

# Showcase of planning sites



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# Campania Planning Site

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# Key characteristics and planning objectives



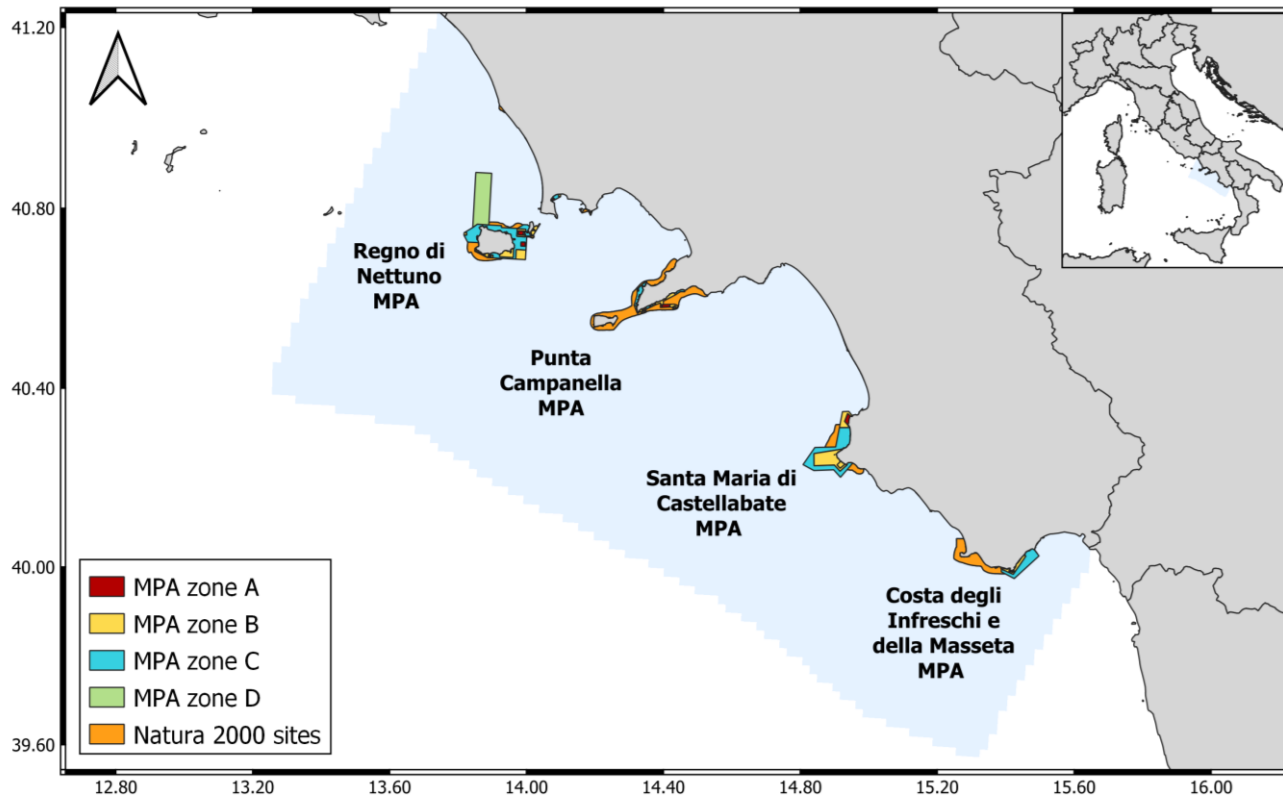
Covered surface area: 14328 km<sup>2</sup> - 400 km of coastline

About 7% of regional sea is under protection regime

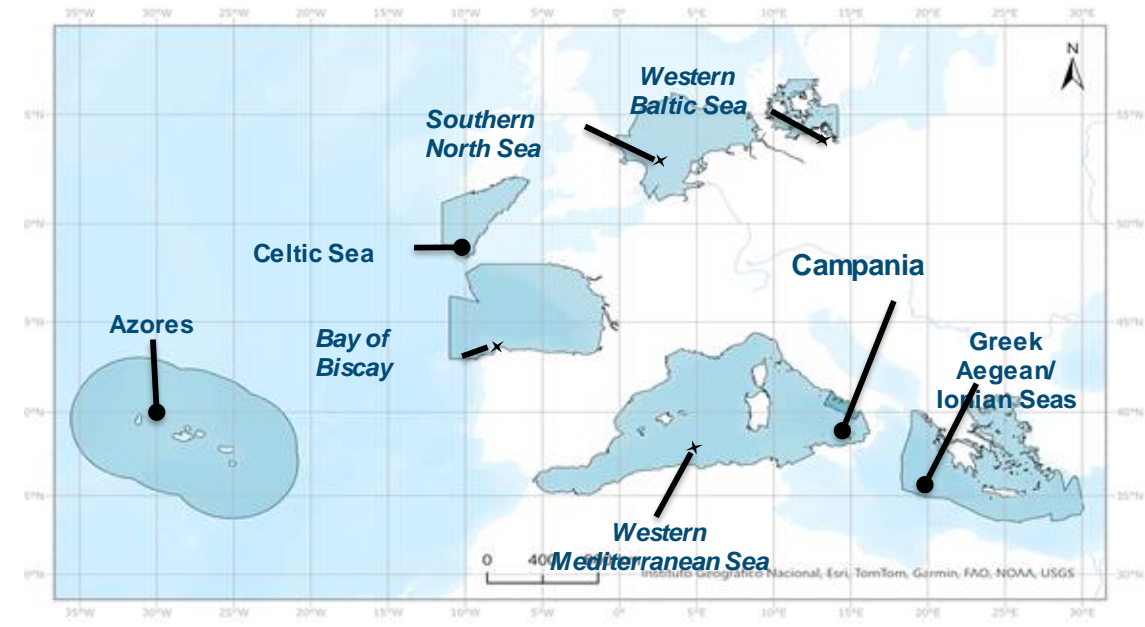
MPAs (1,6 %)

Strict Protection (0,1%)

Natura 2000 Sites (4,9 %)



Biodiversity hot spot

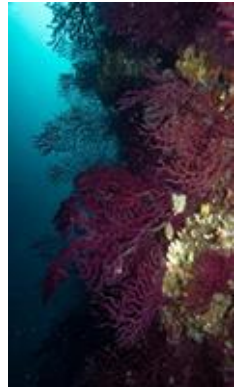
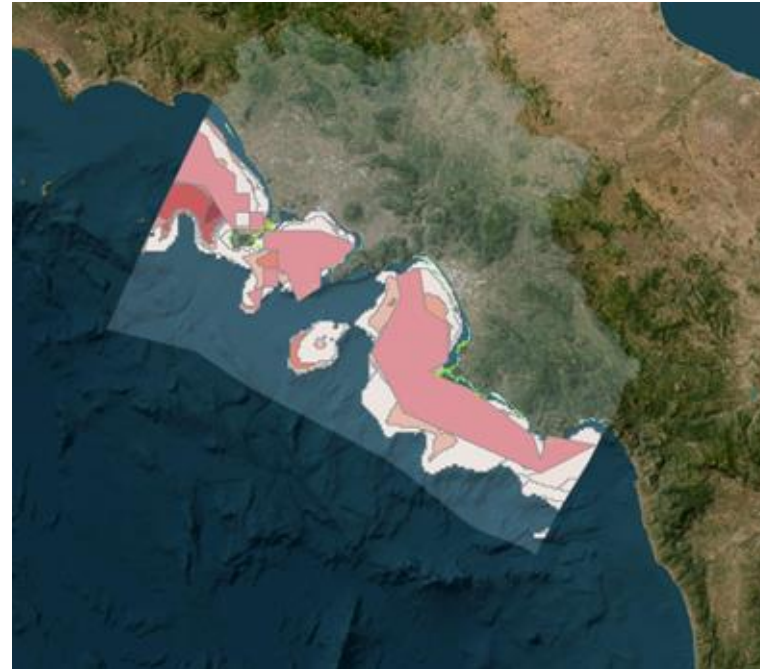
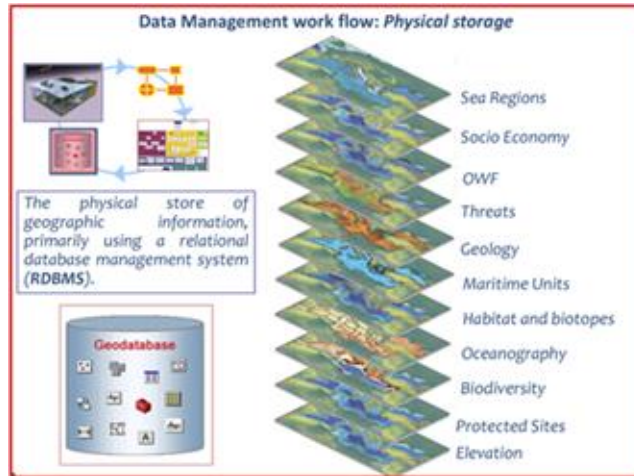


