSP, the Blue Economy promoted by the European Union, the need for applying an Ecological Approach (EA) and Ecosystem-Based Management (EBM), the need for solutions based on nature etc.

One must highlight at this point the growing awareness that there are many and increasing connections among all coastal areas in the Mediterranean: they are submitted to the same large scale effects (e.g., global change, globalization), to the same tensions and pressures (economic, social, security, environmental, ...). There is also growing awareness that the sea can be considered as a problem for the coasts, but also as a solution. It constitutes:

- A problem, when there is pollution, pressure on resources, natural and human-induced risks, security and safety issues, etc.
- A solution, since these last years there is considerable related support and technical progress, which can provide jobs, energy and raw material, added value, sustainable management of marine resources, etc. – through Blue Economy.

The above call for strengthening the **integration dimension** and the **coherent governance** of planning and management of the coastal zones and their activities on either land or sea part.

Furthermore, it is felt that, to achieve benefits, a RF for ICZM should deal also with **interactions between environment and development**, more particularly addressing the main ICZM implementation issues as identified in the ICZM Protocol Action Plan (2012-2019). Therefore, the RF should also take into consideration:

- the relationship among economic development, social development, and environmental protection as related to the Mediterranean Sea and its sub-basins;
- the linkages among programmes (e.g., on disaster risk reduction and management, climate change adaptation, reduction of vulnerability to natural

hazards, sustainability of ecosystems and the ecosystem services, sustainable consumption and production), as well as different types of partnerships for the sustainable development of the coastal areas;

- existing governance schemes.

## Methodology

The major objective of the RF being to facilitate implementation of the ICZM Protocol, it is important to start by recalling the (forgotten in practice?) **meaning of integration**. It covers at least 6 different levels (geographical, time scales, inter-sectoral, political/institutional, inter-disciplinary, policy/management /education/research/communication), and it was very well described in the White Paper for ICZM (*see Box 1*). Achieving integration at all these levels is not an easy task, fact that explains several delays in implementation.

Yet, ensuring integration can minimise considerably obstacles when implementing different policies at regional and national scales; it can also contribute to mainstreaming investments and resources of all kinds to the real priorities. It is also thanks to the integration (and preventive) approach of ICZM (not so high in the political agenda these last years) that decision-makers and planners can contribute in a tangible way to solutions of more „attractive” **emerging global problems** (like Climate Change and coastal risks) occurring in specific vulnerable geographical areas. The **Ecological Approach (EA)**, broadly recognised now-a-days, is an indispensable process to ensure geographical and environmental integration.

It is also for integration reasons that the First Consultation Meeting (Barcelona, September 2016) expressed the unanimous position that the RF for ICZM should not apply only to the land part of the coasts but extend also to the marine parts, incorporating the MSP within the geographical scope of the Protocol and articulating in a complementary way the two policies in a single Regional Framework for ICZM-MSP.

This major characteristic of ICZM, integration, cannot be fully achieved unless all Partners are involved and all policies are articulated in a **complementary way**, with cross-sectoral institutional coordination of the various administrative services and regional and local authorities competent in coastal zones. This calls for strengthening **coordination not only within the UNEP/MAP system**, but also with other stakeholders like the EU, the UfM, major donors in the region etc.

**Box 1:** Some types of Integration (Source: *White Book for ICZM, PAP, 2001*)

**Some types of integration**

**Geographic integration**

All coastal systems are interconnected, and no single organisation can wield control over all or even most of the inputs and outputs from one part of the coast to another. Attention must, therefore, be paid to the interconnections between land and sea environments, which can extend over more or less vast distances (depending on the issues).

**Integration across time scales**

The coast is significantly affected by the cumulative impact of many individual decisions made and actions taken by resource users and governments. Attention must, therefore, be paid to the consequences of these decisions and actions, and to the short-, medium-, and long-term implications of such decisions and actions.

**Integration across sectors**

There is a wide range of human activities on the coast, including: agriculture; commerce; fishing; forestry; industry; military use; mining; nature reserves; recreational and residential development; subsistence resource use and tourism and transport infrastructures. Attention must, therefore, be focused on the "horizontal integration" of sectors traditionally seen as separate, together with the associated governmental agencies that influence the planning and management of coastal systems and resources.

**Political and institutional integration**

A considerable challenge is posed by the fact that the boundaries of coastal ecosystems go beyond local, provincial and often national areas of authority. Attention must, therefore, be paid to "vertical integration" between spheres of government, from the local to international level, and to integration between institutions in government, civil society and the private sector which influence the planning and management of coastal ecosystems and resources. Ideally, legislative and planning frameworks and development assessment procedures should be integrated.

**Integration across disciplines**

Coastal systems are multifaceted, dynamic and complex. In addition, the consequences of coastal management decisions are often subject to considerable uncertainty. These characteristics make it difficult, if not impossible, to determine cause and effect relationships, and to predict accurately the potential impacts of human activities. Attention must therefore be paid to integrating knowledge and understanding from the natural and social sciences, the humanities and the design professions (including engineering, planning and architecture). In addition, scientific research must be integrated with other sources of information, including knowledge of coastal communities and users.

**Integrating policy, management, education and research**

Coastal management is a process that requires creative partnerships to be established between government, civil society and the private sector. To manage coastal ecosystems and resources for the benefit of current and future generations, such partnerships will need to be based on the integration of a range of considerations, including policy, management, education and applied research.

Source: DEAT, 1998

It is also important to recall that Art. 2 (e) of the ICZM Protocol defines the „coastal zone” as *„the geomorphologic area either side of the seashore in which the interaction between the marine and land parts occurs in the form of complex ecological and resource systems made up of biotic and abiotic components coexisting and interacting with human communities and relevant socio-economic activities”*. This implies that any ICZM strategy or policy needs to integrate also aspects related to MSP. As defined in Art. 3.1 (a) of the Protocol, *„the seaward limit of the coastal zone ... shall be the external limit of the territorial sea of Parties”*.

Since in the Mediterranean there is already a long history of ICZM policies and activities and several relevant strategic documents have already been adopted within the UNEP/MAP system, a **two-step approach** has been selected **for the preparation of the RF**:

- a) drafting of the current Report that will act as a background document with supporting material; and
- b) drafting of the RF itself that will be presented to CPs for adoption.

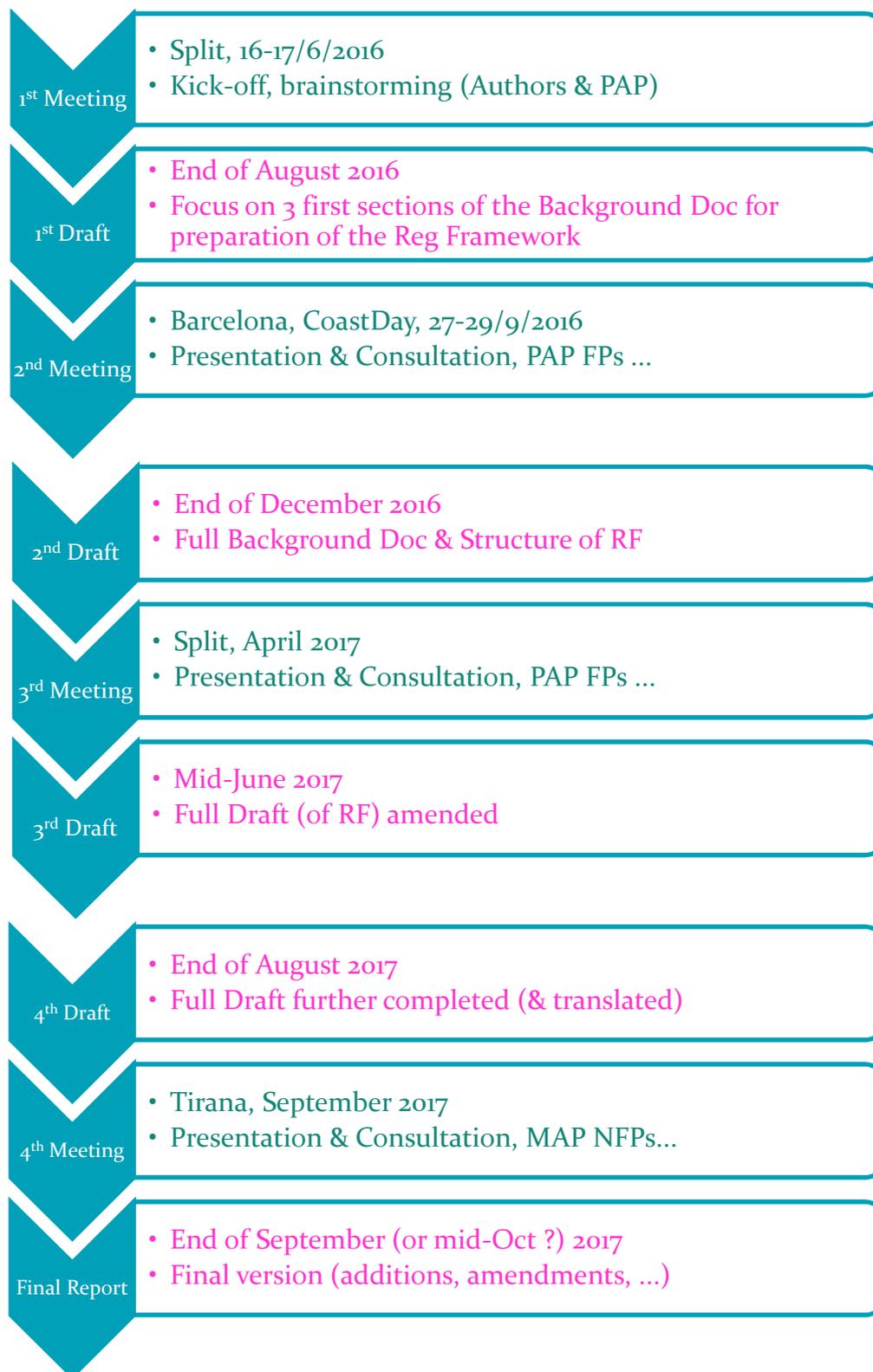
The current Report (from which the RF will stem) will focus on the following axes (see Fig. 4), formulating respectively its sections, in an effort to assess the current situation and identify appropriate recommendations to orient the future work of CPs. Emphasis will be put on coherence and coordination within UNEP/MAP, with the other actors in the Mediterranean and among different policies.



**Fig. 4:** Main axes/sections of the Report on the RF for ICZM-MSP

**Exchange of views** with other experts and representatives of the CPs is considered as a must, since this can complete the picture and facilitate consensus necessary for proper implementation. To avoid increasing costs, there is an effort to profit from any relevant meeting in the Mediterranean context allowing for **consultations** with both people with experience in ICZM implementation and representatives of the CPs. The kick-off meeting took place in Split (16-17/6/016) and gave the opportunity to the drafting team to have a brain-storming discussion and agree on the process. Three more meetings have been identified from the outset as appropriate for such consultations. Deadlines for the submission of the different drafts have been set out in a corresponding manner. Therefore, one could mention 8 benchmarks of the preparation of the RF (4 meetings and 4 draft reports), before submitting the Final Report and presenting it to the next COP (see Fig. 5).

The following Gantt graph (see Fig. 6) gives the time-table of the actions scheduled and will allow to follow the progress of work for the preparation of the background Report and the RF.



**Fig. 5:** Benchmarks of the way to a RF of ICZM-MSP

# Project activities & progress

Work Months: 7  
(since June 2016)

Plan Real % completed Real (beyond planned)

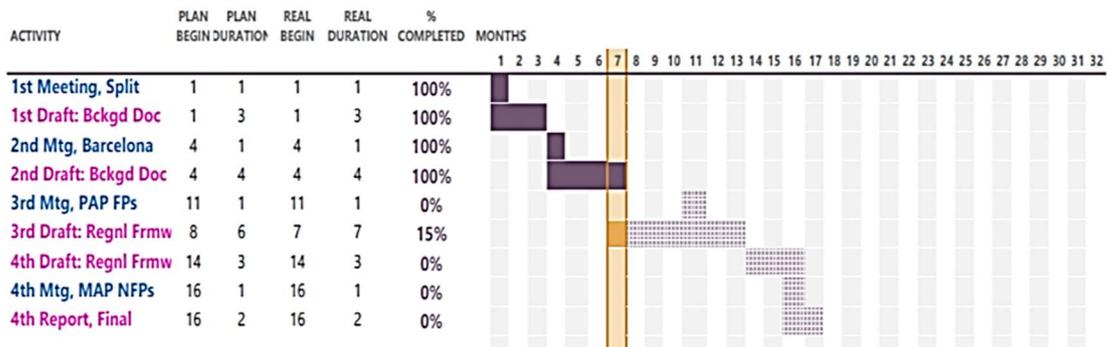


Fig. 6: Gantt graph of the progress of the preparation of the Regional Framework

# 1. VISION AND UNEP/MAP SYSTEM COHERENCE

## 1.1 The Vision for the Mediterranean Coasts

The vision of the Mid-Term Strategy 2016-2021 is the following: „*A healthy Mediterranean with marine and coastal ecosystems that are productive and biologically diverse contributing to sustainable development for the benefit of present and future generations*“. It is based on the vision approved by COP 16 in 2009 (Decision IG.17/6): „*A healthy Mediterranean with marine and coastal ecosystems that are productive and biologically diverse for the benefit of present and future generations*“.

It is also inspired by the vision of the MSSD: „*A prosperous and peaceful Mediterranean Region, in which people enjoy a high quality of life and where sustainable development takes place within the carrying capacity of healthy ecosystems. This is achieved through common objectives, cooperation, solidarity, equity and participatory governance.*“

This broadly defined vision, with its varying facets, would need to become more specific for the coastal zones, their development objectives and the quality of life desired for their inhabitants for the years to come. So far, **the coasts we want** are described as: resilient, productive, ecologically diverse, distinctive, attractive and healthy.

It is to be recognised though that work on how to define a common vision for the coastal areas has been carried out for many years mostly in PAP/RAC projects (see also Fig. 7).



Fig. 7: Key points of the process (Source: Guidelines for National ICZM Strategies)

However, in many of these projects the emphasis was put on the definition of the vision and the objectives for the future, while the realisation of the vision was not sufficiently elaborated. Two of the more recent projects, the EU FP7 funded PEGASO project and the UNEP/GEF MedPartnership project, have attempted – among other things – to go „From Vision to Action” developing technical tools for ICZM in the Mediterranean. Some more work at regional level to this direction would be valuable, in particular if **emphasis** would be given **on political, legal and governance aspects**. The 7 steps process proposed (*The Coasts we want, PAP, 2007, See Fig. 8*), applied to the conditions of each CP, could be also a good basis to this end, since the important objective to fulfil is to „create the enabling environment”.



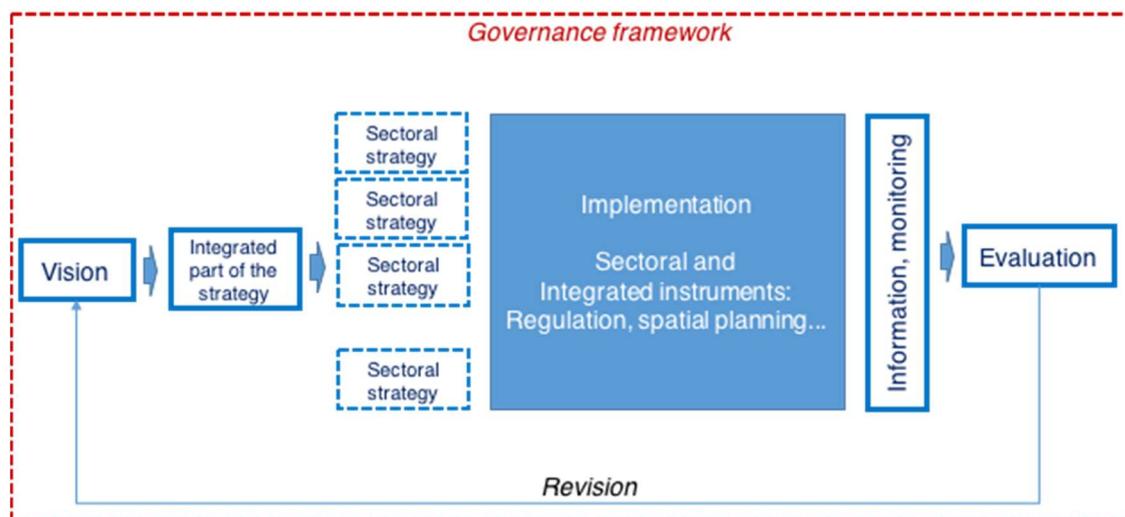
**Fig. 8:** The 7 steps process for ICZM (Source: *The Coasts we want, PAP, 2007*)

In fact, the **management process** in its broad sense is general and not specific to coastal zones. It implies in all cases:

- definition of a **vision** shared by all relevant stakeholders;
- definition of adequate **governance** for decision-making and implementation, with participation of the relevant stakeholders;
- definition and implementation of adequate **strategies** to achieve this vision, with a set of realistic **objectives** and corresponding time frame;
- definition and implementation of adequate **action plans**;
- setting up of adequate **information** system, **monitoring** system, **evaluation** system.

The vision is a *shared and realistic desired future*; it should be based on forward thinking, taking into account external context, which cannot be changed from inside the managed system, and potential consequences of possible decisions within the system.

In the «management cycle» or «management loop» (see Fig. 9), integration should be everywhere, and in particular at the first stages (envisioning and overall strategic planning, which are – strictly speaking at least partly – out of management, as they set aims for management), at implementation level when relevant (integration instruments: spatial planning, information and monitoring) and at the end of the management cycle (evaluation/revision).



**Fig. 9:** The general Integrated Management process (Source: Chr. Le Visage, 2010)

As regards extension of implementation to the local scale, Plan Bleu has developed and tested (in collaboration with the Bayswater Institute-UK) a **participation-based tool** to support „territorial managers” and local decision-makers in implementing prospective analysis tools, called the „Imagine” method for Systemic Analysis and Prospective of Sustainability. This method allows them

to shape possible futures (based on past and current trends), and subsequently helps them to define action plans to move towards more desirable and sustainable futures. „Imagine” has proved particularly suitable to local ICZM initiatives in the Mediterranean where it was tested in many Coastal Area Management Programmes (CAMPs). More recently, within the framework of the MedPartnership sub-project „Integration of climate variability and change into national ICZM strategies” (ClimVar & ICZM), Plan Bleu and PAP/RAC worked together in developing and testing a participatory method called „Climagine”, which integrates the specific challenges of climate variability and change in ICZM process in two selected demonstration cases (Tunisia and Croatia). These tools could be beneficial at regional scale too.

**Box 2:** Points to retain regarding the enabling environment

**POINTS TO RETAIN**

1. Focus on facilitation of **implementation**. Apply an adapted 7-step process for ICZM to move from vision to action, by creating first „the **enabling environment**”.
2. Put **emphasis on political, legal and governance aspects**.
3. Pay attention to „**integrated tools**” in support to integration at implementation level.
4. Set up a complete **evaluation** scheme (objectives, indicators, evaluation *ex ante*, *in itinere* and *ex post*, revision).

## 1.2. The UNEP/MAP System Coherence

The **ICZM Protocol**, prepared and negotiated for long, came in 2008 to translate in operational terms the amended (in 1995) Barcelona Convention provision to extend its geographical coverage to coastal areas (see Art. 1.2).

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 (see *Table 1*). It is obvious that ICZM can and should provide support to the implementation of several of these Protocols, and therefore that the relevant objectives and provisions of these Protocols should be taken into account in all ICZM projects, plans and strategies. At the same time, policy decisions and Action Plans stemming from the other Protocols should be coherent with the ICZM objectives and complementary to the ICZM ones.

The **PAP/RAC** has been entrusted to coordinate the ICZM activities in the Mediterranean and to assume the tasks described in the Protocol (see Articles 2 (d) and 32). Other RACs are also developing activities related to and/or affecting

the coastal zones – fact that cannot be considered negative in principle, provided that coordination and coherence is ensured. The role of the RACs in the Regional ICZM is reflected in *Fig. 10*.



**Fig. 10:** Role of the RACs in the regional ICZM

It is important to note that some of the other Protocols explicitly use ICZM-like planning and management approaches (particularly the **SPA Protocol**, see Art. 7. 4): „When specially protected areas covering both land and marine areas have been established, the Parties shall endeavour to ensure the coordination of the administration and management of the specially protected area as a whole.”

So, it is also obvious that ICZM can support the implementation of several Protocols, and could be used in SPAs as often as integrated management with objectives beyond environmental protection is considered. Implementing ICZM (rather than developing specific management instruments and approaches) could widen the spectrum of measures and good practices, which could be mobilized for managing SPAs. On the other hand, studies under SPA/RAC on vulnerable species and habitats can be used as valuable guidance when preparing ICZM policies, plans and zoning.

Emergency plans and contingency plans are other examples of actions requiring integrated approaches, as they necessarily involve many or all maritime stakeholders, and many terrestrial ones, as well as pollution of marine environment by land based sources, which primarily affects the coastal zone and stakeholders in this area.

Furthermore, the ICZM Protocol constitutes the ideal instrument to promote and put into practice **EcAp**. Achieving Ecological Objectives (EO) and Good Environmental Status (GES) requires an integrated approach in order to address combined pressures and cumulative impacts in marine and coastal areas. ICZM provides the adequate tools to address these issues in coastal zones and promotes consensus among all parties involved in the use of coastal resources, while MSP does the same for offshore areas by operationally implementing Strategic Environmental Assessment (SEA) and Environmental Impact Assessment (EIA) to take into account cumulative impacts that cannot be addressed through sectoral approaches and regulations. Here, of particular importance is one of the major ICZM principles – timely coordination and regulation of activities and uses on land and sea, i.e. acting on the only aspect that can be efficiently managed within an ecosystem: its use by humans.

**Table 1:** Links of ICZM with the other Barcelona Convention Protocols

Protocol	Support from ICZM Protocol to the implementation of other Barcelona Convention Protocols
Dumping	Wastes should be disposed of on land. Parties should control wastes loaded by ships in its territory (Art. 10). If dumping is allowed (in any area including CZ) environmental assessment should be carried out.
Prevention and Emergency	Addresses threats to the marine environment or to the coastline or related interests (including maritime activities in coastal areas, ports or estuaries, including fishing activities). Obligations: monitoring, reporting obligations in territorial sea, emergency measures in ports (Art. 11) including pollution <u>emergency plans</u> , port reception facilities (Art. 14), assessment of <u>environmental risks of maritime traffic</u> , reception in <u>places of refuge</u> , including ports, of ships in distress presenting a threat to the marine environment.
LBS	The Parties shall take all appropriate measures to prevent, abate, combat and control pollution of the Mediterranean Sea Area caused by discharges from rivers, coastal establishments or outfalls. Art. 1). Focus on coastal disposal and coastal outfalls (Art. 7). Obligation of monitoring the level of pollution along the coasts (Art. 8) and to assess the effects of pollution from LBS on marine ecosystems (annex).
SPA	Addresses also coastal zones. Provisions for definition of strategies, plans and programmes for the conservation and of biological diversity and the sustainable use of marine and coastal biological resources and integration into the relevant sectoral and inter-sectoral policies (Art. 3). Art. 7 refers to ICZM: in SPAs covering both land and marine areas: the Parties should endeavor to ensure the coordination of the administration and management of the SPA as a whole. ICZM approaches can be applied to coastal SPAs. MSP is a necessary tool to protect SPAs.
Offshore	When exploration and exploitation of the seabed occurs in marine coastal zones, ICZM approach is a way of ensuring that proper planning management, governance and contingency planning measures are implemented. ICZM-MSP approaches can be applied to exploration, as well as installation and sustainable operation of O&G facilities (rigs, pipelines, sealines, ...) in coastal areas.
Hazardous wastes	ICZM not directly relevant for this Protocol.

Additionally, ICZM can play the same positive role for effective implementation of policies related to many **global and/or emerging issues** (CC, SLR/tsunami, erosion, and other coastal risks, ...), as they occur in concrete geographical zones, and thus it contributes to sustainable development, territorial cohesion and improvement of quality of life. It is to be recalled that **Art.22** of the ICZM Protocol foresees that CPs „*shall undertake vulnerability and hazard assessments of coastal zones and take prevention, mitigation and adaptation measures to address the effects of natural disasters, in particular of climate change.*” Work has been already done to this direction. „Guidelines for adapting to Climate Vulnerability and Change along the Mediterranean” have been developed (PAP, 2015), while the CPs have adopted a Regional Framework for Adaptation to Climate Change (COP19, February 2016).

COP19 has also adopted, among else:

- A Regional Action Plan on Sustainable Consumption and Production in the Mediterranean;
- A Regional Strategy for Prevention of and Response to Marine Pollution from Ships;
- A Roadmap for a Comprehensive Coherent Network of Well-Managed Marine Protected Areas (MPAs) to Achieve Aichi Target 11 in the Mediterranean;
- A Marine Litter Regional Plan in the Mediterranean; and
- An Integrated Monitoring and Assessment Programme of the Mediterranean Sea and Coast and Related Assessment Criteria.

Implementation of all these decisions by the CPs in a synergetic way will have positive effects on the Coastal Zones too.

The **coherence** of a context could be assessed at four different levels of application: as regards the legal documents, the decision-making, the coordination of actions (including monitoring and control) and the availability of information.

In principle, the UNEP/MAP system has foreseen provisions and mechanisms to ensure coherence (*see Table 2*), in particular as regards the two (or, partly, three) first levels.

One should stress the plethora of **publications** related to ICZM directly or indirectly and put on the websites of the RACs – in particular that of PAP/RAC and also of Plan Bleu. The scientific material is valuable, but the tools are not used in practice (often because it remains unknown) when work is undertaken at national level, fact that results in delays and waste of resources. It is important that experts of several **RACs** participate together in **projects** these last years (e.g., PEGASO and UNEP/GEF projects) and maybe this will happen in the course of the next biennium too **in MSP** activities. But still it would be useful to consider

ways of feeding regional and national ICZM activities with the results of studies and action plans carried out already by different RACs (on vision, strategic approach, vulnerable ecosystems, action plans, EcAp, management tools, adaptation to CC, monitoring results, etc.). **A single and user-friendly information system**, facilitating links and connections, with web-mapping, thematic references of studies and scientific information, summary descriptions of practices and tools, as well as with reference to a network of (Mediterranean mostly) experts/consultants by field of expertise, could act as a valuable **clearing house** to be available not only to FPs, but also to decision-makers, planners and NGOs.

