## OCEAN GOVERNANCE PROJECT

Protecting and restoring marine ecosystems, catalysts for building peace and security and fostering sustainable economies, Southeast Asia and Atlantic Ocean basin

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WEBINAR ON CLIMATE CHANGE AND MARINE PROTECTED AREAS 20 JULY 2022









## CLIMATE CHANGE & MPAs / MPA NETWORKS:

- MPAs can play an important role in climate change mitigation and adaptation, as they represent areas of reduced human pressure and concentrated conservation efforts.
- If well-managed, they can contribute to build resilience for both coastal communities and marine biodiversity.

MORE MPAS ARE NEEDED TO RESPOND TO CLIMATE CHANGE

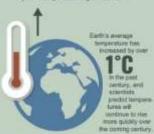
## **CLIMATE IMPACTS**



#### **CARBON DIOXIDE**

Increasing surface; attropichers, and occurs. temperatures since the mid-20th sentury are primarily caused by human activities. enpointly greenhouse games emissions. such as carbon doodle, much of which is produced by the burning of focal fuels.

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#### **HOW IS CLIMATE CHANGE IMPACTING** THE OCEAN?

The comm has absorbed over 93% of the excess heat from greenhouse green, but its addity to buffer climate change impacts has become overlanded.

#### WARMING OCEAN >

6.8° C since 1900. Warmer waters can demand or the demand of the control of the c less proper to sustain martre life, charge occur currents, and generate more interes storms



### SEA LEVELS -

warming bosen and melting. placiers affect coastal fratetions including many major cities.



The potent has become 30% more acidic over the Increased certon disable, reducing the utility of marine the to form shells and abelightins and affecting the open fool web.

#### EXTREME > WEATHER EVENTS

damage both Purpost and exployed communities Marrie heal waves (actionally warm temperatures over extended periods) can cause mass mortality of

## PROTECTED AREAS (MPAs) HELP ADDRESS **CLIMATE IMPACTS**

MPAs can play a key role in promoting climate resilience as part of an ecosystem approach to management.

> Protect marine acosystems by reducing harmful impacts from non-climate stressors so that healthy

> > resources can bette

withstand climate

enpacts and sustain

lives and livelihoods

#### WHAT IS AN MPA?

MPAs are desert defined. geographic ereas in the ocean that are dedicated to and managed for the longterm upmervation of nature together with the accovators services and outural values they provide.

Protect "blue carbon" habitats such a seagrasses, mangroves, and salt mars! that store huge amounts of carbon.

Protect coastlines and coastal communities from storm impacts (e.g., wetland. mangrows, and coral reef buffers).

As networks, protect species on the move due to climate impacts, and provide "insurance" if some MPA resource are harmed by climate-driven warming, disease, or storms by protecting

them in other areas.

## RISING







## **CLIMATE CHANGE & NETWORKS OF MPA MANAGERS**

Creating new MPAs is not enough

Management is crucial, and Networks of MPA managers have a KEY role:

- are a cornerstone to achieve management effectiveness and have the potential to accelerate the implementation of MPA strategic targets with direct impact on ocean conservation at every scale
- take advantage of existing initiatives and partnerships and help to connect with people acting on the ground while providing them with a global framework and the "big picture" of marine conservation
- are platforms addressing common management and conservation challenges
- gather stakeholders for an effective management of marine biodiversity and create linkages with actions on the ground, they facilitate relevant decision-making processes, at local, national, regional and international levels
- they exist at national and regional levels; they also interact from national to regional levels and they join forces between different regions, at global level.

# A changing mediterranean coastal marine environment under predicted climate-change scenarios

A manager's guide to understanding and addressing climate change impacts in marine protected areas



2012 FIRST PUBLICATION















#### **TRAINING CLIMATE CHANGE IN MEDITERRANEAN MARINE** PROTECTED AREAS

A regional training workshop for Mediterranean MPA managers

#### SUMMARY REPORT













WITH THE FINANCIAL SUPPORT OF





















## **MPAs & CLIMATE CHANGE IN THE MEDITERRANEAN**

2013 TRAINING (Cadaqués, Spain)



# MPAs & CLIMATE CHANGE IN THE MEDITERRANEAN 2013 TRAINING OBJECTIVES

- Provide MPA practitioners with relevant Mediterranean background information on observed effects of climate change on the ecosystems their MPAs aim to protect
- Provide a range of monitoring tools to demonstrate how the questions MPA managers ask concerning observed or potential adverse effects on key species/habitats within their MPA could be addressed using simplified protocols.
- Present collaborative web-based platforms for data management and analysis were presented (<u>www.t-mednet.org/</u> - <u>www.iucn-medmis.org/</u> - <u>www.seawatchers.org/</u>).