# Key characteristics and planning objectives

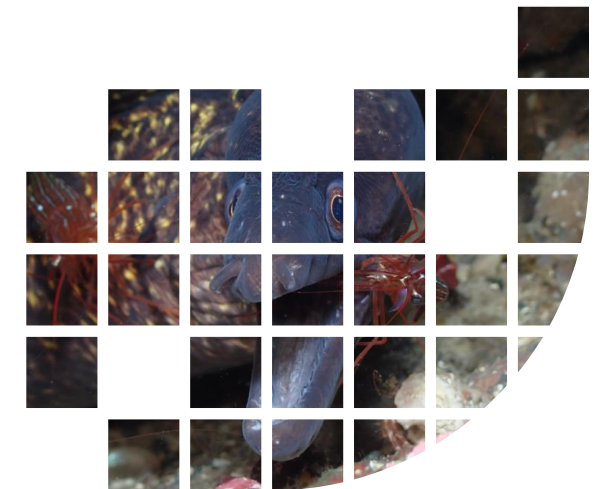


## Biodiversity features

### Marine Geoportal of the Campania Region (FEAMP)



**Coralligenous; Seagrasses; Macroalgal forests; Maerl beds; Deep coral and oyster reefs; Important Marine Mammals Areas; Important Birds Areas; Anchovies; Scombridae; Essential fish habitats (10 species); Important Sharks and Rays Areas; Sea turtle nests**



# Key characteristics and planning objectives



Marine Geoportal of the Campania Region (FEAMP)

## Human uses

Aquaculture

Industrial fishery

Small scale fishery

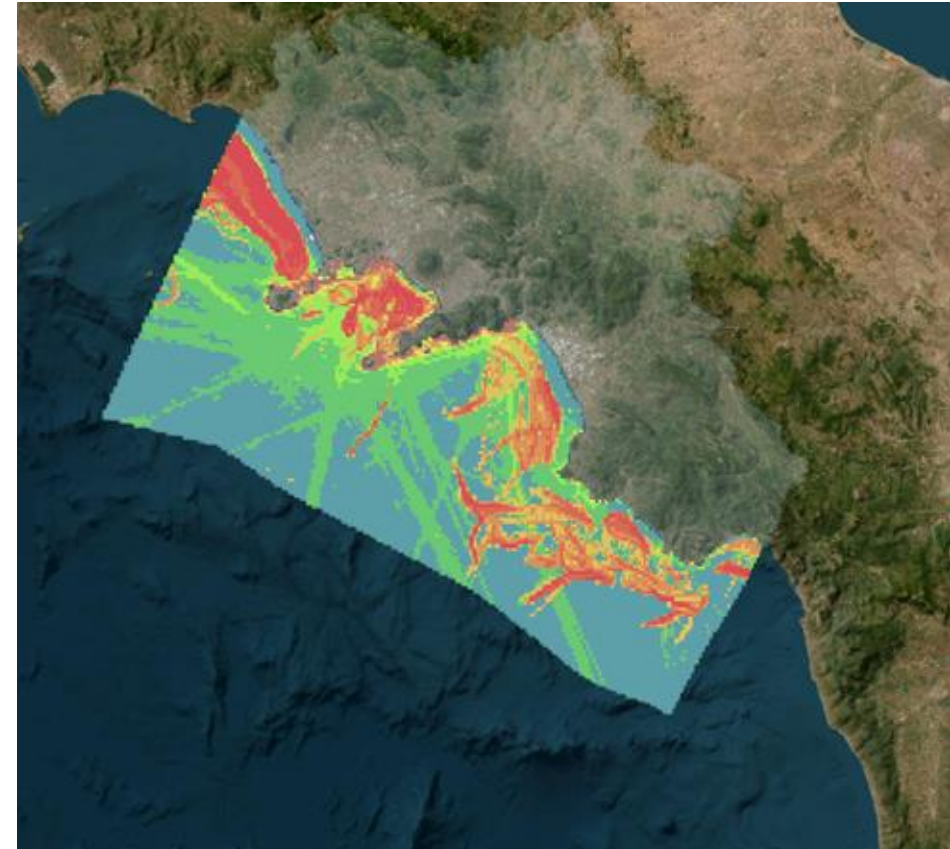
Marine transport

Tourism

Urbanization



Cost layer



# Key characteristics and planning objectives



## Planning Objectives

1- Assessing the effectiveness of present protection schemes in the region by nationally designated Marine Protected Areas, Natura 2000 Sites and Fishery Restricted Areas, considering EBSA criteria

2- Identifying additional protection and restoration priorities to revise and expand present conservation measures and achieve EU Biodiversity targets in a human dominated seascape

3- Including the consideration of connectivity to build present and future scenarios of protection and restoration

All steps include the participation of stakeholders at local scale such as Management Bodies of MPAs (Regno di Nettuno, Punta Campanella, Costa infreschi e Castellabate), NGOs (Marevivo, WWF, Lega Ambiente), fishing industry (Federpesca, Coldiretti), and also the regional / national authorities responsible for the MSP, MSFD and MPA designations and fisheries management (GFCM, EU Dg Mare)

# Key characteristics and planning objectives



## Italian MSP

Results of the application of the **Maritime Spatial Planning Directive (2014/89/EU)** at Campania PS scale

**Dedicated areas identified by the plan:**

Fishery

Aquaculture

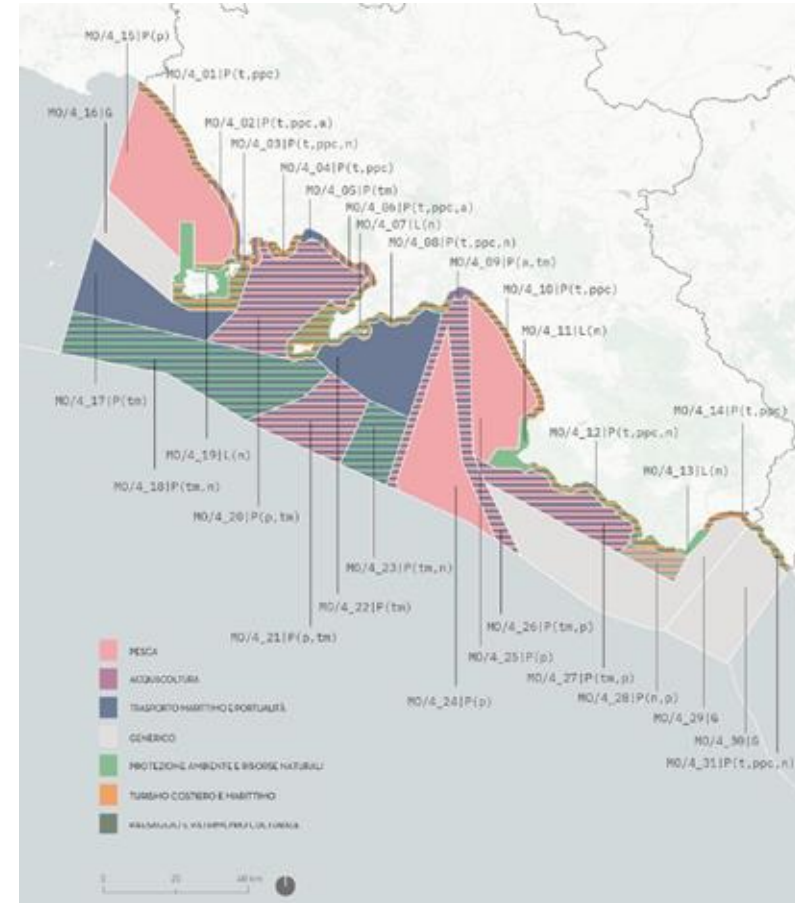
Marine transports

Tourism

Cultural heritage

Conservation and natural resources

  
Ministero delle Infrastrutture e della Mobilità Sostenibile  
DIPARTIMENTO PER I TRASPORTI E LA NAVIGAZIONE  
DIREZIONE GENERALE PER LA VIGILANZA SULLE AUTORITÀ DI SISTEMA PORTUALE,  
IL TRASPORTO MARITTIMO E PER VIE D'ACQUA INTERNE



