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MARINE PROTECTED AREAS AND CLIMATE CHANGE

- Marine Protected Areas (MPAs) are **areas of the ocean set aside for long-term conservation aims**.
- MPAs **support climate change adaptation and mitigation** while **providing other ecosystem services**.
- Currently **6.35% of the ocean is protected**, but only **just over 1.89% is covered by exclusively no-take MPAs**.
- Most existing MPAs **do not have enough human and financial resources** to properly implement conservation and management measures.
- **Increased political commitments** can help boost the governance of and resources available to MPAs.

What is the issue?

Marine Protected Areas (MPAs) – areas of the ocean set aside for long-term conservation aims – are the only mainstream conservation-focussed, area-based measure to increase the quality and extent of ocean protection. **MPAs and their network offer nature-based solution to support global efforts towards climate change adaptation and mitigation.**

MPAs – such as Cook Islands Marine Park and Papahānaumokuākea Marine National Monument in the US – currently cover about 6.35% of the ocean. However **only just over 1.89% of that area is covered by exclusively no-take MPAs** that do not allow any fishing, mining, drilling, or other extractive activities. This is far from the commitments of States made in relation to the Convention on Biological Diversity's (CBD) Aichi Target 11 of 10% MPA coverage by 2020, and even further from the recommendations made at the IUCN World Parks Congress 2014 that at least 30% no-take MPA coverage worldwide is needed.

Most existing MPAs do not have enough human and financial resources to properly implement conservation and management measures. Added to this critical situation is a spatial disparity: **seven countries have established around 80% of the surface of the MPAs** in the ocean. The high seas, covering over half the Earth, still lack a framework through which MPAs can be established.

Lack of strictly and permanently protected MPAs limits our ability to support climate change adaptation and mitigation. However, to reduce the overall

climate change impacts on oceans, such as ocean warming, substantial cuts in greenhouse gas emissions are still urgently needed.

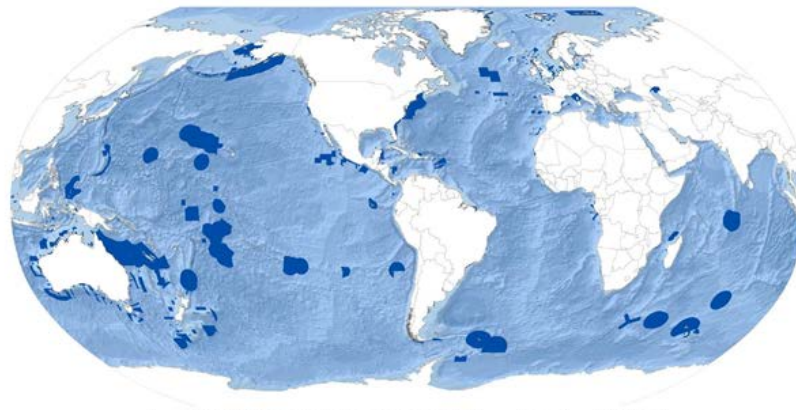
Why is this important?

Establishing MPA networks is critical to maintaining climate change resilience and rebuilding ecological and social resilience. For example, MPAs that protect coastal habitats such as barrier islands, coral reefs, mangroves and wetlands reduce human vulnerability in the face of climate change and provide the natural infrastructure (e.g. storm protection) on which people rely.

Strictly protected MPA networks in coastal carbon habitats (mangroves, seagrasses, salt marshes) can ensure that no new emissions arise from the loss and degradation of these areas. At the same time, they stimulate new carbon sequestration through the restoration of degraded coastal habitats.

MPAs, while not impervious to all climate change impacts, provide areas of reduced stress, improving the ability of marine organisms to adapt to climate change. **Well-integrated MPA networks can increase species survival** by allowing them to move around and escape certain pressures. In addition, MPAs where stressors are controlled can be used as sentinel (research) sites to help **track the effects of climate change**. This is consistent with the research and systematic observation obligations of countries under the UN Framework Convention on Climate Change (UNFCCC) and other international agreements.

Official MPA Map



Source: UNEP-WCMC AND IUCN (2017). Protected Planet: The World Database on Protected Areas (WOPA) [On-line]. September, 2017, Cambridge, UK: UNEP-WCMC. Available at www.protectedplanet.net



6.35% of the Global Ocean covered by protected areas
1.89% exclusively no-take.



What can be done?

Measures to address current impacts of climate change on the ocean include significantly cutting emissions, upscaling proper protection for marine ecosystems to retain resistance and rebuild resilience, as well as implementing sustainable practices for all industries and uses across the ocean.

Coastal states are well positioned to make use of MPAs for ecosystem-based adaptation and mitigation as a 'no-regret' climate change strategy. Processes such as Integrated Coastal Zone Management (ICZM) and Marine Spatial Planning (MSP) can be used by countries to improve the management of MPAs and help meet multiple objectives, including sustainable development, biodiversity conservation as well as climate change adaptation and mitigation.

Adaptation strategies, including National Adaptation Plans and Programmes of Action, as well as mitigation efforts such as REDD+ (Reducing Emissions from Deforestation and Forest Degradation) and Nationally Determined Contributions (NDCs) under the Paris Agreement, provide opportunities to use MPAs as an implementation tool for ecosystem-based adaptation and mitigation.

Climate finance mechanisms enable increased support for the implementation of marine and coastal ecosystem-based adaptation and mitigation. For example, the Green Climate Fund (GCF) offers an opportunity for developing countries to receive support for mitigation and adaptation efforts, with a focus on biodiversity conservation and protected area management.

Coastal ecosystem protection can benefit from the Poznan Strategic Program on Technology Transfer, implemented by the Global Environment Facility, and the work of the UNFCCC's Technology Mechanism.

Increased political commitments at different levels (national, regional and international) can help boost the governance of and resources available to MPA programmes. This can ensure that MPAs are effective and sufficient in number to fulfil their potential as a key tool for climate change mitigation and adaptation.

Ahead lies the challenge to revise the global MPA strategy and emphasise the strong linkages between climate, sustainability and biodiversity efforts, through existing international regimes such as the UNFCCC and CBD. A new agenda for building a truly representative, consistent and resilient MPA network to face both climate change and the loss of biodiversity would be highly beneficial.

Where can I get more information?

IUCN Global Marine and Polar Programme: iucn.org/marine

Protected Planet: Marine Protected Areas: protectedplanet.net/marine

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