



EUROPEAN UNION



EU
MISSIONS

RESTORE OUR OCEAN AND WATERS

EU Blue Parks Community

1st WORKSHOP (Online) - 06/12/2023

**State of play on marine protected areas
in Mission sea basins**

The Mediterranean sea basin

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MedPAN



The Mediterranean Sea: a biodiversity hotspot

- **21** riparian countries, more than **15,000** islands & islets, **348** submarine canyons, **242** seamounts
- **One of the world's top 36** marine & coastal biodiversity hotspot
- **0.7 %** of the global ocean surface but comprises **4 to 18 %** of the world known marine species, depending on taxonomic group
- **20 %** of endemism for all species found in the basin

The Mediterranean Sea is under pressure

- **150 millions** people live on the coast
- **1/3** of global maritime traffic
- **1st** world tourist destination
- **Booming exploitation** of hydrocarbons at sea
- **Overexploited** resources
- Land based **pollution**
- **Climate change hotspot** that is warming 20% more than the global average

Diverse challenges & Multiple tools

Sustainable fisheries

MPAs

OECM and Managed Marine Areas

Marine managed areas

Restoration

Pollution reduction

Climate mitigation



Legal & Institutional framework for the Mediterranean

- **Global level:** Convention of Biological Diversity (CBD), Kunming-Montreal Global Biodiversity Framework (GBF), United Nations Sustainable Development Goals (UN Agenda 2030 SDG), Convention on Migratory Species (CMS), United Nations for Climate Change (UNFCCC) etc.
- **Mediterranean level:** Barcelona Convention, General Fisheries Commission for the Mediterranean (GFCM), The Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area (ACCOBAMS), The Union for the Mediterranean etc.
- **EU level:** Green Deal, EU Biodiversity Strategy, Birds and Habitats Directives, Marine Strategy Framework Directive (MSFD), Marine Spatial Planning Directive, Common Fisheries Policy, Bern Convention, etc.

Global framework

By 2030, **at least 30% of terrestrial, inland water, coastal and marine** areas, in particular areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved and managed through ecologically representative, well-connected and equitably managed systems of protected areas and other effective area-based conservation measures, recognising indigenous and traditional territories.



Convention on
Biological Diversity

Target 3 of the Kunming
Global Biodiversity
Framework in Montreal

European framework

At least one third of protected areas, i.e. 10% of the European Union's land and 10% of its seas, should be strictly protected.

EU Biodiversity Strategy
2030



Mediterranean framework

Effective systems of MCPAs and OECMs

By 2030, at least 30 percent of the Mediterranean Sea is protected and conserved through well connected, ecologically representative and effective systems of marine and coastal protected areas and other effective area-based conservation measures, ensuring adequate geographical balance, with the focus on areas particularly important for biodiversity

Post-2020 Regional strategy for marine and Coastal protected areas and other Effective area-based conservation Measures in the Mediterranean

Areas with enhanced protection levels

By 2030, the number and coverage of marine and coastal protected areas with enhanced protection levels is increased, contributing to the recovery of marine ecosystems

Post-2020 Regional strategy for marine and Coastal protected areas and other Effective area-based conservation Measures in the Mediterranean

The network of marine protected areas in the Mediterranean (2020)

MAPAMED 2019 edition, version 2 - EPSG 3035

- MPAS with a national statute
- Marine Natura 2000 sites
- Pelagos Sanctuary for Marine Mammals

8.33 %

Surface under protection: marine
108,565 km² / 1,697 officially designated
Marine Protected Areas (including 1,697
Natura 2000 sites)
1,697 officially designated Natura 2000 sites
1,697 officially designated Natura 2000 sites
1,697 officially designated Natura 2000 sites
1,697 officially designated Natura 2000 sites

0.04 %

Conservation surface of sea gull, sea lake or sea
lagoon areas

97.33 %

Share of the total Mediterranean surface under
designation reported in the European Union
Member States' reports

18 %

Share of MPAs that confirmed having a
management plan implemented
20 % fully implemented, 15 % partially
implemented, 7 % not implemented by Member
States, 15 % not reported