# Key results

## Realistic scenario



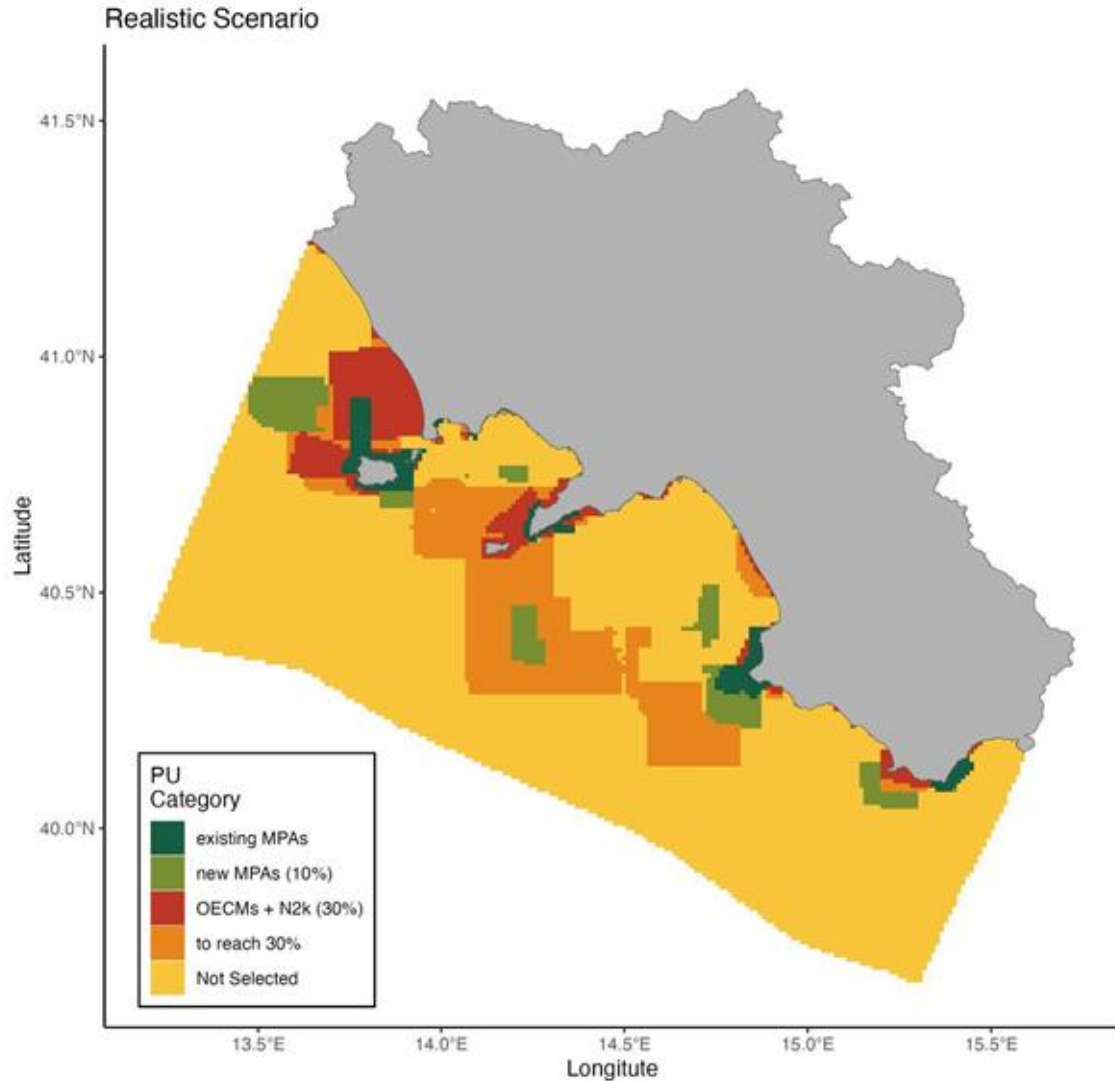
### Conservation targets: 30% protection – 10% strict protection

Activities	Zone 1 - No take, no access	Zone 2 – Partial protection	Zone 3 – General use
Industrial fishery			✓
Small scale Fishery		✓	✓
Aquaculture			✓
Marine transport		✓	✓
Tourism		✓	✓
Cultural heritage	✓	✓	✓
Conservation	✓	✓	✓
Contribution to the conservation targets	100% to the 10%	100% to the 30%	0%



# Key results

## Realistic scenario



### To reach the 10%:

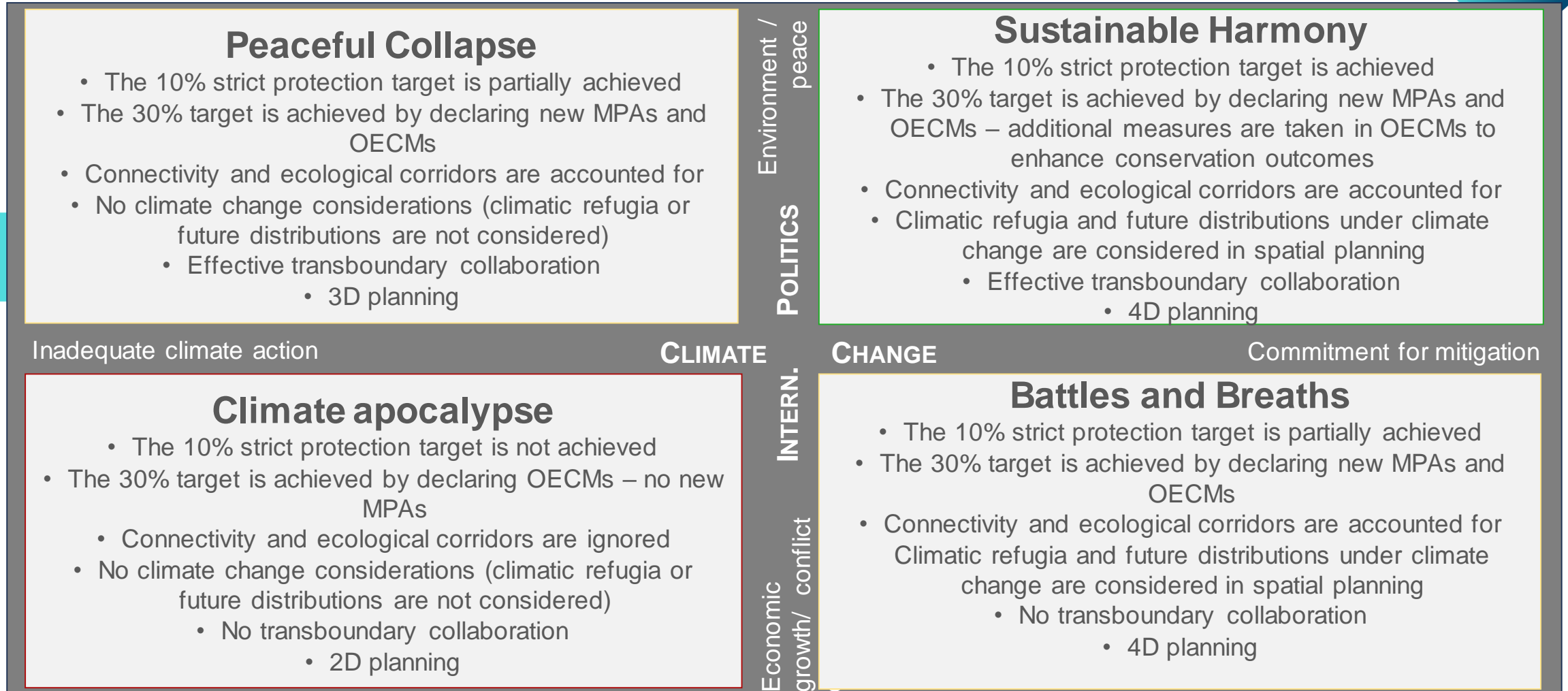
- All the existing MPAs should be under strict protection regime and additional buffer areas should be included within their boundaries.
- existing N2kS can be critical but should be enforced to contribute to the percentage of areas under strict protection

