

ROADMAP*

Towards a comprehensive, ecologically representative, effectively connected and efficiently managed network of Mediterranean Marine Protected Areas by 2020

** Roadmap elaborated at the 2012 MPA Forum and updated after the 2016 MPA Forum*



THE FORUM
of Marine Protected Areas
in the Mediterranean

MARINE PROTECTED AREAS:
Everyone's Business.

Boosting the Marine Protected Areas network for the benefits of the Mediterranean society.



LIST OF ACRONYMS

- ABNJ:** Areas Beyond National Jurisdiction
- ACCOBAMS:** Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and neighbouring Atlantic Area
- CBD:** Convention on Biological Diversity
- CFP:** Common Fisheries Policy
- CIESM:** Mediterranean Science Commission
- COP:** Conference of Parties
- EBM:** Ecosystem Based Management
- EAF:** Ecosystem Approach to Fisheries
- EBSA:** Ecologically or Biologically Significant marine Area
- EC:** European Commission
- EEA:** European Environment Agency
- FAO:** Food and Agriculture Organization of the United Nations
- FRA:** Fisheries Restricted Area designated by the General Fisheries Commission for the Mediterranean
- GFCM:** General Fisheries Commission for the Mediterranean
- ICZM:** Integrated Coastal Zone Management
- IUCN:** International Union for the Conservation of Nature and Natural Resources
- IMO:** International Maritime Organisation
- MAP:** Mediterranean Action Plan
- MEDPAN:** Mediterranean MPA managers network
- MSFD:** Marine Strategy Framework Directive
- MSP:** Marine Spatial Planning
- NGO:** Non Governmental Organisation
- RFMO:** Regional Fisheries Management Organisation
- PSSA:** Particularly Sensitive Sea Area
- SAP BIO:** Strategic Action Programme for the Conservation of Biological Diversity in the Mediterranean Region
- SDG:** Sustainable Development Goals
- SPA/RAC:** Specially Protected Areas Regional Activity Centre
- SPAMI:** Specially Protected Area of Mediterranean Importance
- ICT:** Information and Communication Technologies
- TEEB:** The Economics of Ecosystems and Biodiversity
- Ufm:** Union for the Mediterranean
- UNDP:** United Nations Development Programme
- UN Environment:** United Nations Environment Programme
- UNFCCC:** United Nations Framework Convention on Climate Change
- WWF:** World Wide Fund For Nature



MARINE PROTECTED AREAS: EVERYONE'S BUSINESS

This roadmap is the result of a large participatory process including all stakeholders involved with Marine Protected Areas in the Mediterranean. It was developed in 2012 under the overall coordination of the MedPAN organisation and the SPA/RAC secretariat with the support of 2 consultants, David de Monbrison of BRL Engineering and Chedly Rais of Okianos. It was updated in 2016, under the coordination of the MedPAN organisation and the SPA/RAC secretariat thanks to the support of the consultant Arturo Lopez.

The Roadmap elaboration process was conducted using a step by step approach.

Ahead of the 2012 Forum of Marine Protected Areas in the Mediterranean that took place in Antalya, Turkey, from 25 to 28 November 2012, input was sought from the Forum Steering Committee, members and partners of the MedPAN network, the main European Mediterranean and international institutions, the Ministries in charge of MPAs (SPA/RAC focal points in particular) and all the participants of the Forum (scientists, managers, fishermen representatives, NGOs, donors). The roadmap was

in a second phase enriched with the results of all discussions and exchanges that took place at the Forum. It was approved by all the participants during the last day of the 2012 Forum.

The Roadmap was revised in 2016, taking into account the mid-term evaluation process of the MPA Roadmap implementation carried out in 2016, and the recommendations issued from the 2016 MPA Forum held in Tangier, Morocco, from 28 November to 1 December 2016, with key operational and action-oriented steps inspired from the Tangier Declaration of the 2016 Forum, complementary to the Antalya Declaration of 2012, to improve and help achieving the MPA Roadmap objectives by 2020. A fifth strategic objective related to climate change has been added to the Roadmap; the institutional framework has been also updated.

The Roadmap is not today a document committing countries formally but it makes it possible to define the steps that Mediterranean countries, relevant organisations and other stakeholders could individually and/or jointly undertake to achieve the 2020 objectives set for the MPA network in the Mediterranean.

2012 Forum organised by



2012 Forum technical partners



2012 Forum financial partners



2016 Forum organised by



2016 technical and financial partners



* UNEP/MAP through the "MedMPA network" project funded by the European Union.

With the technical collaboration of



Other partners





TABLE OF CONTENT

FOREWORD	6
THE COMMON VISION	8
IMPLEMENTATION PRINCIPLES	9
PROPOSED ACTIVITIES	10
STRATEGIC OBJECTIVES FOR 2020	12
Strategic objective 1	14
Establish an ecological network of MPAs which is representative and connected	
Strategic objective 2	20
Establish in Mediterranean MPAs an effective, efficient and sustainable management as well as a good governance	



Strategic objective 3	26
Develop a Mediterranean MPAs governance which is integrated on a territorial level and with the other sectors while promoting the sharing of environmental and socio-economic benefits	
Strategic objective 4	32
Increase the allocation of financial resources to establish and maintain an ecological network of effectively managed MPAs	
Strategic objective 5	38
Strengthen and develop the role of MPAs as a marine spatial management tool in supporting ecosystem-based adaptation and mitigation to climate change	
Overall objective related to regional MPA networks & regional conventions	42

A LOOK BACK AT THE MEDITERRANEAN CONTEXT 44





FOREWORD

Marine Protected Areas (MPAs) are increasingly being globally recognised as one of the most effective tools for the conservation and protection of the marine environment when they are managed effectively and have sufficient resources to address local management issues.

In addition to their biodiversity conservation role, **MPAs have proved their usefulness in recovering species, habitats and populations in decline** and are recognised for their role in the reinforcement of the resilience of ecosystems. **They can contribute, through a shared management approach (co-management), to the sustainable development of socio-economic activities such as artisanal fishing and eco-tourism.** They are one of the existing management tools which the fishing sector is beginning to use with fishery reserves or MPAs. The services they provide contribute to the population's well being and the beauty of their surrounding territory which in turn contributes to their socio-economic development.

The benefits and services provided by biodiversity conservation and the difficulties associated with the management of MPAs and marine natural resources (particularly fisheries) now **bring conservation supporters closer to the fishing sector than ever before and, in a broader sense, include biodiversity governance through an integrated process with other sector-specific policies.** The period ahead offers a great opportunity for reconciliation and synergies, even if pressures exist and tensions are still high between some institutions. Indeed, some have evolved towards taking into consideration the issues and socio-economic stakeholders, whilst others tend to develop policies and management tools based on an ecosystem or eco-responsibility approaches.

Several objectives in the Aichi **Strategic Plan for Biodiversity 2011-2020**, now consolidated by decisions taken at Rio+20 or at the Convention on Biological Diversity (CBD) COP 11 in Hyderabad in 2012 and reinforced by several Protocols of the Barcelona Convention and several European directives (see Context), highlight the **commitments and international frameworks which show the efforts to be undertaken to improve the status of biodiversity and management of marine resources in the Mediterranean.**

7.14%

Surface covered by a protection status in the Mediterranean

0.04%

surface under stronger protection (no-go, no-take or no-fishing)

Source: "Status of Marine Protected Areas in the Mediterranean" 2016. MedPAN, SPA/RAC

10%

International objective of the Convention for Biological Diversity

MPAs in the Mediterranean region as a whole do not yet constitute a regional ecological network of Marine Protected Areas, despite the fact that a network of MPA managers exists (MedPAN). Given the magnitude of pressures and challenges, achieving the objectives of the CBD, the Barcelona Convention, or those associated with EU policies and frameworks, will only be possible, in the short and medium term, if there is a renewed, stronger, and coherent commitment from all stakeholders (international organisations, conventions, agreements), riparian states, NGOs, the scientific community, national institutions, MPA managers, the private sector, local populations/communities etc.), and on every geographic scale (local, national, Mediterranean, European and international).

Of all the oceans, the Mediterranean Sea is unique by its geography, the intense pressure from populations and pollution, but also because it suffers the most from the impacts of climate change. Consequently, it should not only receive more support than other areas of the world to restore its ecosystems, rebuild its resilience and continue to provide goods and services, but also remain a key innovative region and a model for other regions in the world.

Aichi objective 11 of the Strategic Plan for Biological Diversity 2011-2020

Countries have made a commitment that by 2020, "10% of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures".

Why do we need a roadmap?

The complexity of spatial management and issues linked to the co-management of MPAs means that a synergy needs to be developed between different stakeholders because of their cultural and geographic diversity or their position on a local, national or transnational level in the governance of MPAs. It is thus essential to define a common vision and it is proposed to develop it through a roadmap which takes into account the following points:

- The needs of all the stakeholders and local populations are identified and taken into account
- The constraints and obstacles which stakeholders encounter, at every level, are identified and solved
- A given stakeholder must feel that they are being heard and understood by others
- The coordination process is well informed and if necessary adaptable

This roadmap was developed by the MedPAN organisation in partnership with the SPA/RAC secretariat in link with other regional partners (UNEP/MAP, WWF, IUCN) using a collaborative approach involving many representatives and stakeholders from the Mediterranean (donors, scientists, managers, fisheries representatives, NGOs...).

This proposed roadmap was drafted

taking into account the provisions, targets and current recommendations on an international level to improve the network of MPAs (some of these elements are set out in the context section) and adapting them when appropriate to the Mediterranean context.

The roadmap defines the steps that Mediterranean States, relevant organisations and other stakeholders could individually and/or jointly undertake to achieve, by 2020, the objectives set for the network of MPAs. It is not legally binding.

Despite the difficulties in achieving the assigned objectives many elements and examples of knowledge confirm that, whatever the country, it is possible to take action. However, political commitment needs to be re-affirmed and associated to actions.

The roadmap could contribute to improving decision-making processes and programmes already

established under several conventions, agreements and policies (Barcelona Convention, Convention on Biological Diversity, European policies, Convention on Climate Change, Sustainable Development Goals, etc.). It could also contribute to identifying actions to be undertaken during the process of updating the SAP BIO (Strategic Action Programme for the Conservation of Biological Diversity in the Mediterranean region) which is being led by the Specially Protected areas Regional Activity Centre (SPA/RAC) in 2012-2013.

The roadmap has been finalised based on the conclusions and recommendations made during an extensive consultation process between all the participants of the MPA Forum held in Antalya (Turkey) from 25 to 28 November 2012. The roadmap was revised in 2016 at the occasion of the mid-term evaluation of the roadmap implementation since 2012 and thanks to the recommendations issued by the 2016 MPA Forum held in Tangier (Morocco) from 28 November to 1 December 2016, with key operational and action-oriented steps, complementary to the Antalya Declaration of 2012, to improve and help achieving the Roadmap objectives by 2020.



Scientists
NGO/civil society
Private sector

Decision-makers
Other institutions
Donors

MPA managers
MedPAN network

For whom is this roadmap intended?

This roadmap is addressed to national, European, Mediterranean and international stakeholders who are involved in MPA policies, planning and management in the Mediterranean region.

THE COMMON VISION

“To achieve by 2020 a connected, ecologically representative, effectively managed and monitored network of Marine Protected Areas in the Mediterranean which ensures the long term conservation of key elements of the marine biodiversity and gives significant support to the sustainable development of this region.”



IMPLEMENTATION PRINCIPLES

- Develop new **synergies** within the MPA community and between conservation and stakeholders from other sectors (among the different scientific fields of study, between stakeholders: decision-makers, socio-economic players, MPA managers, local communities or the civil society at large, donors etc.).
- Develop synergies and an institutional coherence between the various management levels (local, national, transnational).
- Promote **collaborative approaches** for managing MPAs based on an ecosystem approach (EBM) and integrated coastal zones management (ICZM) and integrate them in the marine spatial planning process, particularly the land and sea link and their interfaces (coastal, wetlands, adjacent territories).
- Strengthen the commitment of the **local population, particularly artisanal fishermen** and other stakeholders in the management and monitoring process.
- Enhance the MPAs' **laboratory role** for conservation and their innovative role in terms of management and territorial governance.
- Capitalise on examples of **good practice** in the field of sustainable development (sustainable use of natural resources, implementation of policies and "green" activities).
- Strengthen collaboration, exchanges and mutual assistance between MPAs and ensure the sustainability and effectiveness of a **network of MPA managers**.
- Encourage Mediterranean countries' decision makers to **meet the commitments made** in relevant regional and international agreements.
- Plan and implement the activities proposed in the roadmap according to the **international and regional agreement measures in force**, taking into account the role of implicated international/national institutions.
- Strengthen the **effective collaborations** between the respective national and international agencies responsible for biodiversity (and the environment) on the one hand, and for socio-economic development on the other hand.
- Consider the evaluation and monitoring of MPAs, public policies and funding in the Mediterranean as a **cornerstone for improving the network's** performance. The roadmap's results will be assessed to define new targets beyond 2020.
- **Take into account the differences and complementarities** between the northern, southern and eastern parts of the Mediterranean.
- Develop an **adaptive and shared management as well as long-term policies** through frequent and progressive learning processes which are regularly evaluated and supported by the results obtained.