**Table 2:** Ways to ensure coherence within the UNEP/MAP system

Level of application	Provisions
Legal documents	<ul style="list-style-type: none"> <li>▪ Coherence of Convention and Protocols (ensured by the MEDU, the CPs and the legal experts)</li> </ul>
Policy Decision-making	<ul style="list-style-type: none"> <li>▪ At UNEP/MAP level: functioning of ECP</li> <li>▪ At CPs level: NFPs network</li> </ul>
Coordination of actions / implementation, respect of commitments	<ul style="list-style-type: none"> <li>▪ At UNEP/MAP level: RACs undertake activities following the PoW (&amp; some room for initiatives)</li> <li>▪ At CPs level: political commitment, considerable flexibility following national conditions, often separate sectoral strategies/policies and local projects</li> <li>▪ Compliance Committee</li> </ul>
Availability / Dissemination of information	<ul style="list-style-type: none"> <li>▪ Use of websites</li> <li>▪ Process for the development of a single user-friendly system (at regional and national levels), need to improve visibility</li> </ul>

Variability and difficulties as regards coordination of implementation at national level is also important to examine and understand. This will be done under Chapter 2.

**Box 3:** Points to retain regarding coherence within UNEP/MAP

<b>POINTS TO RETAIN</b>
<ol style="list-style-type: none"> <li>5. Protocols can and should be <b>mutually supportive</b> in coastal zones.</li> <li>6. <b>Joint involvement of RACs in projects</b> can promote complementarity of policies and actions.</li> <li>7. There is lack of a <b>single and user-friendly information system</b>, facilitating links and connections, with web-mapping, thematic references of studies and scientific information, as well as with reference to a network of (Mediterranean mostly) experts/consultants by field of expertise, that could act as a valuable <b>clearing house</b> to be available not only to FPs, but also to decision-makers, planners and NGOs.</li> </ol>

### 1.3. Coherence with other Partners and Contexts

The UNEP/MAP system functions in the UN context and therefore a great number of UN policy documents and regulations are influencing its work. The following are mentioned on an indicative basis: Rio Agenda 21 (action 17), CBD, UNCLOS, IMO Conventions, Climate Change, FAO and its General Fisheries Commission for the Mediterranean (GFCM).

In the current context, reference is made specifically to MSSD, EU, GEF and UfM.

#### MSSD

The MSSD 2005-2015 was revised, adapted for the period 2016-2025 and adopted at COP19. Its motto for the new period ahead is: **„Investing in environmental sustainability to achieve social and economic development”**.

The first objective of MSSD is *„Ensuring sustainable development in marine and coastal areas”*. The other 5 objectives apply to coastal areas as well, in a more specific and focused manner (e.g., resource management, Mediterranean cities, climate change, green/blue economy, governance). The Mediterranean coastal zones are considered as a *„vital interface between land and sea”*. The need to apply MSP and SAE/EIA is mentioned several times in the MSSD.

There is much coherence and strong parallelism between MSSD and MTS, though their character and time scale is different. Furthermore, MSSD addresses partners beyond the CPs, including regional institutions, local authorities, civil society and private sector, and the implementation of its sustainability objectives rely on them. One could say that, in a way, progress in implementation of MTS contributes considerably to progress in fulfilling the MSSD objectives, since – among else – ICZM’s ultimate objective is Sustainable Development in coastal zones.

#### European Union

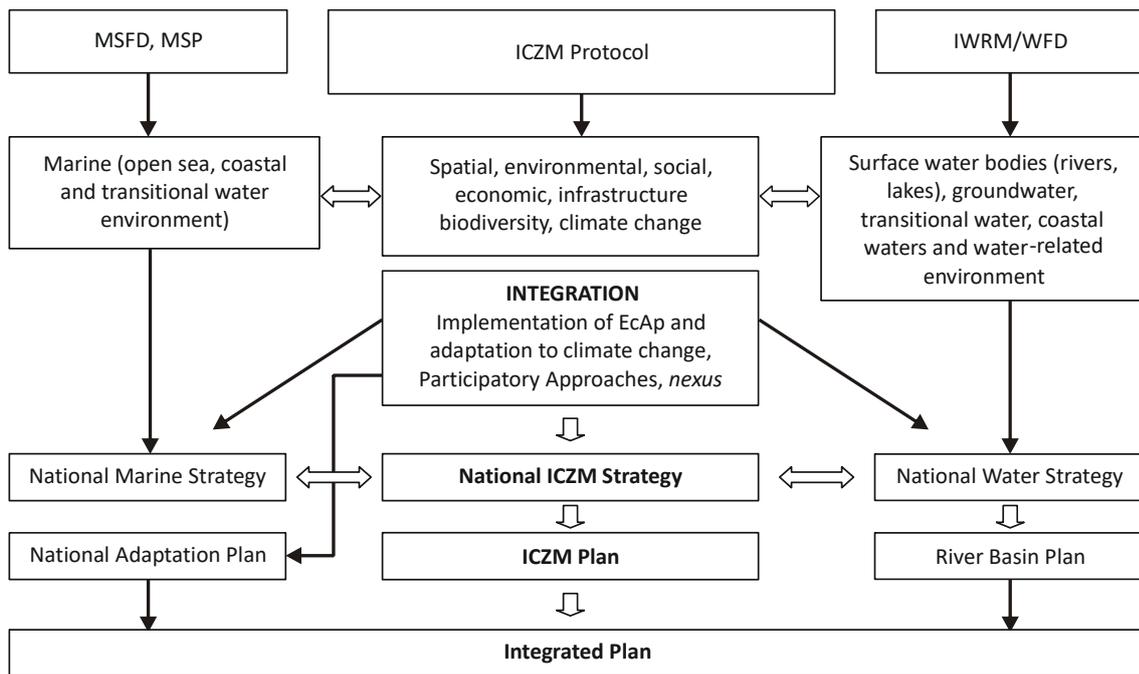
The EU is a partner of a particular importance and special nature. On the one hand it is a CP to the Barcelona Convention, with whatever this implies. On the other hand, nearly all the Northern Mediterranean States are EU Member States and they have to comply with Community legislation, which goes beyond UNEP/MAP commitments. Furthermore, the EU produces new policies not binding for the non-EU Mediterranean countries but often inspiring the UNEP/MAP system. And, in addition to these, the EU provides also funding to support its policies including in some cases neighbouring countries.

It is important to underline that following the EU Treaty (Art. 216(2)) the EU's international agreements bind EU institutions and its Member States. A practical consequence is that all EU Member States are committed to implement the **ICZM Protocol**, even if they have not yet ratified it, because it has been acceded by the EU. This important interpretation has been confirmed by the Court of Justice of the European Union (case of the Etang de Berre, France).

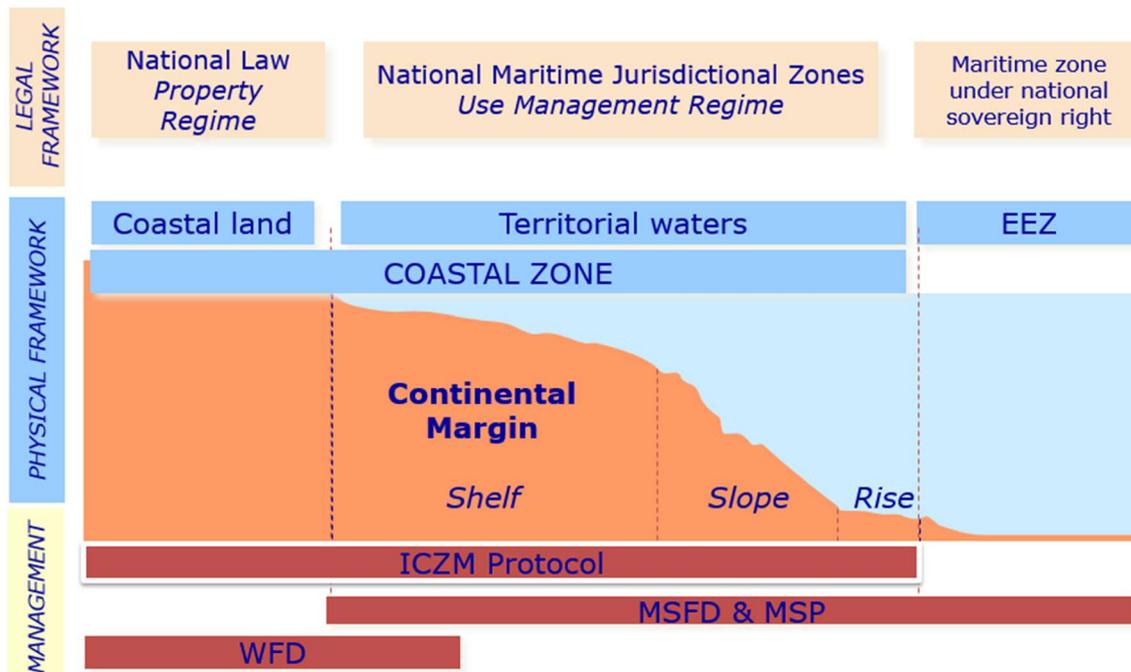
Furthermore, a number of Directives and other policy documents apply also to ICZM. The most relevant of them are:

1. **Water Framework Directive (WFD, 2000/60)**. It addresses water quality in coastal zones.
2. **Habitats Directive**, for marine habitats (most of them are in coastal zones and managing these areas can be done through ICZM approaches).
3. **EU Recommendation on ICZM (2002)**. Not a legally binding document, but it aims at supporting the implementation of ICZM principles by EU Member States.
4. **EU Integrated Maritime Policy (IMP, 2007)**. It aims to better manage the maritime areas and their resources at the EU scale, and to better protect the marine environment. An important axis of this IMP is regional cooperation: the EU provide support and cooperation for IMP in the regional seas around the EU, and the Mediterranean has a special importance in this field. The following two Directives are important pieces of legislation related to IMP.
5. **Framework Directive 2008/56 on „Marine Strategy“ (MSFD)**, aiming at achieving Good Environmental Status (GES).
6. **Directive 2014/89 on „Maritime Spatial Planning“**.

The links among MSFD/MSP, ICZM and WFD are reflected in *Fig. 11* and *Fig. 12* below. Ensuring not only coherence and coordination of actions but also avoiding overlapping and unnecessary administrative overload (e.g., when reporting) is a must.



**Fig. 11:** Coastal zone relevant EU legislation and resulting obligations  
 (Source: *An Integrative Methodological Framework, PAP, 2015*)



**Fig. 12:** Coastal zones and respective EU legislation scope  
 (Source: *adapted from Vallega, A., 1999*)

In this context, and to promote the above-mentioned policies, **data banks** and other tools have been developed (e.g., EMODNet, Maritime Atlas, Virtual Knowledge Centre for the Mediterranean, ...), while important initiatives and **funding programmes** (Adriatic/Ionian, Horizon 2020) have been launched to which non-EU Member States are also eligible and can benefit from them.

The EU supports the development of **sub-regional strategies** or initiatives (e.g. EU Strategy for the Adriatic and Ionian Region <EUSAIR> and Western Mediterranean Initiative) in areas with important coastal issues, where ICZM approaches should play a major role.

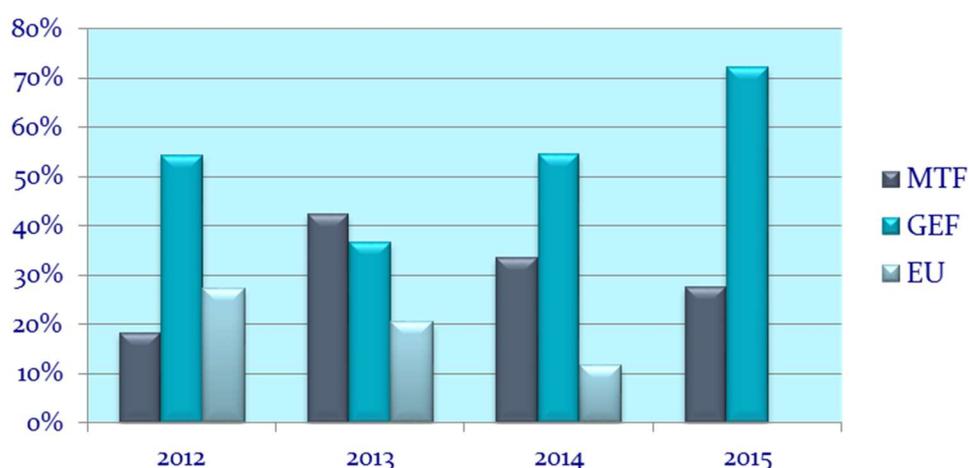
The cross-border cooperation within the **European Neighbourhood and Partnership Instrument** (ENPI) constitutes a framework for cross-border cooperation, with a strong participatory approach and consultations. It brings together strategies and programmes relevant for the Mediterranean basin to ensure consistency and synergies, including ICZM.

Furthermore, in the context of **Horizon 2020: cleaning up the Mediterranean** (*European Commission, 2010*), the members of the initiative are North African, Middle Eastern and Balkan countries, which are not EU members. UNEP's Mediterranean Action Plan is also a partner. Three working groups operate in the initiative's context, including pollution reduction and capacity building.

### **Global Environmental Facility (GEF)**

The overarching goal of UNEP/GEF initiatives is to enable a coordinated and strategic approach to catalyse the policy, legal and institutional reforms, and the investments necessary to reverse the degradation trends affecting the Mediterranean (in particular the GEF eligible countries), including its coastal habitats and biodiversity. The main activities were carried out under the Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem (MedPartnership) and the Integration of Climatic Variability and Change into National Strategies to Implement the ICZM Protocol in the Mediterranean (ClimVar & ICZM) projects. The MedPartnership and ClimVar & ICZM together have implemented more than 150 activities and 80 demonstration projects.

GEF is a considerable contributor to funding of ICZM projects and activities led by PAP/RAC (*see Fig. 13*) and it covers gaps in non-EU CPs, where launching strategic actions was not that easy in the past.



**Fig. 13:** Funding of PAP/RAC-led activities during the first four years of the Action Plan implementation (Source: *Mid-Term Evaluation, 2015*)

### Union for the Mediterranean

The UfM has signed a Memorandum of Understanding (MoU) with UNEP/MAP in Dec. 2013 and a number of its initiatives and projects are of interest for ICZM. On 13<sup>th</sup> of May 2014 the UfM adopted a Ministerial Declaration on **Climate Change** and experts' work started after that. The MedCOP Climate 2016, took place in Tanger, Morocco, in July 2016. It is a Mediterranean multi-actor climate conference aiming to contribute through a regional perspective to the international efforts against climate change.

Furthermore, the UfM adopted on the 17<sup>th</sup> of November 2015 a Declaration on **Blue Economy**, which fully recognizes the role of Barcelona Convention, UNEP/MAP action and the importance of developing ICZM in the Region in order to support Blue Economy.

Reference should also be made to **5+5 framework**. The 5+5 dialogue is a Mediterranean forum for dialogue, which brings together ten countries bordering the Western Mediterranean Basin: five countries of the Arab Maghreb Union (Algeria, Libya, Morocco, Mauritania and Tunisia) and five countries of the European Union (Spain, France, Italy, Malta and Portugal).

It remains to build upon this positive policy context in a concrete and focused manner.

**Box 4:** Points to retain regarding coherence between UNEP/MAP and other organisations/programmes

#### POINTS TO RETAIN

8. Further strengthening of **complementarities and synergies** is imperative in order to achieve more effective results and to mainstream resources.
9. It is also important to **avoid overlapping** and unnecessary administrative overload (e.g., when reporting).
10. The UNEP/MAP system can further benefit from **appropriate support, tools and funding** made available by the EU. In parallel, the EU can benefit from the implementation of consistent policies in its Mediterranean neighbourhood.
11. **Ensuring coherence between funding resources and increasing the share of external funding** is key for implementing a Regional ICZM Strategy and the respective Action Plan in the Mediterranean.

## 2. COORDINATION AND COMPLEMENTARITY OF POLICIES

The trend for urbanisation and „littoralisation” of the Mediterranean coasts has been identified as a major threat in the region since the ‘90s. Concentration of many important economic sectors and activities (e.g., tourism, industry, transport, ports, trade, housing, ...) on the same often narrow strip of land, which is usually ecologically sensitive, puts **pressure** on the resources and landscape, causes conflicts among activities claiming the same space and reduces opportunities for high quality of life. There is a growing number of strategies overlapping in coastal zones:

- land strategies at all scales, sectoral and territorial;
- maritime strategies, including both sectoral (e.g., fisheries, transport, energy, ...) and cross-cutting (e.g. MSP, Blue Economy, IMP) – since the sea is a main component of development too.

The risk of lack of consistency is clear – so is the need for more consistent visions in order to mobilize stakeholders and to ensure proper conflict management regarding uses of maritime space.

The **integrated approach** has been recognised as of key importance for coastal zone management to ensure effectiveness, mainstreaming of resources, sustainability and quality of life. Integration, encompassing a life-cycle analysis (supported also by EIA and SEA), an ecosystem-based management (combining nature, water, waste and forest policies), timely measures for global and/or emerging issues (e.g., CC and SLR), long-term perspective and participatory governance, can offer benefits on concrete grounds. ICZM provides mechanisms for:

- Management of space: maritime and terrestrial – separate allocation or sharing;
- Arbitration of cross-sectoral conflicts (for space or for resources) – conflicts solving, synergies development;
- Management of cumulative impacts: SEA, EIA, compensation...;
- Coordination of policies and resources;
- Knowledge and information sharing;
- Governance: involvement of all stakeholders (local or not, maritime and terrestrial) and public participation;
- Funding: contribution from economic sectors to management (participation, environmental management).

These mechanisms can be beneficial to coastal zones and to the maritime sectors, since they promote:

- Acceptance (by population, other stakeholders);
- Synergies and reduction of costs;
- Adaptive management following a gradual process;
- Ultimately, sustainable development.

ICZM is the most appropriate approach to manage potential conflicts among various sectoral policies (conflicts for space, resources, infrastructures...), as well as between maritime and terrestrial policies.

Although coastal zones are often considered from the point of view of land (land space, terrestrial activities of terrestrial components of maritime activities such as ports or social aspects), they are of major interest for **marine and maritime policies**, whatever the point of view:

- Many *marine environmental assets* concentrate in marine coastal areas (habitats and ecosystems);
- Many *marine resources* concentrate in the same areas (e.g. fishing and other biological resources, mineral resources...);
- Moreover, *all maritime activities start from and end at the coastal zones*, and require space and resources (power, networks, infrastructures...) in these areas. Getting access to coastal zones from the sea is a key point for most of maritime activities.

Hence all maritime policies do have a coastal component (usually further extending on land, for instance through transport networks), and usually this coastal component is a key one for these maritime policies.

All maritime activities need space in the coastal zone, at the interface (ports, dockings, quays, slipways...) but also in the marine part (shallow water areas, moorings areas, sheltered basins...) and on land (storage and workshops, parking areas, networks: power, roads and railways, water, communication...)

Many maritime activities (particularly those related to exploitation of biological resources and tourism and leisure) rely on healthy coastal ecosystems, which are threatened mainly by pollution from land-based sources, which could be controlled on land.

In coastal zones, all issues related to maritime policies can be efficiently addressed through ICZM. On an indicative basis:

### *Natural resources*

- Biological: fisheries (space, resources, healthy environment, ports), aquaculture and shellfish farming (coastal space, water quality);
- Mineral: sand, salt (salt ponds: space, water quality);

- Energy: marine renewable energy (waves, currents, wind, thermal energy) is easier to produce in coastal zones (shallow water, shorter cables or tubes...); need for space, harbours, coastal infrastructures, cables and coastal power network.

### *Transport and communication*

- Ports and harbours are major infrastructures for shipping, and provide many jobs and added value in the surrounding coastal zones;
- Cables: power, information (communication submarine cables): all of them start and end at the coast;
- Pipelines: oil, gas, water: all of them start and end in the coastal zone, they often provide coastal activity.

### *Environment*

- Coastal zones host most of the richest marine ecosystems (nutrients from land, rivers and atmosphere, penetration of solar light);
- A large part of marine life depends on coastal ecosystems at some stage of life;
- Marine and coastal vulnerability needs to be addressed and resilience to climate change and coastal risks needs to be ensured.

### *Cultural heritage*

- Major sites of archaeological and cultural heritage are located in the coastal areas, must be protected and can support the development of major tourism activity in the coastal areas.

### *Tourism and recreation*

- Cruises: calls are a major component of cruises and provide jobs and added value;
- Yachting and boating: need for ports and harbours, water quality and preserved environment, access to maritime space (competition with other uses);
- Diving is usually practiced in coastal zones;
- Nautical sports concentrate in coastal zones, need beaches and specific areas.

**ICZM can support the implementation** at local level and on the coast **of maritime policies** defined at higher scale, particularly when local specific actions are needed to support such policies, by providing adequate instruments for:

- Allocation of space for ports or interface areas (e.g. cable landings...), which depends on both the marine side (channels, etc.) and the land part (space, networks);

- Allocation of land space to maritime activities that need proximity of the sea:
  - Shipyards, maintenance and support, aquaculture, energy production and transformation...
  - Living areas for people involved in maritime activities, when there is competition with non-specialized terrestrial activities (housing...);
- Environmental marine policies in areas where there are important environmental assets:
  - Integrated management is a key approach for controlling human maritime activities and *pressures* in order to protect the environment (in MPAs or in other managed areas);
  - Many *maritime activities rely on healthy environment* in coastal zones, where most of the threats and pollution are coming from the coastal zone or through the coastal zone.
- *Governance*: in the coastal zone, two distinct governance schemes apply to the land part (communities, inhabitants...) and to the marine part (sea users, State). ICZM can provide adapted governance schemes needed for implementation of maritime policies at local level in coastal zones. Involvement of civil society, scientists, local communities and other stakeholders in the governance process at all levels can ensure inclusive processes and integrity in decision-making.

The possible contribution of maritime policies to ICZM is as follows:

Maritime policies can provide high level/large scale/long-term objectives to ICZM projects. At the same time, local community needs can also provide input to maritime policies impacting the wider scale (e.g. claiming of marine areas for specific activities such as aquaculture, exploitation of sub-merged sand deposits, etc.).

ICZM projects are often local projects, which makes sense when management is concerned (proximity needed between decision level and implementation). Nevertheless, the objectives to be achieved through integrated management in the coastal zone are not defined only at local scale and level, but they also depend on the objectives defined by the maritime policy on the coastal zones.

As an example, it is clear that the decision to build major harbours for international trade cannot be just a local decision: harbours are key infrastructures for any national economy, and the decision to accept a harbour cannot be left to the local decision-makers and population. On the other hand, their interests should be fully taken into account in the development and exploitation of this harbour.

Ultimately, the objectives of ICZM for the marine part should be a mix of:

- Objectives related to the coastal component of maritime policies (e.g. fisheries, minerals, energy production...)
- Objective defined by local stakeholders, in line with policy and objectives defined at higher level.

### ***Maritime policies can provide relevant governance frameworks for dealing with maritime issues***

Only a part of maritime stakeholders are local stakeholders. Given the „borderless“ character of the sea and the general principle of freedom of access, often users of the maritime area in front of a territory are not local stakeholders, and therefore their positions are not fully taken into account when defining objectives or management schemes. Maritime policies provide (or should provide) relevant governance schemes for maritime issues at all scales, such as governance setups related to MSP (see below), which can and should be used within the ICZM governance schemes.

### ***Maritime policies can provide additional resources to support ICZM projects***

Self-sustainability is key for long-term management of the coastal zone. ICZM should ideally be funded by local resources. Maritime activities use the coast (space, resources) and cause risks for the coast (e.g. shipping and accidents); hence they should contribute to the funding of ICZM. This is possible through allocation of a part of the resources generated by the maritime activities, including the royalties for the exploitation of marine resources (e.g. sand, O&G, biological resources...), or fees for use of maritime space (e.g. public maritime domain) or coastal infrastructure (ports, networks).

### ***Possible support from ICZM to Climate Change actions***

One should also mention at this point the provisions related to **Climate Change**. The *ICZM Protocol* reserves specific dispositions to the climate change issue: *„Worried by the risks threatening coastal zones due to climate change, which is likely to result, inter alia, in a rise in sea level, and aware of the need to adopt sustainable measures to reduce the negative impact of natural phenomena“*. The Protocol aims among its objectives, to: *„prevent and/or reduce the effects of natural hazards and in particular of climate change, which can be induced by natural or human activities“*. Considering the adverse effects of climatic risk in coastal zones, the ICZM Protocol provides the following: *„Within the framework of national strategies for integrated coastal zone management, the Parties shall develop policies for the prevention of natural hazards. To this end, they shall undertake vulnerability and hazard assessments of coastal zones and take prevention, mitigation and adaptation measures to address the effects of natural disasters, in particular of climate change“*.

The *MSSD 2016-2025* has addressed climate change as a priority issue for the Mediterranean area underlining the following : (i) Scientific knowledge and tools on climate change are not sufficiently accessible and used for decision-making; (ii) The damage caused by climate change, including extreme events and long-term steady changes, increases in key vulnerable areas and sectors; (iii) Growing trend of greenhouse gas emissions within and beyond the energy sector; (iv) Slow pace in emergence of climate-friendly societies due to limited access to best available technologies and alternative development practices; (v) Climate change adaptation and mitigation costs largely unmet at national and local levels; (vi) Over-reliance on public funding and state-led initiatives.

Most scenarios predict a climate worsening evolution in the Mediterranean region, and *MSSD 2016-2025* calls for: „*progress towards, low-carbon and climate-resilient, increase scientific knowledge, raise awareness, and develop technical capacities 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, 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*”.

In addition to this, the Regional Climate Change Adaptation Framework for the Mediterranean Marine and Coastal Zones (UNEP/ MAP) underlines the necessity to promote appropriate institutional and policy frameworks and to improve availability and use of reliable data, information and tools. In this line, and dealing with climate change considerations, the Decision IG.21/11 stresses the need for synergies and coherence between the *MSSD* and other regional initiatives (Roadmap for the implementation of an ecosystem approach in the Mediterranean, the Action Plan for the Implementation of the Protocol on Integrated Coastal Zone Management and the Regional Climate Change Adaptation Framework).

In the southern and eastern Mediterranean countries, the pressures on ecosystems remain strong, particularly in North African countries because of the high population pressure on land and water resources, urban sprawl, over-exploitation of forests, overgrazing and overfishing. Desertification is amplified by climate change, causing increased aridity and extreme events, with strong socio-economic impacts. The *MSSD* underlines the need for strong regulations and tools for spatial planning. It calls for the promotion of blue infrastructure that will contribute to improved resilience to climate change. This calls for use of spatial planning systems, capacity building and sharing of best practices at the national level, as well as preparation of regional guidelines for planning multi-functional green and blue infrastructures in the Mediterranean (*MSSD 2016-2025*).