### To reach the 30%:

- Recognizing the role of OECMs.
- Declaring new protected areas including offshore areas beyond 12 nautical miles

# Key results

## Other scenarios

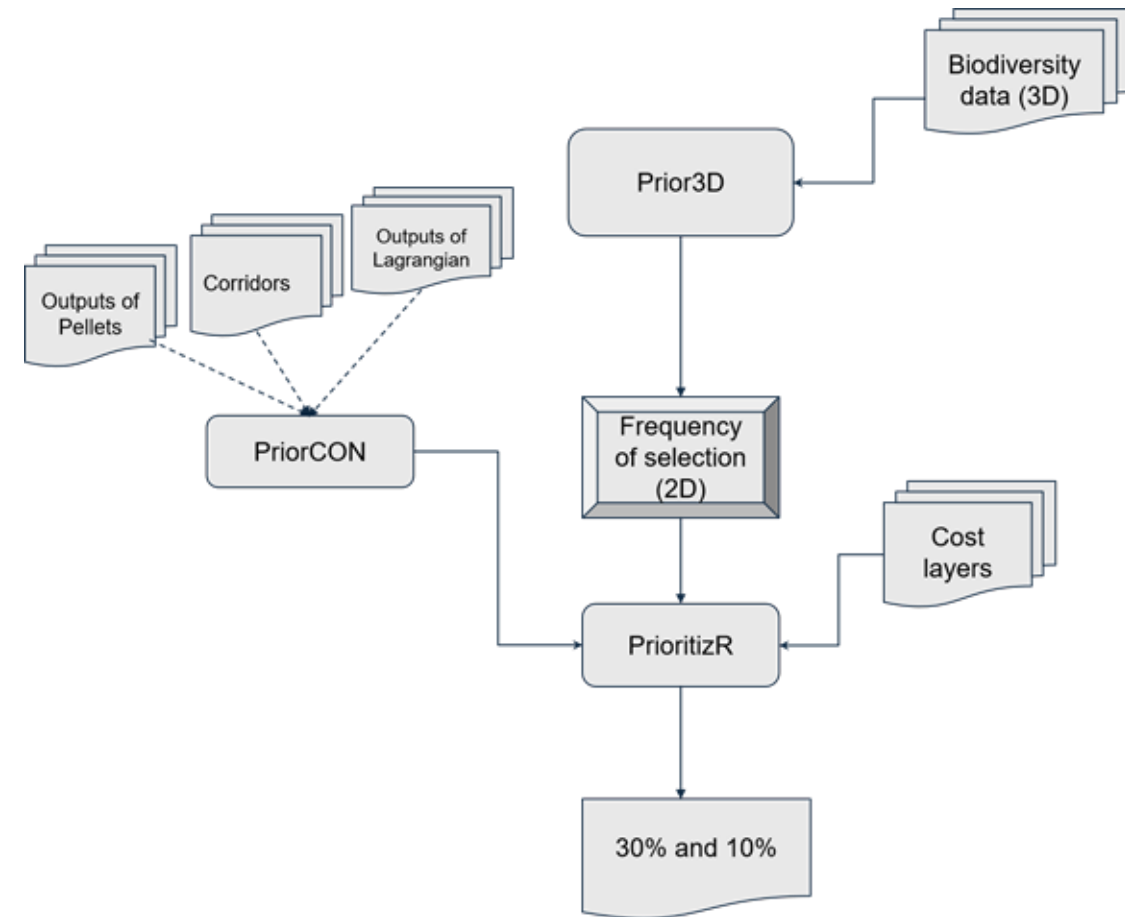
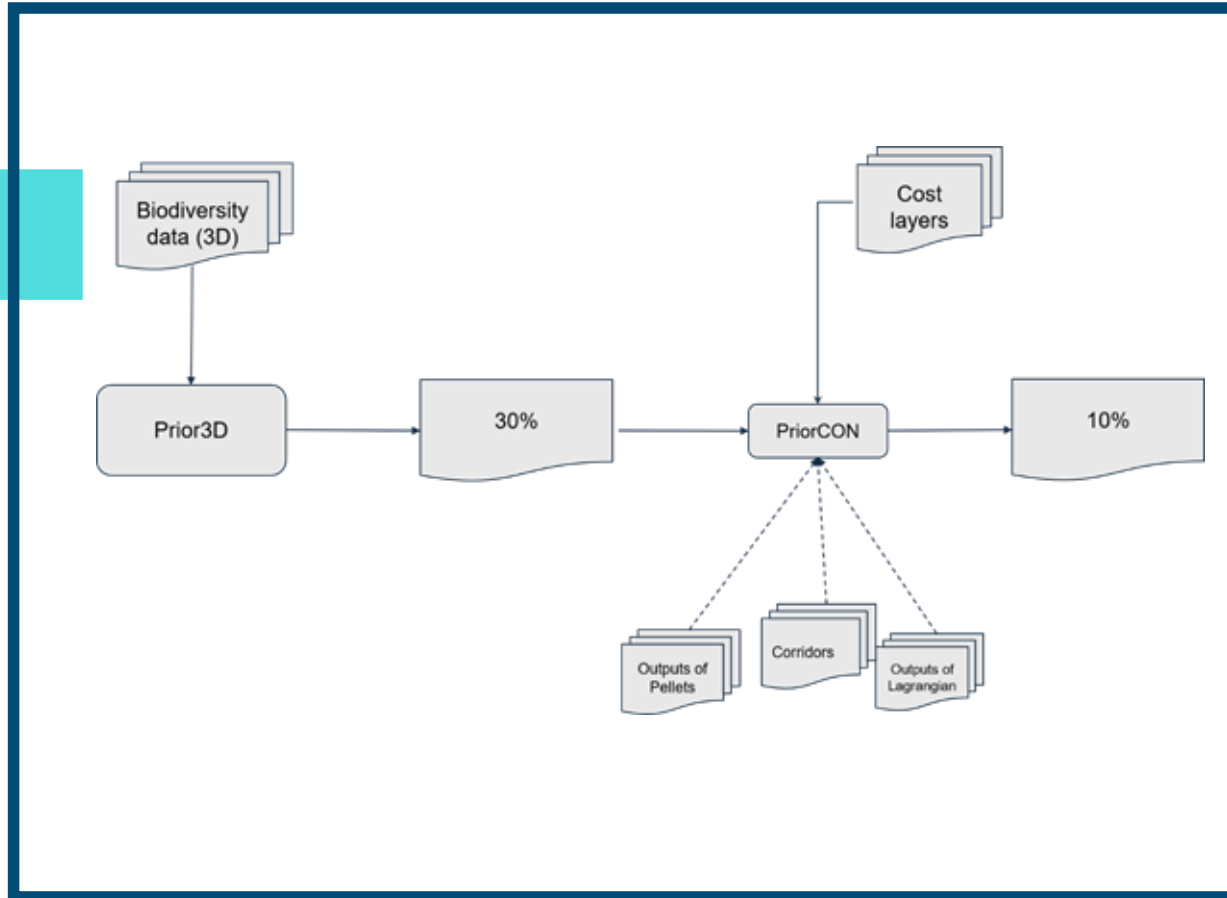