PROPOSED ACTIVITIES

The roadmap's proposed activities concern all stakeholders and every intervention level. The integration of these levels is an important element of good governance. The details of each activity must be adapted to the stakeholders' or countries' level of awareness and advancement, but remain key to achieve the objectives.

In order to make each stakeholder more accountable, the roadmap has been built on three geographic levels: local, national and Mediterranean. Stakeholders, such as the ones mentioned below, are more or less mobilised, depending on their geographic level.

The proposed activities are **everyone's business**. They concern all stakeholders at **all levels of intervention**.



Activities implemented on a local level

The actions led in the MPAs and their surrounding areas will be implemented by MPA managers, but local populations, NGOs, local communities and authorities, socio-economic stakeholders, researchers and other stakeholders will also be involved.

A transnational, bilateral or multilateral level applied to an intermediary geographical area situated between the national and regional level, is essential and functional to develop agreements, particularly on the open sea or to manage an ecosystem approach which often does not take administrative boundaries into account. It highlights activities implementing synergy and mutual recognition of national measures (transnational MPAs), defining common rules and institutional innovations. Despite these being developed, they have not been put forward here under the activities section, out of conciseness and because feedback has shown that they generally require the mobilisation of the same stakeholders as the actions on a national level completed with the support of regional experts (lawyers, researchers, institutions, NGOs, etc.) and a strong political will. Starting with the lowest common denominator will facilitate implementation. The consolidation of national management measures are a priority even in the framework of transnational actions development, so as to make this transnational level more efficient and to facilitate the change of levels. Some activities refer to this on a regional or national level in the body of the roadmap.



Activities implemented on a national level

The actions will be implemented mainly by local/national authorities with support from NGOs, research institutes, national MPA agencies and organisations and networks representing the civil society, international organisations and donors.

Communication activities are transversal and must be developed and adapted to all levels. Targets and messages are differentiated according to the roadmap's key objectives. They will need to be developed in relation to each objective.



Activities implemented on a Mediterranean level

The actions will be mainly implemented by the competent international organisations (IGOs and NGOs), in partnership with donors and funding agencies with the support of national policies and local stakeholders. Mediterranean level actions are essential to support and harmonise the actions suggested on a national and local level.

The actions are sometimes listed with certain key points highlighted in italics.


Note: The items mentioned in each activity's timetable are only there as an indicator. Sometimes, they indicate actions to be led by 2014 or 2015 and not over the full 2012-2020 period, but this is just to show the preliminary nature and essence of these actions compared to the next or the link between the action and an ongoing international timetable (European, other) without seeking to be specific to the nearest year. However, many of these activities should be carried out over time and these require a continuous effort.



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ΚΑΛΩΣΟΡΙΣΜΑ DOBRODOŠLI
BENVINGUT BIENVENIDO MERĤE
WELCOME
ONGI ETORRI
DOBRODOŠAO BIENVENUE
BENVENUTO I MIRĚPRITUR
ДОБРОДОШЛИ KARŞILAMA
בְּרוּךְ הוּא

STRATEGIC OBJECTIVES FOR 2020





Based on this vision and taking into account the context as summarised at the end of this document, the activities presented in this roadmap will be geared towards achieving five strategic objectives:

Strategic objective **1**

Establish an ecological network of MPAs which is representative and connected.

Strategic objective **2**

Establish in Mediterranean MPAs an effective, efficient and sustainable management as well as a good governance.

Strategic objective **3**

Develop a Mediterranean MPAs governance which is integrated on a territorial level and with other sectors while promoting the sharing of environmental and socio-economic benefits.

Strategic objective **4**

Increase the allocation of financial resources to establish and maintain an ecological network of effectively managed MPAs.

Strategic objective **5**

Strengthen and develop the role of MPAs as a marine spatial management tool in supporting ecosystem-based adaptation and mitigation to climate change

Note: The numbering of these objectives and associated actions do not correspond to a specific hierarchy.

Strategic Objective **1**

Establish an ecological network of MPAs which is representative and connected.

From a regional perspective, **the current MPA system is not representative** of the Mediterranean's habitats and ecosystems diversity. Indeed, most Mediterranean MPAs are currently coastal and a number of coastal zones are still unprotected despite their essential ecological and socio-economical role on a national or Mediterranean level. **85% of the currently protected coastal sites are along the northern coasts** of the Mediterranean basin which emphasises the low number of MPAs on the southern and eastern coastlines.

Currently, the preservation of deep sea ecosystems and the creation of MPAs in the open sea (high seas) are topics of growing importance due to the presence of key habitats and species which are little known and should be protected.

Deep sea and open sea ecosystems (canyons, abysses) are of great importance in terms of ecological connectivity with surface and coastal waters (sedimentation, terrigenous pollution, nutrient ascents, cycles linked to plankton...). These all play an essential role in supplying a food source for pelagic species such as threatened cetaceans and sharks. Also, they have the spatial capacity to fulfil the target (of 10%) set by international agreements for the creation of MPAs.



However, the specification of these zones in terms of size and distance from shore require higher-level institutional arrangements and legislative harmonisation as well as higher budgets to support recurrent management activities.

The expansion of the EEZ of several countries can also interfere with some international actions planned for MPAs in the open sea.

Many MPAs in the Mediterranean are geographically and **ecologically isolated as they were not established to serve a representativity and connectivity objective within a network, or were established following a scientific and political compromise.** The distance between each of them is often too large to ensure their ecological connectivity and the viable functional maintenance of marine meta-populations.

Thus the **ecosystem-based approach and the gap analysis** will be reinforced for the selection and designation of future MPAs and their management.

An increasing amount of work on **MPA indicators** and monitoring has been carried out in the Mediterranean and worldwide in order to improve our knowledge on key marine biodiversity components. A major challenge for any network is to consolidate reliable monitoring measures.

Some countries have established **national agencies or put in place policies which deal specifically with MPAs.**

In this context, the development/strengthening of **Natura 2000** at sea sites especially on a network level represents a major challenge for the northern or European part of the Mediterranean.

For **southern and eastern Mediterranean countries,** strengthening the network, the effective management of MPAs, and the creation of new ones on solid ecological criteria represent real challenges.

Existing MPAs in the Mediterranean do not yet form an ecological network. They are an initial system from which a consistent and coherent network must be established, integrating in particular some open sea MPAs.

EXPECTED RESULTS

- Coverage, quality and reliability of habitat and species inventories and quality mapping are strengthened to improve the representativity and connectivity and consolidate the monitoring of the Mediterranean MPA network.
- Standardised and quality measures are developed to improve on capitalisation and monitoring (biological, socio-economical, governance).
- Under-represented ecosystems and other components of marine biodiversity in the existing MPA system (on a national and regional level) are identified and incorporated.
- National plans to achieve Aichi Target 11 of the CBD's Strategic Biological Diversity Plan 2011-2020 are elaborated.
- Representation of Mediterranean MPAs in the regionally and globally recognised protected areas networks is improved.
- Existing MPA governance systems are assessed with regards to their suitability for achieving Mediterranean MPA objectives.
- National and regional databases of MPA habitats and species are established and used as a tool for MPA planning and management.
- Maintenance of the regional MPA database (MAPAMED) is guaranteed.



FOCUS ON KEY OPERATIONAL AND ACTION-ORIENTED STEPS

These key operational and action-oriented steps, were identified in the Tangier Declaration of the 2016 MPA Forum, that is complementary to the Antalya Declaration of 2012, to improve and help achieving strategic objective 1 of the Roadmap by 2020

- Accelerating efforts to achieve the Aichi Target 11 to effectively conserve at least 10% of the Mediterranean coastal and marine areas by 2020 and to consider increasing thereafter this coverage in the open seas through the Specially Protected Areas of Mediterranean Importance (SPAMI) network, Fisheries Restricted Areas (FRAs) and Other Effective area-based Conservation Measures (OECMs), adapting as needed other initiatives and targets¹ that could contribute to achieving the Sustainable Development Goal (SDG) 14.5 "to conserve and promote sustainable use of oceans, seas and marine resources for sustainable development".

1/ Such as the IUCN Promise of Sydney (2014) outcomes and the World Conservation Congress (Hawaii 2016) Recommendation 1 to protect by 2030 at least a 30% of each marine habitat



- By 2020 increase the coverage and implementation of no-entry, no-take and no-fishing zones², within either existing or future MPAs, from the current coverage of 0.04% of the Mediterranean Sea to reach at least 2% of no-take zones, especially in key functional areas.
- To support boosting MPA coverage in non-EU Mediterranean country waters, through habitat identification processes (as in e.g. Natura 2000 or Emerald Network), increasing the MPA complementarity and representativity, while creating strong north-south and south-south cooperation opportunities
- Consider the establishment of transboundary MPAs where appropriate by using the Specially Protected Areas and Biological Diversity (SPA/BD) Protocol of the Barcelona Convention as instrument.

^{2/} No-entry refers to no access (exception done for scientific research purposes under special permit); No-take refers to no extraction of any resource; No-fishing refers to the prohibition of all fishing gears and all types of fishing.



Development Goal (SDG) 14

Conserve and sustainably use the oceans, seas and marine resources.

- Declare new MPAs in the open sea, including the deep sea, both within and beyond national jurisdiction, using in particular the available information gathered by the joint description of Mediterranean Ecologically or Biologically Significant marine Areas (EBSAs) done by the Convention on Biological Diversity (CBD) and the Mediterranean Action Plan (UNEP/MAP).
- Complete the mapping of the most significant marine habitats, in particular seagrass meadows and coralligenous formations and other biogenic habitats, and increase efforts to describe pelagic habitats and map deep-sea habitats.
- Increase regional support to:
 - Observing, monitoring and assessing, systems within MPAs, and ensure that such monitoring network is representative of the whole Mediterranean; and
 - Observing, monitoring and assessing the MPA system representativity and connectivity and reporting efficiently.
 - Strengthen by all available means the science-policy interface, to incorporate the increasing scientific, traditional and local knowledge and citizen science into the implementation of the MPA Roadmap and in ecosystem approach-related decision making processes.



ALL ACTIVITIES TO BE IMPLEMENTED BY 2020

On a local level

1.1



Assess, using the results of the activities conducted on a national level described in 1.3, the adequacy of the geographical and ecological coverage of MPAs with the view of proposing, where necessary, **adjustments to their surface and/or zoning**.

Priority should be given to habitats of special importance for threatened species and habitats that are essential for fishing resources (breeding grounds, nursery, etc.).

1.2



Ensure that **monitoring systems comply with requirements** referred to in activity 1.3 and 1.8 with the objective of reinforcing the representativity and connectivity of the network.

On a national level

1.3



Strengthen coverage, reputability and reliability of **habitat and species inventories** with the view of providing reliable information to improve the representativity and connectivity of the MPA network.

Particular attention will be given to the development and capitalisation on empirical and/or traditional users knowledge based on existing methodologies and good governance in this field.

1.4



Undertake **national gap analyses** to identify the ecosystems and other components of marine biodiversity that are under-represented in the existing MPA system.

The gap analyses will be based on methodological guidelines developed regionally and internationally. They should also allow to identify the necessary steps to ensure the connectivity between Mediterranean MPAs and therefore the actions to be undertaken to fill the gaps.

1.5



Establish and **implement national plans to designate and/or extend** MPAs to address the cases of under-representation identified by the gap analyses, taking into account Aichi target 11.

The gap analyses and the elaboration of the national plans should be conducted through a scientifically-based process that ensures the full and effective participation of stakeholders (local communities, sea users, scientists, etc.). Greater support must be given to research institutions in the marine field.

1.6



Regularly identify and propose **candidate MPAs** to be listed in regionally and globally recognised protected areas networks:

SPAMI List, FRAs, Biosphere Reserves and World Heritage sites, Ramsar sites, IMO PSSAs . Continue efforts started in 2008 by UNEP/MAP, SPA/RAC and the European Commission to create SPAMIs taking into account open sea areas.

1.7



Carry out **information and communication campaigns** in order to promote environmental protection and associated biodiversity policies with decision makers, the general public and users of the marine environment to improve political commitments to meet the needs for consolidating the network.

MPAs are not only a management tool for conservation, but also a tool for socio-economic development and to fight against poverty.

On a Mediterranean level

1.8



Develop agreements to put in place **harmonised methods** to identify and then assess the representativity of the network, its connectivity and promote them nationally.

This could take a similar course to the methods developed for Natura 2000, for example, or those for MSFD.

1.9



Compile existing data and encourage the implementation of monitoring and harmonised protocols to establish **habitat and species** databases in support of the gap analysis on the representativity and connectivity of Mediterranean MPAs and as a tool for MPA planning and management

Strengthening the networks of taxonomists and promoting governance built on an effective and in-depth research is preferred. Research on modeling habitat/species may be one of the avenues to be developed.