**Box 5:** Points to retain regarding complementarity of policies

**POINTS TO RETAIN**

12. Most of the sectoral policies being applied in the coastal areas, it is key to ensure **coordination, complementarities and synergies** of different policies in the same geographical areas in a **sustainable perspective**.
13. Beyond the usual **pressures on the land part** of the coasts, planners and decision-makers need to take into account also pressures **on their marine part**, as well as **conflicts** among activities claiming space and resources in the coasts and **global and/or emerging issues**.
14. The **integrated approach** is of key importance for coastal zone management. It offers potential for complementarity and synergies and for sustainable development.
15. **The MSP approach is fully consistent** at the level of principles **with the ICZM Protocol**. MSP provides a complete set of instruments and measures for dealing with sustainable management of maritime activities.
16. **ICZM can support the implementation of maritime policies** on the land part of the coast **and vice versa**.
17. **Climate Change** representing a risk and a deterioration factor for the Mediterranean, it is of great importance to take timely and appropriate measures of adaptation to its impacts, as part of the global ICZM policies.

### 3. MARINE SPATIAL PLANNING

The sea, including the Mediterranean Sea, is a complex system that cuts across administrative borders. It is subject to considerable pressures from land and sea-based human activities, competing each other for vital space and resources and threatening sensitive and precious coastal and marine habitats. To face these conflicts, explore the opportunities of synergies among different uses and mitigate their environmental impacts, it is necessary to elaborate and adopt a holistic approach supporting the development of coherent pictures (visions and strategies) and the creation of spatial plans and examining the issue of the needed integration among different policy and planning tools. The challenge is to plan and regulate marine and maritime activities overcoming the sectoral approach and integrating horizontally and vertically different competences and expertise. Current and future competition for the marine space (also in the light of the Blue Economy process) highlights the need for an efficient, sustainable and long-term management of this space.

The need for a more holistic approach to sea planning and management is embedded within the approach promoted by the Integrated Maritime Policy (IMP) of the EU and the related Marine or Maritime Spatial Planning (MSP)<sup>1</sup>. According to Ehler and Douvère (2009), *„Marine spatial planning is 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”*. Art. 3 of Directive 2014/89/EU establishing a framework for MSP defines Maritime Spatial Planning as *„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”*. The MSP process typically consists of data collection, stakeholder consultation and the participatory development of a plan, and the subsequent stages of implementation, evaluation and revision (COM(2008) 791).

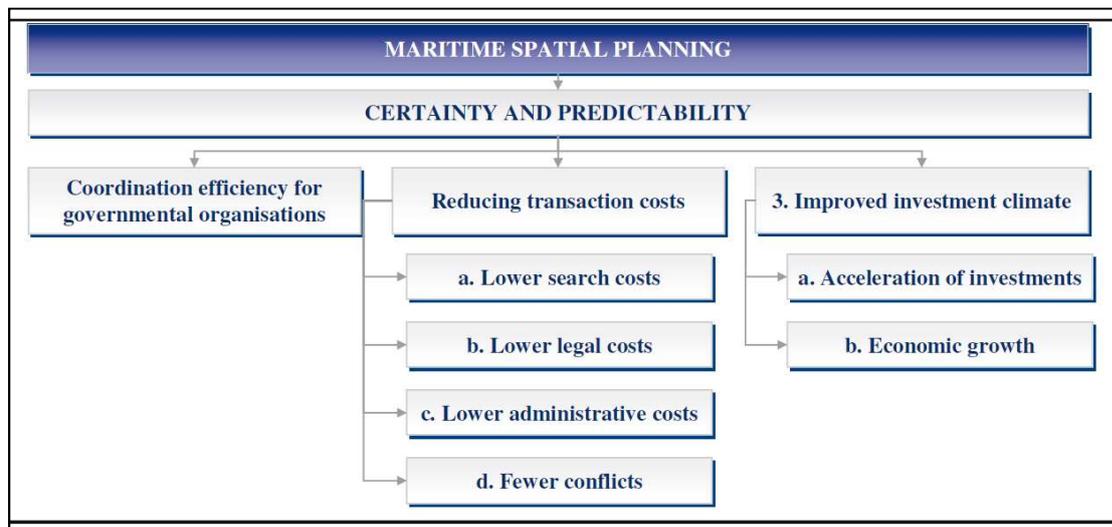
Expected benefits of MSP are:

- 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;

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<sup>1</sup> 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.

- Reduction of conflicts and capitalization of synergies among different uses of the marine space;
- Support 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 (*Fig. 14*);
- Increased cross-border cooperation on transboundary relevant issues;
- Improved protection of the environment, through early identification and reduction of impacts as well as promotion of opportunities for multiple use of the marine space;
- Identification of (spatial) measures that can support the achievement of the Good Environmental Status according to the EcAp as defined within the Barcelona Convention framework (including related Ecological Objectives and indicators) and the MSFD requirements.
- Improve protection of cultural heritage and preservation of intangible values of the sea.



**Fig. 14:** Direct economic effects of certainty and predictability  
(Source: Policy Research Corporation, 2010)

Although MSP is not analytically mentioned in the Protocol on ICZM in the Mediterranean (UNEP/MAP/PAP, 2008), its concept is somehow recalled by the same document, in particular in art. 3 defining the area to which the Protocol applies, i.e. the area between:

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

According to the above definition, the application of the ICZM Protocol is extended to the marine area, although within the limits of the territorial sea. Planning of the sea space can be considered, therefore, a component of requirements of the legally binding ICZM Protocol. Relevance of MSP within the Barcelona Convention framework was highlighted in the statement made by the UNEP/MAP National Focal Points (NFPs) at their meeting held in Athens in September 2013, which was endorsed by the 18<sup>th</sup> Ordinary Meeting of the Contracting Parties to the Barcelona Convention (COP18) held in Istanbul in December 2013, that „marine spatial planning was a significant venue to be explored for the future of MAP and in particular for the implementation of the ICZM Protocol”. The need to apply MSP is clearly mentioned several times in the Mediterranean Strategy for Sustainable Development (MSSD) 2016-2025 (UNEP/MAP, 2016), and in particular under MSSD Objective 1 strategic direction 1.2: *„Establish and enforce regulatory mechanisms, including Maritime Spatial Planning, to prevent and control unsustainable open ocean resource exploitation”*. MSP is also recalled in the UNEP/MAP Mid-Term Strategy 2016-2021, e.g. under the Governance overarching theme, the core themes „2. Biodiversity and ecosystems” and „3. Land and sea interactions and processes”, and the cross-cutting theme „Integrated Coastal Zone Management”. Therefore, it appears that there is a clear intention to foster maritime planning in the Mediterranean Sea under the umbrella of the Barcelona Convention and in particular of the ICZM Protocol.

This intention is further legally underpinned by the already mentioned Directive 2014/89/EU calling EU Member States, including Mediterranean ones, to implement some common clear actions towards the elaboration of MSP plans. Art. 12 of this Directive underlines the importance of approaching MSP also at the macro-regional level, inviting Member States, where appropriate, *„to cooperate with third countries on their actions with regard to maritime spatial planning in the relevant marine regions and in accordance with international law and conventions, such as by using existing international forums or regional institutional cooperation”*. Concerning Directive 2014/89/EU, it should be finally noted that its provisions apply to marine waters of Member States (art. 3.4), defined as „waters, the seabed and subsoil on the seaward side of the baseline from which the extent of territorial sea is measured extending to the outmost reach of the area where a Member State has and/or exercises jurisdictional rights, in accordance with the UNCLOS”, according to art. 3.1 of Directive 2008/56/EC (MSFD), thus extending for EU countries the geographic scope mentioned by the ICZM Protocol (territorial sea).

Many coastal Mediterranean countries have not claimed maritime zones (in particular, Exclusive Economic Zone – EEZ and derivative zones as fishery zones, fishery protection zones or ecological protection zones), which they might be entitled to establish under the international law (UNCLOS), for a number of reasons including economic and geopolitical ones. The result is that large areas of the Mediterranean Sea are beyond jurisdiction of coastal States and fall under the regime of the high seas. The limited size of the Mediterranean Sea is such that if the States were to claim full jurisdiction of their waters, the whole sea would be under national jurisdiction (*Suarez de Vivero, 2010*). Delimitation of maritime boundaries in the Mediterranean is, therefore, complex (also due to other geographic factors, such as the high number of islands) and implies agreement amongst neighbouring States (if agreement cannot be achieved through negotiation in accordance with UNCLOS, the matter must be referred to a dispute resolution procedure). Indeed, there are already several disputes to be solved also on territorial sea borders. This has great implication on the geographic scope of MSP (Policy Research Corporation, 2011); those States that have not claimed an EEZ or derivative zones can set-up an MSP process only in their territorial sea and allocate space for those sea-based activities taking place on the continental shelf (*MRAG et al., 2013*). Of course, countries can (and should, where feasible) cooperate, in particular in the context of regional or multi-lateral conventions, to implement possible MSP-related activities in areas falling under the regime of high seas.

The Mediterranean Sea has often been called the incubator of Western civilization<sup>2</sup>, to underline its cultural and historical significance. This region comprises a vast set of coastal and marine ecosystems delivering valuable benefits to its coastal inhabitants (*UNEP-MAP, 2012*) and forming, together with cultural and historical assets, the essence of the Mediterranean beauty. The Mediterranean is not only complex in ecology, but also socio-politically and economically; over the last decades, it has faced rapid economic development, which has increased pressures on the marine space, biological resources and ecological habitats and processes.

In the twelve EU and candidate or potential candidate countries of the Mediterranean (Spain, France, Italy, Greece, Slovenia, Croatia, Malta, Cyprus, as well as Bosnia and Herzegovina, Montenegro, Albania and Turkey), the total gross value added (GVA) generated by maritime economic activities exceeded EUR 63 billion in 2010, i.e. more than three times the total GVA generated by the same activities in the Baltic Sea (*EUNETMAR, 2014*). This figure is surely higher if the other Mediterranean countries are taken into consideration. According to the

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<sup>2</sup> Encyclopaedia Britannica – <https://www.britannica.com/place/Mediterranean-Sea>; accessed on 8.11.2016.

same study quoted above, coastal tourism and shipping (both deep-sea and short-sea <sup>3</sup>) represent 73% of this total. Coastal tourism and marine aquaculture are identified as the most promising and relevant maritime activities in almost all analysed countries, followed by short-sea shipping and cruise tourism. Coastal tourism and maritime transport are also significant economic activities for the European Neighbourhood Policy's partner countries analysed by the same study (Morocco, Algeria, Tunisia, Egypt, Israel, Jordan, Palestine, Lebanon). Tourism is particularly relevant in these countries, considering their wealthy cultural heritage. Other activities, such as oil and gas extraction and aquaculture, are also considered as promising in some of these countries.

According to the analysis carried out by the MEDTRENDS project<sup>4</sup>, except for professional fisheries, all Mediterranean maritime sectors (such as tourism, shipping, aquaculture and offshore oil and gas, etc.) are expected to keep growing during the coming 15 years. Emerging sectors, such as renewable energy, seabed mining and biotechnology are expected to grow even faster, although in absolute terms they will be less relevant than more traditional uses also in the future and there is greater uncertainty on their possible evolution as well as expected impacts on marine ecosystems (*Piante and Ody, 2015*) (*Fig. 15*).

Interactions between sectors vary greatly. For some sectors, interaction might be positive, e.g. the development of offshore wind farms areas providing potential for new aquaculture production sites. On the other hand, the growing development of maritime sectors can increase existing conflicts and generate new ones, as:

- Conflicts regarding space use when one sector excludes or strongly limits some or all other sectors from specific areas. This can be the case for coastal activities that develop in already crowded areas. The urgent need for integrated planning in Mediterranean coastal areas to address current and future conflicts has been widely recognised (*Policy Research Corporation, 2011; Piante and Ody, 2015*). Conflicts may also rise offshore, e.g. between maritime traffic and increasingly developed offshore oil and gas infrastructures or future wind farms.
- Negative effects of some land-based and maritime activities on other activities that are highly dependent on healthy ecosystem services, as in particular tourism and fisheries.
- Competing interests due to the exploitation of the same marine resources. This is the case for professional fishing that competes with the constant increase of recreational fishing.

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<sup>3</sup> The terms „short-sea” and „deep-sea” are mentioned as used in the specific study though there might be a need for more appropriate terms.

<sup>4</sup> <http://www.medtrends.org/>; accessed on 8.11.2016.

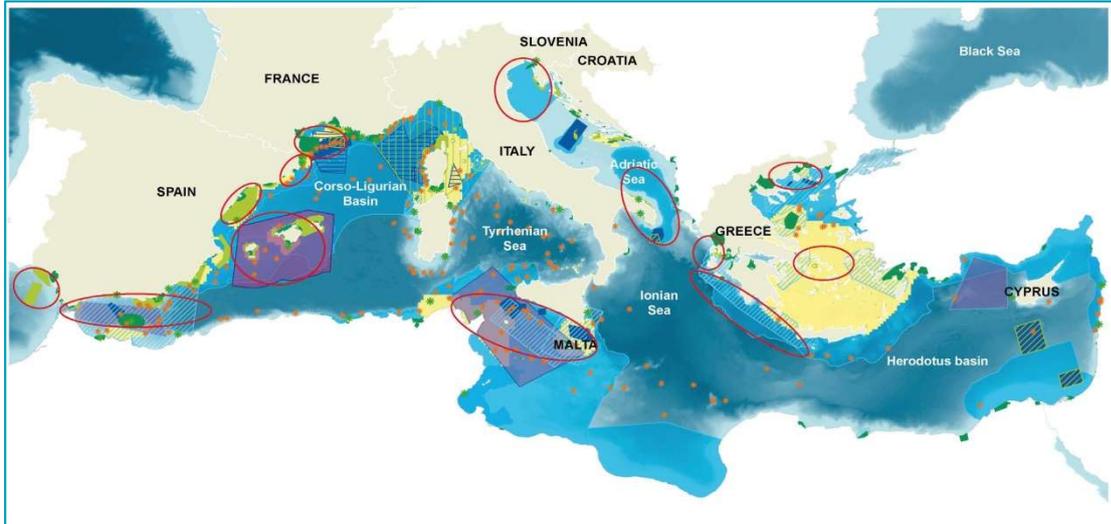
Sector	Expected development trend of sector	Estimations
Oil and gas exploration and extraction		<ul style="list-style-type: none"> <li>• <b>Offshore oil production could increase by 60% between 2010 and 2020</b> at the Mediterranean regional level, rising from 0.7 mbd to 1.12 mbd.</li> <li>• <b>Offshore gas production could increase five-fold from 2010 to 2030</b>, from 55 Mtoe/year to 250 Mtoe/year at the Mediterranean regional level.</li> </ul>
Maritime transport and ports		<b>4% per annum growth rate in global trade over the next decade</b> can be anticipated and will be reflected in international maritime traffic routes at the Mediterranean regional level (Suez-Gibraltar axis, Aegean Sea, Adriatic Sea, and to a lesser extent the northwestern Mediterranean)
Professional fishing		A <b>downward trend</b> is expected at an uncertain rate at the Mediterranean regional level.
Recreational fishing		An <b>upward trend</b> is expected at an uncertain rate in the Mediterranean countries of the EU.
Marine aquaculture		Forecast of fish aquaculture production in the Mediterranean countries of the EU anticipates a <b>112% increase between 2010 and 2030</b> . Production could jump from 280,000 tonnes to nearly 600,000 tonnes.
Tourism (coastal tourism, cruise tourism, recreational boating)		<b>International tourist arrivals in the Mediterranean should increase by 60% between 2015 and 2030 to reach 500 million arrivals in 2030</b> at the Mediterranean regional level. France, Italy and Spain will remain the three biggest destinations.
Renewable energy		While no marine renewable energy was produced in 2014, predicted production of electricity by offshore wind farms could reach <b>12 gigawatts (GW) in 2030</b> in the Mediterranean countries of the EU.
Marine mining		An <b>upward trend</b> is expected at an uncertain rate in the mid-term, mainly in the Mediterranean countries of the EU
Coastal development		<b>5,000 km of additional coastline will be artificialised by 2025 as compared to the 2005 situation</b> at the Mediterranean regional level.
Land-based pollution sources		In the Mediterranean countries of the EU: <ul style="list-style-type: none"> <li>• Pollution from wastewater is expected to keep decreasing over the next 15 years.</li> <li>• Persistent Organic Pollutants (POPs) are expected to slowly decline.</li> <li>• An upward trend in heavy metal pollution can be observed for mercury and lead.</li> <li>• Nutrient discharges are expected to increase slightly over the next 15 years.</li> </ul>

Fig. 15: Future trends of maritime sectors  
(Source: Piante and Ody, 2015)

The expected growth in the maritime economy will represent additional pressure on already stressed Mediterranean ecosystems and the competition over space of MPAs with maritime sectors is likely to increase (*Piante and Ody, 2015*), e.g.:

- Some relatively old oil and gas production sites are located in the vicinity of MPAs (e.g. in the Adriatic Sea) and generate pollution risks. Some oil and gas exploration contracts overlap with MPAs (e.g. the Marine Park of the Gulf of Lion in France) which should be avoided.
- Many MPAs are located in the vicinity of maritime routes and are under the risk of a pollution incident due to maritime traffic and exposed to submarine noise. The Aegean Sea is known as a hotspot for ship accidents and should be given special consideration in the future. The development of maritime sectors in the Adriatic Sea suggests that maritime traffic authorities should seek to foresee increased risks associated with maritime traffic and act accordingly. A significant share of maritime traffic overlaps with priority areas for conservation, in particular those concerning marine mammals, especially in the Straits of Sicily and the Alboran Sea.
- The current interactions between tourism and MPAs are high along the northern shore of the Mediterranean. The expected growth of tourism in the Mediterranean region may lead to growing pressures on already vulnerable areas.
- Areas suitable for offshore wind energy development are often overlapping with EBSAs (Ecologically or Biologically Significant Marine Areas), except to some extent in the Adriatic Sea. The potential impacts of wind farms on the marine environment need to be better known, while considering at the same time the possible use of innovative and less impacting solutions such as floating wind farms. Moreover, it is to be pointed out that, over a long period, trawling represents one of the activities with the more negative impacts on such areas.

It is very important that MSP aims to solve, or at least limit, both current and future conflicts caused by human activities. Besides conflicts between uses, the Mediterranean Sea is already facing significant environmental problems including overexploitation of fishing resources, habitat degradation, biodiversity loss and in some of its areas environmental pollution. Moreover, although not directly pertinent to MSP, the process of maritime spatial planning in the Mediterranean will have to take into consideration the urgent need for cooperation in the sector of safety at sea, due to the present migration and refugees crisis.



**Fig. 16:** Areas of high interactions between Blue Growth and sites of conservation interest in EU Mediterranean countries (*Source: Piante and Ody, 2015*)

According to Monica Patricia Martinez Alfaro (2013), highly migratory species (HMS) protection requires cooperation within and beyond the EEZ. Conservation objectives may, thus, be compromised if no agreement is concluded for the high seas (as it is required for stocks within the EEZ).

The coordination between States concerning straddling fish stocks should be one of the key points regarding the conservation of biodiversity beyond EEZ. The regulation on the high seas is another important issue; many fish migrate between EEZ and the high seas and many species of marine mammals may spend a considerable part of their lives there. UNCLOS recognizes that citizens of all states have the right to be involved in fishing in the high seas; this is subject to existing treaty obligations and to the rights, duties and interests of coastal states in conserving stocks that migrate between EEZs.

Given the context described above, it is obvious that the adoption of a pan-Mediterranean approach to MSP implementation is a real need to contribute to balancing economic benefits, ecosystems protection and preservation of environmental quality. A common approach to MSP is not only a need, but represents also an opportunity to underpin the exploration of innovative solutions of multi-use of the marine space, thus maximising synergies among uses and reducing impacts on the marine space and its resources. The Mediterranean Sea is the ideal test-bed to develop „soft” approaches to co-existence of uses and sharing of the sea space (e.g. coastal and maritime tourism, small scale fishery, aquaculture, natural environment protection and remediation) for which MSP plays a relevant role, that can integrate more

technological and industrial approaches to the multi-use of the same marine area (i.e. multi-use platforms)<sup>5</sup>.

Maritime Spatial Planning, compared to land use planning, is a fairly new and emerging process in the Mediterranean Region. In general, the process is at its initial stage and is highly influenced by differences among countries, related in particular to their institutional and legal framework and to some extent to the availability of reliable knowledge base (Policy Research Corporation, 2011). The EU Directive on MSP is a key enabling factor (Zerkavi, 2015) that has triggered initial concrete actions towards MSP implementation in most of EU member countries (e.g. transposition of the MSP EU Directive into national legislation, identification of the competent MSP authority, definitions of roles and responsibilities, establishment of coordination mechanism, etc.), as described in the web-site of the EU MSP Platform<sup>6</sup>. Initial actions have been also taken in some non-EU countries, as for example the Israel Marine Plan elaborated by a group of researchers and planners at the Centre for Urban and Regional Studies at the Faculty of Architecture and Town Planning of Technion – Israel Institute of Technology<sup>7</sup> (Portman, 2015).

Moreover, the Mediterranean experience can rely on a wide number of cross-border projects focusing on MSP or indirectly dealing with related aspects; just to mention some examples:

- ADRIPLAN ([www.adriplan.eu](http://www.adriplan.eu)), aiming to deliver a commonly-agreed approach to cross-border MSP in the Adriatic-Ionian region, considered as a whole and more specifically through two Focus Areas: (1) Northern Adriatic Sea; (2) Southern Adriatic/Northern Ionian Sea.
- COCONET (<http://www.coconet-fp7.eu/>), focusing on the role of interconnected MPAs at the regional (networks of MPAs) and basin (network of networks) scales in the Mediterranean, and also dealing with suitable areas for offshore wind farming.
- MEDTRENDS (<http://medtrends.org/>), aiming to illustrate and map the most likely integrated scenarios of marine economic growth at the transnational level in EU Mediterranean countries for the next 20 years.

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<sup>5</sup> The recently started (1<sup>st</sup> November 2016) H2020 funded project MUSES will explore the concept of and show real opportunities for multi-use of the marine space in European Seas, including the Mediterranean.

<sup>6</sup> See in particular the country section of the EU MSP Platform web-site: <http://msp-platform.eu/msp-practice/countries>; accessed on 8.11.2016. Complementary information is available at the UNESCO-IOC website: [http://www.unesco-ioc-marinesp.be/msp\\_around\\_the\\_world](http://www.unesco-ioc-marinesp.be/msp_around_the_world); accessed on 8.11.2016

<sup>7</sup> <http://msp-israel.net.technion.ac.il/en>; accessed on 10.11.2016.

- MSP Med – Paving the Road to MSP in the Mediterranean ([http://www.pap-thecoastcentre.org/about.php?blob\\_id=101&lang=en](http://www.pap-thecoastcentre.org/about.php?blob_id=101&lang=en)), evaluating methodologies and existing tools, proposing possible cooperation and management schemes and identifying possible ways to deal with key challenges, in an effort to assist the Contracting Party to the Barcelona Convention to meet the common objectives of MSP and ICZM.
- PlanCoast (<http://www.plancoast.eu/>), providing best practice examples and tools for effective integrated planning in coastal zones and marine areas.
- SHAPE (<http://www.shape-ipaproject.eu>), aiming to develop a multilevel and cross-sector governance system supporting ICZM and MSP implementation in the Adriatic Sea, based on integrated management of natural resources, risks prevention and conflicts resolution among uses.
- THAL-CHOR ([www.mspsygr.info](http://www.mspsygr.info)), aiming to develop a methodology for MSP used for pilot application in selected areas in Cyprus (Limassol area) and Greece (Islands of Lesbos and Rhodes).
- POCTEFEX-ALBORÁN „Cross-border Space of Nature Shared Management“ project (<https://www.iucn.org/it/node/25167>) involving Spain and Morocco and aimed at identifying shared priorities that will improve the governance of natural resources in the Alboran Sea and promote sustainable and integrated management of the marine environment.
- ESaTDOR project (the Arctic and Atlantic Oceans, and the Baltic, Black, Mediterranean and North Seas), led by UK ([www.espon.eu/ESaTDOR](http://www.espon.eu/ESaTDOR)); it aims to explore land-sea inter-actions and the extent to which various marine based activities can contribute to economic growth and societal wellbeing, whilst ensuring that critical environmental assets are effectively managed and where necessary protected. ESPON ESaTDOR is set to map the different types of sea uses across Europe, identify various development opportunities, explore best practice examples of terrestrial-marine and maritime governance and make policy recommendations on these topics.

These and other projects had delivered a rich set of MSP-related practices (including pilot projects, tools, guidance, handbook, methodologies, specific studies, etc.), the capitalization of which could foster MSP implementation in the Mediterranean, also in a cross-border perspective<sup>8</sup>. Beside the UNESCO-IOC guidebook (*Ehler and Douvere, 2009*; and the connected *Ehler, 2014*), a number of customized step-by-step methodologies have been developed and are available for MSP implementation in the Mediterranean (*e.g. Schultz-Zehden, 2008*; *Ramieri et al., 2014*; *Barbanti et al., 2015*; the MSP methodology developed by the

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<sup>8</sup> A wide number of practices are included in the „Practice Database“ of the EU MSP Platform web-site: <http://msp-platform.eu/msp-practice/database>; accessed on 8.11.2016.

THAL-CHOR project<sup>9</sup>, the Adaptive Marine Policy (AMP) Toolbox developed by PERSEUS project<sup>10</sup>). The challenge is to improve benefits and capitalization of these experiences by harmonising different approaches rather than investing effort to develop new step-by-step methodologies.

Additionally, MSSD 2016-2025 has identified some relevant actions to concretise its strategic orientation 2.1.: *„Promoting a strong partnership between maritime sectors and public authorities regarding the sustainable and equitable use of marine areas and resources, to set up a regulatory instrument including SEA and EIA, implement relevant legislative and policy measures, translate the Offshore Protocol and its Action Plan into national policies and further its implementation, ensuring that all fish stocks are being fished sustainably and effectively, a regional programme on assessment and control regarding open ocean exploration and exploitation of non-living resources, based on the Maritime Spatial Planning approach”.*

Given the above context, the available literature and the fertile discussion that took place during the „Consultation Meeting on the Regional Framework for ICZM and the Conceptual Framework for MSP” held in Barcelona (Spain) on 28-29 September 2016, several remarks about MSP implementation in a pan-Mediterranean perspective can be put forward. These mainly represent needs to go beyond the current embryonic stage of MSP implementation in the basin, overcome some of the obstacles affecting the process and contribute to create the enabling environment needed. More concretely:

1. At the Mediterranean scale, MSP should be embedded into an **overall strategic approach** looking at its integration with ICZM and EcAp (also considering an early integration of EcAp indicators in MSP), in the framework of the Barcelona Convention. The ICZM Protocol can be the legal framework to underpin maritime planning in the whole Mediterranean, even if MSP is not analytically mentioned and its geographic scope is not covering the entire marine space.
2. Establishment of EEZ and/or derivative zones, where possible, could prove to be beneficial for MSP in the Mediterranean, although not at the beginning of the process as this requires time to negotiate and agreements on delimitation boundaries. This, as mentioned already, is a complex issue in this basin (*Suarez de Vivero, 2010; Policy Research Corporation, 2011*). Moreover, merely claiming maritime zones under UNCLOS does not necessarily implies benefits; these zones must also have proper planning, management, control and monitoring (*MRAG et al., 2013*). Socio-economic drivers may accelerate the process of EEZ declaration in the Mediterranean that will be anyhow a

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<sup>9</sup> [www.mspsygr.info](http://www.mspsygr.info); accessed on 8.11.2016.