# Key results

Other scenarios



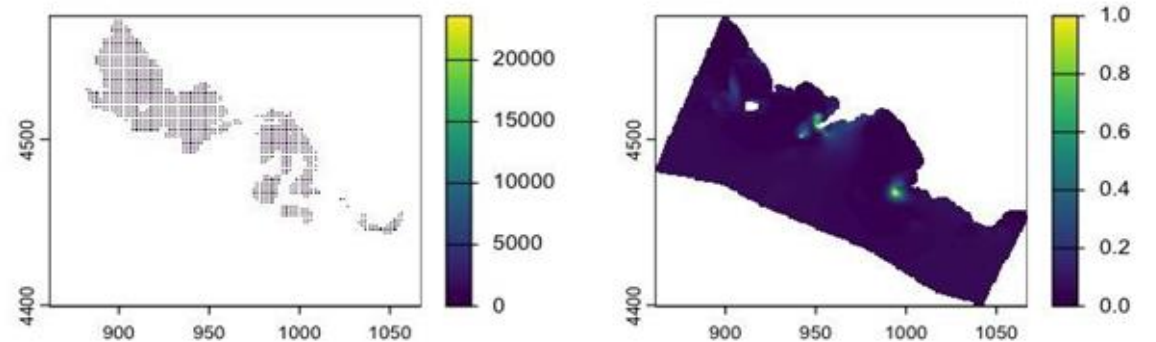
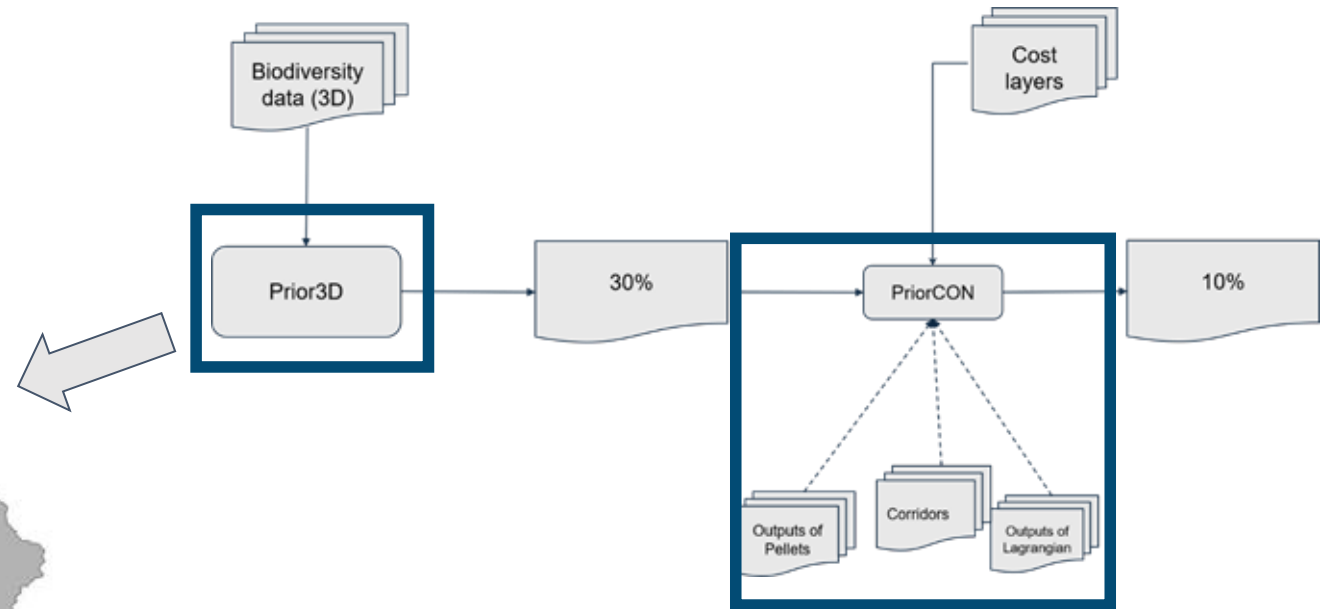
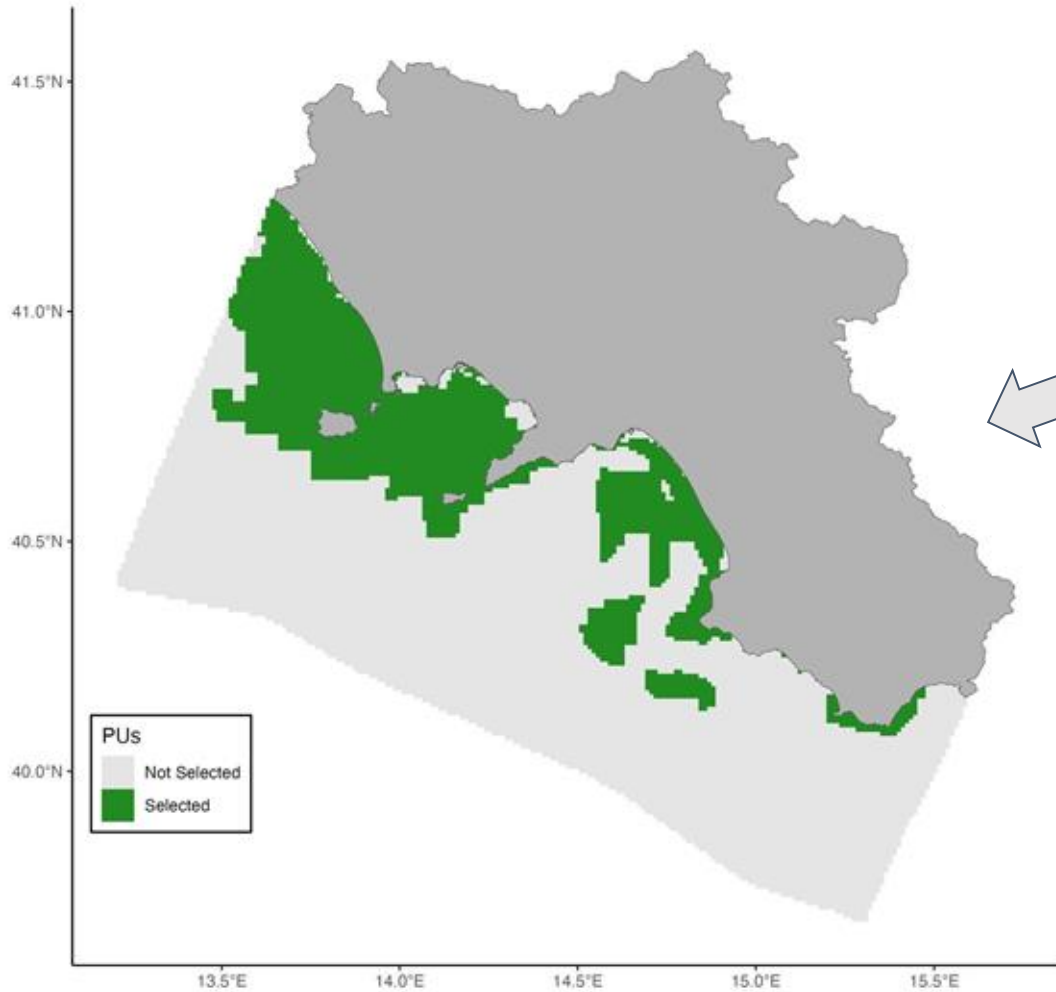
## Planning options Two alternative workflows



# Key results

## Other scenarios

## Prior3D and PriorCON



3D Plan - PUs selection for 30%

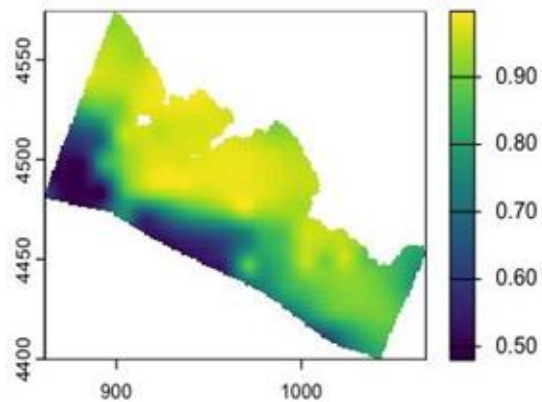
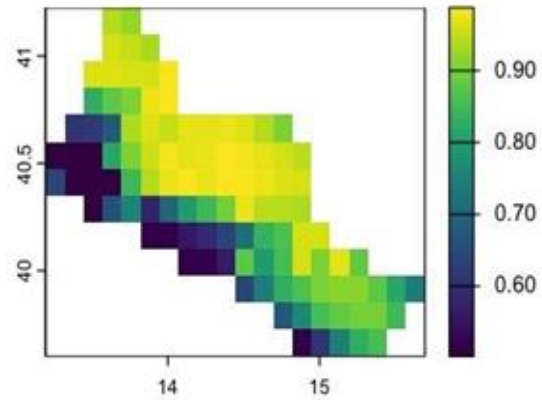
# Key results