1.10



Disseminate technical tools for MPA system planning and facilitate the **exchanges of experience and good practices**, providing assistance to national authorities.





1.11



Offer assistance to national authorities and, where needed, facilitate the multilateral processes for the **identification of potential MPA sites in areas beyond national jurisdictions**, taking into account the existing advances and constraints of countries' positioning, scientific work and international, transnational or multilateral agreements for open sea areas.

1.12



Develop and maintain national and regional (MAPAMED) MPA databases, **and ensure that they are integrated in the IUCN and UNEP world database of protected areas (WDPA)**.

Develop improvements based on what is existing, proceeding in stages and ensuring progressive data reliability. The databases should integrate:

- Standardised information and indicators on habitats and species

Information on MPA management, governance, financing, budgets and environmental services

International standards used for MPA data

1.13



Develop institutional agreements for the **protection of biodiversity and/or the management of MPAs in ABNJs** in transnational pilot sites:

- By integrating advances in governance and international agreements
- By developing innovative and well-grounded governance
- By offering innovative institutional frameworks reinforcing the integration of fisheries and conservation governance in these types of territories

1.14



Facilitate the establishment of **monitoring-evaluation mechanisms** for the actions mentioned in the roadmap and in international and Mediterranean agreements, in order to give regular information on the progress of policies and results.

Strategic Objective

2

Establish in Mediterranean MPAs an effective, efficient and sustainable management as well as a good governance.

MPAs management effectiveness requires a national political will which ensures the establishment of a clear institutional framework, proper planning as well as adequate human, technical and financial resources. Thus, good management requires the development of integrated and coordinated policies, the clarification of responsibilities and legal, institutional and administrative frameworks (see Objective 3).

Co-management is the most operational and effective mechanism of governance to manage natural resources and MPAs. It promotes stakeholders accountability and has useful adaptive management methods to manage complex systems such as ecosystems. Stakeholders involvement (including those belonging to local governments) in co-management processes should be systematically promoted.

Several mechanisms of governance and management exist, such as those developed by the populations. Contracting Parties to the CBD (decision XI/24) confirmed the importance of integrating a diversity of statutes and modes of governance in networks of MPAs. In addition, the implementation of management tools such as MPAs or reserves by artisanal fishermen are being developed and management measures already exist in several sectors. Conservation stakeholders, and those from other sectors, must recognise existing resources and biodiversity management measures to develop synergies rather than oppose them.

Faced with challenges stronger here than in other parts of the world, the Mediterranean region must become a leader in the long-term sustainable management of biodiversity, respecting its territories, populations and ecosystems.



The effectiveness of MPAs is directly correlated to their status and the associated rules. However, the protection status of Mediterranean MPAs is currently extremely variable, if not complex, and not only within MPAs (zoning is often lacking), but also on a regional and national level.

In the Mediterranean, several MPAs are **not managed effectively** and could be designated as being «paper parks». Indeed, only 50% of Mediterranean MPAs have a **management plan and clear objectives**.

Most of them have low quality monitoring which is not always done in and around the sites. This is valid for biological monitoring, but even more so for socio-economic monitoring.

A good knowledge of the usages and pressures found in MPAs and their surrounding areas, as well as the anticipation of the development of future activities or pressures are key elements for developing co-management processes, establishing a baseline and elaborating/revising a management plan.

Thus, taking the **socio-economic aspects into consideration and improving the integration of the territory's stakeholders** has increasingly become a prerequisite for effective management in order to overcome the usual "MPA vs. users" opposition.

Resources, be them human, financial or equipment related, are often inadequate; Mediterranean MPA managers rarely have the necessary basic requirements in terms of qualifications and financial resources to put in place a proper management of the sites they are in charge of (see also Objective 4).

Poor surveillance or a lack of laws and regulation enforcement is persistent and is one of the MPAs great weaknesses in this region.

Although the involvement of managers in taking into account the ecosystem approach is important, one of the major challenges lies in **consolidating control measures and surveillance, law enforcement and management funding**. Without management and without control and effective law enforcement, trust is lost and MPAs cannot be managed.

Faced with anthropogenic pressures linked to the density of the local population, increasing demand from companies and more important climate changes than elsewhere, the stakeholders involved in the Mediterranean Sea are confronted with a major challenge: **how to maintain the ability to secure goods and services which benefit the people and economic stakeholders?**

EXPECTED RESULTS

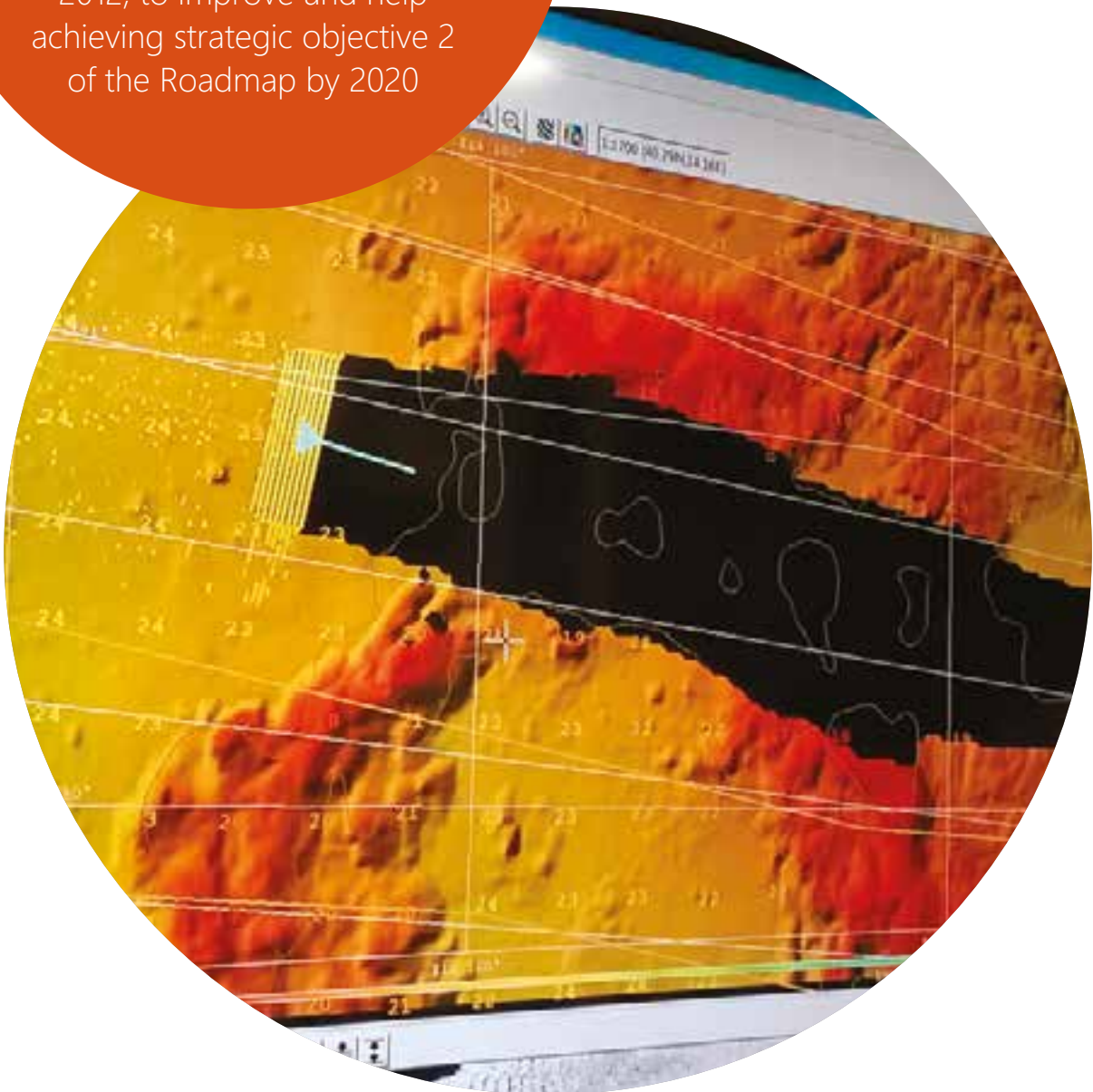
- Mediterranean MPAs management and governance systems' effectiveness is assessed regularly (every 4-5 years).
- The entire system of governance and management is reinforced by an integrated approach and by the implementation of actions under Objectives 3 and 4 (integration of policies, stakeholders, territories, synergies and taking into account existing frameworks, funding synergies).
- Mediterranean MPAs have implemented management plans which are regularly updated and incorporate sustainable management tools developed by other sector-specific plans.
- Involvement of stakeholders in the management of Mediterranean MPAs is strengthened.
- Institutional frameworks governing Mediterranean MPAs are clarified and barriers to the proper institutional functioning of MPAs are identified and removed.
- Mediterranean MPA managers and national authorities skills are improved for better governance and management.
- National business plans and one for each MPA are prepared, adapted to management needs and regularly updated.




FOCUS ON KEY OPERATIONAL AND ACTION-ORIENTED STEPS

These key operational and action-oriented steps, were identified in the Tangier Declaration of the 2016 MPA Forum, that is complementary to the Antalya Declaration of 2012, to improve and help achieving strategic objective 2 of the Roadmap by 2020

- Provide the necessary support for effective, equitable and efficient management by 2020 of all MPA sites currently established.
- Formulate a management plan for each Mediterranean MPA by 2020. This includes in particular:
 - To progress in the development and implementation of management plans for Natura 2000 marine sites; and
 - To support management planning in every MPA with weak technical or institutional capacities by facilitating, through regional coordinated efforts, the basic cartography and the development of biological and socio-economic baselines, including uses and pressures.





Strengthening exchanges among Mediterranean MPA managers is crucial

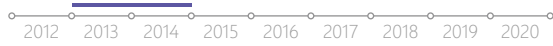
- Support MPA effective and equitable management, especially of “young MPAs” by adopting minimum standards for effective management and recommendations for good governance, through sharing the best field practices.
- Encourage and support the establishment and implementation of fishery management measures within MPAs, where relevant, in line with the existing regulations and relevant international instruments.
- Encourage and foster MPA co-management practices with stakeholders as a means to achieve effective and sustainable management and good governance.
- Support capacity development for fishing communities and resource users to allow them to effectively participate in decision-making relating to MPAs.
- Include at least one MPA in each national monitoring programme for biodiversity and non-indigenous species, in line with the Integrated Monitoring and Assessment Programme (IMAP) adopted under the Barcelona Convention (COP19, Athens, February 2016).
- At an MPA network level, make progress towards harmonised monitoring systems including comparable sets of natural, socioeconomic and management effectiveness indicators at national and regional levels.
- Consider the challenges and impacts of climate change both in MPA management plans and their monitoring activities.
- Implement practices to prevent, control, or adapt to the invasive non-indigenous species within Mediterranean MPAs.
- Incorporate water quality issues in MPA management, and as central components in future Integrated Coastal Zone Management (ICZM) schemes taking into account objectives on Good Environmental Status (under the Ecosystem Approach of the Barcelona Convention and the EU Marine Strategy Framework Directive), objectives in the Protocol on Land-Based Sources of Pollution, and the Good Environmental Status (under Water Framework Directive).
- The MPA manager network can play a role in supporting the EC to strengthen the effective management of marine Natura 2000 sites, including capacity building activities for a Mediterranean manager network of Natura 2000, therefore improving the integration of the Natura 2000 biogeographic approach.
- Strengthen exchange of experience, best practices and knowledge among MPA managers, including through increased cooperation between EU and non-EU Mediterranean countries, especially for addressing conservation needs for highly mobile marine species.



ALL ACTIVITIES TO BE IMPLEMENTED BY 2020

On a local level

2.1



Strengthen the **active participation of local stakeholders** in national and regional networking initiatives.

Exchanges of experience, mutual technical/scientific assistance etc.

2.2



Strengthen the **monitoring system of MPAs** and their capacities.

- Establishing a minimum level of monitoring using harmonised international standards and by standardising monitoring between MPAs, in support of management decisions and national and regional consolidations especially for representativity and connectivity monitoring
- Covering all aspects of MPA governance, but also socio-economic and biological monitoring as well as any aspects linked to climate change and the arrival and evolution of invasive species in and around the MPA
- Establishing reliable baselines
- The implementation of national agreements, dashboards and harmonised systems should support the local implementation of such monitoring which is useful for measuring the evolution of the network and decision making

2.3



Assess **MPAs staffing needs** and develop short and medium term recruitment plans, so that all MPAs have competent management teams with adequate staffing.

2.4



Develop and regularly update MPA management plans and business plans according to management needs and management effectiveness objectives, in a format that can be integrated on a national level.

- Through the early assessment of each MPA's needs in terms of management and resources (competent staff, needs, appropriate equipment, etc.)
- These plans are useful to management monitoring and the set up of funding and governance measures on a national and regional level (see Objectives 3 and 4)

2.5



Evaluate MPA management efficiency and enhance the visibility of measurable results and evolutions.