<sup>10</sup> [http://www.perseus-net.eu/en/about\\_the\\_apf\\_toolbox/](http://www.perseus-net.eu/en/about_the_apf_toolbox/); accessed on 8.11.2016.

multifaceted challenge. This will not only open the opportunity to increased exploitation of marine natural resources and space, but might also represent a conservation opportunity as highlighted by Katsanevakis *et al.* (2015)<sup>11</sup>, who have identified a number of practices (e.g. using surrogates to fill main data gaps, developing free-access homogenous datasets, transboundary collaboration, joint management zones and dispute settlement, improving monitoring and surveillance creation of a conservation fund) that might underpin ecosystem protection. All this would indeed require a knowledge-based planning of the EEZ marine areas (i.e. MSP).

3. Given the previous two points, there is an evident need to properly define a common **geographic scope** for MSP implementation in the Mediterranean. Maybe at an initial stage it could be easier focusing on territorial sea, making reference to the legal framework provided by the ICZM Protocol and recognising that there is still a lot of work to be done. However, opportunities for international cooperation, in particular within the framework of regional and multilateral conventions (starting from the Barcelona Convention<sup>12</sup>), should be fully exploited to approach critical transboundary issues and maritime planning of water falling within the high seas regime (ABNJ – Areas Beyond National Jurisdictions). A Mediterranean wide-approach is particularly relevant when dealing with the strategic phase (vision, objectives, principles, guidelines) of MSP implementation in the Mediterranean and to properly deal with issues extending beyond coastal areas (e.g. maritime transport, fish stock conservation and sustainable management, off-shore renewable energy production, biodiversity protection and ecosystem preservation<sup>13</sup>, etc.).
4. Cross-border MSP processes can find a favourable enabling environment within existing (EUSAIR) and upcoming (West-Med maritime strategy) **regional strategies**. For example, MSP is clearly a cross-cutting element of all the 4 pillars (Blue Economy, Connecting the regions, Environmental quality, Sustainable tourism) of the EUSAIR and the related Action Plan.
5. The on-going process of definition of the **institutional and legal framework** at country level should be continued and extended to non-EU countries, enabling the identification of the competent MSP authority, the clear distribution of competences and responsibilities and the definition of the decision-making process, as well as identifying mechanisms for horizontal and vertical coordination (*Policy Research Corporation, 2011; Beriatos, Mourmouris*

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<sup>11</sup> Indeed, States declaring the establishment of an EEZ have also the responsibility for the conservation and sustainable management of natural resources, and in particular the living ones (art. 61 of UNCLOS).

<sup>12</sup> It should be recalled again that, according to Directive 2014/89, EU Member States are expected to implement MSP on the entire marine areas on which they have and/or exercise jurisdictional rights, choosing if they will proceed with one or more marine spatial plans.

<sup>13</sup> Also considering the role of the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA/BD Protocol) and the work promoted by RAC/SPA.

*et al., 2015*). Strengthening cross-sectoral governance will be essential to give full support to MSP (and ICZM); this might require still time and tailored support for several countries.

6. **Capacity building**, training and transfer of knowledge and good practices are other essential components for the development of common approach to MSP and its diffusion in all Mediterranean countries.

For MSP to be successful, it is crucial to exchange best practices among countries starting from the EU Member States. In terms of capacity building, southern Mediterranean countries need to be assisted in particular as regards technical aspects (tools, mapping, indicators, ...), governance mechanisms and arbitration procedures, integration of terrestrial (land-based) and marine or maritime spatial planning, as well as possible contribution of existing transnational governance arrangements to territorial cohesion.

7. Proper and efficient **stakeholder involvement (and commitment, ultimately)** is often considered as another key enabling factor for MSP, in particular in the visioning and strategic phases. This needs to be reinforced in the Mediterranean countries and become a common and formalised practice rather than a stand-alone experience (*Policy Research Corporation, 2011; Beriatos, Mourmouris et al., 2015*). Efficiency of stakeholder participation implies: real link to the MSP decision making process; involvement of all relevant stakeholder categories (public authorities at different levels, research institutions, civil society, business sectors, etc.); involvement of those actors that can really contribute to the various phases of the MSP process; visibility of the real added-value of the involvement process; transparent, open and inclusive information sharing; ensuring coherence with other involvement processes (e.g. ICZM, SEA, EcAp or MSFD) and avoiding excessive pressure on the same stakeholders.
8. A multi-scale approach towards MSP implementation is recommended, combining a **strategic phase** with (pilot) **operational applications**:
  - The strategic phase of the MSP process should address the whole Mediterranean marine area (considering geographic scope implications underlined under point 3), in particular defining visions, objectives, principles and common elements for MSP implementation in all countries. The strategic phases shall also identify priorities based on current and expected environmental threats and needs (vulnerabilities), major conflicts among uses and opportunity for synergies among uses.
  - pilot projects (at the local and regional levels, in particular in priority areas) are essential to demonstrate the operational application of the MSP process and provide evidence of related environmental, social and economic effects. MSP shall not be a theoretic exercise but should result in evident socio-economic benefits for coastal human communities and the preservation of marine ecosystems and related resources. As illustrated above, there is a

wide range of project-based experiences that however need to be further developed and finalised in a more operational perspective. For example, consideration of the marine side of ICZM in CAMP projects could be strengthened, in particular using MSP as a tool to deal with sustainable management of marine space, resources and activities.

9. In general, it is recognised that **data availability** is not the main limiting factor for MSP (and ICZM), although it is a key enabling element for a knowledge-based, transparent and conscious (e.g. of uncertainty and gaps) process. However, relevant differences in terms of data availability may occur between northern and southern-eastern Mediterranean countries. Moreover, in general most knowledge is available for marine areas close to the coastline, while data on offshore areas is limited or very limited (*Policy Research Corporation, 2011; Katsanevakis et al., 2015*). There is also a need to understand what are the real data gaps that might hamper the MSP process, not only in terms of spatial coverage but also in relation to time series that are essential to understand evolution of marine and maritime processes.
10. MSP relies on accurate, transparent and as complete as possible information. While **data availability** per se seems to be a relatively minor issue for several countries, ensuring access to accurate and complete information is certainly important, in particular for some data categories as socio-economic ones or those on maritime activities (e.g. maritime surveillance data). **Data accessibility** can be technically improved through interoperable databases and geoportals are surely highly relevant. In this perspective, the creation of a permanent Spatial Data Infrastructure and/or Web-GIS on MSP (and ICZM) for the Mediterranean is suggested, capitalizing existing experiences (e.g. from MAP RACs, PEGASO, SHAPE, ADRIPLAN, etc.). This should be linked to existing and future national MSP data platforms (*Beriatos, Mourmouris et al., 2015*). However, the problem is not just technical; data accessibility is also limited by reluctance of data owners and providers to share their data, even when these are collected with public funding. Initiatives showing the real benefits of mutual data sharing for different stakeholder categories (researches, planners, representatives of the business sectors, members of NGOs, etc.) should be pursued to overcome such obstacles.
11. Some specific knowledge areas deserve however particular attention. For example, integration of **socio-economic** analysis (e.g. cost-benefit) and therefore real uses of socio-economic data in the MSP process still need improvement, indeed not only in the Mediterranean Sea. Use of **ecosystem services** evaluation and mapping in the MSP process represent another knowledge sector to be further investigated, in particular given the high relevance of ecosystems for many maritime activities (e.g. fisheries, tourism, aquaculture, etc.) in the Mediterranean (*Piante and Ody, 2016*).

12. There is an obvious need to go from data and knowledge to information really useful for the planning and decision-making process. **Spatial-based tools** (e.g. on 3-D mapping, vulnerability and risk assessment, cumulative impact evaluation, analysis of conflicts among uses, siting of specific maritime activities as for example aquaculture, scenario visualisation and playing, alternatives comparison, economic valuation, marine and coastal ecosystem modelling, etc.) are particularly useful to this regards. A number of tools are already available and have been applied both in the Mediterranean and other sea basins; their use needs to become more operational and widely diffused among planners and other practitioners. Tools developed and applied in other sea contexts can be transferred to the Mediterranean, implying needed testing and customization. In order to capitalize on the use of these tools and their integration, a tighter interactive collaboration at the ecosystem level between managers and scientists is required, whereby the former should provide the latter with specific management objectives or goals for conservation of a given ecosystem and the services it delivers (*Rosenberg and McLeod, 2005*).
13. If MSP is a relatively new concept, coherence between **marine and terrestrial planning** is even newer and explored only in a very limited way in the Mediterranean basin. Achievement of this coherence also implies alignment/integration of the different methodologies and tools applied respectively on land and at sea. This might be complex as land planning has a longer and well-established tradition and history in most of the countries, while marine planning in the Mediterranean is still an underexplored issue also from a methodological perspective. Different planning methodologies are also required as maritime activities are carried out in the shared marine space and in many cases they are mobile and/or temporary; land-based activities are usually permanent and in most cases carried out in private areas. In this perspective, it is suggested to initiate local scale projects focusing on operational aspects of LSI; again, the new generation of CAMP projects represents a good opportunity to approach this issue.
14. MSP should be based on an **adaptive approach**; monitoring, evaluation (also using performance and result indicators) and revision steps shall be considered since the beginning of the process. The adaptive approach enables dealing progressively with changes of the environmental and socio-economic context, as well as to properly take into consideration the emergency of problems and the new scientific knowledge, methods and tools. The adaptive approach also allows taking uncertainty into consideration, including uncertainty associated to future evolution of global changes as the climatic ones.

**Box 6: Points to retain regarding MSP**

**POINTS TO RETAIN**

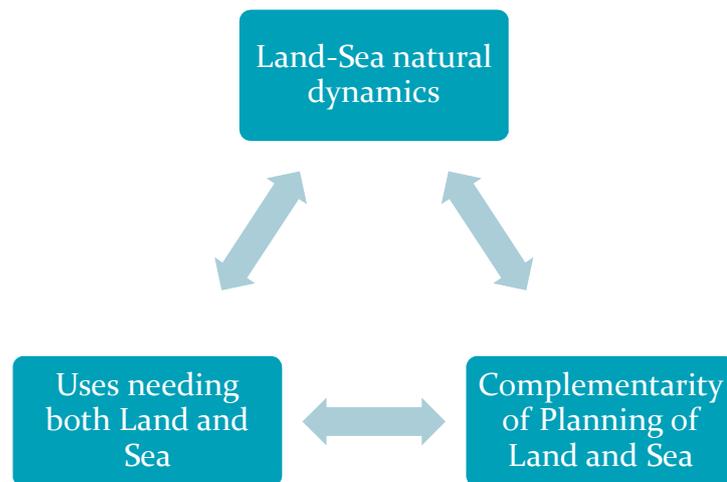
18. **There is an obvious need to properly define a common geographic scope for MSP implementation in the Mediterranean (ranging between a pan-Med approach and specific focus on territorial sea), also taking in consideration existing binding documents (EU MSP Directive and ICZM Protocol), the current limited application of UNCLOS provisions and the opportunities offered by regional and sub-regional cooperation frameworks, strategies and plans.**
19. **The on-going process of definition of the institutional and legal framework at country level should be continued and extended, also strengthening cross-sectoral governance and providing capacity building where needed.**
20. **A multi-scale approach towards MSP implementation is recommended, combining a strategic phase (top-down) with operational applications (bottom-up). This double approach implies different geographic scopes (from regional/Mediterranean to local).**
21. **Data availability is not the main limiting factor for MSP in many countries (although some data gaps need to be covered), but there is an obvious need to ensure and/or improve data accessibility and to go from raw data and general knowledge to information really relevant and useful for the MSP process.**
22. **MSP should be based on an adaptive approach since the beginning of the process.**

## 4. LINKS WITH MSP

Though land-sea (and ICZM-MSP) **interactions** are often mentioned these last years, and they are also explicitly mentioned in the EU Directive on MSP (2014), there is no formal definition so far at international level, fact that explains several misunderstandings.

Land-sea interactions and processes constitute the Core Theme 3 of the Mid-Term Strategy 2016-2021 of MAP and it corresponds to the first MSSD objective, and to SDG 14 and 15. The CPs have adopted at COP19 specific objectives, outcomes and outputs – some of them aiming at better understanding and mapping the situation in the Mediterranean.

Interactions, in the context of the current RF, are considered at three different levels (*see Fig. 17*) and must be taken on board all three at the planning process of any coastal zone. Understanding, managing and planning the land-sea and sea-land interactions between maritime/coastal sectors and marine/coastal resources are crucial to ensure sustainable development and to avoid conflicts.



**Fig. 17:** Main types of Interactions Land-Sea

### *a) Interactions due to Land-Sea natural dynamics*

As mentioned in the MTS, „Coastal zones are complex natural systems exposed to various natural processes with important interactions between their land and sea parts. Furthermore, they represent the major interface between humans and the environment as coastal ecosystems (terrestrial and marine ones) are those most heavily impacted by human activity interface between terrestrial and marine environments.”

Major **factors** to take into account when assessing these natural/physical processes, which differ from area to area, are: hydrodynamics, geomorphological and oceanographic characteristics, ecosystems, hydrological cycles, natural risks etc. Morphology of the beaches, erosion (to a certain extent), sedimentation, tidal movements, sea level rise (to some extent) are some of the **effects** of these natural processes. Climate Change can affect these factors and aggravate their impacts. Technical constructions in vulnerable areas and increase of the percentage of artificial coasts can affect coastal areas as well. Furthermore, according to the precautionary principle, intrinsic to ICZM, constructions should be avoided in the low laying coastal zones, exposed to the sea level rise. Using proper indicators and models to monitor and study these natural phenomena and their impacts on the coasts (in their double sense of land and marine parts) and defining appropriate **setback zones** are some of the **means** to cope in an effective way with the potential problems. In fact, often there is a need to manage the uncertainties.

Furthermore, the fact that there is a geological continuity between land and sea, makes the EA (in both planning and management) necessary to deal with the natural interactions and processes.

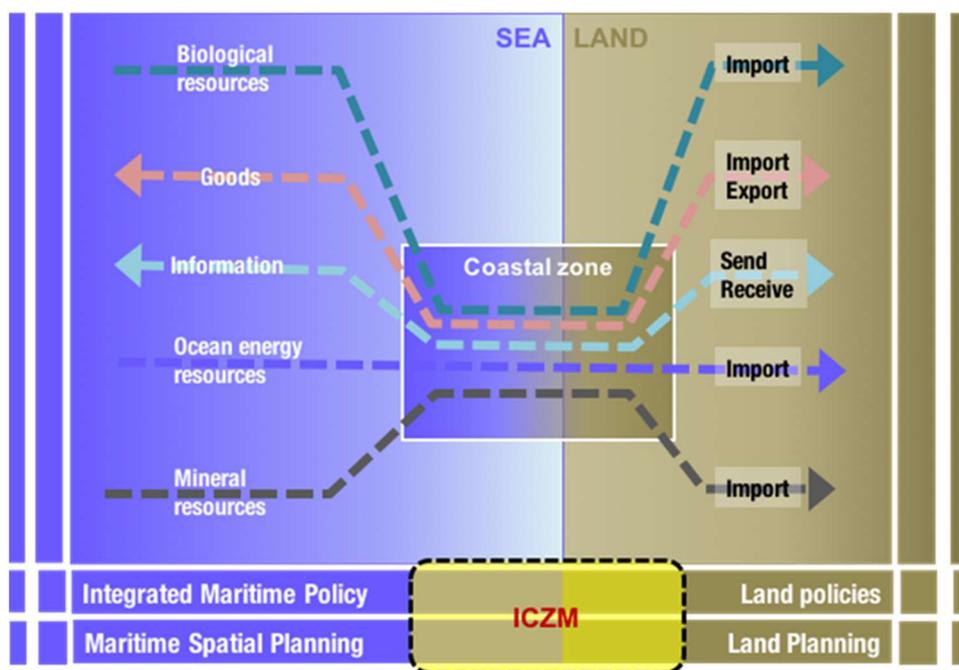
### ***b) Interactions of Uses/Activities needing space on both Land and Sea***

Almost all marine uses need support installations on the land. Several uses existing mostly on the land part (e.g., tourism, recreation, ports) expand their activities to the sea as well (see *Fig. 18*). Therefore, there are interactions within each one of these uses. This level of interactions is related also to synergies or conflicts among different uses and human activities in the coastal zones (in its double sense), affecting both the economic development and the ecosystems.

Examples of maritime sectors, which will have LSI, include:

- Aquaculture
- Biotechnology
- Commercial Fishing
- Commercial Shipping, including ferries
- Cruising and nautical tourism (including recreational fishing)
- Defence and security (including rescuing)
- Sea floor mining (including marine aggregates)
- Deep sea mining
- Sand and gravel extraction and transport
- Dumping zones (Dumping of dredged materials)
- Dredging and ship wreck dismantling

- Marine Protected Areas (MPAs), including Specially Protected Areas of Mediterranean Importance (SPAMIs) and Ecologically or Biologically Significant Marine Areas (EBSAs)
- Offshore oil and gas exploitation and transportation
- Construction of platforms, offshore-related transport
- Coastal technical protection (Construction of dykes, beach nourishment, dune rehabilitation, Coastal protection against climate change)
- Marine renewable energy
- Sub-marine cables and pipeline connections
- Seawater desalination.



**Fig. 18:** Coastal zone, a key area for most maritime activities  
(Source: Chr. Le Visage, Dalyan/MEDCOAST 2016)

The purpose is to identify and map these interactions, to assess their cumulative impacts (on both land and sea) and to ensure, through integrated planning, that there will be no conflicts among uses, that resources will be used in an effective way, that environment will be respected and that sustainable development will be promoted.

It is useful to understand that ICZM can concretely support many maritime activities in coastal zones (see Table 3). This Table is based on the resources (biological, mineral, energy) and space (surface, water column, seabed, subsoil, air space above the sea) categories rather than on activities using the resources.

It is also interesting to note that land-sea interactions regarding maritime activities are not limited to the coastal zones. Interactions related to transport, energy, mineral and O&G extend far beyond the coastal zone (grid, transport networks...) – not to mention economic interactions, which have virtually no limits.

According to the Study on the economic effects of Maritime Spatial Planning (EC, 2011), MSP and ICZM are „tools put forward for integrated policy making. Spatial planning is seen as a potential aid in overcoming potential conflicts as a result of the increase in often competing coastal and sea activities“.

**Table 3:** Potential support from ICZM

Field	Activities	Potential support from ICZM to the sector and to its local integration
<b>Exploitation of biological resources</b>	Fisheries	Arbitration of competition with other activities for maritime space (surface, water column, seabed) Arbitration of competition between professional and recreational fishing Integration of fisheries into local economy – fostering synergies with other activities (e.g. marine energy production) Fishing harbors: sharing with other activities, management
	Aquaculture	Arbitration of competition with other activities (maritime and terrestrial) for space Integration of fisheries into local economy – fostering synergies with other activities (e.g. marine energy production) Harmonious cohabitation between activities (noise...) Management of water quality, nutrients, wastes, ...
	Genetic resources	Access to resources, arbitration of competition Environment quality (water quality, etc.)
<b>Exploitation of mineral resources</b>	Oil and Gas exploitation	Landing of pipelines, management of risks, sharing of coastal space Contingency management plans Optimization of added value for local economy
	Sand and gravel extraction	Integrated management of sand resources: sediment management/beach nourishment vs terrestrial uses (building, roads...)

Field	Activities	Potential support from ICZM to the sector and to its local integration
	Salt and other dissolved substances	Site selection, arbitration of competition with other maritime and terrestrial activities, Water quality
	Desalination of seawater	Site selection, management of impacts on other activities
<b>Exploitation of energy resources</b>	Wind	Sites selection, management, sharing with other activities (landscape, construction O&M...) optimization of economic benefits for the coastal zone/local acceptance
	Waves	Sites selection, management, sharing with other activities, arbitration of competition (e.g. surf...), synergies (harbors, coastal protection...)
	Currents	Sites selection, management, sharing with other activities
	All	Optimize benefits from energy production for coastal zones
<b>Transport and communications</b>	Shipping	Contribution to arbitration of use of maritime space (sea surface) between activities
	Ports	Connection to terrestrial networks (road, railways, power and communication...) Optimization of local value from harbor activities
	Power	Connection of power cables to grid (coastal maritime area and land): interconnections, energy produced in maritime areas – competition with other uses of seabed or subsoil
	Communications	Connection of communication submarine cables through coastal zone to backbones (management for protection of cables against maritime activities, competition with other uses of seabed or subsoil)
	Other	Tunnels, bridges. potential competition for space (surface, seabed, subsoil, airspace above territorial sea)
<b>Tourism and recreation</b>	Cruises	Management of visitors' fluxes, optimization of benefits for the coast
	Yachting and boating, nautical	Cohabitation with other maritime and terrestrial activities; optimization of management for local economic benefits Slipways, access to the sea

Field	Activities	Potential support from ICZM to the sector and to its local integration
	Other	Bathing: competition with maritime activities, water quality Diving: access to diving areas, wrecks...; cohabitation with other activities Local production (food, souvenirs, culture, etc.)
<b>Maritime risks management</b>	Risks from maritime activities	Support to establishment of contingency plans (pollution) Selection and management of places of refuges for vessels in distress Synergies for safety management (SAR, maritime surveillance)
	Natural risks	Prevention and management of risks: erosion, storms, tsunamis...
<b>Environmental management</b>	Cumulative impacts of maritime activities	ICZM provides adequate framework for integrated control of cumulative impacts (SEA, EIA) and monitoring
	Sensitive areas	Access control, integrated monitoring (activities, impacts)
	Monitoring of projects	Pooling resources for monitoring (ships, boats, stations)
	Marine protected areas	ICZM provides adequate frameworks for management of maritime activities (access by sea, moorings, recreational fishing...) and integration in local economy (optimization of potential benefits)
<b>Cultural heritage</b>	Archaeological sites, historic wrecks...	Management, protection, optimal economic valorization for local economy

### *c) Interactions of Plans and Planning Processes for Land and Sea parts*

In almost all Mediterranean countries there are already several coastal plans in place covering almost exclusively the land part. When they proceed to MSP for areas covered by coastal plans, it is most important to ensure continuity in space, coherence of actions and complementarity of funding.

ICZM has often been implemented in *areas where there was no efficient land planning system*, and no strategic planning at all at sea. Thus, in many cases ICZM tended to develop „integrated planning and management” schemes, rather than building on (and improving) the general planning system.

This was indeed an efficient way of working, and it allowed ICZM projects to develop in limited time with significant outputs.

During many years, ICZM focused mainly on land part of the coastal zones, and had to (should have to) take into account land use planning systems; now, ICZM fully addresses marine and maritime issues, and it must also take into account the sea use planning system, i.e. MSP. A main difference is that, contrary to the land planning system, MSP is still in its infancy. It might be tempting to consider that in coastal zones ICZM is going to substitute the missing MSP and bring altogether planning and management – with the risk to make the same mistake that has been made on land (ignore the specific planning and governance system for the sea), having the same consequences (no ownership of ICZM by the very people in charge of regulation and by the maritime stakeholders).

MSP should aim to **integrate** the maritime dimension of some coastal users or activities and their impacts and ultimately allow an integrated and strategic vision. Thus, MSP becomes part of ICZM, though it is not substituted completely by it. The challenge is to plan and manage inshore and offshore anthropogenic activities in a harmonized manner considering the functional integrity of the land-sea continuum from both points of view (natural environment, human activities). Besides, issues related to both sides of the coastline keep growing in number, resulting in an increasing need for **holistic arrangements** and spatial planning, covering both sides of the coastline.

Interesting examples of inter-lateral planning (i.e. planning covering marine and land areas) already exist and these are (*Smith et al, 2010*):

- River basin management plans;
- Natural hazard management plans (flooding, coastal erosion etc.);
- Conservation plans.

This is also the case for resources management (e.g. raw materials: sand and gravel, oil and gas, and energy).

Furthermore, it is most important to ensure that **legal, administrative and consultation processes** will be linked and coordinated to avoid unnecessary delays, duplications, incoherence, conflicts, waste of resources and/or excessive demand of stakeholders' efforts. CPs are free to select the schemes that correspond better to their capacities and needs. Networks and consultation/decision-making platforms can be flexible in the Region. Yet, it is clear that only with integration of the different processes (strategies, plans, data banks, mapping tools, implementation) one could get effective and sustainable results at the same geographical unit: a concrete coastal area.

The interactions of the first two types (natural process and uses) can have **impacts** related to the following three variables (*ESPON, 2013*), which need to be taken into account when ensuring the third type of interactions (planning):

- a. Economic significance (employment clusters in different sectors such as shipbuilding, tourism, transport, fisheries, etc.);
- b. Environmental pressures (change in sea surface temperature, pollution from pesticides and fertilisers as well as from LBS and ships, incidents of invasive species introduced through shipping, etc.);
- c. Land-sea flows in terms of numbers, quantities and values (movement of people, illegal immigration and refugees, movement of ships, tankers and goods – such as container traffic and liquid energetic products, information through telecommunication cables, exchange of social and cultural patterns, etc.).

It is interesting to notice that impacts might be generated or might expand outside the Coastal Zone itself.

MSP will need additional resources, partners and tools as compared to the classic coastal zones planning that covered so far the land part only or mainly. It will have to count on existing tools as well and to ensure consistency with the coastal-land planning ensuring **integration**, since both should be in line with existing regional and national strategies and policies. The main integration elements of Coastal and Marine Spatial Planning are reflected in *Fig. 19*. Both MSP and ICZM rely on similar key principles, such as the ambition to implement the ecosystem approach, decision-making based on good data and information, integration of sectors, competence and responsibilities, stakeholders' involvement and transparency.

It is important at this point to clarify the difference of **geographical scope** between ICZM and MSP. In fact, one of the specificities of MSP is its legal context. MSP addresses the whole sea, which comprises according to UNCLOS the internal waters, the territorial sea waters and all maritime zones beyond them (including EEZ). Therefore, there is an overlapping with the areas to be covered by ICZM according to the ICZM Protocol. MSP covers all the marine areas beyond the coastal zone, ICZM bridges the marine (MSP) and land spatial planning systems (see *Fig. 20*) and helps building a consistent planning system from the top of the watershed to the beginning of the high sea. Furthermore, it is the UN Convention of the Law of the Sea (UNCLOS) that regulates, amongst other issues, the rights and duties of the coastal States and third countries in the waters falling under the sovereignty and jurisdiction of the coastal State. A coastal State, which carries out MSP in its waters will have to take due account of relevant rights and obligations of third countries. Therefore, ICZM and MPS imply also a transboundary approach – sometimes, including also in the „open seas“. This could expand the nature of actions under the third level of interactions.