# Climate change

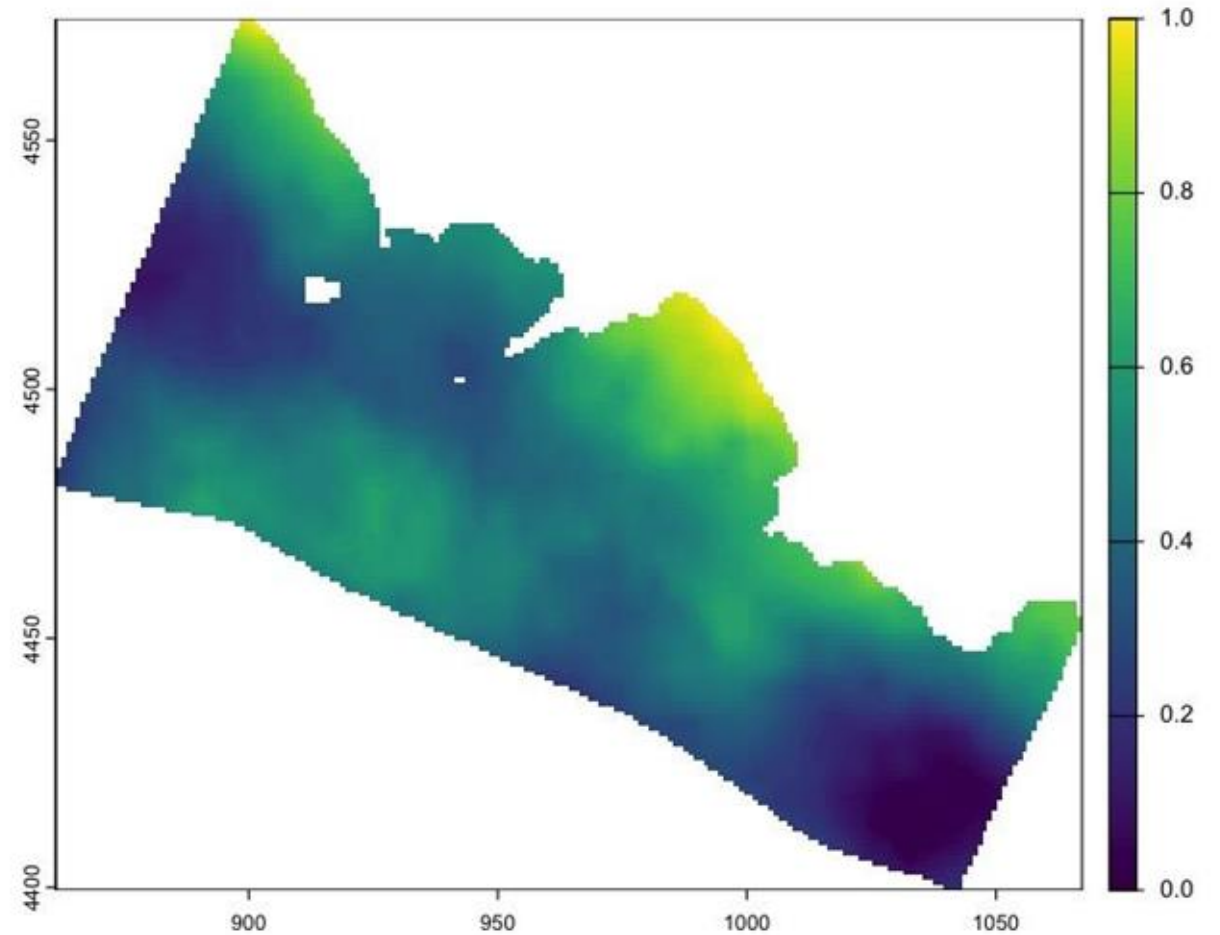


## Other scenarios

Index of climatic refugia (Doxa et al. 2022, *Global Change Biology*)