Thus, supporting more effectively priority interventions and the prioritisation of objectives which are still insufficiently developed.

2.6



Involve stakeholders by highlighting what already exists and local populations then establish formal **consultation processes** to involve them in the management planning and decision-making, so that they adhere to and participate in the formulation of the MPAs management objectives.

2.7



Strengthen the State's decentralised institutions and local authorities in their **surveillance duties**, regulation enforcement and local governance mechanisms in synergy with national resources and measures.

On a national level

2.8



Assess management effectiveness and governance system for the whole network of existing MPAs:

- Using and further developing the set of management effectiveness indicators elaborated for Mediterranean MPAs, as well as management dashboard systems
- Putting in place mechanisms to harmonise national indicators which are relevant to management and national observatories. Test and improve them in order to compare the situations of MPAs over time and support monitoring via a national system of successful MPAs. A peer review may also be put in place to back this system
- Evaluations will be conducted taking into account the opinion of MPA managers, scientists, marine environment users and local communities
- Including the potential associated with the SPA/BD Protocol for governance in open sea

2.9



Improve national policies and strategies relevant to the management of MPAs and ensure that each MPA has a management plan with clear objectives and based on the best available knowledge.

- Seeking clarification and simplification of the governance and administrative frameworks, including in terms of synergy and development of institutional bridges between different ministries (see Objective 3)
- Integrating local knowledge and governance through co-management and also giving a clear role to decentralisation
- Ensuring that national authorities adhere to global and regional legal instruments on the development of MPAs
- Testing innovative management approaches

2.10



Involve stakeholders in the planning and management of MPAs by enhancing participatory management, particularly through the set up of **consultation mechanisms on a national and local level** and through the increase of communication and awareness-raising actions on the conservation of the marine environment.

2.11



Develop and/or strengthen effective and ongoing national **capacity building mechanisms** for local or national authorities in charge of MPAs, MPA managers and the main stakeholders.

It is important to include exchanges of experience among stakeholders (related to financial mechanisms, management effectiveness, fishing management tools, etc.).

2.12



Review and, if necessary, amend the existing legal and national institutional systems applicable to MPAs.

Particular attention should be paid to the following points:

- Identify and remove barriers which block the good functioning of institutions and other authorities responsible for the management of MPAs
- Establish institutional arrangements that enhance and ensure surveillance, effective control and enforcement of legal measures
- Test new partnerships to improve the effectiveness of pilot sites
- Define the co-management bodies associated to the different levels and links between co-management levels
- Provide the right framework for the involvement of local communities and tools to develop community MPAs

2.13



Develop additional communication campaigns to those undertaken in Objectives 1, 3 and 4, aimed at promoting good examples of management and results in order to stimulate the development of well-managed MPAs.

On a Mediterranean level

2.14



Develop and make available **technical tools** including guidelines, standards and indicators for the MPA management and MPA evaluation.

The guidelines and other technical tools should be adapted to the Mediterranean context and, where necessary, to sub-Mediterranean levels.

2.15



Provide **assistance** to the relevant national authorities with the conduct of **MPA management effectiveness evaluations**:

- Based on existing methodologies of MPAs effectiveness assessment, management plans evaluation, network management evaluation (Natura 2000, other)
- Supporting the development and implementation of national harmonised measures associated to management assessment (indicators, dashboards, ...)

2.16



Compile and **disseminate information on lessons-learnt** in the context of MPA management, including success and failure stories (capitalisation, exchanges of experience,...).

2.17



Develop **exchanges of experience** linked to the elaboration and/or **the review of existing MPA management plans** and business plans in existing MPAs.

2.18



Establish a regional capacity building mechanism for MPA managers:

- Implementing a wide range of training approaches (training courses, in the field training, on the job training, online training modules, exchange visits, study tours, training of trainers, exchanges of experience, etc.)
- The mechanism should also target other stakeholders and decision makers

2.19



Facilitate the elaboration of:

- A **common categorisation system** for Mediterranean MPAs based on their main objectives and methods of management and regulation, taking into account the need to harmonise this kind of system with those used internationally (IUCN categories, etc.).
- **Common approaches for the management and management evaluation of MPAs.**

This will promote harmonisation and complementarities between MPAs on a regional level and will allow the outcome of comparable elements between countries for regional assessments.

2.20

Develop **common protocols** to monitor MPA **visits** and their impact and **fishing**, including **recreational fishing** in and around MPAs.

Strategic Objective

3

Develop a Mediterranean MPAs governance which is integrated on a territorial level and with the other sectors while promoting the sharing of environmental and socio-economic benefits.

In addition to their central role in the conservation of marine biodiversity, MPAs are increasingly called upon to play a role in economic and social development.

The preservation of biodiversity significantly contributes to the sustainable development of territories and economic activities. In addition to their central role in the conservation of marine biodiversity, MPAs are increasingly called upon to play a role in the **economic and social development** on a regional, national and local level. They are instrumental for the sustainable management of living marine resources and for the development of sustainable tourism and other **rational uses** of the marine environment. In fact, MPAs provide goods and services that are essential for many resident or passing communities.

However, managers should improve the integration of their MPA in its surrounding territory and its **territorial governance**, ensuring other local governance bodies take into account the important role played by the MPA. This will provide the right conditions for a stronger commitment from key stakeholders and local representatives so that conflicts are minimised and shared management (co-management) become pervasive. In the coming years, one of the challenges of a co-management approach for Mediterranean MPAs will be to **improve their integration into their social and economic context**, in order to better understand and unite the different economic stakeholders in the MPA's co-management and not be perceived as an obstacle to socio-economic development.

The involvement of key stakeholders in areas located beyond MPAs boundaries will reinforce the MPAs position in **marine spatial planning** processes and facilitate the implementation of **ecosystem-based approaches**.

Certain policies and subsidies can have adverse effects on MPAs and ecosystems; they can generate negative socio-economic effects over the long-term for local and national communities (fisheries, tourism, land use, etc.).

Understanding the multiple values of ecosystems and biodiversity for man's well-being, the economy and local communities can inspire countries to launch actions and policies needed to achieve social and environmental objectives.



EXPECTED RESULTS

- National policy frameworks on shared management (co-management) principles, MPA zoning based policies and various key principles relevant to European and Mediterranean policies are clarified and improved.
- MPAs and biodiversity are better integrated into sector-specific policies.
- The interaction between MPAs and other sectors, as well as co-management are improved.
- Institutional agreements between fisheries and MPA institutions on all geographical levels allowing synergies and/or shared responsibilities are clarified.
- MPA management plans and fishery policies meet territorial integration and EBM (ecosystem-based management) objectives.
- The work developed by the fishing sector regarding EBM and the creation of fisheries reserves is integrated into regional assessments.
- Integration of MPAs in a broader coastal and marine spatial planning, in national policies and in national and regional databases is improved.
- Wetlands, areas and stakeholders around the MPA as well as land-sea links are better understood in the MPA's governance and in the integration of the MPA in its territory.
- Sustainable activities within and around MPAs which give socio-economical benefits to local communities and respect the MPAs status, objectives and specificities are developed.
- MPAs ecosystems services and function and the services provided by MPAs are regularly evaluated and promoted on a local, national and regional level; the data is integrated into national statistics, regional databases and is taken into account in the elaboration of national policies.
- Marine and coastal environment harmful subsidies from countries or related to European policies are identified and progressively replaced.
- Investment programs and innovative public procurement procedures and/or innovative "green" incentives are developed.





FOCUS ON KEY OPERATIONAL AND ACTION-ORIENTED STEPS

These key operational and action-oriented steps, were identified in the Tangier Declaration of the 2016 MPA Forum, that is complementary to the Antalya Declaration of 2012, to improve and help achieving strategic objective 3 of the Roadmap by 2020

- In addition to biodiversity conservation, disseminate the evidence for multiple ecosystem and socio-economic benefits of MPAs, aiming at their recognition as demonstration sites applying the ecosystem approach, including contributing to climate change adaptation and mitigation.
- Work towards creating a win-win relationship of MPAs with decision-makers, donors and private sector interested in marine and maritime spatial planning, integrated coastal zone management, blue growth strategies, sustainable tourism and sustainable fisheries policies, in order to respond to pressures beyond MPA borders, while considering MPAs as natural capital and a management instrument to reach sustainability targets.
- Strengthen cooperation between fisheries agencies and environment agencies among and between countries, and with other regional MPA human networks, Regional Seas Conventions and relevant regional organisations and agreements (e.g. the Agreement on the Conservation of Cetaceans in the Black Sea Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS), the General Fisheries Commission for the Mediterranean (GFCM), the International Union for Conservation of Nature (IUCN), the Union for the Mediterranean (UfM) etc.).





- Ensure that artisanal fishing communities dependent on marine resources for their livelihoods are effectively participating in decision-making on MPA designation, planning and management in line with the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication.
- Encourage the establishment of communication channels and participatory procedures between the conservation and fisheries authorities and stakeholders for the future proper management of MPAs in the pelagic realm.
- Make use of relevant regional and international policy frameworks and fora to promote MPAs as contributors to the wider development agenda.



ALL ACTIVITIES TO BE IMPLEMENTED BY 2020

On a local level

3.1



Establish **adequate MPA zoning** through consultation processes to conciliate habitat conservation requirements and the need for maintaining and/or developing human activities, provided they can be controlled and maintained while remaining within the MPA management plan's objectives.

Develop zoning in MPAs which is linked to multi-usages, but where non-extractive zones are also included and are defined with the stakeholders.

3.2



Better understand and integrate sustainable socio-economic activities (fishing, recreational, tourism) within the MPA, taking into account conservation objectives and good "green" practices, as well as cultural and sustainable sector-specific practices.

3.3



Improve **MPA staff skills**, particularly in:

- Managing fishery (including recreational fishing) and tourism activities
- Dealing with evolving territories
- Liaising with stakeholders and establishing conditions for shared management
- Integrating monitoring measures on biological, socio-economic and governance aspects
- Evaluating the management's effectiveness and adaptive management
- Developing innovative tools for self-funding management

3.4



Promote the **development of new sustainable income generating opportunities** for local populations taking into account MPA objectives and zoning agreements, including through the use of ICT and other relevant innovative technologies.

3.5



Highlight the **natural and cultural heritage**, including sustainable traditional practices and local knowledge.

3.6



Develop **communication and awareness-raising activities** targeting the local population, visitors, schools, fishermen, decision makers, donors, etc.

Highlight specifically MPAs values, functions and potential to contribute to the social and economic development, with the view of gaining stakeholders support and securing a wide range of allies.

3.7



Develop **innovative policies at the initiative of local authorities** which integrate biodiversity and give support to MPAs and their management in coastal territories.

On a national level

3.8



Establish, through consultation processes, **adequate zoning systems for MPAs**, to improve the conciliation between habitat conservation requirements and the need for maintaining and/or developing human activities.

It is important to only consider activities that can be controlled and maintained, in line with the MPA management plan's objectives.

3.9



Integrate policies, build institutional bridges and clarify governance frameworks between sector-specific policies and **policies relevant to MPAs on every geographic level**.

This action deals specifically with the synergies and agreements to develop with the fishing industry, but also in the field of tourism, surveillance, tax and finance, and legal framework and policies for territorial development reinforcement.

3.10



Take into account the issues of representativity and connectivity of MPAs and the MPA network in an ecosystem- based approach, associated with the **marine spatial planning process**.

3.11



Where possible and appropriate, **encourage the equitable sharing of social and economic benefits** derived from MPAs.

Including for poverty alleviation and improving the standard of living of local populations based on rigorous evaluations of various cost-benefits associated with MPAs.

3.12



Develop **evaluations of ecosystem services** and values using TEEB (The Economics of Ecosystems and Biodiversity) approaches on coastal and marine issues and promote a better understanding of the local and national economic services provided by marine ecosystems.

This work could be developed in conjunction with monitoring, but also be integrated into national statistics, national and regional databases and supply the mapping of ecosystem services linked to marine biodiversity and human activities.

Case studies of economic evaluation of Mediterranean MPAs have shown that the prospective side can incorporate uncertainty in the scenarios. They stressed the importance of qualitative assessment and recommended an evaluation approach directed more towards the relationship between MPAs and territorial development.

3.13

Annually **review national subsidies** and progressively phase out harmful elements linked to marine and coastal habitats degradation (including those corresponding to activities and territories where the quality of the marine environment is important such as watershed). Also promote financial incentives for the conservation and sustainable use of marine resources.

3.14



Develop **“green” public procurement procedures** around marine and coastal issues and linked to the development of the “Blue Economy” which respects biodiversity.

3.15



Promote the **laboratory role of MPAs** and/or their role in showcasing environmental best practices and territorial governance.



On a Mediterranean level

3.16



Promote the implementation and development of tools, better policies, guidelines as well as **exchanges of experience and information** linked to the integration of policies and an improved co-management at local, national and transnational levels (associated with MSP, EBFM and ICZM).

Particularly through promoting the establishment of alliances and synergies between “fisheries” and “MPA” governance systems, ecosystem management, integration of MPAs in spatial planning policies, clarification of legal and institutional frameworks, etc.

