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POLICY BRIEF

# 100MPA MEDALLIANCE- **EMPOWERING MPA MANAGERS FOR CLIMATE RESILIENCE**

*Recommendations for incorporating climate change adaptation measures in Marine Protected Areas through the endorsement and support of the* ***100MPA MedAlliance: Building resilient MPAs to face the climate emergency by 2030.***

# Executive Summary


- The Mediterranean Sea is experiencing climate change impacts at an accelerated rate, threatening marine biodiversity and the livelihoods that depend on it.

- Marine Protected Areas (MPAs) are recognised as effective nature-based solutions for climate change adaptation and mitigation. However, currently less than 8% of Mediterranean MPAs are implementing actions to address the escalating climate crisis. Besides poor governance, lack of technical capacity, and insufficient expertise continue to limit their ability to act as tools for climate resilience.

- The MPA4Change InterregEuroMed project as a facilitator and catalyst of the 100MPA MedAlliance, empowering MPAs with tools, expertise, and strategies to adapt effectively to climate change.

- The 100MPA MedAlliance, an initiative developed within the framework of MPA4Change, seeks to support at least 100 Mediterranean MPAs by 2030 in developing and implementing robust climate adaptation plans.

- Stakeholders are called upon to support this alliance through policy integration, funding and active participation, in line with regional frameworks such as the Barcelona Convention and the Union for the Mediterranean's GreenerMed Agenda.

- The goal of this brief is to build momentum and political support for the 100MPA MedAlliance, encouraging MPA managers to take action and urging governments, agencies, and funders to provide the policy, technical and financial backing needed to reach 100 climate-ready MPAs by 2030.

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# The Climate Emergency in the Mediterranean

The Mediterranean Sea is warming approximately **three times faster** than the global ocean average, with sea surface temperatures rising at unprecedented rates (Pastor et al., 2020; Garrabou et al. 2022). This makes the region one of the world's most prominent climate change hotspots.

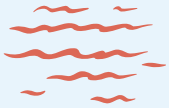
Rising temperatures, sea level rise, and increasing heatwaves and storms are causing habitat loss, shifts in species distribution, and mass mortality events that are reshaping this fragile marine environment. Without immediate and concrete actions, these losses could become irreversible. Protecting the Mediterranean is not only about preserving marine life — it is about safeguarding a vital ecological, economic, and cultural resource for future generations.

**Warming Sea Surface Temp. 0,4°C/ decade**

3 times faster than the global average

**1 - 6 Marine Heatwave events**

during the last 40 years with a duration up to 100 days



**75 - 100% of the sea affected**

each year in the last decade by Marine heatwaves

**Sea level rise 3,6 mm/year**

expected to increase

Human activities already put intense pressure on the Mediterranean: the region receives nearly 30 % of global international tourist arrivals, and studies show that over 90 % of assessed fish stocks are over-exploited. These pressures compound climate impacts, such as rising sea surface temperatures, increasing frequency and extent of marine heatwaves, and accelerating sea-level rise threatening marine ecosystems, coastal livelihoods, food security, and socio-economic stability.

However, most MPAs remain ill-equipped to respond to these escalating threats due to a combination of **limited management capacity, insufficient political support, lack of technical expertise, and weak integration of climate adaptation** into existing governance frameworks.

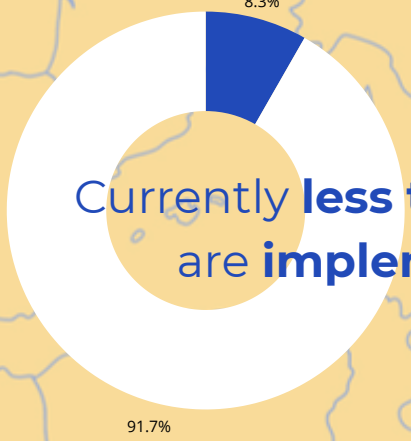
While some national initiatives exist, fragmented and uncoordinated efforts are not enough to match the scale and urgency of the crisis. Regional cooperation is essential. Policy frameworks such as the **Post-2020 Strategic Action Programme for Biodiversity (SAPBIO)** under the Barcelona Convention and the **GreenerMed Agenda** of the Union for the Mediterranean (UfM) provide a roadmap for action, but implementation remains weak, particularly in the field of marine climate adaptation, which is the focus of this initiative.