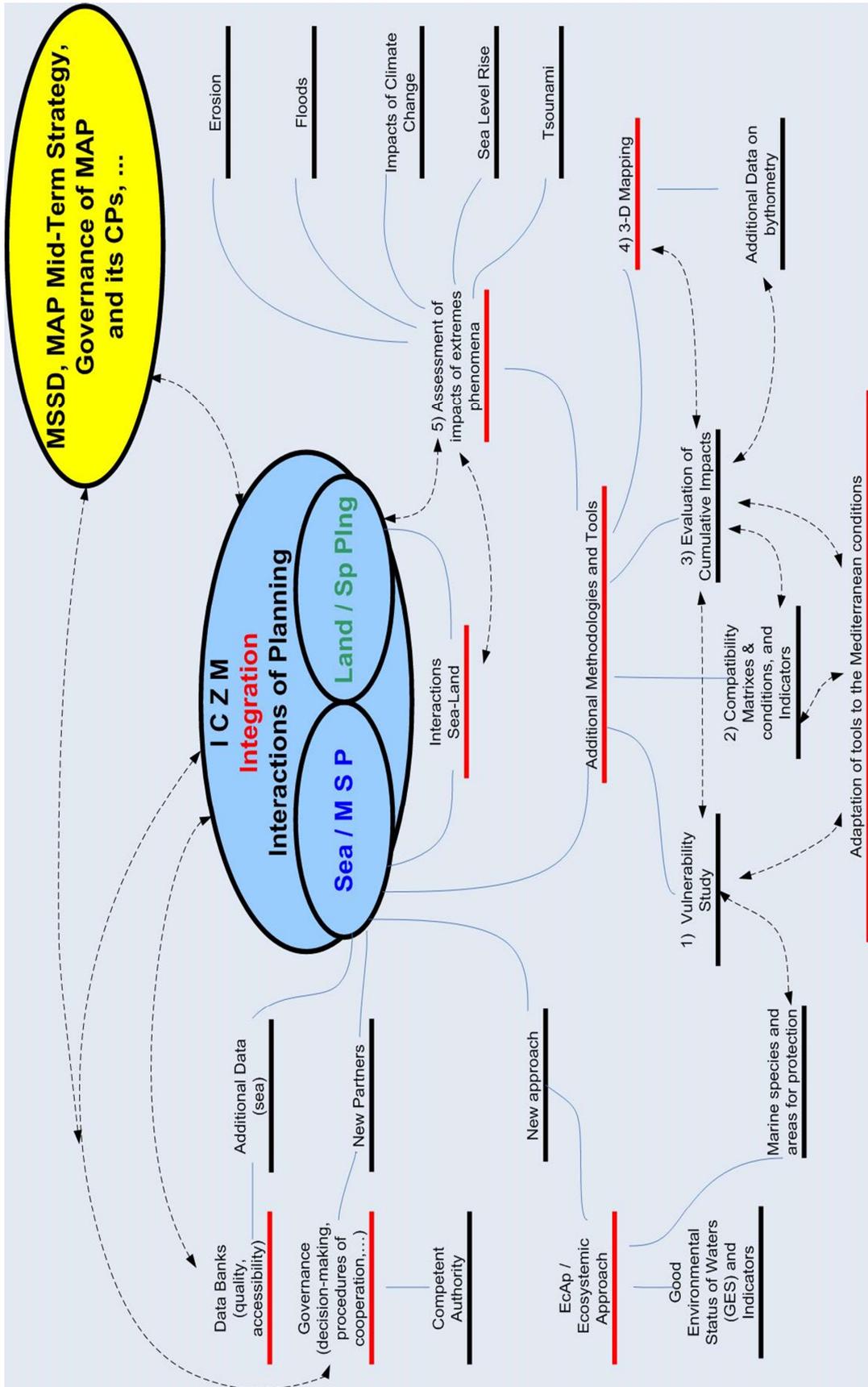
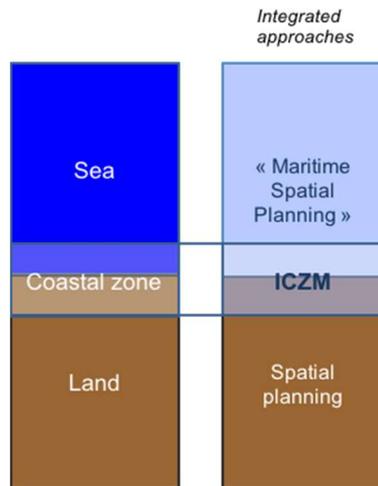


Fig. 19: Mind-map of the Integration of Coastal and Marine Spatial Planning (Source: A. Mourmouris, Antibes, Sept. 2015)



**Fig. 20:** Role of ICZM in the planning system  
(Source: Chr. Le Visage, Rennes, 2011)

To effectively tackle all the above, development of a more comprehensive understanding of land-sea interactions should be pursued by adopting consistent approaches to mapping these interactions, exploring at the same time best practices in terms of terrestrial-marine governance (Beriatos E., Mourmouris A. et al., PAP, 2015). What is of major importance is to ensure **coherence, compatibility and synergies** among the different plans and policies (for water, nature, erosion, climate change or specific development sectors) applied in the same broader coastal space as well as in adjacent areas. In fact, rather than trying just to extend seawards the range of management instruments and measures provided by the ICZM protocol (where most of regulation measures described in the Protocol are land-oriented), or to define through ICZM new „stand-alone” planning instruments for the maritime part of the coastal zone, it seems more profitable to better connect ICZM and MSP and use them in a consistent way, for consistent objectives, in the overlapping area (between the coastline and the limit of territorial sea).

**Box 7:** Points to retain regarding links with MSP

**POINTS TO RETAIN**

23. It is important to appreciate the land-sea **natural processes and interactions**, in order to take **timely appropriate measures** when planning for the dynamic CZ.
24. ICZM and MSP can be **mutually supportive** as regards the **land and the maritime activities**.
25. ICZM and MSP should be **complementary as planning processes** to ensure effectiveness. Coherence and synergies of plans are a must, even if the processes are separate.

## 5. WEAKNESSES (OBSTACLES) IN IMPLEMENTATION

The *Mid-Term Evaluation of ICZM, 2015*, refers analytically to the progress of implementation of the Action Plan of ICZM per objective set out. It gives generally speaking a positive picture of the implementation progress (see Table 4).

**Table 4:** PAP/RAC's estimates of the progress in implementing the Action Plan  
(Source: *Mid-Term Evaluation, 2015*)

<b>Objective 1:</b> Support the effective implementation of the ICZM Protocol at regional, national and local levels including through a Common Regional Framework for ICZM.		
Action 1.1	Ratification and transposition	+++
Action 1.2	Strengthening and supporting governance	+++
Action 1.3	Adopting National Strategies and Action Plans and Programmes	++
Action 1.4	Reporting on Protocol Implementation and Monitoring the State of the Mediterranean Coast	+++
<b>Objective 2:</b> Strengthen the capacities of CPs to implement the Protocol and use in an effective manner ICZM policies, instruments, tools and processes.		
Action 2.1	Methodologies and Processes	++++
Action 2.2	Protocol Implementation Projects	++++
Action 2.3	Professional Development, Training and Education	++++
<b>Objective 3:</b> Promote the ICZM Protocol and its implementation within the Region, and promote it globally by developing synergies with relevant Conventions and Agreements.		
Action 3.1	Public Participation and Awareness Raising	++++
Action 3.2	Excellence on ICZM Issues for the Mediterranean	++++
Action 3.3	Promoting the Protocol	+++
Action 3.4	Networks	+++

*Poor (+); Moderate (++); Good (+++); Very good (++++); Excellent (+++++)*

In fact, from information included in different MAP documents, it seems that progress occurs more at the regional and local levels than the national one.

Difficulties in implementation of the ICZM Protocol have been identified in different documents already.

As stated in the „*Final ICZM Policy Report*” (PAP, 2009), **critical barriers** that must be overcome include:

- I. *the short-term, stop-go nature of the individual projects based on the project funding cycles has led to a loss of the essential continuity and capacity;*
- II. *the relentless and overwhelming pace of development along the coast has led to a gap between the rapid, exponential rate of development with its consequent environmental degradation, and the capacity of ICZM to deal with it: the development-management gap;*
- III. *the perception of ICZM as an environmental management activity is stubbornly persistent – a pressing need exists to embed ICZM into other areas of policy;*
- IV. *the creation of the enabling framework of national capacity building remains patchy and inconsistent, and the regional actions such as awareness-building takes place in parallel and often behind local action;*
- V. *there is an obvious lack of synergy between programmes;*
- VI. *the public visibility of ICZM projects remains relatively poor;*
- VII. *spreading the word and networking between local projects must be supported through initiatives like the „Sardinia Charter“ agreed in Alghero in July 2008;*
- VIII. *there is a need to re-assert ICZM as the powerful arbiter it is between the land and sea issues and interests;*
- IX. *there is an over-long time cycle to produce local ICZM action;*
- X. *ICZM fails to grasp the imagination of politicians in particular and the community in general. „Demystifying“ the concept is a priority through using a simplified and positive terminology as proposed in the ICZM Marketing Strategy;*
- XI. *the lack of vision at the regional scale is replicated at the local level. A simple, practical vision of what constitutes a „sustainable coast“, comparable to the clear objectives of examples such as Horizon 2020 and the Millennium Development Goals, is urgently required;*
- XII. *there is a lack of appropriate national legal frameworks for ICZM.*

Furthermore, the *Action Plan ICZM, 2012-2019*, states clearly the following:

*„However, among the **key issues constraining** the full and effective implementation of the Protocol in the Mediterranean area:*

- *ICZM is still localised and relatively short-term and project based. Major ‘up scaling’ is still required to meet fully the natural and anthropogenic challenges facing the Mediterranean.*
- *ICZM needs a strategic context to avoid piecemeal and potentially wasteful activity and to make a substantive impact.*
- *The practice of ICZM is still largely seen as an environmental activity, and is yet to fully engage those institutions and actors responsible for the social and economic pillars of sustainability.*

- *The planning and management of the marine and terrestrial areas of the coast remain rigidly divided between policies, administrations and institutions. More specifically, spatial planning for both the terrestrial and marine zones, a major tool for ICZM, needs strengthening and better implementation.*
- *Future risks and uncertainties, notably climate change and natural disasters such as floods, earthquakes and tsunami, need to be fully integrated into the ICZM process.*
- *ICZM's role as the key tool for the implementation of the ecosystem approach in the coastal area is not yet recognised.*

*Uniquely, the ICZM Protocol provides a vehicle to address these issues in a concerted approach across the whole Mediterranean region. This Action Plan seeks to translate these provisions into a programme for ICZM that matches the high ambitions of the Protocol.*

*A comprehensive stock-take by PAP/RAC of all Contracting Parties to assess the status of the implementation of the ICZM Protocol is currently underway and its results will be available in the first half of 2012. Early results confirm that states employ a wide variety of legislative tools, instruments and programmes to implement the Protocol. Progress and capacity amongst the states varies with a similar degree of complexity.”*

**As stated in ESaTDOR, 2013, the key messages and issues arising from the ICZM Protocol to the Barcelona Convention are:**

- Well-structured and complementary collaboration is needed among all levels, from international to local (with a clear top-down approach).
- Enhanced cooperation is needed among States (under the 1982 UNCLOS Convention but also UNEP-MAP and EU initiatives and projects).
- There are problems of a binding nature related to national government role for implementation.
- It is difficult to go from words and Protocols to action and transformation of government structures and routines.
- Experience from plans and strategies for ICZM is usually at regional level (i.e. middle size, equivalent to NUTS 2, corresponding to small and middle sized countries). Size matters!
- More efforts are needed to integrate Climate Change into the ICZM planning process for the Mediterranean.
- ICZM-MSP links and particular features of each seem to be unclear, consequently they are not applied.
- Little or no implementation of marine spatial planning exist at national nor at the sub-regional and regional levels.
- MSP should be launched with an approach, which is off-shore in character rather than trying to occupy ICZM space.

**All points above are still valid today.** These constraints must not be interpreted as a lack of action over these years. The **CAMPs** constitute maybe the most concrete effort of implementation of the ICZM objectives on the ground. As stated in the *CAMP Evaluation (PAP, 2015)*, the following are the major findings from the eight CAMPs undertaken since 2001:

- *„The majority of CAMP projects fully (or nearly) achieved their local objectives.*
- *Association of stakeholders has usually been very good, even when they had not been fully engaged in the project design.*
- *During their lifetime, all projects created a coastal community and produced a more or less inclusive vision of the desired future for the area.*
- *During their lifetime, all the projects contributed to demonstrating the relevance of an ICZM approach and developed implementation capacity of ICZM at local level.*
- *Given their cost (very limited) and their duration (often only 1.5 to 2 years of effective working) they have proved very efficient.*
- *There was weak follow-on in most of the projects, except where from its inception the project has been designed as a support for the development of high level coastal strategy or policy, and hence an institution has been committed to long-term implementation of the project.*
- *Despite the success of individual projects in meeting their planned objectives, they share some general limitations in terms of their lack of sustainability and limited contribution to the dissemination of ICZM in their countries, as well as regionally/internationally. Although the memory of purely local projects is kept, the capacity they built is lost by institutions within a few years.*
- *In terms of long term impacts, only those projects explicitly linked to institutional initiatives (changes in legislation and/or management strategies) had real persistent outcomes.*
- *„Stand-alone” local projects that were not integrated within national approaches towards coastal management vanish through a lack of institutional support (e.g. governance, funding).*
- *Where projects did not result in „mainstreaming” ICZM into policies or strategies, dissemination across sectors and organisations was limited leading to a reduced impact.*
- *Overall even if it could not completely solve the structural problem of changing policies through projects, the CAMP has proved an effective instrument to promote concepts of ICZM, and, in general, has led to a lasting institutional memory that permeates organisational practices beyond the lifetime of individual projects.*
- *Although there have been many institutional and technical changes that have taken place during the 25 years since the CAMP programme was launched, the*

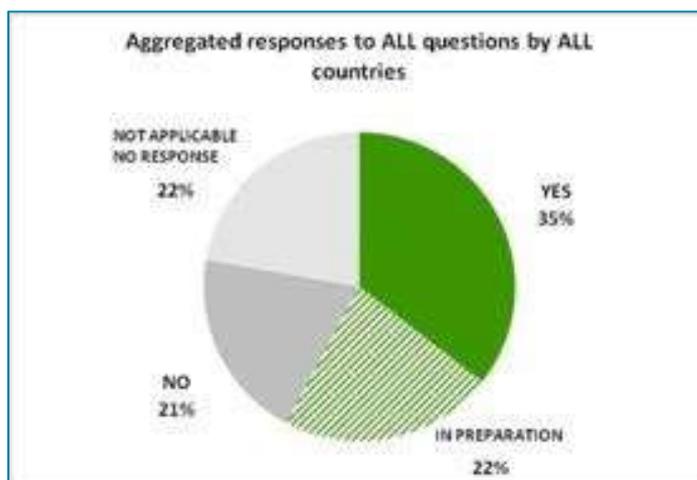
*assessment found there is still need, and demand, at national and regional levels for a programme to support the development of coastal management and integrated approaches across the Mediterranean.”*

One can notice that in most of these reports emphasis is put rather on the progress achieved than on the obstacles to further implementation.

In addition to regional efforts, **3 CPs** are in the process of carrying out their **National Strategies** (for more details see Annexe 1). More concretely, as stated in the *Mid-Term Evaluation, 2015* (para 55):

*„The ICZM Process has served as a basis for the preparation of the Guidelines to assist the CP in fulfilling one of the major obligations of the ICZM Protocol, which is the preparation of national ICZM strategies. These Guidelines were already used in Algeria and Montenegro and will serve as a guidance for the Coastal and Marine Strategy in Croatia. They were also capitalised within the SHAPE IPA Adriatic project as the partners from the region considered them as a good tool for the elaboration of their own (national or regional) strategies.”*

The *Stock-taking Report* prepared within the PEGASO project in 2012-2013 (*PAP/PEGASO, 2014*) was a valuable tool for evaluation of future progress though indicative in several cases, since it is not interpreting the reasons of the current situation in each CP (not to mention the difference of evaluation criteria in responding by CPs); it gives a „snap-shot” of the situation as a **reference basis**. Thus, a 35% of the answers reported positive results, in 23% of the answers the issues were in progress, a 21% did not report relevant activities, while a 22% of the questions have not been answered (*see Fig. 21*). The progress evaluation by article of the ICZM Protocol is reflected in *Table 5*, on the basis of statements made in the same Report.



**Fig. 21:** Aggregated responses to all questions regarding implementation of the ICZM Protocol (*Source: Stock-taking Report, PAP/PEGASO, 2014*)

**Table 5:** Progress in implementation of major articles of the ICZM Protocol  
(prepared by the team on the basis of the Stock-taking data)

Article of the ICZM Protocol	Progress
<b>Article 3: Geographical Coverage</b> <ul style="list-style-type: none"> <li>▪ harmonised delimitation</li> <li>▪ transposition into national legislation</li> </ul>	 
<b>Article 7: Coordination</b>	
<b>Article 8: Protection and Sustainable Use of the Coastal Zone</b> <ul style="list-style-type: none"> <li>▪ „set back” zone</li> <li>▪ control of urbanisation</li> <li>▪ freedom of access to the shore</li> </ul>	  
<b>Article 9: Economic Activities</b>	
<b>Article 10: Specific Coastal Ecosystems</b> <ul style="list-style-type: none"> <li>▪ protection and regulation of sensitive areas</li> <li>▪ international and European agreements</li> <li>▪ participation in international cooperation programmes</li> <li>▪ landscape protection</li> <li>▪ specificity of islands</li> </ul>	    
<b>Article 13: Cultural Heritage</b>	
<b>Article 14: Participation</b>	
<b>Article 15: Awareness Raising, Training, Education and Research</b> <ul style="list-style-type: none"> <li>▪ annual Mediterranean Coast Day</li> <li>▪ dedicated ICZM centres</li> </ul>	 
<b>Article 16: Monitoring &amp; Review</b>	
<b>Article 18: National Coastal Strategies, Plans &amp; Programmes, Transboundary Cooperation</b> <ul style="list-style-type: none"> <li>▪ national coastal strategies</li> <li>▪ comprehensive and up-to-date assessment of the use and management of the coast</li> <li>▪ ICZM Projects, CAMPs</li> </ul>	  
<b>Article 19: Environmental Assessment</b>	
<b>Article 20: Land Policy</b>	
<b>Article 21: Economic, Financial &amp; Fiscal Instruments</b>	
<b>Article 22: Natural Hazards</b>	
<b>Article 27: Exchange of Information and Activities of Common Interest</b> <ul style="list-style-type: none"> <li>▪ comprehensive analyses of the potential impacts of climate change</li> <li>▪ indicators for the coast</li> <li>▪ demonstration projects</li> <li>▪ host institutions for ICZM scientific capacity</li> </ul>	   
<b>Article 29: Transboundary Environmental Assessment</b> <ul style="list-style-type: none"> <li>▪ bilateral memoranda of understanding or projects</li> <li>▪ sustained transboundary co-operation on plans, programmes and projects</li> </ul>	 
Key: 😊 = good progress; 😐 = limited progress; 😞 = limited or no progress	

The consultation meeting in Barcelona (September 2016) gave the opportunity to the Mediterranean countries to express their opinion about the main obstacles to efficient implementation of ICZM in the region.

The main obstacles and weaknesses reported at national and lower levels were:

- Governance
  - Lack of political will/commitment
  - Lack of shared vision and shared priorities
  - Lack of recognized leadership (national, local level)
  - Lack of interministerial coordination (ICZM usually considered an environmental approach only)
  - Need for guidance on public participation
- Legal and institutional
  - Need for guidance on adaptation of national legislation in order to streamline ICZM
  - Lack of coherence between sectoral legislation is an issue, as well as of coherence between planning systems/legislations
  - Lack of national strategy, common reference for all stakeholders
  - Coherence between national and lower levels not easy to achieve
  - When relevant agencies are created, guidance is expected in defining their missions
- Information and knowledge
  - Lack of shared databases and GIS tools
  - Limited access to existing information and knowledge
  - Some gaps in knowledge (considered important, but usually less than access to existing knowledge)
  - Lack of one-stop shop for accessing marine, coastal and maritime information
  - Lack of platform/forum for exchanges between practitioners and managers
  - Guidance for evaluation (complete scheme, including indicators) should be developed
- Capacity and skills
  - Need to train all ICZM stakeholders, including national administrations beyond environment field, local administrations, economic stakeholders, NGOs
  - Expertise not available where/when it is needed
- General
  - Understanding of ICZM still limited among decision makers at all levels
  - Many conceptual papers, but lack of operational guidance
  - Need for tools supporting decision-making processes

- Pilot projects are very useful when they are designed to support tools development, as well as list of good practices
- Approaches for public-private partnerships should be developed
- Labelling of „good” ICZM projects could be a strong driver for widespread development of ICZM
- Sustainable funding of ICZM projects (beyond development) is an issue of interest.

We consider it worthwhile to elaborate a little bit further on a few **key issues** related to obstacles in implementation:

### *Misunderstandings as regards the ICZM process*

ICZM process is a dynamic and multisectoral approach comprising the full range: from vision and strategy at policy level to planning and management on the ground. This doesn't mean necessarily a single/separate legislation or plans. The need to manage the coastal areas effectively in an integrated and sustainable manner can be also served successfully by several but consistent and complementary instruments. ICZM can build on existing planning and governance schemes (on both sides of the coastline), providing the missing elements: integration and management (I&M).

ICZM should not try to replace the existing planning systems: they are necessary and consistent.

- On the land side, Land Planning addresses large scale/long-term issues (networks, etc.).
- On the marine side, Maritime Spatial Planning globally addresses maritime (e.g.: activities) and marine (e.g.: environment, resources) issues.

There are two levels for planning:

- Strategic planning: at this level (regardless if it is regional or national), principles and final objectives are defined, together with relevant indicators (outputs, outcomes, process...) to be assessed through evaluation.
- Operational planning: it defines which strategic objectives will be achieved and how.

Beyond scale aspects (larger and wider scope than coastal zone), the existing planning schemes are mainly strategic plans (they define objectives) rather than operational (definition of the way the objectives are achieved). It should be recalled that „zoning” is essentially an operational instrument, not a strategic one.

ICZM can and should add to these larger scale/strategic plans strategic and more local objectives, specific to the area to be managed, but ICZM must take on board the wide-scale objectives set up through MSP and land spatial planning (LSP), on both sides of the coastline.

### ***Lack of vision (and a forward-looking one)***

Integrated management should be based on a shared vision of the expected outcomes for the coastal area. Such a vision should be clearly expressed and easily understood by all stakeholders. Integrated visions are missing in many projects, where sound and realistic operational objectives are formulated along distinct strategic axes, but where the common high level aims are not clearly defined.

Moreover, when there is a vision, it often lacks forward thinking.

Plans are for future, not past or present. They should be based not on a mere diagnostic (description of the baseline and processes which led to this situation), but on a forward vision (referring to expected situation in the medium and long-term) built upon *prospective approaches* allowing studying several possible alternative futures depending on policy options.

Many coastal projects lack such a forward vision. As a consequence, many of these projects in fact try to avoid inevitable changes (or even try to return to an imagined golden past) rather than really *prepare for future*. It is not easy to build a forward vision from local scale and level; a realistic local forward vision should be built combining a large scale/long-term forward vision (defined at regional and national levels) and a more local/medium-term vision (defined by local stakeholders).

This is particularly true for the marine part of the coastal zone, where the local situation is often the consequence of decisions or situations at larger scale (economy, environment): shipping and global economy, oil and gas and global prices, fisheries and management of common fish stocks, cruises and security situations are recent examples of maritime sectors, where external context is of high importance and should be taken into account to build realistic and resilient visions for the coastal zone.

Lack of common vision is not usually due to lack of knowledge. In most of cases, it is due to lack of political will in combination with existing political and socio-economic conjunctures (not favourable „rapport des forces“).

### ***Not enough integration with existing legal and planning systems***

Experience has shown that, to be sustainable, ICZM policies and projects should aim to adaptation (and, usually, not replacement) of existing legislation, policies and plans. It is always possible to set up a specific plan for the area to be managed, independent of the existing (land and marine) planning systems, and it is usually easier given the time scales of institutional planning actions (several years, often longer than ICZM projects). Many experiences have shown that such

plans were not sustainable: when the project (and the project governance) disappears, the tools and instruments it created also disappear. The only cases, where plans survived after the end of project funding, are the projects which from the beginning aimed to adapt the existing plans and worked together with the relevant authorities.

National legislation and policies should focus on better integration of IZCM with the existing land planning system and the future MSP systems. They should also present with clarity the responsibilities of the different authorities and the consultation schemes involving stakeholders.

### *Lack of management in the marine part of the coastal zone*

ICZM aims at addressing all issues in the coastal zones. Nevertheless, priority is often given so far in the Mediterranean to issues related to the land part of the coastal zone, where most of the stakeholders and voters live. Even when a maritime issue is addressed, it is often in a partial and fragmentary way (e.g., such issues as management of marine resources or cumulative impacts of maritime activities, maritime risks linked to shipping are rarely addressed through ICZM approaches). Yet, these are important issues for the coastal zone from all points of view: economic, environmental and social.

As there is a growing demand for access to marine space and resources in the coastal zone, IZCM projects should fully address all maritime issues in the management area, even when the decisions about management are not only local and involve not only local stakeholders. Integration between ICZM and MSP is in this perspective really relevant and highly needed.

### *Institutional-governance weaknesses*

The principles of integrated governance are common to the land and to the sea parts of the coastal zone. Nevertheless, there is a need to implement these principles in a different way on each side of the coastline:

- Fundamentally the sea is an open space, which can be used (territorial waters) by many users, *which are loosely or not connected to the territory* (e.g. fishing, shipping, leisure users, state ships...);
- Regulation is significantly different for the marine area and for land, due to both the character of common good of the sea (nobody is the owner of the sea), and the fact that most maritime activities still *do not need specific and permanent allocation of space* and can use shared space.

Very often, governance schemes in ICZM are designed with a strong focus on land (with insufficient participation of the concerned maritime stakeholders), and the planning and management instruments favour land approaches such as exclusive zoning (well adapted for permanent use of private space, but not very

well suited to occasional use of shared space). As stressed before, MSP can contribute in allocating (in space and time) maritime uses and defining rules for maritime activities aiming to reduce conflicts and improve synergies.