3.17



Facilitate stakeholder networking to promote alternative and/or innovative economic activities.

3.18



Coordinate case studies and pilot actions for the **evaluation of MPA services** and prospects for a “Blue Economy” which respects biodiversity.

Strategic Objective

4

Increase the allocation of financial resources to establish and maintain an ecological network of effectively managed MPAs.



The development of funding mechanisms for MPA management is particularly important in the current economic crisis context where budgets have been reduced, especially for Environment ministries and major funding bodies.

It has become vital to support and develop local or national initiatives to elaborate and manage national and local funding mechanisms in order to ensure an effective management of MPAs.

In addition to public funding, other options need to be investigated and assessed.

In this context, applying a **“polluter/payer”** principle and the use of **“user/payer”** and **“payment for ecosystem services”** concepts may provide significant resources for MPAs.

Several national policies and financing mechanisms for protected areas already exist throughout the world and could be adapted to the Mediterranean context.



Raising additional and diversified financial sources for MPAs on both national and local levels are recognised as some of the best ways to reduce the risk of inadequate funding and to improve MPA management effectiveness through:

- Private contributions and corporate sponsorships
- Government budget allocations
- Special taxes that are legally earmarked to support protected areas
- Sea user fees and fines that are earmarked to directly support protected areas and/or where an important part is returned to the local territory
- Debt-for-nature measures in exchange for actions in favour of nature

Different national policies and financing mechanisms for protected areas have been developed throughout the world (including the establishment of legally independent foundations and trust funds for protected areas) opening great opportunities for developing similar mechanisms in Mediterranean countries.

EXPECTED RESULTS

- Systematic business plans for MPAs, but also for national MPA systems, are elaborated and improved following a gap analysis of MPAs national funding systems. They rely on a reasonable management which is based on efficiency, transparency and monitoring through an adequate reporting system.
- Institutional financing mechanisms frameworks are evaluated and then improved in order to mobilise self-financing and financial sources for national MPA systems and on an individual MPA level.
- New financial mechanisms on a local, national and regional level in support of MPA management efficiency improvements and MPA network sustainability are developed or consolidated.
- The status of funding mechanisms for MPAs is periodically evaluated and is one of the indicators used in assessing the status of Mediterranean MPAs.
- Donors help to finance conservation or MPA management in the Mediterranean, and new donors are mobilised.



FOCUS ON KEY OPERATIONAL AND ACTION-ORIENTED STEPS

These key operational and action-oriented steps, were identified in the Tangier Declaration of the 2016 MPA Forum, that is complementary to the Antalya Declaration of 2012, to improve and help achieving strategic objective 4 of the Roadmap by 2020

- Encourage leverage mechanisms to support the Contracting Parties to the Barcelona Convention and other relevant organisations in guaranteeing the basic funding needs of their national MPA systems.
- Encourage Official Development Assistance agencies and private donors to invest in MPAs as a potential contributor to achieving SDGs through food security, poverty alleviation and climate change adaptation and mitigation.
- Support the development of small funding programmes within MPAs as means, inter alia, to develop local project management capacities and as a lever to attract new and matching funding sources.
- Support, as an example of innovative financial mechanism, the establishment of the Trust Fund for Mediterranean MPAs, and welcome the recent progress made in this regard.
- Support the creation of a permanent financing facility to ensure, in case needed in times of crisis and during limited periods, the continuity of management in certain MPAs.





Association for the
SUSTAINABLE FINANCING
of Mediterranean MPAs



ALL ACTIVITIES TO BE IMPLEMENTED BY 2020

On a local level

4.1



Endeavour to apply **more sound financial management** giving more importance to cost effectiveness, transparency and adequate financial reporting.

The development, implementation and systematic evaluation of business plans on a local, national or regional level can help assess the financial management situation and the needs and optimise the support given to MPAs.

4.2



Identify and test opportunities for the **diversification of funding sources on a local level based on known, innovative or potential principles and mechanisms.**

- Conduct a gap analysis which will support the definition of sustainable financing strategies
- Some of these actions may be part of those mentioned in the MPA management plans/business plans
- Focus on mechanisms which reduce transaction costs
- Strengthen the implementation of long-term funding mechanisms dedicated to MPAs and provide direct local feedback
- Develop pilot projects, MPA level and/or local communities tests (payment for services, taxes, sponsor, donation systems, trust funds, etc.) which can be capitalised on.
- Funding mechanisms associated with tourism activities must be compatible with MPAs site capacity and the objectives of the management plans

On a national level

4.3



Train key stakeholders on a local and national level as well as influential national institutions on sustainable financing systems for MPAs and on the links between business plans and management performance, including training on the implementation of existing or known financial systems.

Capacity building tools will be as diverse as for the training of managers (exchanges of experience between countries and managers, tools and methods development, capitalisation, training-action ...).

4.4



Review national financing mechanisms, clarify the legal framework, investigate and test options for national long-term financing mechanism for MPAs.

- With the view of securing and diversifying sources of funding for MPAs, through innovative funding approaches for national and local MPA systems and through new financial sources, including mechanisms supported by local territorial institutions as well as investment or special assignment funds
- Funds supplied by revenue from tourism or recreational activities in MPAs could help diversify sources of funding. However, it is important to consider each MPA capacity and put in place appropriate legal and institutional frameworks for such funds
- Gap analyses on existing information help to produce national strategies for sustainable funding directed towards the long-term financing of MPAs and the national system of MPAs, on developing national initiatives to fill the gaps.

4.5



Establish national experiments for innovative financing mechanisms which will contribute to funding the national system of MPAs and/or individual MPAs.

- Focus on mechanisms which reduce transaction costs and provide long-term local funding mechanisms for MPAs with direct local feedback
- Innovations related to polluter/payer contributions integrating the land-sea link would dedicate funding to restoration and marine conservation actions.

4.6



Improve the status of spatial jurisdictions (delimitation of marine areas) and its impact on the States financial actions/skills.

- Encourage negotiated EEZs settlement processes in order to extend national jurisdictions and their funding mechanisms beyond territorial waters
- Identify possible funding mechanisms associated with open sea sites, including in terms of compensation and recognition of ecosystem services (exploitation of the seabed, wind, bluefin tuna, etc.).



On a Mediterranean level

4.7



Support the dissemination of information, **exchanges of experience and capacity building** on financing mechanisms and the diversification of financial sources for MPAs on a national and local level, as well as on the planning of national and local activities.

4.8



Undertake a regional consolidation of the **gap analysis** of national systems based on existing information and support the development of regional and national plans to address these gaps and focus on a long-term funding to help the sustainable financing of MPAs.

4.9



Undertake a feasibility assessment and set up a **Mediterranean fund to finance the improvement of the network of Mediterranean MPAs and reinforce the management of existing MPAs.**

This could be done through an investment fund or a special trust fund which has an institutional base with one or more regional organisations. This would help on the one hand to develop regional actions which give support to reinforcing the network of MPAs, to develop national funds for MPAs taking into account each country's specificities and on the other hand, to promote activities linked to the creation and management of MPAs in Mediterranean zones beyond national jurisdictions. It could rely on institutional funding, but also benefit from innovative mechanisms associated with the following actions:

- Develop financial incentives-conditions for the industrial exploitation sector of land or underwater mineral resources in the Mediterranean
- Define legal mechanisms allowing to apply model sanctions which would contribute to national and regional biodiversity funds when offshore accidents (oil platforms, gas, boats) occur
- Develop new taxation/contributive mechanisms associated with the maritime transport and cruise sectors, recognising the services rendered by Mediterranean ecosystems
- Define a contribution from the sector associated with the bluefin tuna industry and large pelagic species in general, recognising the services rendered by the Mediterranean (to be promoted within ICCAT) through a support for MPAs.

4.10



Develop **sustainable and innovative financing mechanisms** in support of **regional networking activities** dedicated to strengthening knowledge, capacity and policies on a local and national level on MPA issues (regional taxes, payment for environmental services, private contributions, and compensation measures).

4.11



Regularly **capitalise on innovative experiences** and assess the status of national, regional and local financial mechanisms initiatives.

- Indicators linked to the evaluation of innovative and sustainable financial measures and the level of funding for MPAs can complement the evaluation of management effectiveness and contribute to the consolidation of the regional MAPAMED database
- Periodically providing the status of funding mechanisms and MPA funding will allow to improve the measures put in place by governments, donors and MPA managers

4.12



Support contacts between potential donors and national or regional MPA systems or individual MPAs

- Develop information and communication on ecosystem services, the sites of the network and the existing or potential donors
- Source new donors not accustomed to the funding of conservation, biodiversity or the Mediterranean region

4.13



Improve the coordination of funding policies between donors and suitable measures for complex processes (sustainability, post projects funding, transitional period management).

When linked with effective management, good governance and political will, these coordinated funding mechanisms are likely to reduce competition between agencies, dispersion, income effects or recurrent funding without results.

4.14



Encourage the creation of **income-generating activities based on ICT** (such as mobile technology to inform and guide the public) through pilot actions linked to MPAs.

Strategic Objective

5

Strengthen and develop the role of MPAs as a marine spatial management tool in supporting ecosystem-based adaptation and mitigation to climate change.

The last report from the International Panel on Climate Change (IPCC, 2013) highlights the **Mediterranean as one of the most vulnerable regions in the world** to the impacts of global warming. In terms of the thermal regime, the base scenario from 1980-2000 was used to estimate an increase in average surface temperatures in the range of 2.2 and 5.1 °C for the period 2080-2100.

Studies on the consequences that climate change could produce on species distribution, habitat features and ecosystem structure in the Mediterranean have been so far conducted in a limited number. Nevertheless, the main information they have delivered indicates that a **serious alteration of biological and ecological patterns** in both marine and terrestrial biomes is already taking place and generating mostly negative rather than positive impacts.

Recent research indicates that the threat posed by climate change to biodiversity may soon equal or even overtake the impacts from more established drivers of loss such as habitat conversion and invasive species. Marine climate change impacts equals or even exceeds habitat conversion or invasive species given the 'locked in' nature of changes now under way that will last for decades even if remedial action is taken now – this is exacerbated in one of the fastest changing ocean regions that is the Mediterranean.

Climate change also will have increasing impact on the livelihoods of people who depend on natural resources by, inter alia, increasing the frequency and exacerbating the effects of extreme weather events such as coastal flooding and threatening the stability and security of food production systems.

Well managed ecosystems can contribute to slow the impact of climate change on biodiversity, to sequester and store atmospheric carbon and to provide additional, effective options for increasing the resilience of vulnerable people and communities.

Marine protected areas are interesting tools for contributing to understanding, measuring, monitoring, adapting to climate change; they are tools for resilience at both levels of their establishment and their management.



MPAs are efficient management tools for lessening human impact on coastal and marine ecosystems. By increasing ecosystem stability, they promote resilience and faster recovery from disturbance. Also, marine protected areas are tools for contributing to understanding, measuring, monitoring, adapting to climate change; they are tools for resilience at both levels of their establishment and their management.

Adaptation to climate change consists mainly in monitoring the changes originated by climate change, forecasting its effects under the different potential scenarios, and then identifying options and taking/applying the most appropriate decisions. When we look at MPAs, this is obviously part of the role and tasks of MPA managers in order to guarantee the preservation of the ecological and biological values that MPAs host, and to ensure that the associated social and economic values are protected, or correctly reoriented to reduce negative socio-economic impacts.

A network of MPA managers providing information in real time about parameters related to climate change and its effects on the marine biodiversity can provide an interesting and realistic picture about the evolution and the impacts of climate change.

Only through **strong cooperation and willingness to take action** can social and ecological adaptation be achieved. Mediterranean MPAs are best place to create consensus and awareness, admitting that the issue of climate change is a complex one that requires the involvement and engagement of all MPA stakeholders (fishermen, tourism operators, divers...).



EXPECTED RESULTS

- MPA knowledge and capacities for addressing climate change impacts and other global threats are identified and strengthened.
- Resilience and adaptation are improved in key biodiversity areas and vulnerable ecosystems at Mediterranean scale.
- Researches and work for MPA adaptation is boosted with all available means.
- MPAs are privileged 'sentinel sites', where the effects of climate change could be studied and adaptation management strategies could be tested to adapt to such negative effects, in order consider those MPAs as an environmental monitoring and warning system, which help to detect changes and climate change impact.
- By monitoring standardized climate change indicators on a long-term basis across the MPA network, MPA managers have a better understanding of the changes and impacts happening in their MPAs and of their capacity to detect and alleviate them.
- Different MPAs can conduct assessment to contribute to a better understanding of the biodiversity vulnerability to climate change and to develop mitigation schemes, taking into consideration socio-economic aspects.
- MPAs are "schools" to raise awareness and understanding about climate change impacts and the vulnerability of marine species and ecosystems; this will help general public to better understand climate change issues.
- MPAs help reduce carbon emissions from blue carbon ecosystems and when possible enhancing carbon sequestration by these ecosystems.
- Potential to financially support MPA management and creation, through Blue Carbon financing mechanism, is assessed. Roadmap
- MPAs consider in their new or updated management plan mitigation and adaptation actions to climate change.