## Why the 100MPA MedAlliance?

Officially **designated Marine Protected Areas (MPAs**) — including national statutes, Marine Natura 2000 sites, and the Pelagos Sanctuary — **cover only 8.3% of the Mediterranean Sea.**

No-go, no-take, or no-fishing zones represented just **0.04%, and fewer than 8% of MPAs** had integrated climate adaptation measures into their management frameworks (UNEP/MAP, SPA/RAC & MedPAN 2020; Bernat et al., 2022; Garrabou et al., 2019; Canizzo et al., 2025; Champion et al., 2024; Corelli et al., 2024; O'Regan et al., 2021).

These gaps illustrate the urgent need for coordinated and scalable action across the region — a **need the 100MPA MedAlliance aims to meet.**




Currently **less than 8%** of Mediterranean MPAs are **implementing actions to address t**he escalating climate crisis.

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## What is the 100 MPA MedAlliance?

The **100MPA MedAlliance** is a collaborative initiative developed within the framework of the Interreg **Euro-MED MPA4Change** project. It aims to unite at least 100 Mediterranean MPAs by 2030 to enhance their resilience through climate adaptation.

The 100MPA MedAlliance supports MPAs by:

- **Empowering MPAs:** Providing ready-to-use toolkits for risk assessment, monitoring, participatory engagement, and the development of climate adaptation action plans.
- **Building Expertise:** Establishing a regional roster of experts to guide MPAs in designing and implementing climate strategies.
- **Fostering Policy Integration:** Aligning MPA management with international, EU, and Mediterranean climate frameworks — including the Kunming-Montreal Global Biodiversity Framework, the EU Biodiversity Strategy, and the Post-2020 SAPBIO under the Barcelona Convention.

By 2030, the 100MPA MedAlliance aims to have **at least 100 MPAs actively implementing climate adaptation plans, contributing to a more resilient Mediterranean Sea**.

While the initiative focuses primarily on adaptation, it **also supports broader climate resilience goals,** including the protection of blue carbon ecosystems that can contribute to mitigation.

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The 100MPA MedAlliance and the MPA4Change project **build upon a decade of work** and capitalisation across the Mediterranean.

This includes methodologies, tools, and knowledge from regional and EU-funded initiatives such as:

**MPA-ENGAGE, AMARE+, REST-COAST, LIFE ENABLE, FUTUREMARES, MSP4BIO, SEMPA, ENSERES, PHAROS4MPAs, Mediterranean Blue Forests, FishEBM Med, MERCES, SEACURE, DIVERSEA, CESNA-LB, POLICE, and MPA NETWORKS,** among others.

Projects and partners working in contrasted socio-ecological context allowed to build a shared version contribute to well-managed, climate-resilient MPAs that function as nature-based solutions across the basin.

Photo Credit: Rossy Vinchentso

# Strategic Alignment

The adoption of the MPA4Change Toolkits helps to **operationalise existing international and regional commitments**, complementing the policy frameworks already referenced in the "Policy Integration" section. In particular, the toolkits support the implementation of:

## Barcelona Convention – Integrated Monitoring and Assessment Programme (IMAP) and Post-2020 SAPBIO

IMAP defines core ecological indicators for assessing the state of the Mediterranean marine environment, while the Post-2020 SAPBIO provides a strategic roadmap for biodiversity conservation and restoration. The MPA4Change Toolkits contribute to these processes by offering harmonised, science-based methods for climate change monitoring, vulnerability assessment, restoration planning, and reporting in MPAs.

## EU Marine Strategy Framework Directive (MSFD)

As the EU's main instrument for achieving Good Environmental Status in marine waters, the MSFD requires Member States to monitor, assess, and reduce pressures on marine ecosystems. The MPA4Change Toolkits provide practical approaches that can be used within MSFD monitoring programmes and management measures, particularly in relation to climate-sensitive habitats and species.

## EU Nature Restoration Regulation (NRR)

The NRR calls for the restoration, monitoring and long-term maintenance of key marine and coastal habitats and species. MPA4Change protocols and assessment tools offer concrete methods that can underpin restoration targets, timelines and indicators in Mediterranean MPAs.

## EU Biodiversity Strategy to 2030 and EU Strategy on Adaptation to Climate Change

Both strategies promote ecosystem-based and Nature-based Solutions as core instruments for biodiversity conservation and climate resilience. By structuring climate monitoring, vulnerability assessment, restoration and participatory planning, the MPA4Change Toolkits help embed these approaches into marine and coastal governance.