### *Lack of capacities and resources*

The capacities for sustainable and integrated management are still lacking, particularly for the management of the marine part of the coast. In particular:

- Administrations: maritime administrations are still very sectoral (shipping, fisheries), land administrations often lack knowledge and skills to take into account the sea in their policies and management instruments (e.g. water management...). In almost all cases, there is considerable fragmentation of responsibilities.
- Maritime stakeholders (sea users) have still low knowledge of integrated approaches and they are not aware of the potential benefits.

At the same time, as stated in the *Stock-taking Report*, there is **considerable expertise and knowledge** in the Region as well as scientific institutions that can provide valuable information. **Access** of decision-makers, planners and socio-economic groups **to these experts and institutions** would be most important.

What is more worrying though is the lack of resources (financial and human). In a period of world-wide economic crisis, exploring **additional external funding** possibilities, avoiding unnecessary administrative burdens and **ensuring synergies** of all kinds is a must.

### *Lack of information*

In order to support ICZM, priority is often given to the production of new knowledge (including through research); in marine areas, this is very expensive and it takes time. Basic information is often not available (in particular for the marine part, e.g. bathymetry, environmental information, activities...) and should be produced when needed.

But policy decisions are based on existing knowledge, even insufficient, and lack of sufficient knowledge should not be a reason for not deciding. *A lot of information already exists*, but usually access is particularly difficult to information related to the marine part of the coastal zone:

- When it is available, it is often not shared, not only with land stakeholders, but also between maritime stakeholders. This consideration concerns administrations as well as research institutions and private stakeholders, who often keep information without commercial value rather than sharing it;
- Information is scattered among many stakeholders, public and private, and its mere existence is often ignored by other stakeholders;

- Information provided to decision-makers is often in formats not so concise, user-friendly and operational. Thus, it is not easy to be used as justification for choosing among existing options.

Technical difficulties are often cited as the main obstacles to sharing existing knowledge; but in fact, the main problems are usually related to **governance gaps, lack of cooperation and/or will to cooperate**.

### *Lack of monitoring*

Monitoring should be in principle an integral part of any policy or management scheme – though often neglected even for the terrestrial part of coasts for which there is lengthier experience. Without consistent monitoring of causes and effects, no activity can prove its sustainability, and no area can be properly managed.

Monitoring of the marine part of the coastal zone is important, for both maritime activities and marine environment, but also for the terrestrial part because of the interactions. There are many gaps in monitoring in the marine area of the coastal zone:

- maritime activities are monitored („maritime surveillance”) mainly for regulatory compliance and safety objectives, with specific focus on real time (safety, security, enforcement) and sectoral monitoring (e.g. shipping, fisheries), which do not allow full knowledge of which activity is carried where and when, and hence knowledge of pressures on resources and environment; monitoring information for maritime activities is usually available only to the sector itself (e.g. fishing, shipping, O&G...);
- regulatory monitoring of maritime activities doesn't properly cover some activities considered traditional, such as fishing (even when the techniques used are no longer traditional);
- there are gaps in monitoring of the marine environment;
- moreover, there is insufficient connection between monitoring of maritime activities and monitoring of the marine environment: the corresponding schemes are often defined independently (areas, parameters, protocols, etc.), and this lack of integration often hampers correct assessment of pressures and impacts of maritime activities on the marine environment

### *Lack of ownership*

The fragmentary approach used in most of the cases and the fact that so far ICZM issues are considered responsibility of one Ministry without clear cooperation schemes involving other authorities, does not facilitate the feeling of ownership, which would be a valuable asset for the implementation of any decision and policy. Furthermore, many ICZM projects developed separately and independently from the general planning scheme lacked ownership by local/national authorities

in charge of planning and of implementation of the plans. Even when these authorities supported it (as an effective way of managing the area), they didn't feel responsible for this additional instrument.

As a consequence, at the end of the projects the ICZM process is no longer supported by local/national authorities and institutional governance, and the outcomes of ICZM projects in the long term are often lower than expected.

The only cases of ICZM projects where ICZM survived the end of the project are the cases where ICZM built on existing planning systems and got support from the authorities and governance in charge of this planning system: mayors (communities), regional authorities, central administrations.

This is happening to a greater extent in the marine part of coastal zones too. Maritime stakeholders are often weakly associated in the management of the coastal zone, partly due to weak connections with the land part of the coastal zone where they carry out their activities. As a result, they may object to the definition or implementation of management measures focusing on marine areas or marine resources.

**Box 8:** Points to retain regarding weaknesses in implementation

**POINTS TO RETAIN**

26. Obstacles to implementation have been identified many years ago. In spite of efforts made at regional and national levels, **the problems remain** though not to the same degree as at the beginning.
27. In most of the cases, the main **obstacles** are not of a technical/operational reason; they are **mostly related to lack of vision, political will, strategic approach, proper institutions/governance, ownership**. The meaning of integration is not fully understood and there is a **need for change of behaviour and better governance**.
28. Experience shows that ICZM does not necessarily require completely new institutional schemes and planning system. **ICZM could preferably be based on existing planning systems** both on land and at sea; it should not aim to substitute them with a new stand-alone planning scheme, but build on existing ones and adapt them when needed, ensuring that both **land and sea sides** will be covered.
29. **Making information and expertise available** seems to be of key importance. The PAP/PEGASO Governance Platform as well as the EU funded Virtual Knowledge Centre for the Mediterranean could be of help to this direction.

## 6. NEEDS (TOOLS AND ACTIONS)

Actions and tools needed to deal with the gaps, weaknesses and obstacles identified as regards implementation of the ICZM Protocol will be grouped at a later stage on the basis of outcomes desired and specific objectives of the RF, in a context that would be complementary to other existing strategic documents in the Region. **Connecting actions with expected outcomes** is important if we want to get results and positive effects of our policies on the Coastal Zones. The following are mentioned on an indicative basis:

### *Need to integrate ICZM into other policies, strategies and action plans*

The implementation of the ICZM Protocol implies the integration of ICZM principles, objectives and actions into all national policy frameworks and instruments, enhancement of the governance mechanisms, involvement of different Ministries and stakeholders and development of partnerships. It also implies reflecting properly on the coastal areas the strategic orientations and objectives of the different sectoral policies (including regional and national plans for Adaptation to Climate Change impacts).

### *Need to create an enabling environment to implement the ICZM plans and forge partnerships*

Appropriate institutional and policy frameworks are needed to effectively implement the ICZM programmes. It is the governance component of the ICZM system that should develop the necessary policy, regulations, financing, institutional and human resources support to create an enabling environment and forge partnerships and cooperation between agencies, in order to collectively develop the ICZM programme and jointly implement the specific action programmes led by the relevant agency responsible. Regional partnerships are essential for forging regional collaboration to address complicated transboundary environmental challenges. **Examples** of actions:

#### Governance

- Build a multilevel governance scheme covering from local (project) to national (coastal policy)
- Connect sectoral governance schemes as defined in sectoral regulations to ICZM governance, at all the relevant levels (see also „regulation“).
  - E.g., port management, coastal fisheries... should interface with the coast at governance level

- Connect governance and management schemes (e.g. ICZM governance and governance of supporting institutions) in order to ensure consistency of strategies/priorities/resources allocation

### Regulation

- Clearly define the coastal part of all concerned regulations
- Implement common and shared instruments in each sectoral regulation (spatial planning, enforcement, monitoring, knowledge, governance, evaluation...)

### Planning

- Interconnect ICZM planning schemes with existing planning schemes at all scales
  - On land, with land planning and urban planning schemes
  - At sea, with MSP scheme
  - At horizontal policies level, e.g. to integrate environmental protection, CC Adaptation and sustainability
- Connect planning system and governance system (a planning level should be also a governance level and an implementation level)
- Deal with uncertainties, emerging usually in issues related to MSP and CC.

### Enforcement

- Connect enforcement in the marine part of the coastal zone to enforcement defined through MSP (pooling of resources, equipment, policing and regulatory power...) and to the coastal governance schemes

### *Need to ensure commitment and synergies at national level*

Build a **national shared vision** of the future of the coast, reference for all sub-national and local coastal plans, programmes and projects

- Such a vision should be based on a complete diagnostic, including global context, and a forward looking approach
- The vision should be implemented in all subnational and local plans programmes and projects, combined with site or region-specific vision

### *Need to strengthen the capacities of CPs to implement the Protocol and use, in an effective manner, ICZM policies, instruments, tools and processes*

Even if there are political and financial commitments, effective implementation of ICZM will not be possible without the necessary competent institutions and individuals, who can lead, mobilize and facilitate human and financial resources.

Thus, building a critical mass of local and national managerial and technical skills, especially through „learning by doing”, is a sure way of achieving an effective implementation of ICZM programme on the ground. This action has to be undertaken as early as possible. PAP/RAC already delivers on annual basis a virtual MedOpen training course, recognised a high quality source of continuing professional development, of all stakeholders interested in coastal management in the Mediterranean. However, to be sustainable, a structured training programme, throughout the Mediterranean, is needed to build adequate managerial and technical capacity to undertake integrated planning and management of Mediterranean marine and coastal area.

The issue of capacity building could be considered as a social threat to sustainable coastal management, more especially in developing countries as there is a constant lack of capacity and expertise, particularly at local municipal level, with associated ripple effects on the effectiveness and efficiency of management institutions (*Taljaard et al., 2012*). The implementation of ICZM can be successfully sustained through effective capacity-building mechanisms, which form a critical support element in the long-term. Gaps are even larger on the maritime side (administrations, activities, are mainly sectoral), and MSP should support by disseminating good practices and promoting integrated approaches in these sectors. This is one of the most important issues in the southern and eastern Mediterranean countries, where strengthening of public authorities is needed also as regards different issues associated to climate change and especially to adaptation. **Examples** of actions:

### Education and training

- Take ICZM out of science world and beyond concept level
  - elaboration of several regional operational curricula for experts, decision makers, NGOs, etc. implemented a coordinated way at national level (e.g. one-week training sessions for coastal decision makers, organized at national level with regional support...)
- Define coordinated regional academic curricula, foster exchanges between teachers and students
- Target key issues and staff to be trained in an effort for effectiveness and sustainability. Importance of ensuring that trained staff remains at the specific posts/fields for which they were trained.

### Interfaces and platforms

- Strengthen Science–Policies Interface (SPI), with greater emphasis on communication platforms at the sub-regional level (Maghreb or North African Countries, for example) that will serve as an interface between the regional and national levels.

- Strengthen and intensify scientific collaboration and partnerships between the academic communities of the Mediterranean countries, North-South and South-South and draw the necessary lessons, particularly concerning the management and monitoring.

### *Need to better inform decision-making through research and scientific cooperation for adaptive management*

Scientific knowledge, including availability of reliable data, information and tools are essential to wisely orient policy and management decisions, especially in times of scientific and/or political uncertainty. ICZM being a dynamic and iterative management process, adaptive management and the precautionary principle are important to adjust management policy and practices in meeting new goals. ICZM management approach should then be flexible, in order to support local solutions within an overall regulatory framework. Promoting science-policy interface would be most beneficial. **Examples** of actions:

#### Knowledge

- Provide access to data collected through public-funded marine and maritime research
- Regional portal connecting national coastal portals
- Bridge policy-makers with scientific evidence to justify optimal decision-making.

### *Need for better-informed stakeholders through a strong communication strategy*

Well-informed stakeholders, throughout the ICZM process, provide a strong political base for ICZM-MSP programme implementation, including CC Adaptation. The effective implementation of the Protocol will therefore require a wide societal engagement involving civil society and individual citizens in the coastal zone, as well as governmental institutions. To achieve this, good communication strategy, utilizing innovative communication methods, through national communication plans needs to be developed to raise public awareness, strengthen multisectoral participation and promote open and transparent access to information and decision-making processes. At the local level, such effective communication mechanism will strengthen local stakeholders' acceptance and ownership. Finally, well-informed stakeholders could serve as the champions and driving force for ICZM-MSP implementation throughout the country.

The annual Mediterranean Coast Day celebration (September 25th) has been a success as a focus for this activity, generating wide spread participation amongst the general public, events and publicity in coastal regions across the Mediterranean. It is proposed to continue this event and awareness raising actions.

Cooperation and coordination of stakeholders is crucial for effective implementation of ICZM-MSP as well as for adaptation to climate change impacts. It is of great importance to identify the right level of involvement to get the maximum of results. In some countries, only national-level authorities (e.g. the office of the President or Prime Minister) have the authority to facilitate such coordination. But cross-sectoral coordination (coastal zones, MSP, existing platforms and coordination mechanisms for disaster risk reduction) could constitute a starting point.

### *Need to fully engage economic and social institutions and actors alongside those in charge of the environmental issues*

To increase the much-needed political support for implementation, ICZM should be recognized as an effective planning and management tool that ensures optimization of economic and social benefits from natural resource exploitation and utilization. There is a need to sustain marine and coastal activities that meet the principles of sustainable development and contribute to economic prosperity and social well-being of the population.

### *Need to develop and promote strong partnerships in sustainable financing*

There is a need to promote public-private sector partnerships by creating favourable environmental investment policies that encourage private sector investments. Policy enhancement and capacity development efforts at national level will be very useful in catalysing financing not only from the private sectors, but also from bilateral organizations or multilateral financing institutions.

The implementation of ICZM is a long process, which, while providing tangible economic and social benefits for coastal communities, needs permanent and operating funds from the onset. Securing funding from donors, trust funds or taxes is therefore very important to launch initiatives in municipalities or larger areas as well for maintaining the process. **Examples** of actions (mostly national):

#### Funding

- Integration of management has direct costs and indirect costs (negotiations costs: need to allocate time to stakeholders' discussions, loss of revenue); technologies (e.g. for MSP and for CC Adaptation) have also a cost; benefits are usually indirect (better use of resources, less conflicts, less pollution, etc.)
  - Need to identify sustainable resources to fund direct/indirect costs
  - They should as much as possible be based on local resources
  - They should involve participation of those who benefit of the management and resources (royalties for harvesting natural resources, fees for using common space or facilities, ...)

- Identification of mechanisms to allocate these resources to ICZM in a transparent way
- Mainstreaming of domestic financial instruments to finance the costs for ICZM-MSP profiting also from sectoral policies investments
- Identification and mobilization of available international funding resources to enable transfer of technology and investment plans for climate change in coastal zones. Mainstream climate change in the energy sector through energy efficiency and renewable energy.

### *Need for ICZM scaling-up policy*

The national government has to provide the necessary technical support and appropriate incentives for local governments to implement ICZM programmes. When local achievement of ICZM implementation is successful (e.g. for some CAMPs), it should serve as a demonstration for replication and scaling-up of similar practices throughout the country, region and the Mediterranean at large. Multiplication of such successful efforts would enable the region to achieve its committed sustainable development goals for coastal and marine areas.

### *Need to increase the visibility of ICZM projects*

Making ICZM programmes visible improves inter-institutional cooperation and collective responsibility in meeting programme goals and objectives. Stakeholders should be regularly informed of any achievement or progress made all along the implementation process.

### *Need for monitoring and evaluation*

**Art. 27** of the ICZM Protocol states that the Parties shall in particular: „establish and maintain up-to-date assessments of the use and management of coastal zones”.

Monitoring, including spatial and temporal monitoring, plays a key role in the evaluation of the effectiveness of measures taken in the mid to long terms. A comprehensive and effective coastal monitoring programme must work on setting the enabling conditions through adequate policies, strategies, and laws to facilitate progress and enhance the monitoring of changes in institutional and individual behaviour as well as the results achieved.

The final stage of the ICZM process involves monitoring and evaluation of the programme once it has been implemented. Evaluation is generally the least developed phase of the ICZM process, in terms of both methods and practice. Typical challenges that are normally faced by decision makers at evaluation stage are securing the necessary legislative and legal changes, obtaining adequate

financial resources for rolling out the ICZM programmes, in addition to identifying and filling policy gaps. **Examples** of actions:

### Monitoring

- Identify and update the vulnerability of marine and coastal areas, including to climate change
- Merge or interconnect maritime surveillance mechanisms, open access to the relevant information to all interested stakeholders
- Merge or interconnect marine and coastal monitoring systems (science/research, sectoral policy, environmental policies, regulatory monitoring of activities and coastal projects, ...)
- Monitor and evaluate CC mitigation and adaptation measures (monitoring climate change indicators under the new UNFCCC climate agreement and its future implementation mechanisms).
- Foresee early warning systems for extreme phenomena, climate risk and disasters.

### Evaluation

- Need that coastal policies and coastal projects include a complete evaluation scheme (covering also CC) involving ICZM governance and including SMART indicators (linked to policy/project priorities), observatories, revision process
- Build a complete set of regional coastal indicators for marine and land parts of the coast, aggregated from national indicators
- Create a regional network of coastal observatories covering the whole region and the whole scope of coastal issues.

### ***Need for indicators to measure the progress and effectiveness of ICZM policies***

**Art. 27** of the ICZM Protocol states that the Parties shall in particular: „*define coastal management indicators, taking into account existing ones, and cooperate in the use of such indicators*”.

Initiating, monitoring or evaluating an ICZM process requires a set of governance, environmental, and socio-economic indicators that should relate to the specific management issues that triggered the initiation of the ICZM process, such as multiple conflicts, ecological degradation, community interest or the need for implementation of a specific legislation (IOC-UNESCO, 2006). Indicators need to be monitored at local and regional level to evaluate the results of multiple activities and their interactions; they are tools to follow up coastal progress, aid decision-making and facilitate communication to a broader

audience on coastal development and policy impacts on different territorial scales. To date, much of the emphasis on indicator development and their application have focused on environmental indicators. Socioeconomic indicators have been developed but are more common at the sub-national than the national level. The use of governance indicators to examine the performance of ICZM is still in the embryonic stages of development.

**Art. 18** of the Protocol states: „*The Parties shall define appropriate indicators in order to evaluate the effectiveness of integrated coastal zone management strategies, plans and programmes, as well as the progress of implementation of the Protocol*”.

Indicators for the ICZM Protocol can be grouped into the following categories (PEGASO):

- *Compliance indicators* (or Performance Indicators): to report on the degree of compliance in the implementation of the Protocol articles, according to the reporting format of the Compliance Committee;
- *Effectiveness indicators* (or Impact indicators): to measure how effective the Protocol is in achieving its objectives and how successfully the Protocol is being implemented;
- *Coastal management indicators* (or Sustainable Development Indicators): to assess the state of coastal environments, trends, patterns, sustainability etc.

As a follow-up of the recommendations of the Mediterranean Commission on Sustainable Development, Plan Bleu presented in its Final Report (*UNEP/MAP/Blue Plan, 2002*) 130 Indicators for Sustainable Development, grouped according to the thematic framework taken from the MED 21 Agenda and adopted by the CPs to the Barcelona Convention in October 1999. Among these indicators, 52 were considered by Plan Bleu to be relevant for the Mediterranean coastal regions among which 43 indicators could be eligible for monitoring the ICZM protocol (*Trumbic, 2006*). Other EU funded projects (PEGASO, DEDUCE, SHAPE, ...) also provided specific recommendations to further refine the ICZM indicators. However, there is a need for formal reporting systems to be fed into national reporting procedures to allow indicators at different scales (national and local) to facilitate inter-country comparison.

### ***Need to recognize ICZM as the key tool for the implementation of the ecosystem approach in the coastal area***

ICZM is not a purpose in itself, but it is the most appropriate operational tool in achieving ecosystem-based management (EBM) approach. The analysis and cross-comparison between ICZM and the ecosystem approach made as part of the PEGASO Project (*Haines-Young and Potschin, 2011*), showed that both conceptual

frameworks are guided by the basic principles of sustainable development. Much more: they are complementary, with the same underlying concepts. The EBM/EA provides some of the major goals and the ICZM the operational setups.

### *Specific needs for ICZM in the Southern countries*

While in the countries on the northern shores of the Mediterranean much progress has been made in terms of governance and preparation of the framework for the implementation of the ICZM processes, in the southern Mediterranean countries, *inter alia* countries of the Maghreb, more efforts and progress are still needed, regarding the following points in particular:

- Encourage decentralized governance with greater emphasis at regional and local levels on planning processes in coastal areas.
- Clarify prerogatives between coastal institutions, in order to increase their effectiveness and performance and enhance the complementarity of their actions on the ground.
- Avoid carrying out only coastal projects; implement full ICZM dynamics.
- Translate concretely on the ground the existing ICZM provisions in marine and/or coastal regulations, improve administrative procedures to facilitate the implementation of ICZM and increase institutional and regulatory effectiveness.
- Strengthen synergies among influential stakeholders in decision-making processes.
- Mobilize and optimize appropriate means and resources for the implementation of ICZM at different scales of coastal zones.
- The experience of the PACs reveals the deficit in evaluation through indicators computed and verified according to Mediterranean standards.
- Take into account social and political considerations (security, stability, illegal immigration) in certain countries, particularly in the Maghreb.
- Consider other priorities at the national level (food security, budgetary balance and financial availability, water stress, desertification, etc.) as well.
- Strengthen the platforms (interfaces) of political sciences and media sciences.
- Avoid, at the national level, proliferation of coastal strategic instruments and plans to improve on-the-ground implementation of ICZM and reduce potential conflicts of interest, especially between governments.
- The multitude of stakeholders, structures and frameworks undermines the clarity of the message and the applicability of the proposed guidelines. It

would be more useful to reflect on how to improve the visibility of existing institutions and existing mechanism and legislation.

- The transition to more inclusive policies is complicated, given the diversity of management practices adopted by each sector and the need to cross complex issues.
- Apply all forms of integration at the same time, considering the interdependence between them (geographical, spatial, temporal, intersectoral, interdisciplinary, political and institutional).
- Raising awareness, delegating and helping to actively involve civil society in the ICZM process over the medium and long term.

### *Specific needs for climate change*

Implementation of ICZM requires to take into consideration the impacts of climate change on coastal areas and the adaptation measures that need to be taken to reduce the adverse effects of climate change on services provided by coastal areas and to strengthen their resilience.

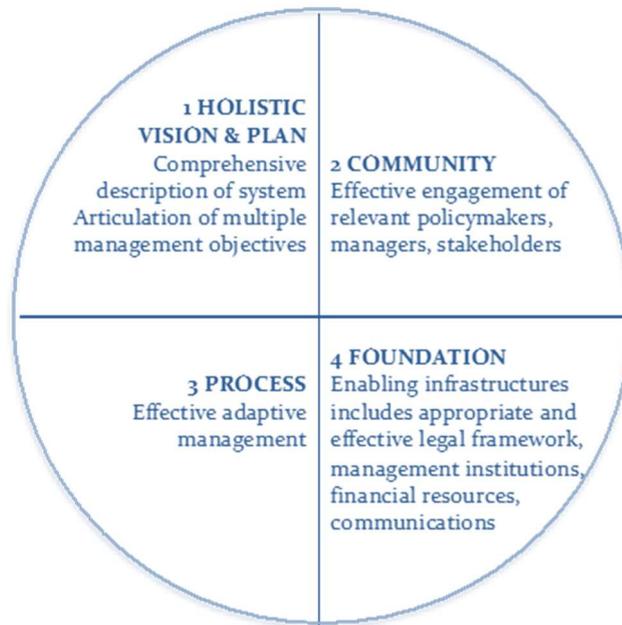
- Strengthening of adaptation capacities through capacity building aims to increase individual and community buffer capacity, to build robust systems for climate problem solving, to increase resilience to climate change by strategically and systematically using climate information and to respond in adapted and relevant and direct way to a climate change related threat in coastal zone. This is why dealing with uncertainty will be one of the major topics for building national and local capacities in the Mediterranean area, since several uncertainties continue to characterize future trends in climate change, in particular the impacts and timing of climate change, and future greenhouse gas emissions.
- It will be necessary to increase specific capacities on contingency planning, flexible/adaptable strategies that can take into account revised information, interactive decision-making, choosing no-/low-regret options, communication rules.
- Adaptation to climate change requires adapted information, interpretation and decision making skills and needs to change process that requires management structures and processes (institutional capacity). Capacity building for adaptation needs to take into account perspectives on developing adaptive capacity at the individual and collective management and leadership. It also requires organisational structural and procedural capacities for steering, networking in co-operative systems to benefit from comparative advantages and economies of scale.

- Development of a comprehensive adaptation and mitigation strategy for climate change, through measures capable of addressing risks to the climate change and to reduce the vulnerabilities to the expected climatic variations, with a view to anticipation.
- Take account of the synergies between policies and arbitrate the antagonisms between the objectives set by the sectors. In this respect, the strategy proposes mitigation measures where they prove profitable for the coastal area, particularly through the promotion of renewable energies.
- Strengthen National Institutions in charge of climate change issues to enable the implementation of adaptation strategy and its follow-up,
- Promote the inclusion of climate change in sectorial approaches.
- Strengthen public authorities on the different issues associated to climate change and especially for adaptation by using adapted and relevant methodologies.
- Strengthen institutional and technical capacities to improve access to international climate funding mechanisms.
- Mainstream climate change in the energy sector through energy efficiency and renewable energy.
- The complexity of the climate changes drivers and impacts require a large mobilisation of stakeholders, both at the national and local levels. The results will be prioritised according to geographic hotspots and/or priority topics.
- Coordination is critical for effective adaptation, and, considering the complexity of the climate change issue and the multiplicity of stakeholders in the processes of adaptation to climate, only the national-level has the authority to facilitate such coordination.

The CPs should also recall that, following commitments undertaken by Parties under the Paris Agreement, actions may include:

- a) The implementation of adaptation actions and/or measures;
- b) The formulation and implementation of national adaptation plans;
- c) The assessment of climate change impacts and vulnerability, with a view to formulate national priority actions, taking into account vulnerable people, places and ecosystems;
- d) Monitoring, evaluating and learning from adaptation plans, policies, programmes and actions; and
- e) Building the resilience of socioeconomic and ecological systems, including through economic diversification and sustainable management of natural resources.

The critical elements in preparing adaptation policies are shown in *Fig. 22*.