Sea Surface Temperature trend

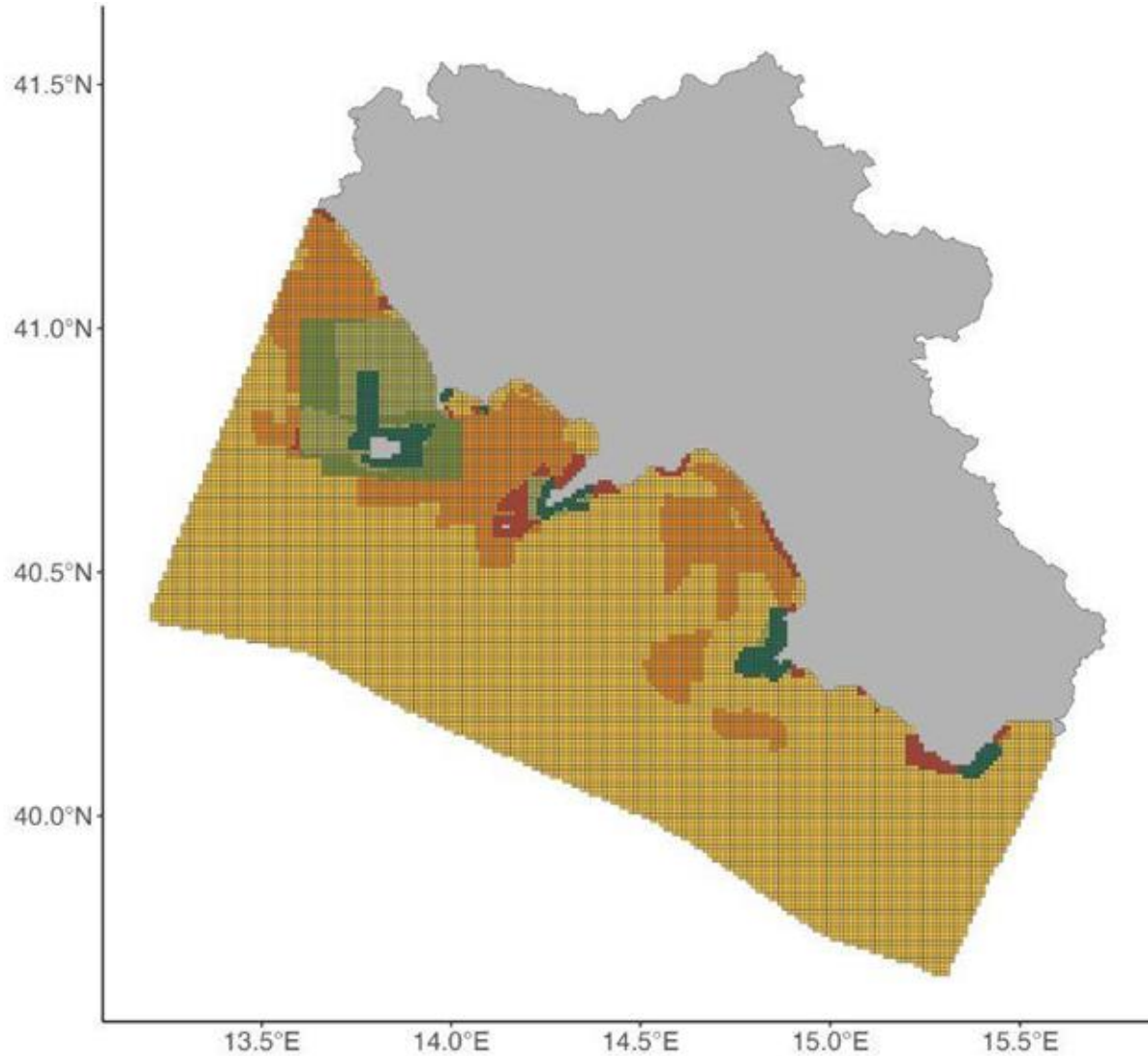


# Key results

## Peaceful collapse



### Other scenarios

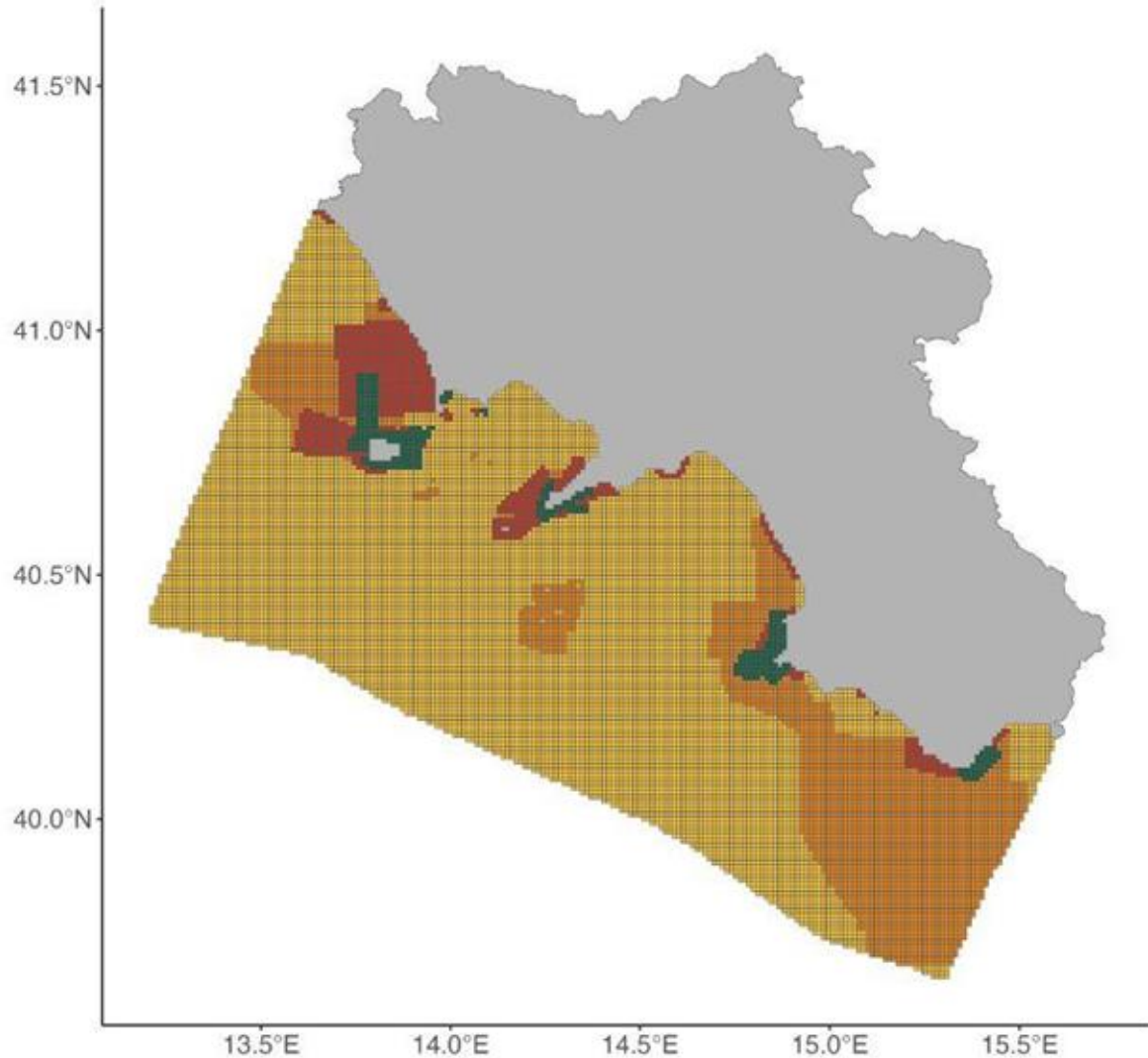


### Peaceful Collapse

- The 10% strict protection target is partially achieved
- The 30% target is achieved by declaring new MPAs and OECMs
- Connectivity and ecological corridors are accounted for
- No climate change considerations (climatic refugia or future distributions are not considered)
  - Effective transboundary collaboration
    - 3D planning

# Key results

## Other scenarios



## Climate Apocalypse



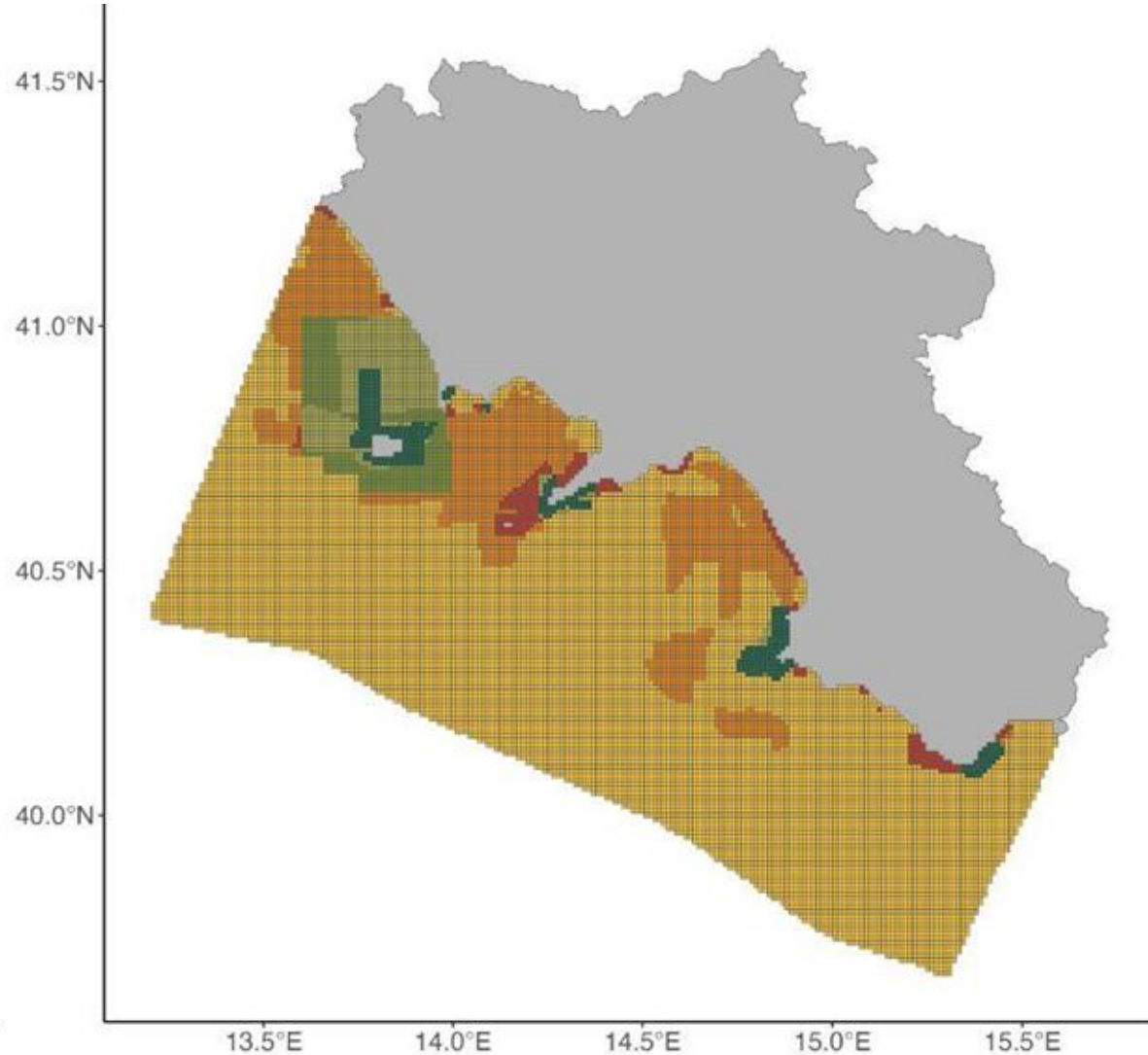
### Climate apocalypse

- The 10% strict protection target is not achieved
- The 30% target is achieved by declaring OECMs – no new MPAs
  - Connectivity and ecological corridors are ignored
- No climate change considerations (climatic refugia or future distributions are not considered)
  - No transboundary collaboration
    - 2D planning