# MPAs & CLIMATE CHANGE IN THE MEDITERRANEAN 2013 TRAINING CONTENTS



- MPAs as observatories of Mediterranean changes
- Why is it important to monitor climate change in MPAs?
- Monitoring for MPAs: 'Science for management'
- Simplified tools/protocols for MPA managers
  - Monitoring coastal temperatures and water column stratification
  - Assessing the conservation status of key macrobenthic species: gorgonian populations
  - Assessing the abundance of indicator fish species

## MPAs & CLIMATE CHANGE IN THE MEDITERRANEAN

#### **2013 TRAINING OUTCOMES**

- <u>Creation of T-MedNet</u>: Network for the monitoring of coastal water temperat
- <u>Support to several MPAs</u> to acquire equipment to contribute to T-MedNet



# MPAs & CLIMATE CHANGE IN THE MEDITERRANEAN EU PROJECTS

- MPA -Adapt project (lead by IUCN Med, MedPAN associated partner) <a href="https://mpa-adapt.interreg-med.eu/">https://mpa-adapt.interreg-med.eu/</a>
- MPA-Engage project (lead by CSIC, MedPAN associated partner) <a href="https://mpa-engage.interreg-med.eu/">https://mpa-engage.interreg-med.eu/</a>



# MPAs & CLIMATE CHANGE IN THE MEDITERRANEAN MPA -Adapt project



 Capacity-building: provide guidance to MPA managers, MPA staff involved in management activities and local administrations on adaptation management in response to climate change impacts on marine and coastal environments.

https://www.iucn.org/news/mediterranean/201706/capacity-building-adaptation-mediterranean-marine-protected-areas

- Raise awareness on the need to integrate adaptation into MPA management plans
- Tools: https://mpa-adapt.interreg-med.eu/what-we-achieve/deliverable-library/

# MPAs & CLIMATE CHANGE IN THE MEDITERRANEAN MPA-Engage project



Develop and test monitoring protocols

Vulnerability assessments

- Citizen science and participatory approaches
- Tools: <a href="https://mpa-engage.interreg-med.eu/what-we-achieve/deliverables-database/">https://mpa-engage.interreg-med.eu/what-we-achieve/deliverables-database/</a>

## MPAs & CLIMATE CHANGE IN THE MEDITERRANEAN

## **MedPAN SMALL PROJECTS**

• <a href="http://medpan.org/development-of-guidelines-for-implementation-of-blue-carbon-in-the-mpa-telascica-management-plan/">http://medpan.org/development-of-guidelines-for-implementation-of-blue-carbon-in-the-mpa-telascica-management-plan/</a>

## **MedPAN POLICY PAPER**

Includes a section on climate change



# Ocean Governance Project Continuity and enlargement of activity with MPA managers

- Highlighting the role of MPA Managers
  - The EU focused on the importance of MPA managers to achieve tangible results in conservation, preservation and policy outreach. All the actors and pieces were there, we put them together

- Shared problematics in both sides of the Atlantic: the Transatlantic Project (2016-2019)
  - Identification and design of three Twinning/partnership Projects: Resilience, Marine Mammals and Networks of MPA Managers
  - Success in Connecting MPAs from both sides of the Atlantic, and sharing results. Now expanding to SEA

## MPA Networks Common Strategy: 4 Strategic Axes

- 1. Sharing information, knowledge and tools
- 2. Building network capacity
- Policy support/advocacy

4. Financing

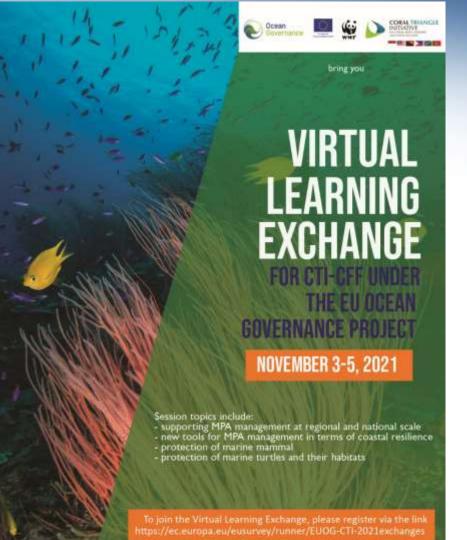
STRATEGY FOR SUSTAINABLE FINANCING OF MPA NETWORKS PARTICIPATION IN INTERNATIONAL EVENTS AND PROCESSES DESK STUDY ON "NETWORKS EFFECTIVENESS"

# Sharing information, knowledge and tools & building network capacity

## **Resilience Self-Assessment Tool**







Learning Exchanges for MPA management in South-East Asia

Kota Kinabalu (Malaysia, October 2022)

## Thank you for your attention

https://oceangovernance4mpas.eu

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