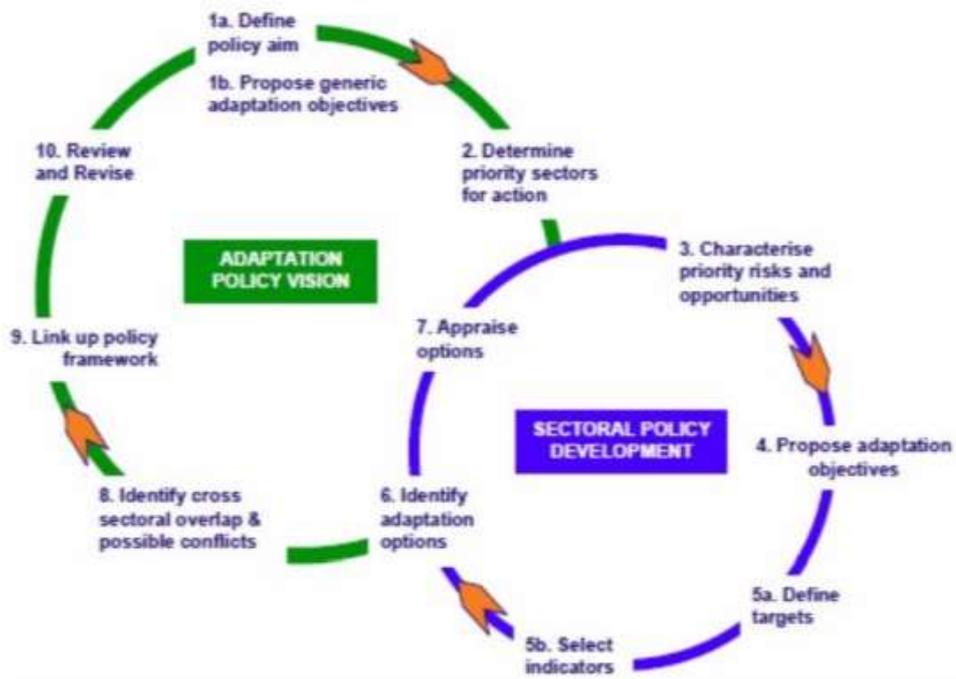


**Fig. 22:** The four critical elements of Ecosystem based Adaptation that supports a mainstreaming process (*Source: Chornesky, Codevilla, & Sherwood, 2010*)

The key steps for mainstreaming climate change into ICZM are:

- (i) identification of vulnerable coastal and marine areas;
- (ii) definition of the current state of such coastal and marine areas and components;
- (iii) agreement on a timeframe within which improvements in coastal and marine habitat performance and quality are to be achieved (usually between five and twenty years);
- (iv) development of goals and targets for coastal and marine ecosystem performance and quality, consistent with national policies, strategic plans and objectives;
- (v) identification of actions that are needed to meet the specified targets;
- (vi) identification of the stakeholders who will implement and of possible sources of funding; and
- (vii) identification and use of a governance scheme for adaptation to CC, as part of the ICZM-MSP governance for the implementation of the entire process.

Articulation between national adaptation plans and sectoral policies is shown in *Fig.23*.



**Fig. 23:** The relationship between national policy and actions and measures implemented at individual sector-level (Source: AEA, 2005)

The RF will be inscribed in the global and Mediterranean context and will be properly articulated with other related strategic documents (e.g., MTS, MSSD). National strategies for ICZM as well as local plans and actions are expected to be consistent with it (see Fig. 24).



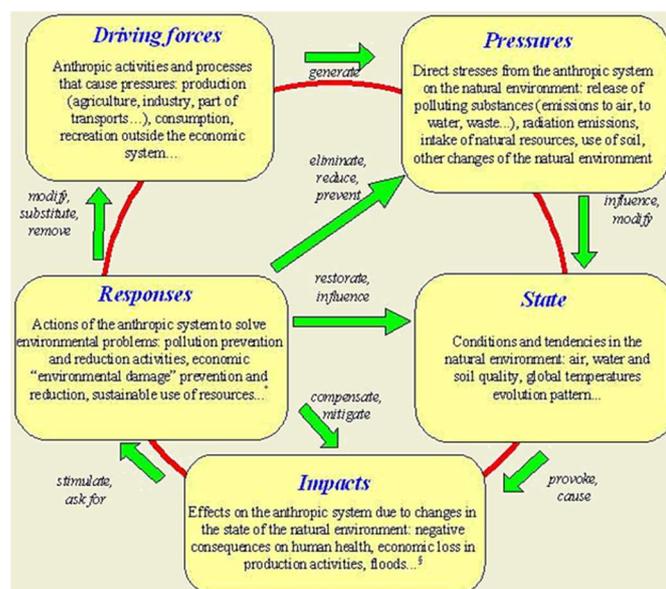
**Fig. 24:** Moving from Regional to National level (Source: National ICZM Guidelines, 2015)

As mentioned in the „*Analysis and Lessons learned on ICZM*” (PAP, September 2011), „in the medium to long term, **a national framework is needed** toward improving coherence and making synergies between much too often numerous un-coordinated actions carried out at different scales and in different sectors. An ICZM national strategy is needed to continuously learn and adapt in a world where surprise, change and uncertainty are the norm, not the exception.” Critical factors for the success of national strategies are mentioned in Box 9.

**Box 9:** Critical success factors confronting the building up of ICZM national strategies  
(Source: „*Lessons learned on ICZM*”, PAP, 2011)

- (1) the policy should provide a **national statement** of political intent that secures buy-in for an integrated multi-sector coastal management approach, mainly through an understanding of why the coast is important, in political and economic terms;
- (2) the policy should outline a **normative framework** including the vision, principles, goals and objectives for coastal and marine management;
- (3) the policy should present a **Plan of Action** that provides clear direction for taking action to improve the co-ordination and integration of sectoral activities affecting the coast, as well as strengthening other policies and building capacity to implement the policy;
- (4) the policy should not attempt to address all issues of concern but rather should focus attention on **agreed-upon priority issues** that are uniquely coastal and specifically require a coastal policy response;
- (5) the policy should focus on issues that can be successfully addressed and its implementation must result in **tangible changes** that improve the livelihood of coastal stakeholders.

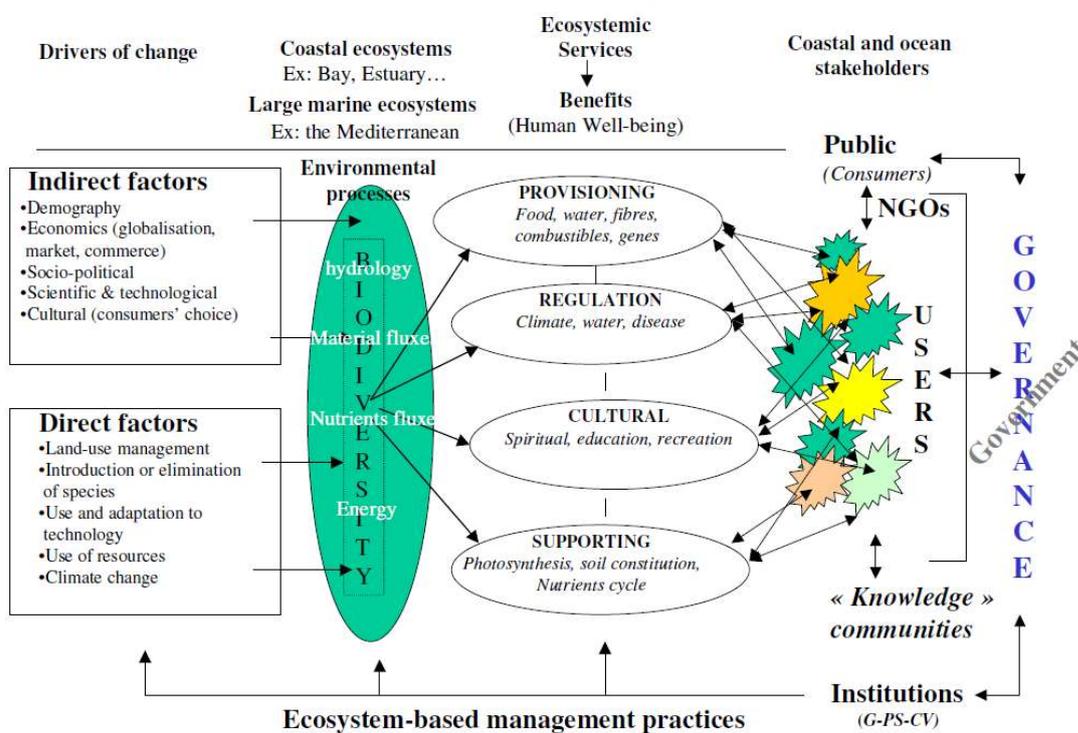
To identify appropriate policies and actions for coastal zones at regional, national and local levels, the DPSIR approach offers a good tool (see Fig. 25). Of course, there are other models too (e.g., Imagine) that CPs are free to use if they consider them more appropriate for their needs.



**Fig. 25:** The DPSIR approach

This scheme can become more concrete on the basis of the policy theme (e.g., for marine pollution) and of specific conditions or scale (for the Region or per country or CZ).

As stated in the „*Analysis and Lessons learned on ICZM*” (PAP, September 2011), „*Generally speaking and as regards the ICZM initiatives, there is still a lack of understanding between those issues that are impacts and those that are drivers. Too often, the local ICZM initiatives are impact-driven. At the national level, it will be important to engage the real driver sectors, be there direct or indirect as shown in the Figure below (Fig. 26), which is a reflection of the Millennium Ecosystem Assessment logical framework.*”



**Fig. 26:** The main drivers of change onto the interconnected social-ecological system

**Box 10:** Points to retain regarding needs

**POINTS TO RETAIN**

30. Agreeing upon a **common vision** at regional and national levels would facilitate considerably promotion of the integration approach, coherence and implementation. Avoid possible delays of action if dialogue is prolonged.
31. Agree upon a way to **articulate the different existing strategic documents**, including the RF for Climate Change Adaptation, so that they would contribute to effectiveness and to avoiding waste of resources.
32. Promotion of **integration at all levels** remains a key objective. The RF should integrate also major global and/or emerging issues (e.g., CC, SLR, EcAp, interactions with MSP, etc.). Emphasis should be put on ensuring synergies (e.g. at policy, institutional, capacity building and funding levels) and avoiding overlapping, conflicts or waste of resources).
33. Proposed actions and measures should be related to **expected outcomes**, in order to ensure positive results on the CZs.
34. Emphasis should be put on the **National Strategies**, policies and actions, as key level of intervention at the current stage; they will orient in a more effective way the local actions too.
35. Fill in **scientific gaps** avoiding excessive costs (proposal of technical tools and degree of reliable information needed for effective planning and management).
36. Apply Climate Proofing for Development, where appropriate, and **combine** to the extent possible capacity building, monitoring, funding etc for **CC Adaptation** with those for ICZM-MSP.
37. The RF for ICZM-MSP could be the **follow up of the current Action Plan for ICZM**, offering the necessary strategic orientations, objectives and road-map without proliferation and overlapping of strategic documents.

## 7. RECOMMENDATIONS

The detailed Recommendations will be reflected in the Regional Framework for ICZM and MSP, an annotated structure of which is included in this Background Document as *Annex 2*.

The following bullet points resulting from the review of the state and trends in the Mediterranean, are listed „pour memoire” in view of the drafting of the Regional Framework.

### **OBJECTIVES – VISION**

- Sustainable development and integration, as well as a prospective approach should be clearly reflected in all ICZM and MSP actions.
- The coasts we want ... (to be clearly defined at each national level, through inter-ministerial processes).
- ICZM should not be seen as merely an environmental issue or a planning one. Show importance of integration (change of behaviour at both regional and national levels), including environmental, social, economic and governance issues. Furthermore, ICZM has an important role to play in the planning process, in particular in moderating between marine and terrestrial uses and interactions.
- Re-think and implement ICZM in a way that encourages innovation and does not assume that everything can be known about how complex coupled social and ecological systems operate whilst not presuming that conditions are ever likely to return to their past state.

### **MAJOR CURRENT CHALLENGES AND OBSTACLES**

- Ensure political support. At the political level, ICZM has to compete in a crowded field with many competing agendas, and it urgently needs to demonstrate its relevance to non-environmental social and economic issues.
- Moving from vision to action.
- Identify real drivers per case and adapt responses.
- Integrate also policies and measures needed to deal with Adaptation to Climate Change.
- Tackling problems in a more comprehensive way in a rapidly changing world necessitates new thinking like „adaptive management“ to keep ICZM as a key concept for adaptation.
- Blue Economy and links with MSP.

- Face the reasons of delays in implementation.
- Regional actions to support national strategies/policies/actions (national = the critical level of intervention for next years).
- Provide at regional level the tools needed (e.g., methodologies to assess vulnerability and risks, as well as cumulative impacts). See also Guidelines for MSP under preparation as in *Annex 3*.

### **STRATEGIC & OPERATIONAL DIRECTIONS AND ACTIONS**

- Stress need for coherence and synergies. Ensure complementarities of ICZM/PAP activities with MSP plans & activities, SPAs and SPAMIs, Plan Bleu & SCP studies, REMPEC plans, MED POL monitoring and EcAP/GES work.
- Continue with ratifications of the Protocol (though it is mostly needed for the non-EU CPs. The EU-MS should do it rather for symbolic reasons, given the *acquis communautaire*).
- Emphasis on creation and strengthening of enabling environment at regional and national levels (competences, legislation, governance schemes with flexibility following national conditions, ...). Combine with relevant needs for CC Adaptation.
- Select regional priorities for next years (up to 2030?).
- Emphasis on orientations for actions at national level / moving from scattered projects to coherent national policies (leave it open if CPs need all to have an ICZM Strategy. In some cases, mostly in EU-MS, it might be quicker or sufficient to incorporate integration elements in existing legal and planning instruments & structures).
- Plan following an ecosystems approach.
- Proposals on the basis of weaknesses and needs identified.
- Combine with other Action Plans within the BC System,
- Reflect in ICZM plans other global issues (e.g., CC) in an integrated way. The relevance of ICZM to contemporary issues such as climate change and poverty reduction facing the Mediterranean should be identified, be clearly articulated in a range of well-branded media, and promoted through a series of events at the regional level to national decision-makers and wide non-specialist audiences.
- Extend CAMPs to their marine part and support the development of MSP having in mind that sustainable management of CZ implies also sustainable management of the sea.

## **PREREQUISITES AND MEANS OF IMPLEMENTATION**

- Increase awareness (including on the importance of integration and on CC risks), strengthen capacities, share best practice, innovation, experience and methodologies, promote ownership. Continue with Med CoastDay & MedOpen Learning.
- Promote a single and user-friendly information system, facilitating links and connections, with web-mapping, thematic references of studies and scientific information, as well as with reference to a network of (Mediterranean mostly) experts/consultants by field of expertise. This could act as a valuable **clearing house** to be available not only to FPs, but also to decision-makers, planners and NGOs. Ensure quality of data etc. Combine with related EU tools and platforms.
- Focus research on missing basic scientific information and promote dissemination of knowledge and good practices.
- Identify important technical tools needed.
- Networking (including stakeholders of land and sea activities).
- Promote zoning, regulatory arrangements, local management.
- Need for basic technical support for the development of „fit for purpose“ GIS systems, 3-D mapping of marine areas, etc.
- Special attention to strengthening local authorities and stakeholders. They often lack democratic legitimacy, technical resources such as databases and sophisticated mapping facilities.
- Mainstreaming of funding / & external sources.
- Profit from EU (Horizon 2020, Adriatic-Ionian Initiative, ...) and UfM policies, funding and projects (& EU Virtual Knowledge Centre for the Mediterranean) to promote ICZM.
- Foresee monitoring and evaluation on the basis on a common set of realistic indicators allowing comparisons.

# ANNEXES



## ANNEX 1: EXAMPLES OF GOOD PRACTICE RELATED TO NATIONAL ICZM STRATEGIES

### 1. National ICZM Strategy for Algeria

Integrated Coastal Zone Management (ICZM) has a long tradition in Algeria with many significant milestones, such as: the adoption of the Coastal Law in 2002, which establishes, among others, a setback zone; the establishment in 2004 of a National Coastal Commission (*Commissariat national du littoral-CNL*) responsible for the implementation of this law; and the development of the Coastal Area Management Programmes (CAMPs) and Plans for several Wilayas.

When it was decided in 2012 to start with the preparation of a National ICZM Strategy, the goal was not to introduce a new political framework, but to identify gaps and other major obstacles to an effective implementation of ICZM. From the very beginning of the process, an intersectoral committee was established, in charge of supervising and validating the different steps. At the first diagnostic step, it was concluded that in many respects, the situation in the coastal zone remained a source of concern. Among the main challenges identified, the need to improve the governance of coastal areas emerged as a priority. It appeared that there was an urgent need to consolidate institutional and legislative achievements, drawing on the experience of stakeholders at the national, regional and local levels. This required an in-depth work on mentalities, transfer of accountability to the local scale, improvement of regulatory and tax efficiency, as well as a total involvement of the stakeholders dealing with social and economic issues.

With this aim, stakeholder participation was placed at the centre of the process of developing this strategy. Considering the length of the Algerian coastline (1,600 km), two cycles of participatory workshops had to be organised in six municipalities spread all over the coastal zone. Those workshops gathered around 400 people, representing more than 15 sectors at the national, regional and local levels, several NGOs, as well as academia. Participants were divided in three separate groups of reflection on ICZM central issues, i.e. institutional functioning, participation, and building on scientific and technical data in the framework of ICZM. Following those workshops, a questionnaire was sent to the stakeholders of the most remote Wilayas to collect their contributions. The results of this participatory process provided input for the recommendations which constituted the core document of the strategy.

Several of the key recommended measures aimed directly at improving governance. In order to avoid dramatically changing the institutional landscape and creating unnecessary competitions, it was decided to optimise the existing legal and institutional frameworks through operational mechanisms. Amendments were proposed for the Coastal Law in order to address the identified gaps, and to adapt it to the new needs of a constantly changing social and physical environment. So, it was decided that the Coastal Law should allow the delimitation by legal mapping of the coast, the full implementation of ICZM instruments, as well as strengthening the institutions, and specially the CNL. Also, the legal and institutional frameworks of sectoral thematic issues were addressed through the prism of ICZM, leading to recommendations for improving horizontal coordination, and in that way avoiding institutional conflicts.

In conclusion, it is worth to underline that the process not only led to innovative recommendations for the future of ICZM in Algeria, but also that it was distinguished by the importance of its participatory process and by its exceptional visibility. It is estimated that 1,400 people participated in one or another way in the preparation of this document, which was presented by the Minister of Land-Use Planning and Environment in Oran in March 2015. This conference made the front page of one of the main Algerian national newspapers, and was also mentioned in several regional newspapers.

## 2. Coastal and Marine Strategy for Croatia

The Croatian Government has prepared a Marine and Coastal Strategy for Croatia in order to provide an integrated policy framework for both, the sea and the coast. This has been done by integrating requirements of the EU Marine Strategy Framework Directive (MSFD) and the ICZM Protocol for the Mediterranean into a single strategic document. In addition, the Ecosystem Approach of the UNEP/MAP (EcAp), in particular its ecological objective 8 (*coastal ecosystems and landscapes*; EO 8) was used as a *bridge* between the ICZM Protocol and the MSFD as it highlights the link between coastal and marine environments.

The assessment and measures related to the marine environment were performed based on eleven descriptors, as required by the MSFD: biodiversity; non-indigenous species; commercially exploited fish and shellfish; marine food webs; human-induced eutrophication; sea-floor integrity; hydrographical conditions; concentrations of contaminants; contaminants in fish and other seafood; marine litter; and introduction of energy, including underwater noise. Assessments related to the coastal component of the Strategy were made initially by using the EcAp's ecological objective 8 which was then further elaborated and extended using the specific requirements of the ICZM Protocol, mainly coming from its

Article 8 (interlinked with a number of other articles, such as Art. 5, 6, 9, 10, 11 and 20). These requirements are calling for:

- establishing the set-back zone (100 m), with adaptation provided for by national legal instruments;
- limiting the urban sprawl and linear extension of urban development;
- identifying and preserving open areas where urbanisation is restricted;
- preventing and/or reducing effects of climate change;
- integrating environmental concerns into rules of management and use of the public maritime domain;
- limiting harmful activities in fragile natural areas.

Based on these requirements, considered in a holistic manner, strategic measures were formulated. In addition, using the ICZM Protocol requirements on coordination (mainly resulting from the Article 7), proposals were made to set-up a governance mechanism in order to ensure an integrated implementation of all the measures, as required by the ICZM Protocol and MSFD. Therefore, the ICZM Protocol served as an overarching framework in this endeavour in providing a strategic response to the management needs of the land-sea interactions.

Integration undertaken within the Coastal and Marine Strategy for Croatia is the first ever attempt to provide an integrated response to the requirements coming from two international legally binding documents. This initiative demonstrated benefits of the use of EcAp and MSFD in the implementation of the ICZM Protocol in a marine area, as well as the need for the use of the ICZM Protocol in extending UNEP/MAP's vision on ecosystem approach on the land part of the coastal zone. Therefore, the approach used in the preparation of this Strategy could be considered as an example of good practice for both, the EU and other Barcelona Convention countries.

### **3. ICZM Strategy for Montenegro**

The Strategy for Integrated Coastal Zone Management for Montenegro has been prepared for the entire Montenegrin coast with the aim of establishing a strategic framework for the integration of various sectors, in order to ensure preservation of the development potential and to restrain the growing urbanisation pressures on the coastal resources. The Strategy was adopted by the Government of Montenegro on June 25, 2015, thus being the first officially adopted national strategy prepared fully based on the requirements of the ICZM Protocol.

The Strategy itself encompasses a wide range of issues, but prioritises the themes and more complex problems that necessitate integrated, multi-sectoral approach. Also, the preparation of the ICZM Strategy for Montenegro was undertaken in parallel with the preparation of the Coastal Area Spatial Plan, the most important

planning document for the coastal area of Montenegro. The process and the results of the Strategy were largely aimed at preparing specific recommendations for the Spatial Plan. While the Spatial Plan has been prepared so as to present a desired picture of the coastal space within a specific time horizon, the ICZM Strategy has been prepared as a complementary document that elaborates operational process for achieving such a desired picture.

In particular, the Strategy:

- Developed criteria and guidelines to determine land uses in the Coastal Area Spatial Plan so as to direct construction to the least vulnerable areas. These included the introduction of a coastal setback zone and preservation of valuable inland areas suitable for rural development.
- Proposed key instruments to enable the implementation of the above criteria and to guide changes in the desired direction. These include land-use and fiscal policy instruments, as well as those for monitoring and evaluating the progress.
- Proposed an appropriate coordination mechanism to improve integration and convergence of sectoral management, with the overall responsibility for the coastal zone development.

With strong political support and commitment, these findings and the overall participatory process of the Strategy preparation resulted in:

- construction areas reduced by 44%;
- construction areas within one kilometre of the coastline reduced by 16%;
- introduction of the 100-meter coastal setback, applicable to almost 50% of the coastline; and
- initiated the establishment of an ICZM coordination mechanism.

The coordinated preparation of the ICZM Strategy and the Coastal Area Spatial Plan, as well as their mutual integration initiated a reformed approach to coastal planning and management. It enabled the adoption of a new integrated management policy, and initiated significant changes in important national legislation.

## ANNEX 2: ANNOTATED STRUCTURE OF THE REGIONAL FRAMEWORK FOR ICZM-MSP

*(The full version of the Regional Framework will be drafted by March 2017)*

List of Abbreviations

Glossary of Terms

### 1. INTRODUCTION

#### 1.1. Objectives and Scope of the Framework

*[summary from the Background Document. In particular:*

- *Formulate recommendations focusing mostly on (a) coherence of policies/strategic docs and orientation of actions, in particular after the expiration of the Action Plan for the implementation of the ICZM Protocol in 2012-2019; (b) ways to better take into consideration the land/sea interactions further strengthening integration; and (c) ways to efficiently implement the Protocol at national and sub-national levels.]*

#### 1.2. The Context: Complexity of Policies and Challenges in the Mediterranean *[basic statements and conclusions from the Background Document. In particular:*

- *At the Mediterranean scale, ICZM, MSP and EcAP should be embedded into an overall strategic approach ensuring mutual coherence and integration*
- *ICZM is a political process involving all policies and all governance levels; it contributes to sustainable management of the coast, but it doesn't correspond to a single vision*
- *ICZM and MSP should be implemented in a consistent mix of national policies/strategies/legislation, subnational strategies and local projects, convergence of top-down large vision/general instruments and local problem-oriented specific initiatives and projects*
- *Most methodological tools needed exist and more will exist soon (e.g. for MSP), but there is a need that they are implemented in a more coordinated way at regional and national levels*

- *Coastal Zones represent a very appropriate context to deal in a coordinated and effective way with adaptation to Climate Change, as well as with other emerging issues like SLR]*

### 1.3. Seeking Coherence within the MAP, synergies of Partners and complementarity of Policies

*[basic conclusions from the Background Document. In particular:*

- **UNEP/MAP:** *Ensure consistency of and synergy among strategies/action plans of all RACs in CZ (e.g. by building a common vision for the coast with all RACs). Extend CAMPs to their marine part using MSP dynamics/tools*
- **UfM:** *Mainstream coastal issues/ICZM-MSP in all UfM actions/policies*
- **EU Policies:** *Take advantage of relevant EU instruments and sub-regional strategies (e.g. EUSAIR, forthcoming Western Mediterranean initiative) for coordinated implementation of ICZM and MSP]*

### 1.4. Linking the Land with the Sea

*[from the Background Document. In particular:*

- *ICZM and MSP can be mutually supportive as regards the land and the maritime activities and respective policies. Coherence and synergies of plans are a must, even if the processes are separate.*
- *The MSP approach is fully consistent at the level of principles with the ICZM Protocol. MSP provides a complete set of instruments and measures for dealing with sustainable management of maritime activities.*
- *It is important to appreciate the land-sea natural processes and interactions, in order to take timely appropriate measures when planning for the dynamic CZ.*
- *The on-going process of definition of the institutional and legal framework at country level should be continued and extended, also strengthening cross-sectoral governance and providing capacity building where needed.]*

### 1.5. Major Obstacles to the Implementation of the ICZM Protocol

*[conclusions from the Background Document. In particular:*

- *In most of the cases, the main obstacles are not of a technical/operational reason; they are mostly related to lack of vision, political will, strategic approach, proper institutions/governance, ownership. The meaning of integration is not fully understood and there is a need for change of behaviour and better governance. There is also a need to clearly demonstrate the expected benefits of ICZM (and MSP).*

- *Experience shows that ICZM does not necessarily require completely new institutional schemes and planning system. ICZM could preferably be based on existing planning systems both on land and at sea; it should not aim to substitute them with a new stand-alone planning scheme, but build on existing ones and adapt them when needed, ensuring that both land and sea sides will be covered]*

## 2. THE FRAMEWORK'S RESPONSE TO THE CHALLENGES AND NEEDS

### 2.1. The Rationale and global process of the Regional Framework

- *Strategic Objectives for the regional level, to deal with priority issues and ensure coherence of policies and synergies of components.*
- *Strategic Orientations for the national level (to be further specified by each Contracting Party, on the basis of national conditions and needs).*
- *Specific expected regional Outputs and Outcomes, as well as funding sources: through the Mid-Term Strategy (to be up-dated regularly), the Resources Mobilisation Strategy and the biennial Programme of Work of the Barcelona Convention system.*
- *Monitoring of the Regional Framework, Evaluation and Reporting on its progress: as foreseen and decided already for the implementation of the ICZM Protocol.*