+ 2 points

Shared sea gull in the percentage of surface
under designation between the end of 2019
and the end of 2020 (in Italy)
100% of the sea gull area under
designation in 2019 was also
under designation in 2020

www.mapamed.org

The Mediterranean MPA system (2020)

1,087 MPAs
covering 209,387 km²

All MPAs: **8.33 %**

Fully and strongly protected
areas: **0.04%**
(no-go, no-take, no-fishing zones)



- **Largely coastal and European (97.33% in EU)**

- **Mostly cover shallow waters**

- 18% with a management plan implemented





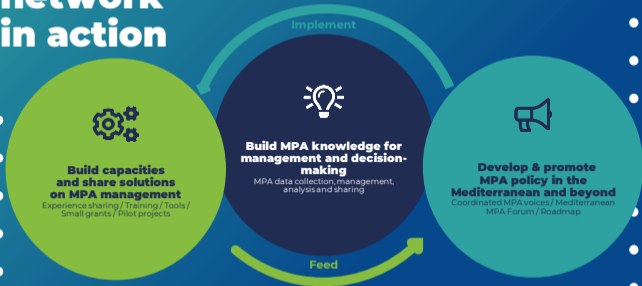
Insights into MPAs management

Feedback from managers of 152 national MPAs (2020 Mediterranean MPA Status)

- Lack of permanent, trained staff, lack of equipment.
- Insufficient funds & very few business plans.
- Few management plans - Weak monitoring / few reference data.
- Weak monitoring and enforcement.

The Mediterranean MPA management database (MedPAN, 2021)

The MedPAN network in action





MPA management

Call for Small Projects about strengthening the level of effective protection of MPAs

MedPAN has launched a call for Small Projects about strengthening the level of effective protection of MPAs with highly / fully protected areas- deadline: 05/02/23

Type of news Project news
Publication date 12/12/2022

MedPAN works on



Build capacities and share solutions

A range of complementary tools

Regional experience sharing workshop

Pool and share information, expertise and experiences and take stock on a topic.

Regional training

Provide background knowledge on a topic.

Thematic groups

Advise and provide technical support.

Practical guidelines

Provide easy-to-use management tools.

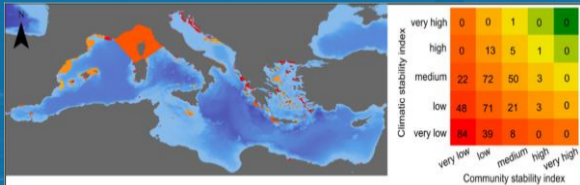
Field exchange visits

Identify practical solutions based on the observation of a concrete case.

Operational training

Build operational skills.

A Mediterranean MPAs Network to be supported and strengthened.



More than 90% of protected surfaces across the Mediterranean basin were characterized by high vulnerability under changing climatic conditions

Kyprioti and al., 2021

N of monitored years



0 (0-1)
Mortality ratio

Locations with 4-5 years of monitoring



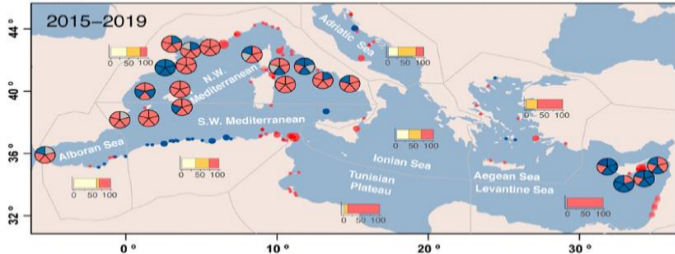
- Not monitored year (grey triangle)
- Year with no mortality (blue triangle)
- Year with MME (red triangle)

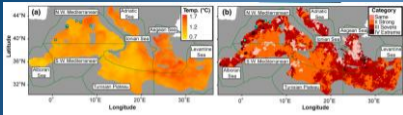
Severity classes

- Severe (>60%) (red)
- Moderate ($\geq 30\%$ < 60%) (yellow)
- Low ($\geq 10\%$ < 30%) (light yellow)