# Key results

## Other scenarios

## Sustainable Armony



### Sustainable Harmony

- The 10% strict protection target is achieved
- The 30% target is achieved by declaring new MPAs and OECMs – additional measures are taken in OECMs to enhance conservation outcomes
  - Connectivity and ecological corridors are accounted for
- Climatic refugia and future distributions under climate change are considered in spatial planning
  - Effective transboundary collaboration
    - 4D planning

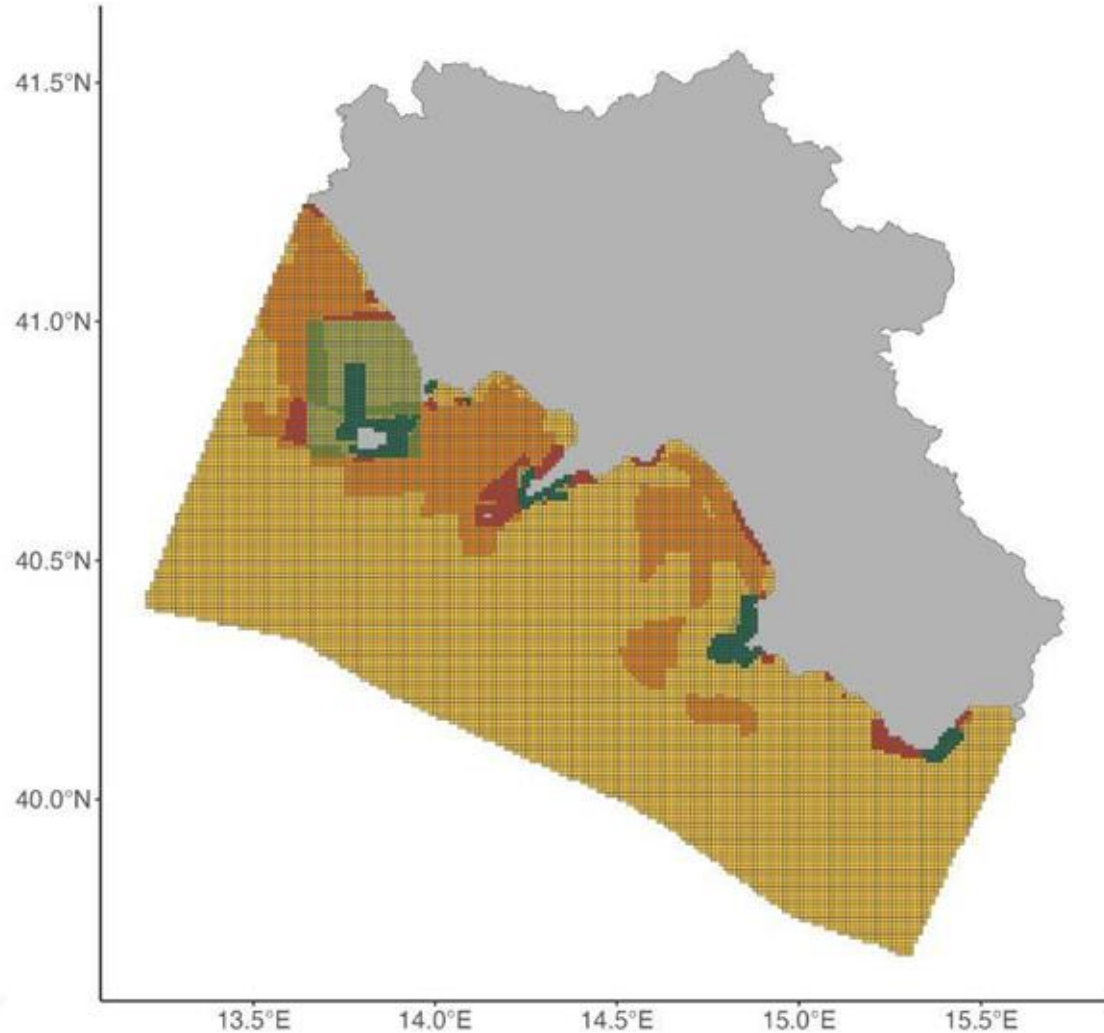


# Key results

## Battle and Breaths



### Other scenarios



### Battles and Breaths

- The 10% strict protection target is partially achieved
- The 30% target is achieved by declaring new MPAs and OECMs
- Connectivity and ecological corridors are accounted for  
Climatic refugia and future distributions under climate change are considered in spatial planning
  - No transboundary collaboration
  - 4D planning

# Key challenges



- Challenging to reach the targets considering the lack of clear indications, in the Italian MSP, on how to expand current conservation settings;
- Lack of systematic and structured strategies to identify and involve stakeholders;
- Fragmented competences and roles;
- Lack of resources;
- Systematic efforts to fill gaps of data and improving accessibility (data sharing)

# Scenarios vs MSP/Conservation planning



- The MSP that is in force can be considered a snapshot of the current status on human uses inside the planning site more than a real plan;
- PUs are classified in very broad categories: no specific indication on how to reach targets (10%-30%) are specified in the plan;
- Neither connectivity pattern nor climate change had been incorporated into the planning scheme;
- Potential OECMs present in the area were not assessed and are not considered in the MSP;
- The national MSP would benefit from a local-scale approach to increase stakeholder engagement and guarantee a higher performance of the entire plan, minimizing conflicts and favouring the development of more practical solutions

# Lessons learnt and opportunities

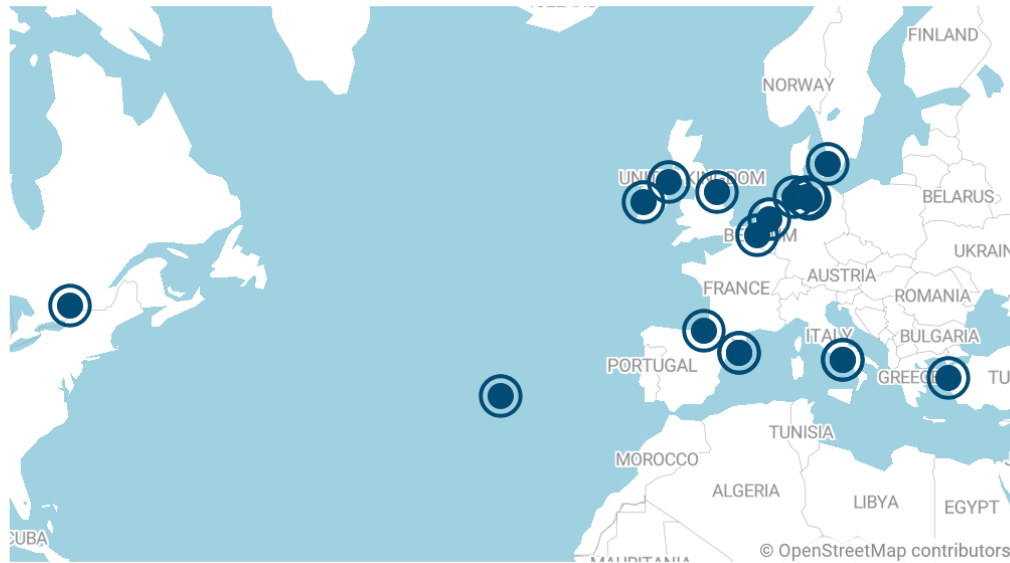


- The scenarios here developed can support the optimization of the current MSP providing guidelines on how to produce ecosystem-based strategies which take into account all the relevant socio-economic, biological, ecological and environmental elements;
- There is a need for higher integration among institutional levels;
- Importance of planning with a multi-objective and multi-scale approach;
- Efforts should now focus on producing specific guidelines for developing restoration planning criteria, with the aim of harmonizing active and passive restoration approaches and strict protection measures.

# Thank you!



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