ALL ACTIVITIES TO BE IMPLEMENTED BY 2020

On a local level

5.1

Elaborate / review MPA management plans taking into account climate change mitigation and adaptation; this could incorporate the possibility of moving MPAs boundaries as conditions change. Elements of effective and adaptive management include clear goals, objectives, concrete monitoring actions and assessment in relation with climate issues.

5.2

Implement long-term monitoring of climate change indicators (i.e. Sea surface temperature and thermal stratification, Mortality and bleaching events, Range shift of alien / temperature-sensitive species, Reproduction and breeding date of selected species, Episodic species outbreaks (blooms), etc.) at MPA level to evaluate the potential changes within the MPAs due to climate change. Assessment of the MPA vulnerability facing climate change scenarios is done by providing data on real rate of change.

5.3

Ensure sufficient taxonomic expertise of the monitoring staff to recognise alien species within MPA monitoring.

5.4

Ensure proper funding and MPA-related training for the staff to enable the monitoring of long-term series of key biodiversity and climate change indicators both in the benthos and in the pelagic.

5.5

Raise awareness and develop communication activities towards general public and local stakeholders at local level on mitigation, adaptation, impact reduction and early warning.

5.6

Consider MPAs as laboratories for scientists and researchers working on how protection level enhances the resilience of marine ecosystems and on "living" history of carbon sequestration in particular through Posidonia meadows.

On a national level

5.7

Bring clearer and updated information to policy and decision makers on what is happening now and in the future by way of marine climate impacts, and - based around a defined area - specifics of adaptation actions and investment needed.

5.8

Strengthen capacities at national level to carry out vulnerability assessments and develop adaptation strategies. Support is required to develop the countries' capacities to use the available knowledge base in the decision making processes and access the right tools.

5.9

Integrate climate change measures into national policies, strategies and planning. Elaboration of national strategies for conservation areas based on climate change adaptation. Planning for adaptation to climate change and increased resilience to its impacts should not be considered as a separate policy field, disconnected from other aspects of sustainable development, but should rather be integrated across development and economic strategies and plans.

5.10

Make use of the new science on marine climate change 'trajectories' that predict their potential impact on the change of species distribution in the future, to plan a more resilient approach to the MPA network development at national level. National areas characterized with key habitats/species threatened by the climate change impacts should be protected.

5.11

Raise awareness of local and national, public and private media towards the role of MPAs to face climate change impacts.

5.12

Integrate nationally and locally awareness campaigns to be addressed to children, general public, national authorities and the private sector to communicate a consistent and effective message about climate change threats and impacts, mitigation, adaptation, impact reduction and early warning.

5.13

Implement the commitment undertaken by developed-country parties to the UNFCCC to a goal of mobilizing jointly \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation and adaptation actions and fully operationalize a Climate Fund both for land and sea.

5.14

Incite national governments to establish at least one sentinel site per country in a regional network approach with standardized and specific monitoring activities and indicators.

On a Mediterranean level

5.15

Develop a network of MPA sentinel sites across the Mediterranean with long-term and systematic monitoring of indicators of climate change (Sea surface temperature and thermal stratification, Mortality and bleaching events, Range shift of alien / temperature-sensitive species, Reproduction and breeding date of selected species, Episodic species outbreaks (blooms), etc.) (see: T-MedNet initiative for temperature indicator). This Mediterranean sentinel network could then inspire the world to develop a global network of MPAs sentinel sites.

5.16

Develop a standardized toolkit for indicators to track the effects of climate change in MPAs.

5.17

Develop citizen science initiatives for the monitoring of climate change indicators.

5.18

Reinforce scientific research and cooperation on Blue Carbon, acidification, species and habitats changes monitoring (through common indicators), socio-economic impacts of climate change...

- Science is helpful to fill gaps in the distribution of current networks of marine protected areas, particularly in coastal areas. Networks of MPAs should be representative and should include areas which can have a major role to climate change resilience, understanding and monitoring the CC impacts but as well anticipating the changes and thus considering the representativeness in the light of on-going and future changes.
- Develop an overall estimation about mitigation services provided by seagrass meadows, coralligenous formations and other bioconstructions within the MPA ecological network.
- Assess the carbon role of the MPA network both in terms of sequestration and amount sequestered but also in terms of the 'standing crop' of carbon that persists but is at risk from climate change (such as carbon in algae that can be lost in extreme heat events...).

5.19

Develop a multidisciplinary Task Force on Climate Change impacts in the Mediterranean.

5.20

Develop a MPAs climate change e-platform where tools, knowledge, and monitoring would be shared and accessible.

5.21

Raise awareness of media towards the role of MPAs to face climate change impacts?

5.22

Support the dissemination of information on climate change impacts in the Mediterranean region, including on biodiversity and vulnerable ecosystems but also on key economic sectors (tourism, fisheries, etc.).

5.23

Support the experience sharing and good practices of adaptive management (with other Regions in the World) through networking among MPA managers and scientists.

5.24

Develop capacity-building trainings for policy-makers to better understand and address climate change;

5.25


Make use of processes like Marine Spatial Planning (MSP) to meet the wider management challenges of achieving sustainable development and biodiversity conservation whilst delivering climate change adaptation and mitigation. MSP is a great tool for integrated approach as well as modeling of climate changes impacts.

5.26

Foster the consideration of the "blue carbon" both in the UN REDD+ programme and in the foreseen Green Climate Fund within the UNFCCC to financially support MPA management and/or creation. Internationally, carbon credits from seagrass sequestration of carbon could be employed as a strategy to maintain seagrass ecosystems on a global scale.

5.27

Take into consideration candidate SPAMI, which the area is considered as climate change sentinels.



OVERALL
OBJECTIVE
RELATED TO
REGIONAL MPA
NETWORKS
AND REGIONAL
CONVENTIONS



The participants to the 2016 Forum recognised the crucial role of regional and inter-regional cooperation and of joint mobilisation among human networks working on MPAs, Regional Seas Conventions and relevant regional organisations at all levels in order to:

- Catalyse knowledge and resources and foster strategic approaches for MPA human networks efficiency and visibility;
- Reinforce actions toward the sustainable financing of MPAs and MPA human networks;
- Enhance and strengthen MPA managers' capacity to face challenges related to climate change;
- Highlight the MPA networks function in climate change mitigation and adaptation as nature-based solutions, and enhance their role for such purpose; and
- Integrate and promote science, traditional local knowledge and innovative solutions to improve MPA effective management.

REGIONAL MPA MANAGERS NETWORKS

*Let's act
together!*



A LOOK BACK AT THE MEDITERRANEAN CONTEXT



THE MEDITERRANEAN SEA, A HOTSPOT FOR MARINE BIODIVERSITY

The Mediterranean is a semi-enclosed sea whose waters bathe the coasts of 21 countries of a region that has for centuries been the cradle of great civilisations. Its geological and human history has given the Mediterranean region its richness in terms of biodiversity, but also in terms of social, cultural and political diversity.

Known as one of the planet's key areas for marine biodiversity, the Mediterranean Sea hosts habitats, species and assemblages of particular ecological importance. Its richness and quality contribute to the populations' well being and to the development of coastal areas.

Although there are still significant gaps in information and reliable data on the biodiversity of many Mediterranean zones, a recent scientific assessment coordinated by the SPA/RAC identified 10 unprotected pelagic areas that conform to the criteria¹ set out under the CBD for Ecologically or Biologically Significant Areas (EBSAs).

Other regional initiatives have contributed to identifying some key areas to be protected: WWF identified 13 key areas to protect (2001), Greenpeace identified 33 marine reserves (2004), ACCOBAMS identified 15 areas to protect (2007). More recently, Oceana, in the MedNet report, proposed 100 sites for a network of MPA (2011, 2012), CIESM identified 8 zones for future transnational Marine Peace Parks (2011).

A study was done in 2012 by MedPAN and SPA/RAC on the Status of MPAs in the Mediterranean². This roadmap, elaborated in 2012, used the study's results and conclusions to define its objectives.

A new analysis of the Status of MPAs in the Mediterranean was made in 2016 by MedPAN and SPA/RAC. The revision of the roadmap in 2016 used this new analysis' results and conclusions.



¹/ Uniqueness or rarity, Special importance for life history of species, Importance for threatened, endangered or declining species and/or habitats, Vulnerability, fragility, sensitivity, slow recovery, Biological productivity, Biological diversity, Naturalness (CBD Decision IX/20, Annex 1):

²/ Gabrié C., Meola B., Webster C. 2012. The Status of Marine Protected Areas in the Mediterranean. MedPAN & SPA/RAC. Ed: MedPAN Collection



THE SYSTEM OF MEDITERRANEAN MARINE PROTECTED AREAS IN 2016

7,14%

Surface under protection status

179,798 km² / 1,231

MPAs and Other Effective Area-based Conservation Measures (OECM) including*:

- 186 MPAs of national status: 1.60%
- 898 marine Natura 2000 sites: 2.37%
- 3 GFCM Fisheries Restricted Areas: 0.62%
- Pelagos Sanctuary for marine mammals: 3.47%

* The above percentages cannot be added because there are overlaps between sites and not all sites are mentioned.

0,04%

Surface under stronger protection (no-go, no-take or no-fishing zones)

1,6%

Share of the Mediterranean surface covered by **186 MPAs of national status**

90,05%

Share of the total Mediterranean surface under designation located in European waters.

LEGEND

- National status MPAs
- Marine Natura 2000 sites
- Pelagos sanctuary for marine mammals
- Particularly Sensitive Sea Area
- Parc International Marin des Bouches de Bonifacio

- SPAMIs
- Fisheries Restricted Areas
- Biosphere reserves
- World heritage sites
- Ramsar sites
- Depth > 1000m

+1,8%

of surface under designation compared to the last status of Mediterranean MPAs in 2012, including:

- 6 national status MPAs (21,827 km² added)
- 391 marine Natura 2000 sites (34,458 km² added)

>100

Potential sites identified to become MPAs or be subjected to other spatial conservation measures in 12 countries.

Perspectives

Aichi objective 11 is not limited to reaching 10%. Having "effectively and equitably managed" MPAs and OECMs by 2020 implies that numerous qualitative improvements be made, in link with:

- Legal frameworks and governance
- Availability of adequate funding
- Systematic management planning
- Appointment of sufficient permanent staff
- Regulations and surveillance
- Stakeholder engagement
- Integration with Marine Spatial Planning

PRESSURES

Mediterranean marine ecosystems are under significant pressure. The risks are linked to the intrinsic value of ecosystems, but also to the loss of biodiversity and natural habitats which play a major role in human health, lifestyle, food production and availability of natural resources for the economic development and the well-being of coastal populations.

The Mediterranean Sea is subjected to **anthropogenic disturbances** especially along the coasts and new potential or actual pressures are emerging in the open sea. It is also faced by a transformation of its environmental characteristics due to **global changes**.

The impacts of **coastal development** (agricultural, industrial...) and **urbanisation** are among its main threats and these have intensified over the last few years. Four hundred fifty million people live in the Mediterranean basin, 40% of whom live on the coast. This significant coastal demographic growth contributes to degraded landscapes, soil erosion, increased waste discharges into the sea, loss and fragmentation of natural habitats as well as a deterioration of the state of vulnerable or endangered species.

During their COP 17 held in Paris, France in February 2012, the Contracting parties to the Barcelona Convention renewed their pledge to reinforce effective regional cooperation for the protection of the marine environment and to take all necessary measures to make the Mediterranean clean, healthy and productive with preserved ecosystems and biodiversity. They adopted 11 Ecological Objectives to be achieved by 2020 as part of the application of the Ecosystem Approach (Decision IG 20/4). They particularly emphasised:

- The need to implement the CBD recommendations regarding the designation of EBSAs and the use of MPAs as an instrument for protecting the marine environment, including in the open sea.
- The importance of taking into consideration innovative governance options promoting the concepts of "Blue Economy" and "Ecosystem-based services". Many Mediterranean MPAs have the potential to serve as case studies for the application of these concepts.

Based on the Antalya Roadmap (2012 MPA Forum), SPA/RAC prepared, in 2015, in consultation with relevant regional organisations, a "Roadmap for a Comprehensive Coherent Network of Well-Managed MPAs to Achieve Aichi Target 11 in the Mediterranean". This Roadmap, meant as guidance to update and timely implement the "Regional Working Programme for the Coastal and Marine Protected Areas in the Mediterranean including the High Sea" (COP 16, Marrakesh, Morocco, November 2009), was adopted by the Contracting Parties to the Barcelona Convention at their COP 19 (Athens, Greece, February 2016).

The development of activities in coastal areas (fishing industry, aquaculture, tourism, urbanisation ...) has created economic opportunities, but has also affected the local people's standard of living.

The Mediterranean region is one of the world's most **important tourism destinations**, attracting about 30% of international tourism. While generating benefits to the countries' economy, this popularity generates significant negative impacts on the marine environment through uncontrolled coastal zone development and its impact on the degradation of seagrass meadows, through the increased use of water resources and the production of solid wastes and sewage.