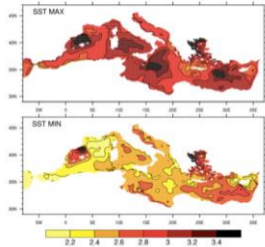


% of MME records per ecoregion
(2015-2019 period)





Patterns of warming and marine heatwaves (MHWs) across the Mediterranean Sea. (a) The difference in temperature between the mean of 2015 to 2019 minus the mean of 1982 to 1986 Garrabou et al.2022



Expected minimum and maximum changes in sea surface temperature for the 2070–2099 period (vs. 1961–1990). MedECC, 2018



THE 2020 FORUM
of Marine Protected Areas
in the Mediterranean

The Road to 2030

Post-2020 Mediterranean Marine Protected Areas Roadmap



April 2022 (MedPAN/WWF/WWF Roadmap) – Final Version – October 2022

Recommendation 6.5 (EMERGING and EXISTENTIAL THREATS)

Take immediate action on emerging and existential threats to MPAs, including climate change and invasive alien species.

EFFECTIVE MANAGEMENT OF MARINE PROTECTED AREAS IN THE MEDITERRANEAN FOR AN INCLUSIVE, RESILIENT & COHERENT NETWORK OF MPAs



MedPAN NETWORK POLICY PAPER

KEY MESSAGES:

1. Fostering collaborative governance and co-management in the Mediterranean Sea
2. Increasing the level of High/Low protection of MPAs in the Mediterranean Sea
3. Expanding a network-based management of mobile species in the Mediterranean Sea
4. Supporting sustainable small-scale fisheries management as a key success factor of the Mediterranean culture of marine stewardship
5. Catalysing sustainable financing opportunities for the Mediterranean Sea
6. Enabling marine resilience in the Mediterranean Sea
7. Advancing nature-based sustainable tourism in the Mediterranean Sea

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VI. Enabling marine resilience in the Mediterranean Sea

Rationale:

Climate change is dramatically affecting the Mediterranean region, which is warming at a rate 25% faster than the world's average (MedECC, 2019). Climate change is amplifying the effects of existing threats to marine ecosystems in reshaping their biophysical and chemical characteristics, from increased water temperatures, sea-level rise, and extreme events to ocean acidification, with serious consequences for natural systems (Cramer et al., 2018; Grand-Corbet et al., 2017) and more particularly for highly vulnerable ones (i.e., coral reefs, seagrass habitats, marine caves, intertidal habitats, Coll et al., 2019; MedECC, 2019). As a matter of consequence, the Mediterranean marine ecosystems are already experiencing the following macroscopic and measurable impacts: (i) the shift towards more thermophilic biota; (ii) an increased vulnerability to tropical invaders; (iii) the increased occurrence of phenological shifts; (iv) the occurrence of unprecedented large-scale mass mortality events (Cramer et al., 2018; Garbousseau et al., 2019; d'Amor, M., & Azarov, E., 2019; MedECC, 2019).

During the last decade, the close relation between climate change and the ocean has been acknowledged particularly in the framework of the UNFCCC, driving a special attention to the threats and risks of climate change on marine ecosystems, but also opening discussions on the opportunities they could offer in terms of nature-based solutions. The Union for the Mediterranean Climate Change Adaptation Framework, Ministerial Declaration on Environment (MDEE, 2014) and on Blue Economy (Bresnall, 2017) recognise strong links between the marine ecosystem and the climate change concerns. The Barcelona Convention agreed the "Regional Climate Change Adaptation Framework for the Mediterranean Marine and Coastal Area" (R4M), and additionally considers climate change adaptation as a cross-cutting issue in the ICZM COP of (2014) and the UNEP/MAP 10th Biennial Strategy for 2016-2021 (2016-2021). At the UNFCCC COP 26, Governments recognised the need for a cross-cutting incorporation of the ocean into the work of all relevant constituent bodies and workstreams.