## GreenerMed Agenda 2030 and UfM SBE Roadmap

The UfM Environment/Green economy Agenda, so called 2030 GreenerMed Agenda, and the UfM Sustainable Blue economy Roadmap are the implementation tools of the 2021 UfM Ministerial Declaration on Environment and Climate Action and of the 2021 UfM Ministerial Declaration on Sustainable Blue Economy respectively. Adopted by the 43 member countries of the UfM, they provide a regional, structured framework for the coordination of regional initiatives, programmes and projects, thus creating political, financial, technical and operational convergence around the priority areas of work agreed at EuroMed level. For GreenerMed, out of three main joint axes of work, Axis 3 is dedicated to biodiversity and ecosystem conservation and restoration. Over the past decade, the UfM's Environment, Green, and SBE dossiers has bridged between the green and blue dimensions of Sustainable Development at Med level, as currently reflected in recent policy developments, namely the EU Ocean and Med Pacts.

## Kunming–Montreal Global Biodiversity Framework (Targets 3 and 8)

The Global Biodiversity Framework calls for at least 30 % of marine and coastal areas to be effectively conserved and managed, with climate-resilient and well-connected MPA networks by 2030. MPA4Change, together with the 100 MPA MedAlliance initiative, directly supports this ambition by promoting climate-ready, effectively managed MPAs in the Mediterranean.

## European Ocean Pact

The European Ocean Pact is a high-level political framework designed to strengthen coordination, coherence, and investment in ocean and marine governance across the European Union and its sea basins, including the Mediterranean. It promotes a multilevel and cross-border governance framework to effectively coordinate maritime policies across all sea basins. In this context, the European Commission plans to propose an Ocean Law in 2027, with the aim of strengthening maritime spatial planning as a strategic tool, improving cross-sectoral coordination, and ensuring consistent implementation of ocean objectives. The Pact also reinforces the protection and restoration of marine biodiversity, highlighting the key role of an effective and well-managed network of Marine Protected Areas. Although the EU has achieved 12.3% protection of its waters, Member States are urged to move towards the target of protecting 30% of the seas by 2030, with management plans grounded in science and supported by the participation of local communities (COM(2025) 281 final, p. 7).

## Pact for the Mediterranean

The Pact for the Mediterranean addresses the combined impacts of climate change, pollution, and biodiversity loss by strengthening environmental and climate resilience across the region. It promotes effective planning and the coordinated mobilisation of public and private funding at both national and international levels, with a strong emphasis on regional cooperation and local partnerships. Anchored in the framework of the Barcelona Convention, the Pact supports a clean transition and climate-resilient economic development in the Mediterranean, with particular attention to the implementation of the Global Biodiversity Framework and the strengthening of protected areas, especially Marine Protected Areas (JOIN(2025) 26 final, p. 14).

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# Lighthouses of Change: Pilot MPAs Leading the Way

The MPAs engaged by the **100MPA MedAlliance** serve as **lighthouses**, guiding neighbouring MPAs in adopting climate adaptation strategies and improving management effectiveness. Their strategic geographical distribution facilitates the spread of best practices, encouraging other regions to implement similar solutions. By fostering regional cooperation and strengthening connections across the Mediterranean, this approach amplifies conservation efforts, enhances biodiversity protection, and contributes to a more resilient Mediterranean MPA system.

Building on pilot experiences and strong regional collaboration, the MPA4Change project has validated a suite of eight complementary, operational toolkits, successfully tested in diverse socio-ecological contexts across the Mediterranean over the past decade. **More than 30 partners** — including MPA management bodies, research teams, and NGOs from nine Mediterranean countries — have co-developed and applied these toolkits, ensuring their effectiveness, transferability, and adaptability to different governance and ecological contexts.

The MPA4Change toolkits are structured, practical resources designed to support MPA managers throughout the full process of designing, implementing, and scaling local climate adaptation strategies, translating EU and Mediterranean policy objectives into concrete action at site level.

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The validated MPA4Change toolkits include:

**#1 Socio-ecological vulnerability assessment**

**#2 Monitoring of climate change effects on biodiversity**

**#3 Ecosystem restoration**

**#4 Citizen science and public engagement**

**#5 Participatory approach and stakeholder engagement**

**#6 Adaptation action plan development**

**#7 Geographic Information Systems for MPAs**


**#8 Awareness and communication on climate change challenges**

Together, these toolkits cover data collection and ecological monitoring, current and future vulnerability assessments, participatory governance approaches, spatial analysis, restoration planning, and strategic communication, converging in the development of robust, locally grounded climate adaptation action plans for **Mediterranean MPAs.**

**At present:**

**70+** monitoring sites in **25+** MPAs across **11** Mediterranean countries record sea temperature via T-MEDNet, providing continuous data on warming and marine heatwaves.