### 2.2. Strategic Objective 1: **Applying the ECAP and contributing to Sustainable Development**

- *Contribution to the ultimate objective of Sustainable Development including through Good Environmental Status.*
- *Identification of processes and criteria for integration of the ECAP in ICZM and MSP.*

### 2.3. Strategic Objective 2: **Ensuring a Common Vision, Political Will and Integration**

*[from the Background Document. In particular:*

- *Agreeing upon a common vision for the coasts and the sea at regional (pan-Mediterranean) and national levels (to be followed by visions at the local level) would facilitate considerably promotion of the integration approach, coherence and implementation. Avoid possible delays of action if dialogue is prolonged.*
- *Put emphasis on political, legal and governance aspects.*
- *Promotion of integration at all levels remains a key objective. Integrate also major global and/or emerging issues (e.g., CC, SLR, interactions with MSP, etc.). Emphasis should be put on ensuring synergies (e.g. at*

*policy, institutional, capacity building and funding levels) and avoiding overlapping, conflicts or waste of resources).*

- *Mainstream climate change mitigation and adaptation into ICZM-MSP plans; combine with provisions of the RF for CC, already approved by CPs.*
- *As regards implementation, emphasis should be put on the National Strategies, policies and actions, as key level of intervention at the current stage; they will orient in a more effective way the local actions too]*

#### 2.4. Strategic Objective 3: **Completing the Enabling Environment (legislation, governance, capacity building)** (& Priorities)

*[develop starting from the Background Document. In particular, reference to:*

- ***Awareness and political support***
- ***Governance***
- ***Legislation***
- ***Management***
- ***Capacity building***
- ***Knowledge and information sharing/dissemination***
- ***Monitoring***
- ***Evaluation***
- ***Environmental management***
- ***Cross-border cooperation]***

#### 2.5. Strategic Objective 4: **MSP and Land-Sea Interactions** (& Priorities)

*[develop starting from the Background Document. In particular:*

- *A multi-scale approach towards MSP implementation is recommended, combining a strategic phase (top-down) with operational applications (bottom-up). This double approach implies different geographic scopes (from regional/Mediterranean to local).*
- *Data availability is not the main limiting factor for MSP in many countries (although some data gaps need to be covered), but there is an obvious need to ensure and/or improve data accessibility and to go from raw data and general knowledge to information really relevant and useful for the MSP process.*
- *MSP should be based on an adaptive approach since the beginning of the process.*
- *Combine ICZM-MSP with other related action plans (including those related to SPAs) adopted by CPs within the Barcelona Convention system.*

- *Promote 3rd generation of CAMP projects, combining land and sea integrated planning.*
- *Provide guidance for governance issues, capacity building, stakeholders' involvement, transboundary aspects, etc]*

## 2.6. Strategic Objective 5: **Orientations for the National Level (& Priorities)**

*[develop starting from the Background Document. In particular:*

- *Focus on facilitation of implementation. Apply an adapted process for ICZM to move from vision to action, by creating first „the enabling environment”.*
- *Fill in scientific gaps avoiding excessive costs.*
- *Pay attention to „integrated tools” in support to integration at implementation level.*
- *Provide guidance for the preparation of national ICZM-MSP plans*
- *Provide guidance for proceeding to:*
  - *identification of vulnerable coastal and marine areas;*
  - *assessment of the current state of these coastal and marine areas and components;*
  - *agreement on a timeframe, development of goals and targets related to adaptation to CC impacts and identification of actions needed to meet the specific targets;*
  - *identification of the stakeholders and sources of funding;*
  - *identification of governance scheme(s) for the ICZM-MSP governance, including CC, for the implementation of the full process]*

## 3. **TOOLS FOR THE IMPLEMENTATION OF THE REGIONAL FRAMEWORK (TECHNICAL ANNEXES TO THE RF)**

3.1. Indicators to monitor the progress of implementation of the RF

3.2. Guidelines for MSP

## **ANNEX 3: STRUCTURE OF GUIDELINES FOR MSP**

*(Guidelines will be drafted by March 2017)*

As highlighted in Chapter 3, several customized step-by-step methodologies have been developed (e.g. by PlanCoast, SHAPE, ADRIPLAN projects) and are available for MSP implementation in the Mediterranean. Moreover, the UNESCO-IOC guidebook on MSP represents an overarching inspiring document. Therefore, the challenge is to improve benefits and capitalization of available experiences rather than investing effort to develop new step-by-step methodologies. Guidelines for MSP will be drafted based on the experiences developed within the above-mentioned projects and initiatives.

The main scope is to elaborate a short (about 10 pages) and easy-to-use document that can be utilized in preparing and implementing MSP processes in the Mediterranean basin, per common suggested principles, phases and steps. Guidelines could be therefore used as a checklist to verify that needed elements of the MSP process are taken in consideration, referring to above mentioned methodologies and handbooks for specific details. However, in no case such guidelines shall be considered prescriptive, as each MSP process (occurring within a country or in a transboundary context) needs to be tailored according to specific characteristics of its geographic scope.

The preliminary draft structure of the document „Guidelines for MSP” is shown below; this structure will be further elaborated in the coming months.

### **1. Introduction**

Objectives and scope of the Guidelines for MSP

### **2. Key principles for MSP**

Several common key principles for MSP implementation will be identified and briefly described. These can include: ecosystem approach, adaptive approach, multi-scale approach, integration, four dimension of MSP, long-term perspective, know edge-based project, stakeholder involvement, suitability and spatial efficiency, connectivity, coherence between terrestrial and maritime planning, legally binding process, cross-border cooperation with and between countries.

### **3. Starting the process and getting organized**

Assessment of MSP needs, identification and organization of all aspects which are needed for the MSP process (setting the ground for MSP), organization of data collection and management

#### **4. 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. 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.

#### **5. Analyzing existing conditions**

Analysis and mapping of current condition of the marine area and stocktaking of current maritime uses. Identification of hot-spot areas, analysis of coexistence, conflicts and compatibilities among uses and cumulative impacts on the marine environment.

#### **6. Analyzing future scenarios**

Elaboration of possible alternative 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.

#### **7. Interpretation and identification of key issues**

Summing-up of outcome of the analysis phase (5 and 6) and identification of key issues to be addressed in the design phase (8).

#### **8. Design phase: elaborating the MSP plan**

Identification of planning objectives linked to strategic goals (i.e. the vision), design of planning measures, localization of the measures and zoning of the marine area, mechanisms and tools to realize the measures. This phase also includes SEA.

#### **9. Adopting the plan and organizing its implementation**

Identification and organization of actions that can facilitate the plan adoption and implementation.

#### **10. Monitoring and evaluation**

Assessment of expected benefits of the MSP plan and monitoring and evaluation of the MSP process.

#### **11. Stakeholders participation**

Stakeholders identification, involvement and participation are cross-cutting activities affecting most of the MSP steps. It must be carefully planned and organized.

## BASIC REFERENCES

- Barbanti A., P. Campostrini, F. Musco, A. Sarretta, E. Gissi (eds.), 2015. *Developing a Maritime Spatial Plan for the Adriatic–Ionian Region*. CNR-ISMAR, Venice, Italy.
- Benoit G., Comeau A. (2006), *A Sustainable Future for the Mediterranean. The Blue Plan's Environment and Development Outlook*, Plan Bleu, Sophia Antipolis.
- Beriatos E., Mourmouris A., Papageorgiou M., Panayiotidis P., Vassilopoulou V., Anagnostou Ch., Faraslis J. (2015), *Paving the Road to Marine Spatial Planning in the Mediterranean*, PAP/RAC.
- Cicin-Sain, B., & Knecht, R. W. (1998), *Integrated Coastal and Ocean Management*. Washington: Island Press.
- Cinnirella, S., R. Sardà, J. Suárez de Vivero, R. Brennan, A. Barausse, J. Icely, T. Luisetti, D. March, C. Murciano, A. Newton, T. O'Higgins, L. Palmeri, M. Palmieri, P. Raux, S. Rees, J. Albaigés, N. Pirrone, and K. Turner. 2014. Steps toward a shared governance response for achieving Good Environmental Status in the Mediterranean Sea. *Ecology and Society* 19(4): 47. <http://dx.doi.org/10.5751/ES-07065-190447>.
- COM(2008) 791 final. Communication for the Commission, 5 November 2008. *Roadmap for Maritime Spatial Planning: achieving common principles in the EU*.
- EC (2011), *Legal and socio-economic studies in the field of the Integrated Maritime Policy for the European Union. Study on the economic effects of Maritime Spatial Planning*. Final report.
- Ducroq V., 2016, *Climate change in the Mediterranean region. In The Mediterranean under climate change*, A science Update, Allenvi, IRD Editions, 71-104.
- EEA (2015), *The European Environment: State and outlook 2015: Countries and Regions: The Mediterranean Region*. (<http://www.eea.europa.eu/soer-2015/countries/mediterranean>)
- Ehler, C., 2014. *Guide to evaluating Marine Spatial Plans*. IOC Manuals and Guides, 70, ICAM Dossier 8, Paris, UNESCO.
- 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.
- Ehler Ch. (2008), *Conclusions: Benefits, lessons learned and future challenges of marine spatial planning*, in *Marine Policy* (32), pp. 840-843.
- Ehler, CN. (2003), *Indicators to Measure Governance Performance in Integrated Coastal Management*. *Ocean and Coastal Management* 46: 335-345.
- EU Directive 2014/89 on Maritime Spatial Planning (MSP).
- EUNETMAR (2014), *Study to support the development of sea basin cooperation in the Mediterranean, the Adriatic and Ionian and the Black Sea*. Report 4. Study carried out on behalf of the European Commission Directorate-General for Maritime Affairs and Fisheries, contract number MARE/2012/07 – Ref. n.2, September 2014.
- ESaTDOR (2013), *European Seas and Territorial Development, Opportunities and Risks*. ANNEX 12 to the Scientific Report Governance Case Studies: Mediterranean Sea. Applied Research 2013/1/5.

- FAO, *State of Mediterranean Forests 2013*. Rome, Italy, <http://www.fao.org/docrep/017/i3226e/i3226e.pdf>
- Gee K., Kannen A., Licht-E.g.gert K., Glaeser B., Sterr H. (2006), *Integrated Coastal Zone Management (ICZM): Strategies for coastal and marine spatial planning: The role of spatial planning and ICZM in the sustainable development of coasts and seas*. Federal Ministry of Transport, Building and Urban Affairs (BMVBS) and Federal Office for Building and Spatial Planning (BBR). Final Report, Berlin, October 2006. Download in English on [http://www.bbr.bund.de/cln\\_005/nn\\_62854/EN/ResearchProgrammes/GeneralDepartmentalResearch/SpatialPlaning/ICZM/05\\_\\_Publikation.html](http://www.bbr.bund.de/cln_005/nn_62854/EN/ResearchProgrammes/GeneralDepartmentalResearch/SpatialPlaning/ICZM/05__Publikation.html).
- Guilot J., 2016, *Impact of climate change on coastal zone, in the Mediterranean under climate change*, A science Update, Allenvi, IRD Editions, 263-290.
- Guiot J. and Cramer W., 2016, *Climate change: The 2015 Paris Agreement thresholds and Mediterranean basin ecosystems*. Science, Vol 354, Issue 6311. Research reports 465-468.
- Halpern B.S., Selkoe K.A., Micheli F., and Kappel C.V. (2007), *Evaluating and ranking the vulnerability of global marine ecosystems to anthropogenic threats*, *Conservation Biology*, 21, 1301-1315.
- Horizon 2020 Mediterranean report, *Toward shared environmental information systems*. EEA/UNEP/MAP joint report (2014)
- IOC-UNESCO (2006), *A Handbook for Measuring the Progress and Outcomes of Integrated Coastal and Ocean Management*. IOC Manuals and Guides, 46; ICAM Dossier, 2. Paris, UNESCO, 2006
- IRD (2016), *The Mediterranean Region under Climate Change – A Scientific Update*. IRD Éditions. Institut de Recherche pour le Développement. Marseille, 137 p.
- Katsanevakis, S., N. Levin, M, Coll, S. Giakoumi, D. Shkedi, P. Macklewoth, R. Levy, A. Velegrakis, D. Koutsoubas, H. Caric, E. Brokovich, B. Ozturk, and S. Kark, 2015. *Marine conservation challenges in an era of economic crisis and geopolitical instability: the case of the Mediterranean Sea*. *Marine Policy* 51 (2015) pp. 31-39.
- Mahmoud M.A. A., 2016, *International Law of the Sea and Hydrocarbon Discoveries in the East Mediterranean*. London Centre of International Law Practice, 16 p.
- Malvarez Gonzalo (2012), *The PEGASO governance and its ICZM platform*.
- Markandya A., Snoussi M. (2015), *Lignes directrices pour l'adaptation à la variabilité et au changement climatiques sur les côtes Méditerranéennes*, MedPartnership, PAP
- Martinez Alfaro M.P., 2013. *Do we need Marine Protected Areas on the High Seas? Analysis of the legal implications of the establishment of Protected Areas on the High Seas*. LLM in Natural Resources Law and International Environmental Law. Pétur Dam Leifsson. Lagadeild/Viðskiptadeild Félagsvísindasviðs Háskóla Íslands. 90 p.
- Micheli F., Halpern B. S., Walbridge S., Ciriaco S., Ferretti F., Frascchetti S., Lewison R., Nykjaer L., & Rosenberg A. A. (2013a), *Cumulative Human Impacts on Mediterranean and Black Sea Marine Ecosystems: Assessing Current Pressures and Opportunities*. PLoS ONE, 8(12).
- Ministry of Environment and Spatial Planning, Greece (Dr. A. Mourmouris) (2006), *Report of Greece on Coastal Zone Management*, Athens: MESP

Mourmouris Athena (Dr) (2015), *Contribution to the Implementation of MSP in the Mediterranean: Methodological Tools and Pilot Actions in the Region of the Ionian Islands*, Conference Proceedings of the 4<sup>th</sup> Panhellenic Congress on Spatial Planning and Regional Development, 24-27 September, Volos-Greece (in Greek).

Mourmouris Athena (Dr) (2015), *The Greek State and Coastal Zone Management: Reviewing the last 40 years*, presentation (in Greek) to the 11<sup>th</sup> Oceanographic Conference (Mytilene, May 2015); text included in the Minutes of the Conference, available on [cloudfs.hcmr.gr](http://cloudfs.hcmr.gr)

Mourmouris Athena (Dr) (2009), *7 Key-Steps to the Implementation of the Mediterranean Protocol on ICZM*, Coastal Wiki.

MRAG, IDDRA and LAMANS Management Service S.A., 2013. *Costs and benefits arising from the establishment of maritime zones in the Mediterranean Sea*. Study carried out on behalf of the European Commission Directorate-General for Maritime Affairs and Fisheries. June, 2013. 233 pp.

Olsen, S.B. (2003), *Frameworks and indicators for assessing progress in integrated coastal management initiatives*. *Ocean & Coastal Management* 46, 347-361.

PAP (2007), *The Coast we want*, (booklet in English, French and Arabic), Split.

PAP (2009), *Final ICZM Policy Report: The Way Forward for the Mediterranean Coast*. A framework for implementing regional ICZM policy at the national and local level. SMAP III/2009/ICZM-PR/ENG. Split: PAP/RAC.

PAP (2011), *Analysis and Lessons Learned from National Strategies*. MedPartnership/2011/NICZMS.1. Split: PAP/RAC.

Priority Actions Programme Regional Activity Centre (PAP/RAC). (2012). *Defining the coastal setback*. *Coastal Area Management Programme (CAMP) for Montenegro*. Split: PAP/RAC.

Priority Actions Programme Regional Activity Centre (PAP/RAC). (2013). *Establishment of coastal setback: An explanatory report on Article 8-2 of ICZM Protocol. Issues to be considered*. Split: PAP/RAC.

PAP, PEGASO (2013), *Final global results of the ICZM stock-taking*.

PEGASO (2014), *Final publishable summary Report*. Barcelona.

PEGASO (2014), *Integrated coastal zone management in the Mediterranean: From Vision to Action*, Barcelona.

PERSEUS (2015), *Ecosystem Approach in the Mediterranean*. Available on: [perseus-net.eu](http://perseus-net.eu)

Piante C., and D., Ody, 2015. *Blue Growth in the Mediterranean Sea: The Challenge of Good Environmental Status*. MedTrends Project. WWF-France. 192 pages.

Pignatelli, C., Sansò, P. & Mastronuzzi, G. (2009): *Evaluation of tsunami flooding using geomorphologic evidence*. *Marine Geology* 260 (2009) 6–18. *PlanCoast (2008), Handbook on Integrated Maritime Spatial Planning* (Berlin).

Plan Bleu report, *Mediterranean Strategy for Sustainable Development Follow-up, Main Indicators Update 2013*.

Plan Bleu (2016), *Estimation de la valeur économique et sociale des biens et services rendus par les écosystèmes forestiers Méditerranéens. Analyse critique et comparative des études en Algérie, au Liban, au Maroc, en Tunisie et en Turquie*. Sophia-Antipolis.

- Plan Bleu (2016), *Tourism and Sustainability in the Mediterranean*. Sophia-Antipolis.
- Plan Bleu (2016), *Stratégie Méditerranéenne pour le Développement Durable 2016-2025 : Investir dans la Durabilité Environnementale pour Attendre le Développement Economique et Social*. Sophia-Antipolis.
- PlanCoast (2008), *Handbook on Integrated Maritime Spatial Planning*, (Berlin)
- Policy Research Corporation, 2010. Study on the economic effects on Maritime Spatial Planning. Final Report. Study carried out on behalf of the European Commission Directorate-General for Maritime Affairs and Fisheries. April 2010, 57 pp.
- Policy Research Corporation, 2011. Exploring the potential for Maritime Spatial Planning in the Mediterranean Sea. Final Report. Study carried out on behalf of the European Commission Directorate-General for Maritime Affairs and Fisheries.
- Portman, 2015. Marine spatial planning in the Middle-East: crossing the policy planning divide. *Marine Policy* 61 (2015), pp. 8.15.
- Ramieri E., E. Andreoli, A. Fanelli, G. Artico, and R. Bertaggia, 2014. Methodological handbook on Maritime Spatial Planning in the Adriatic Sea. Final report of Shape project WP4 „Shipping Towards Maritime Spatial Planning”, issuing date: 10<sup>th</sup> February 2014. Printed by Veneto Region.
- Santoro Francesca (2014), *PEGASO: Integrated Regional Assessment*.
- Schultz-Zehden A., K. Gee, and K. Scibior, 2008. *Handbook on Integrated Maritime Spatial Planning*. Interreg IIIB CADSES PlanCoast Project. April 2008.
- Scoullou M., Shipman B., Merla A. (2015), *An Integrative Methodological Framework (IMF)*, MedPartnership, PAP
- Shipman B. (2015), *National ICZM Strategy Guidelines*, Medpartnership, PAP, Split.
- Smith H., Maes F., Stojanovic T. and Ballinger R. (2011), *The integration of land and marine spatial planning*, in *Journal of Coastal Conservation and Planning*, (15) pp.291-303
- Spalding et al. (2007), *Marine Ecoregions of the World: A Bioregionalization of Coastal and Shelf Areas*, *BioScience* 57(7), pp. 573
- SPA/RAC (1985), *Action Plan for the Management of the Monk Seal in the Mediterranean*. Tunis.
- SPA/RAC (2006), *Guidelines for the Establishment and Management of Mediterranean Marine and Coastal Protected Areas*. Tunis.
- SPA/RAC (adopted in 1989, updated 2007), *Action Plan for the Conservation of Mediterranean Marine Turtles*. Tunis.
- SPA/RAC (2008), *Action Plan for the Conservation of the Coralligenous and other Calcareous Bioconcentrations in the Mediterranean Sea*. Tunis.
- SPA/RAC (2009), *Guidelines for reducing by catch of Seabirds in the Mediterranean Region*. Tunis.
- SPA/RAC (2010), *Specially Protected Areas of Mediterranean Importance; SPAMIs*. Tunis.
- SPA/RAC (2010), *Impact of Climate Change on Marine and Coastal Biodiversity in the Mediterranean Sea*. Tunis.
- SPA/RAC (2012), *Guidelines for Management and Monitoring threatened populations of Marine and Coastal Bird Species and their important Areas in the Mediterranean*. Tunis.

SPA/RAC (adopted 1999, updated 2012), *Action Plan for the Conservation of Marine Vegetation in the Mediterranean Sea*. Tunis.

SPA/RAC (2013), *Mediterranean Marine Protected Areas and Climate Change*. Tunis.

SPA/RAC (2014), *Action Plan 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*. Tunis.

SPA/RAC (2014), *Regional Strategy for the Conservation of Monk Seal in the Mediterranean*. Tunis.

SPA/RAC (2014), *Updated Timetable (2014-2019) of the Action Plan for the Conservation of Bird Species listed in Annex II to the SPA/BD Protocol*. Tunis.

Suarez de Vivero J. L., 2010. *Jurisdictional waters in the Mediterranean and Black Seas*. Study carried out for European Commission Directorate-General for Internal Policies of the Union – Policy Department B: Structural and Cohesion Policy – Fisheries, 134 pp.

Taljaard, S., Slinger, J. H., Morant, P. D., Theron, A. K., van Niekerk, L., & van der Merwe, J. (2012), *Implementing integrated coastal management in a sector-based governance system*. *Ocean & Coastal Management*, 39-53.

Trumbic I. (2006), *The Mediterranean protocol on integrated coastal zone management: what indicators are needed?* UNEP/MAP – PAP/RAC.  
[http://dusk.geo.orst.edu/ICAN\\_EEA/EEA\\_Mediter\\_Trumbic.pdf](http://dusk.geo.orst.edu/ICAN_EEA/EEA_Mediter_Trumbic.pdf)

UNEP(DEPI)/MED IG.21/9 Annex II – Thematic Decisions, Decision IG.21/3 on *the Ecosystems Approach including adopting definitions of Good Environmental Status (GES) and targets*  
[http://195.97.36.231/dbases/CoPDecisions/2013\\_IG21\\_CoP18/13IG21\\_09\\_Annex2\\_21\\_03\\_EN G.pdf](http://195.97.36.231/dbases/CoPDecisions/2013_IG21_CoP18/13IG21_09_Annex2_21_03_EN G.pdf)

UNEP/GPA (2006), *Ecosystem-based management: Markers for assessing progress*. UNEP/GPA, The Hague.

UNEP/MAP (2016), *Mediterranean Strategy for Sustainable Development 2016-2025*. Valbonne. Plan Bleu, Regional Activity Centre.

UNEP/MAP (2012): *Action Plan ICZM, 2012-2019*, in Report of COP17.

UNEP/MAP, COP19 (2015): *Report of the Conference* (including:  
*Mid-Term Strategy 2016-2021*,  
*Mid-Term Evaluation of ICZM*,  
*MSSD 2016-2025*,  
*Offshore Decision & Action Plan (2015)*,  
*Regional Strategy 2016-2021 for Prevention of and Response to Marine Pollution from Ships, ...*), Athens

UNEP/MAP-METAP SMAP III (2009): *ICZM Policy Report: The Way Forward for the Mediterranean Coast (national and local level)*, (Split)

UNEP/MAP/PAP (Coccosis H., Henocque Y.), *Livre Blanc : Gestion des Zones Côtières en Méditerranée*, (2001) Split.

- UNEP/MAP/PAP, *Protocol on Integrated Coastal Zone Management in The Mediterranean*, Priority Actions Programme – Regional Activity Centre, (2008) Split, 118 pp.
- UNEP/MAP (2012), *State of the Mediterranean Marine and Coastal Environment*, UNEP/MAP – Barcelona Convention, Athens, 92 pp.
- UNEP/MAP SMAP III Project: *ICZM Marketing Strategy*, Priority Actions Programme/Regional Activity Centre, Split, November 2006.
- UN-Habitat, *State of the world's cities, Harmonious cities, 2008-2009*, UN-Habitat, Cities for All: Bridging the Urban Divide, (2010-2011).
- Vallega, A. (1999), *Fundamentals of Integrated Coastal Management*, Kluwer
- Van Tatenhove Jan, *Integrated Marine Governance – Questions of Legitimacy*, Wageningen University.
- Wemaere M. (2015), *Assessment of Banking and Insurance Practices related to Climate variability and Change in the Mediterranean*, MedPartnership, PAP
- WWF (2015), *Med Trends. The Mediterranean Sea: Trends, Threats and Recommendations*.
- Zerkavi (2015), *Introducing Maritime Spatial Planning Legislation in the EU: Fishing in Troubled Waters?* Maritime Safety and Security Law Journal, 1/2015, pp. 95-114.

## Interesting web sites

[http://195.97.36.231/dbases/MAPmeetingDocs/12IG20\\_Inf8\\_Eng.pdf](http://195.97.36.231/dbases/MAPmeetingDocs/12IG20_Inf8_Eng.pdf)  
[http://ec.europa.eu/maritimeaffairs/policy/maritime\\_spatial\\_planning/index\\_en.htm](http://ec.europa.eu/maritimeaffairs/policy/maritime_spatial_planning/index_en.htm)  
[http://ec.europa.eu/regional\\_policy/en/policy/cooperation/macro-regional-strategies/adriatic-ionian/](http://ec.europa.eu/regional_policy/en/policy/cooperation/macro-regional-strategies/adriatic-ionian/)  
<https://sustainabledevelopment.un.org/>  
<http://ufmsecretariat.org/>  
<http://www.adriatic-ionian.eu/>  
<http://www.adriplan.eu>  
<https://www.cbd.int/sp/>  
<http://www.coconet-fp7.eu>  
<http://www.oceanhealthindex.org/>  
[http://www.pap-thecoastcentre.org/pdfs/Protocol\\_publikacija\\_May09.pdf](http://www.pap-thecoastcentre.org/pdfs/Protocol_publikacija_May09.pdf)  
[http://www.pap-thecoastcentre.org/about.php?blob\\_id=101&lang=en](http://www.pap-thecoastcentre.org/about.php?blob_id=101&lang=en)  
<http://www.switchmed.eu/en/corners/policy-makers>  
<http://www.medtrends.org>  
<http://msp-platform.eu/msp-practice/countries>  
<http://msp-platform.eu/msp-practice/database>  
<http://www.mspsygr.info>  
[https://www.iucn.org/about/work/programmes/gpap\\_home/gpap\\_quality/gpap\\_greenlist/](https://www.iucn.org/about/work/programmes/gpap_home/gpap_quality/gpap_greenlist/)  
<https://www.iucn.org/it/node/25167>  
<http://www.plancoast.eu/>  
[http://www.perseus-net.eu/en/about\\_the\\_apf\\_toolbox](http://www.perseus-net.eu/en/about_the_apf_toolbox)  
<http://www.unepmap.org>  
[http://www.unesco-ioc-marinesp.be/msp\\_around\\_the\\_world](http://www.unesco-ioc-marinesp.be/msp_around_the_world)  
<http://www.unep.org/greeneconomy/AboutGEI>