As reminded by the UNFCCC SBSTA (2017), protecting, and restoring nature is fundamental for resilience. Nature-based solutions include preventing and restoring blue carbon ecosystems, establishing and maintaining climate-smart MPAs, supporting climate-smart fisheries and small-scale fisheries, ecosystem-based adaptation, sustainable natural resource management, and protecting and restoring coastal ecosystems". By design, MPAs protect important coastal and marine habitats and reduce other non-climate ocean stresses (Pico, 2018; Roberts et al., 2017; Sala et al., 2017). They reduce risk and support resilience in allowing the recovery of ecosystems (Therrien et al., 2016). In doing so, they support the effective functioning of the land-ocean interface and the carbon sink function of ecosystems. They provide refuge, replacement zones, and ecologically connected corridors for shifting species. They serve as sentinel (research) sites to monitor climate change effects and climate change "shocks" to increase understanding and awareness (Sandwell et al., 2019).

The Mediterranean MPAs have both a privileged role and responsibility in climate change mitigation, resilience, and adaptation, but there is still significant progress to be made. The latest Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) Global Assessment indicates that there are "less protected areas, slower adaptation, and management takes climate change into account" while only limited studies exist on this issue, with no comprehensive synthesis (Riley et al., 2020; IPBES, 2019). Even for the most famous marine model habitats, the available information is still incomplete and fragmented, 75% of them lack knowledge to understand how climate change will impact their biodiversity and ecosystem functioning (IPBES, 2019). In the Mediterranean region, 90% of MPAs do not have the essential capacity, technology, and resources to generate and process data, including the baseline observations, data collection and interpretation (MPA Roadmap 2019).



Ecological connectivity is a determining factor for the survival and migration of species and adaptation potential of populations.

CLISSARTES: Climate-smart strategies to develop resilience in artisanal fisheries of Mediterranean Marine Protected areas (2022-2024)



Jueves, 01 de Septiembre de 2022 11:20



Título del proyecto **CLISSARTES**. Climate-smart strategies to develop resilience in artisanal fisheries of Mediterranean Marine Protected areas (2022-2024)

Financiación: AXA Research Fund. Convocatoria AXA and IOC-UNESCO "More resilient Coastal Livelihoods". Fellowships Research Project

Financiación total del proyecto: 190.000,00 €

Financiación de AXA Research Fund: 125.000,00 €

Cofinanciación del IEO-CSIC, y CSIC-VRI:
65.000,00 €

Investigadora principal del proyecto IEO: **Marina Sanz-Martin** (COB-IEO,CSIC)

Duración del proyecto: Del 01/08/2022 a 30/07/2024 (prorrogable)



CLISSARTES

CLIMATE-SMART STRATEGIES
FOR ARTISANAL FISHERIES
IN MEDITERRANEAN MPAs



**2021
2030** United Nations Decade
of Ocean Science
for Sustainable Development

Well-co
MPA

• Must go beyo

-> Improvement
continuum
is needed

• Ecoregional
connectivity
needed

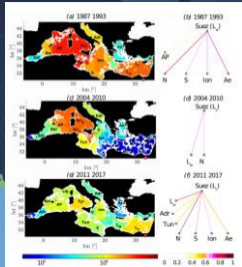
LEGEND

- MPAs with a national status
- Marine Natura 2000 sites
- Pelagic Sanctuary for Marine

- More Ecoregionalization and Modelling works on connectivity and Climate change

-> to inform ecosystem connectivity at the basin & Sub-basin scales and interannual to decadal times

-> to support the development of **resilient** MPA networks and successfully achieving 30X30 target!



Novi et al,
2021

LEGEND

- MPAs with a national statute
- Marine Natura 2000 sites
- Pelagic Sanctuary for Marine Mammals

MEDITERRANEAN MPA VISION

By 2030, Mediterranean marine protected areas will form a well established, well funded, connected, ecologically representative, effectively managed and monitored network that will provide greater benefits to biodiversity, ecosystem services and to the economic well-being of people and will be a model for resilience in the post-2020 and post-pandemic world.





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Stronger together for the Mediterranean Sea