Vulnerability assessments have been completed in several local MPAs, guiding managers on climate risks and adaptation options.

**+3,000** volunteers, **60** scientists and **250+** partner entities contribute through Observadores del Mar, with **13,000+** citizen observations supporting ecological monitoring.

**Hundreds** of managers and stakeholders trained in online and field sessions are now equipped to integrate adaptation into daily MPA management.

> *"Citizen science allows us to monitor changes in real-time and engage our community. This creates ownership and faster reaction when problems arise." — Giorgio Fanciulli, MPA manager, Portofino MPA (Italy)*

> *"Participatory adaptation planning helped us align eco-tourism and seagrass protection — we now involve all stakeholders in implementation." Marno Milotić- Brijuni National Park director (Croatia)*

## Call to Action: How You Can Support the 100MPA MedAlliance

### Why Now?

The upcoming **EU Multiannual Financial Framework (2028–2034)**, the Barcelona Convention COP24, the emergence of a Mediterranean macro-regional strategy, and the UfM's 2030 GreenerMed Agenda create a timely policy window to scale adaptation efforts across MPAs. This brief is designed primarily as an outreach document for MPA managers. By joining the **100MPA MedAlliance**, MPAs gain access to tools, technical guidance, and visibility as part of a broader Mediterranean effort.

While MPA managers and site-level practitioners are the main audience, this brief also conveys strategic messages for political and institutional actors. Mediterranean stakeholders are encouraged to:

- (1) **Adopt joint climate adaptation measures** under frameworks such as the Barcelona Convention COP24.
- (2) **Ensure that marine climate adaptation is prioritised** in the post-2027 EU Cohesion Policy programming, especially under the European Regional Development Fund (ERDF) and related instruments currently under consultation.
- (3) **Formally endorse the 100 MPA MedAlliance** as a shared regional initiative for climate resilience implementation and recognition across the Mediterranean.

## For MPA Managers

- Join the **100MPA MedAlliance and partner networks such as MedPAN and EUROPARC** to access toolkits, training, and expert support for Marine Protected Areas.

- Advocate within your networks and institutions for the endorsement of the **100MPA MedAlliance** and the integration of climate change adaptation plans into local, regional, and national marine and biodiversity policies.

- Implement and showcase best practices, such as:

    - **Conducting integrated actions** such as harmonised monitoring, vulnerability assessments, participatory engagement, and adaptation planning, as tested under the Interreg Med transferred under the MPA4Change project.

    - **Disseminating outcomes**—e.g., how Portofino uses citizen science for real-time alerts, and Brijuni's integration of nature-based restoration into management plans.

## For Policy Makers

- Integrate climate adaptation into national and regional MPA policies using proven frameworks such as the **MPA-Engage Joint Governance Plan** and in alignment with regional strategies like the Post-2020 SAPBIO under the Barcelona Convention and the **Greener MedAgenda**.

- Harmonise monitoring and assessment protocols by adopting the standardised tools transferred through the **MPA4Change toolkits**, including common guidelines and templates for climate monitoring. These tools support alignment with **EU-level frameworks** (e.g. Marine

Strategy Framework Directive – MSFD) and regional mechanisms such as IMAP under the Barcelona Convention, improving data comparability and policy coherence.

## For Donors & Institutions

- Support climate-resilient MPAs through targeted investment in capacity-building and training programmes, such as those developed under **MPA4Change** and to be scaled up through the **100MPA MedAlliance.**

- Explore regionally relevant blended-finance approaches where national frameworks allow — including **EU-aligned schemes** such as nature credits, results-based restoration finance, and **Blue Natural Capital** initiatives.

- While innovative tools like blue carbon bonds and debt-for-nature swaps have been piloted globally (e.g. Seychelles, Bahamas), their application in the Mediterranean requires enabling policies and investment frameworks at national and regional levels.

- Aligning donor strategies with the **EU Nature Restoration Regulation**, **GreenerMed Agenda, and Barcelona Convention** objectives will ensure coherence and impact.

Photo Credit: Teo Marevic

## Contact & Endorsement

This policy brief is produced under the Interreg Euro-MED MPA4Change project.

Contact:

- info@100mpamedalliance.org
- https://mpa4change.interreg-euro-med.eu/contact-us/

Website:

- MPA4Change: https://mpa4change.interreg-euro-med.eu/
- 100MPAMedAlliance.org: 100MPAMedAlliance.org

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### About this Policy Brief

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