Maritime transport is another important economic activity for the region: it represents about 30% of the international shipping trade and 25% of maritime oil transport. The associated risks of accidental or deliberate pollution, transport of exotic species are still poorly controlled.

Fishing is also an important activity in the Mediterranean in terms of employment, income and food security. Recreational fishing is an important sector for certain territories. Its continual development is poorly controlled. The uncontrolled rise in fishing efforts registered over the last decades in a number of Mediterranean countries has led to the decline of many fish stocks. According to recent evaluations made within the framework of the General Fisheries Commission for the Mediterranean (GFCM), 90% of the assessed fish stocks were over-exploited.

The Mediterranean Sea is also considered to be one of the seas where the consequences of **climate change** will be the most visible in the years to come. Many areas are already affected by these impacts, coastal erosion being one of the most obvious. Many scientists and sea users have observed the arrival and spatio-temporal evolution of **new marine species**, some of which being **invasive**.

Aquaculture puts a localised and relatively strong pressure depending on the site and its development, which is backed by many public policies, raises questions in terms of its impact especially on the environment, fisheries and the associated stocks of raw material required to feed the fish.

Ongoing changes in the availability of resources and the cost of **energy** has led to a growing variety of pressures and makes spatial planning more difficult for stakeholders interested in the area (desalination, wind/tidal turbines...) or in the deep sea resources (aggregates, oil, gas, rare minerals, biotechnology). This reduces the surface area available for MPAs or traditional stakeholders (artisanal fishing) and affects the required connectivity or representativity of the network of MPAs.

It is essential to take into consideration the vulnerability of coastal and marine ecosystems and to balance the socio-economic and cultural aspects of traditional stakeholders in such a pressured context, to ensure the resilience of these ecosystems and to promote sustainable exploitation practices of renewable resources.

THE CURRENT INSTITUTIONAL FRAMEWORK

On an international level, applicable to all Mediterranean countries

Within the Convention on Biological Diversity (CBD) framework, countries have committed to the “Aichi targets” which aim to ensure a better protection of biodiversity via a strategic plan, for the 2011-2020 period.

Through the **Aichi Target 11 of the Strategic Plan for Biodiversity** 2011-2020, countries have pledged to improve the state of biodiversity by protecting ecosystems, species and genetic diversity.

Moreover, MPAs, through their multiple functions, are important tools to achieve the Aichi target n°14 by highlighting the benefits of biodiversity and ecosystem services.

In addition to the Aichi targets, the commitments made at the 11th Conference of the Parties to the CBD in Hyderabad (8-19 October 2012) confirmed the importance of developing economic approaches, of better promoting ecosystem services and of strengthening national and international funding mechanisms for biodiversity. A decision was taken to double the funding linked to biodiversity in developing countries by 2015 and maintain it to 2020 and to strengthen national policies and plans for biodiversity.

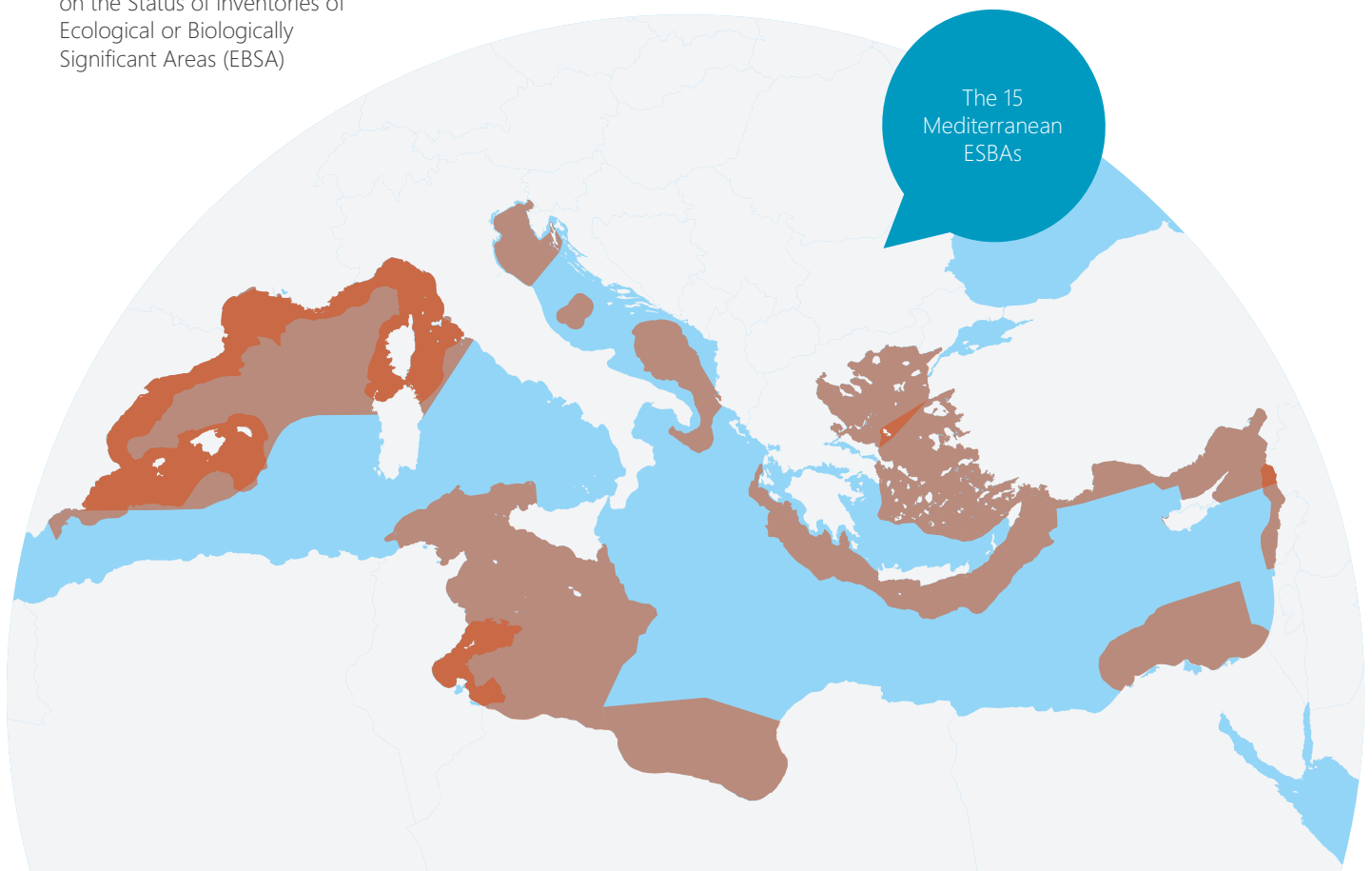
One of the elements at the CBD Conference in Hyderabad was also to recognise the importance of local governments in supporting policies that integrate biodiversity. Moreover, the parties formally adopted the work on the Status of inventories of Ecological or Biologically Significant Areas (EBSA)

and helped to show the importance of quality information on Mediterranean EBSAs in order to achieve an effective set-up of a global scientific inventory of these areas. In 2014, **15 EBSA** descriptions were accepted at the 18th meeting of the CBD SBSTTA and the 12th meeting of the Conference of Parties to the CBD (October 2014).

In 2014, the CBD also elaborated the Action Plan of the Sustainable Ocean Initiative (SOI) for 2015-2020. The **Sustainable Ocean Initiative** focuses on the commitments of CBD Parties and the work undertaken through the CBD on marine and coastal biodiversity to identify opportunities to address capacity needs to achieve the Aichi Biodiversity Targets.

The **Millennium Development Goals** (MDGs) are strong international commitments that shape development policies in southern and eastern Mediterranean countries. The targets and indicators of Goal 7 “Ensure environmental sustainability” were adjusted in 2014 and 2015 to integrate MDG and CBD targets and indicators within a sustainable development indicator framework. These adjustments will no doubt have an impact on the regional variations of these commitments, especially in the Mediterranean.

The United Nations Conference on Sustainable Development and the new global development agenda for the period 2015-2030 adopted in New York on 26 September 2015: «Transforming our World: The 2030 Agenda for Sustainable Development»: **UN Sustainable Development Goal** on the Oceans (Sustainable Development Goal 14)



UN - Goal 13 in the SDG to 2030 - "13.a Implement the commitment undertaken by developed-country parties to the United Nation Framework Convention on Climate Change to a goal of mobilizing jointly \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible".

The **Montego Bay Convention** (1982) on the Law of the Sea (UNCLOS) declared that marine resources are a shared resource and committed States to protect and preserve the marine environment and to cooperate globally for this purpose. However, the development of ecosystem-based approaches, gaps in legal texts are regularly singled out demonstrating the difficulty to reach regional agreements and the risks in the context of a growing appeal for deep sea resources.

The **international fisheries regulations** plan and implement, through RFMOs such as the GFCM in the Mediterranean, the rules of exploitation/extraction in open sea areas and make it possible to assess whether these States comply with the regulations (prohibition of bottom trawling deeper than 1 000m, closed seasons for tuna fishing, ...). Such measures do not exist for biodiversity or MPAs.

The limitations and challenges in **developing MPAs in the open sea** are important and are primarily of an institutional, political and regulatory nature. State positions are very varied and many discussions are underway to change measures or test options in certain sub-regions. Heads of State and governments made a commitment in the **"Rio+20 Declaration"** (paragraph 162) to implement the appropriate international instrument under the auspices of the United Nations Convention on the Law of the Sea (UNCLOS). The UN is in the process of complementing the UNCLOS (UN GA Resolution 69/292, June 2015) on the "Development of an international legally binding instrument under the UNCLOS on the conservation and sustainable use of marine biological diversity of ABNJ", also recalled by the SDG-14c.

Biodiversity Beyond National Jurisdictions (BBNJ) implementing agreement under the UN Convention on the Law of the Sea to be adopted by the UN General Assembly in 2018.

United Nation Framework Convention on Climate Change

Conference of the Parties (COP21), Paris, 2015: the Paris Agreement, includes consideration of the "Oceans" in the preamble.

Within the context of COP21, the «Because the Ocean Declaration» was signed in Paris during COP21 by Heads of State and Government and ministers from Aruba, Australia, Canada, Chile, Colombia, Costa Rica, Dominican Republic, Fiji, France, Guinea Bissau, Kiribati, Madagascar, Mexico, Monaco, Morocco, Netherlands, New Zealand, Palau, Senegal, Seychelles, Spain, Sweden. It focuses on the ocean as a relevant climate regulator and on the critical role it will play in the implementation of the Paris Agreement on climate change.

The **Blue Carbon Initiative**, (UNESCO Intergovernmental Oceanographic Commission, UNEP, IUCN, CI), supported by GEF-5, aims at developing global partnerships to mitigate climate change through the restoration and sustainable use of coastal and marine ecosystems.



The IUCN World Conservation Congress 2016 (Hawaii) motions:

- Increasing marine protected area coverage for effective marine biodiversity conservation
- Advancing conservation and sustainable use of biological diversity in areas beyond national jurisdiction
- Protected areas as natural solutions to climate change

The "Promise of Sydney" (IUCN World Park Congress, Sydney, 2014) calling for least 30% of each marine habitat to be protected

International Marine Protected Areas Agenda (IMPANA)

Recommendations of the 4th Marine Protected Areas Agency Partnership Meeting held in 2015, December 1, Jeddah, Saudi Arabia, on MPAs as natural solutions for building climate resilience.

The 3rd International MPA Congress (IMPAC3) recommendations and the Ajaccio Declaration (Marseille 2013).

Finally, the Ramsar Convention adopted a Strategic plan for the period 2016-2024.

The establishment of a coherent and efficient network in the Mediterranean is based on the existing institutional context on an international, Mediterranean and European level.

On a Mediterranean level

It is obvious that one of the challenges for Mediterranean States in the coming years is to **combine their efforts to reverse the degradation trends** in the marine and coastal environment and ensure the long-term conservation of biodiversity. This needs a multi-sector governance approach using the most appropriate tools, in accordance with the globally and regionally agreed targets for the conservation and sustainable use of natural resources.

In this context, Mediterranean countries have embarked since 1975, through the Barcelona Convention and its Protocols, on a series of cooperative, coordinative and mutual assisted processes aimed at protecting the Mediterranean, conserving its biological diversity and combating pollution.

Mediterranean countries thus dedicated one of the Convention's Protocols to the conservation of biodiversity, especially by developing MPAs. This protocol (SPA/BD) enables the creation of Specially Protected Areas of Mediterranean Importance which include areas beyond national jurisdiction.

Resolved to give new life to their collaborative effort, the Parties to the Barcelona Convention started in 2008 a process that led in 2012 to a high level of commitment by riparian States to apply an ecosystem-based approach to the management of the Mediterranean marine environment.

In parallel to this process, the development of a strategy has been underway since 2008 to promote protected areas incorporating areas beyond national jurisdiction.

An important effort has been made by Mediterranean States to ensure a harmonisation with the European Union's Marine Strategy Framework Directive (MSFD).

In February 2016, the 19th Meeting of the Contracting Parties to the Barcelona Convention endorsed a Regional Climate Change Adaptation Framework for the Mediterranean Marine and Coastal Areas as a contribution to the Mid-Term Strategy in particular to the Core and Cross-cutting themes on Land-Sea interaction and Processes and Cross-Cutting themes ICZM and Climate Change Adaptation.

The Barcelona Convention COP 19 also adopted the UNEP/MAP Mid-Term Strategy 2016-2021 as the framework for the development and implementation of the Programme of Work of UNEP/MAP.

Based on the Antalya Roadmap (Mediterranean MPA Forum, 2012), the SPA/RAC prepared, in 2015, in consultation with relevant regional organisations, a "Roadmap for a Comprehensive Coherent Network of Well-Managed MPAs to Achieve Aichi Target 11 in the Mediterranean". This Roadmap, meant as guidance to update and timely implement the "Regional Working Programme for the Coastal and Marine Protected Areas in the Mediterranean including the High Sea" (COP 16, Marrakesh, November 2009), was officially adopted by the Contracting Parties of the Barcelona Convention at their COP 19 (Athens, February 2016). (adopted Roadmap: http://www.rac-spa.org/sites/default/files/doc_cop/decision_22.13_en.pdf)



The Mediterranean Strategy for Sustainable Development (MSSD) 2016-2025, adopted by Barcelona Convention COP19 (in 2016), provides a strategic policy framework for securing a sustainable future for the Mediterranean region consistent with Sustainable Development Goals.

The report on the Mid-term Evaluation of the Action Plan for the implementation of the ICZM Protocol for the Mediterranean (2012-2019) was presented to the Barcelona Convention COP 19.

There are other agreements which are applicable to the Mediterranean Sea and promote MPAs among the tools required to achieve their objectives.

The **ACCOBAMS'** agreement provides for the establishment of MPAs in areas which serve as habitats for cetaceans and/or which provide important food resources for them.

Recommendations issued by the ACCOBAMS Workshop on the effectiveness of marine protected areas within Cetacean Critical Habitats (CCH) (Gammarth, Tunisia, 9-12 June 2015) during the Joint SPA/RAC-GFCM-ACCOBAMS meetings.

1st workshop on the Identification of Important Marine Mammal Areas (IMMAs) in the Mediterranean Sea, organized by the IUCN Marine Mammal Protected Areas Task Force, in collaboration with ACCOBAMS and the

Tethys Research Institute (Chania, Greece, 24 - 28 October 2016).

The **General Fisheries Commission for the Mediterranean** (GFCM), one of the regional fishery management organisations (RFMOs) created under the auspices of the FAO, recommends establishing **fishing reserves and Fisheries Restricted Areas (FRAs)** as tools for the management of fisheries and for the preservation of the marine environment, including in areas beyond States' jurisdiction. To date, four FRAs have been

1/ Agreement on the Conservation of Cetaceans in the Black Sea, Mediterranean Sea and Contiguous Atlantic Area

Improving the state of the Mediterranean MPA network requires the following challenges to be met:

- Make the current system of MPAs in the Mediterranean more ecologically representative and coherent in terms of its representativity, its geographical coverage and the connectivity between MPAs
- Increase human and technical resources (exchanges of experience, tools, methods, etc.) linked to the management of MPAs
- Increase financial resources and mechanisms linked to biodiversity and MPAs
- Effectively and efficiently manage existing MPAs in the Mediterranean
- Strengthen the synergies between all stakeholders on a local, national and international level
- Integrate governance and legal-institutional frameworks in order to clarify action plans and ensure the sustainability of measures and MPAs
- Promote the laboratory and innovative role of MPAs (technical, social, governance)
- Ensure the sustainability and efficiency of an MPA managers network
- Contribute to a sustainable management of Mediterranean resources
- Develop activities to inform and educate on the MPAs environment, marine biodiversity and the interaction with sea users



established by the GFCM. ICCAT (another RFMO to manage tuna) has established, particularly for bluefin tuna, various restrictions associated with stock recovery. Discussions among its members regularly address whether the “MPA” tool should be used for the management of large pelagic species. In 2016, the GFCM developed a mid-term strategy 2017-2020 towards the sustainability of Mediterranean and Black Sea fisheries.

A **Joint Cooperation Strategy** is under development on Spatial-based Protection and Management Measures for Marine Biodiversity among the Secretariats of ACCOBAMS, GFCM, IUCN-Med, UNEP/MAP through SPA/RAC and in collaboration with MedPAN.

The first **Union for the Mediterranean (UfM)** Ministerial Declaration on Environment and Climate Change was adopted in May 2014 (with two associated bodies, namely the UfM Working Group on Environment and Climate Change; and the UfM Expert Group on Climate Change).

In 2015, the Union for the Mediterranean Ministerial Conference on Blue Economy made a declaration with support from the associated UfM Working Group on Blue Economy.

The UfM Water Expert Group (WEG), mandated by the Euro-Mediterranean Ministerial Conference on Water (22 December 2008, Dead Sea, Jordan) was established; a new UfM Ministerial Declaration is under preparation.

The **Convention on Wetlands**, commonly known as the Ramsar Convention is an international treaty which was adopted in 1971 and entered into force in 1975. Its purpose is the conservation and sustainable use of wetlands and aims to halt their degradation or disappearance by recognising their ecological functions and their economic, cultural, scientific and recreational value. A Mediterranean initiative for these wetlands called “MedWet” was started in 1991 and aims, under the Ramsar Convention, to stop the erosion and degradation of Mediterranean wetlands and promote their sustainable use. All Mediterranean countries, the European Union, UNDP, NGOs and international scientists are involved in this initiative towards the conservation and management of these areas, several of which are key interfaces between land and sea.

In 2016, THE 10x20 INITIATIVE- Conference on “Marine Protected Areas: An Urgent Imperative, A Dialogue Between Scientists and Policymaker”, launched the Rome Call to Action.

The Representatives of the Governments of the following EU Member States: Greece, Spain, France, Croatia, Italy, Cyprus, Malta, Portugal, Romania, and Slovenia, meeting in Venice on October 2015 on the occasion of the high level event

“The BLUEMED Initiative for Blue Growth and Jobs in the Mediterranean” at the Aquae Venice 2015 Pavillion, made a declaration the **Venice Declaration** on Mediterranean Sea Cooperation - Launching a Strategic Marine and Maritime Research and Innovation Agenda for Blue Growth.

CIESM is a scientific commission set up at the States’ initiative and which has grown from its original eight founding countries to 22 Member States today. These support a network of several thousand marine researchers, applying the latest scientific tools to better understand, monitor and protect a fast-changing, highly impacted Mediterranean Sea. Its aim is to enhance knowledge, promote exchanges between scientists, improve the quality of scientific output in the region and give impartial advice on various topics relevant to the Mediterranean’s marine area.

On a European level

As members of the European Union, 7 Mediterranean countries¹ are also bound to the European Directives applicable to the preservation and sustainable use of the marine environment.

The Marine Strategy Framework Directive (MSFD) is the most recent of them. It aims to achieve by 2020 a **Good Ecological Status** for the marine environment in European waters by following an integrated process involving initial assessments, descriptors, indicators, measures and monitoring programmes on a national level. It includes steps for establishing a network of MPAs, which will reconcile the protection of the environment with sustainable fishing practices.

This directive also complements the measures taken under the **Water Framework Directive** (WFD) and in the forthcoming years it will be necessary to develop strong synergies between the following two directives.

Faced with a significant erosion of marine biodiversity, the European Union has decided to develop an exemplary network of Marine Protected Areas, the Natura 2000 at sea network, that extends at sea, the biodiversity conservation policy which relies on the **two European Directives: "Birds" (EC 79/409) and "Habitats" (92/43)**. The Natura 2000 at sea network is a network of sites which are of European interest and whose management will balance the conservation of biodiversity and maintaining human activities through a local think tank consisting of all the stakeholders within each site. This network will complement the other networks of existing reserves or national parks.

The European Union's Biodiversity Strategy for 2020 shows the importance of protecting biodiversity, developing networks of MPAs and managing Natura 2000 sites (Objective 1). It also reflects a desire to integrate biodiversity and other policies and tools by specifying in one of its objectives (e.g. Objective 4) the importance of developing ambitious sustainable fisheries objectives, managing stocks "through fisheries management

without adverse effects on other stocks, species and ecosystems, in order to achieve a good ecological status by 2020, complying with the marine strategy framework directive". In 2015, the EU mid-term review of the biodiversity strategy to 2020 was done.

The EU Strategy for the Adriatic and Ionian Region was endorsed by the Representatives of the participating Countries¹ on 18 November 2014.

The **Common Fisheries Policy** (CFP) is another instrument that involves binding measures and rules for the sustainable management of European fisheries for countries belonging to the European Union.

Established in 1983, the CFP has been revised to reverse the decline of European fish stocks and reduce the negative impact of fishing on the marine environment. The new CFP will enter into force in 2013 and specific measures are being finalised and raise many technical and political arbitrations.

In 2014, a new EU Directive establishing a framework for **maritime spatial planning** was adopted.

The European Commission adopted in April 2013 the EU Strategy on Adaptation to Climate Change.

In 2013, the EU developed the Blue Growth strategy to create growth and jobs in the marine and maritime sectors.

In 2016, the European Commission and the EU's High Representative set out a joint agenda for the future of our oceans, proposing 50 actions for safe, secure, clean and sustainably managed oceans in Europe and around the world. The Joint Communication on **international ocean governance** builds on a widely shared understanding that the ocean governance framework needs to be strengthened, that pressures on the oceans need to be reduced and that the world's oceans must be used sustainably. It also stresses that a better understanding about the oceans is necessary to achieve these objectives.

^{1/} Cyprus, France, Greece, Italy, Malta, Slovenia and Spain. Croatia will join European Union in 2013.

In 2014, the EU adopted a framework for Maritime Spatial Planning .



THE EFFORTS TO BE UNDERTAKEN

Many initiatives were undertaken by international and national organisations to help Mediterranean countries develop MPAs and improve their management, based on the measures and recommendations issued under the international agreements described previously.

The actions put in place include studies and field surveys to identify marine areas which are important to preserve, give assistance (scientific, technical and legal) and capacity building and awareness-raising actions as well as networking initiatives aimed at promoting exchanges of experiences and lessons learned.

However, despite the efforts deployed and the existence of a network of MPA managers, **the Mediterranean's network of MPAs is still suffering from significant weaknesses²**, in particular the lack of coherence and representativity, as well as inadequate management in a number of existing MPAs. This observation shows that even if a group of individual sites exist, it is not a network yet. In addition, the difficulties to achieve the internationally defined objectives must lead us to develop new intervention methods and revise each and everyone's policies (managers, national authorities, institutions, donors, NGOs, researchers, etc.).

Valuable opportunities which could help improve the Mediterranean network of MPAs are the following:

- The ongoing revision of the SAP BIO³ within the Barcelona Convention's framework
- The application of the ecosystem-based approach within the Barcelona Convention's framework
- The implementation of the international agreements for the open sea linked to biodiversity
- The remaining steps for implementing the MSFD, Natura 2000 at sea, the new CFP by EU Member States
- The implementation of recommendations made at the Rio+20 Conference and meetings of the Parties to the CBD, including the main commitments expressed at the conference ("The Future we want").
- The implementation of the United Nations Sustainable Development Goal 14 on Ocean (in particular the SDG 14.5 related to MPAs)
- The recommendations from the UNFCCC COP21 and COP22.

2/ See the 2012 Mediterranean MPA Status Report (SPA/RAC, MedPAN)

3/ The SAP BIO is a comprehensive strategy for the conservation of Mediterranean biodiversity. Its objectives and orientations are derived from in-depth assessments carried out on national and regional levels to identify gaps and define priority actions. Although it was elaborated and adopted before COP 10 of the CBD, the SAP BIO provided elements for most of the Aichi Targets. The process being launched by SPA/RAC (2012) to revise the SAP BIO provides an excellent opportunity to incorporate this roadmap's recommendations into national and regional policies for biodiversity conservation.

4/ Target 11 of the Aichi Strategic Plan for Biodiversity: "By 2020, at least 17% of terrestrial and inland water areas, and 10% of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes".



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Review:

2016 Forum Steering Committee, members and partners of the MedPAN network, the main European Mediterranean and international institutions, the Ministries in charge of MPAs (SPA/RAC focal points in particular) and all the participants of the 2016 Mediterranean MPA Forum (scientists, managers, fishermen representatives, NGOs, donors...) and other Regional MPA networks in the world.

The roadmap was approved on the last day of the 2012 Mediterranean MPA Forum by all the participants (November 2012, Antalya, Turkey). The roadmap was updated at the occasion of the mid-term evaluation of the Roadmap implementation since 2012 and thanks to contributions from the participants to the 2016 MPA Forum in Tangier (Morocco).

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