



# Coast and Hydrography Indicators applied in Spain

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**Meeting of the CORMON on Coast and Hydrography**  
**Rome, Italy, 21-22 May 2019**

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Instituto Español de Oceanografía & Ministerio para la Transición Ecológica

# Indicator 15. “Location and extent of the habitats impacted directly by hydrographic alterations”

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## **Progress of the different steps (according to methodology of the guide):**

### **(i) Mapping of area where human activities may cause permanent alterations of hydrographical conditions:**

**Pressure analysis:** in the context of MSFD, the pressure “Physical loss (due to permanent change of seabed substrate or morphology and to extraction of seabed substrate)” has been analysed.

The seabed area occupied by permanent man-made structures (harbours, dams, and artificial reefs mainly) built between 2011-2016 has been calculated:

-Marine Subdivision “levantino-balear”: maximum of 752.000 m<sup>2</sup>.

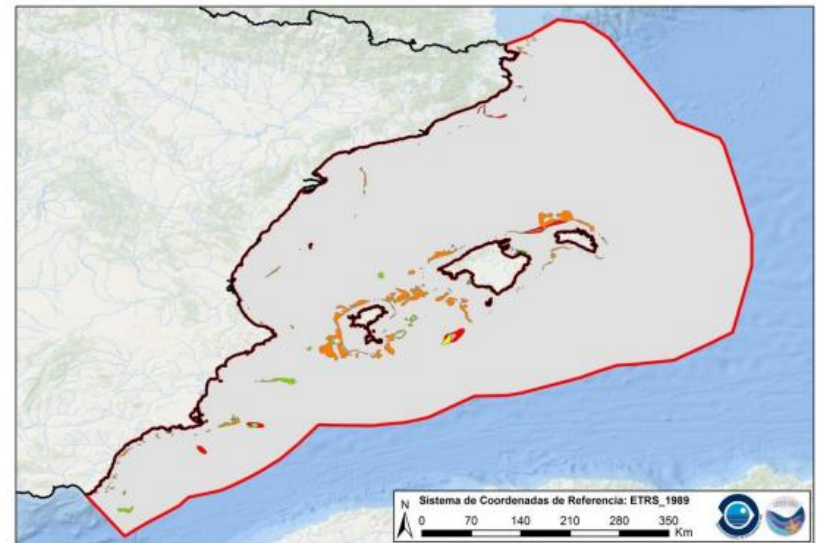
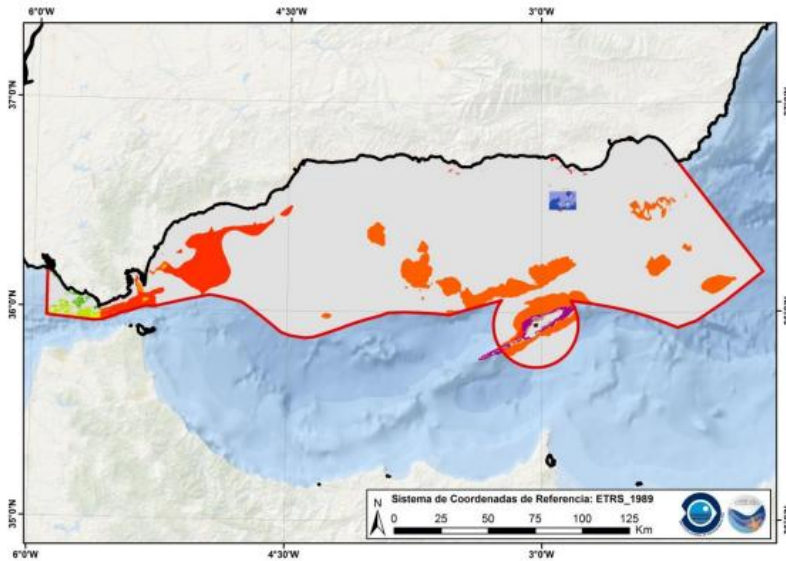
-Marine Subdivision “Estrecho y Alborán” máximo of 3.037.567 m<sup>2</sup>.

To be done: modelling baseline and altered hydrographical conditions (to be decided how: information from EIA/specific development...)

## Indicator 15. “Location and extent of the habitats impacted directly by hydrographic alterations”

### (ii) Mapping of habitat of interest (broad habitat types or other habitat types) in this area of hydrographical changes

Currently developing a seabed hábitat map , comprising special hábitats included in Regional Conventions, and predominant hábitats (EUNIS 3 equivalent)



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**(iii) Intersection of the spatial map of the areas of hydrographical changes with spatial maps of habitats to determine the areas of individual habitat types that are impacted directly by hydrographical changes.**

Overlapping of maps to be done when hydrographical alterations map and habitat map are ready

**Issue to debate:** overlapping of these maps gives info about “potential area impacted” not on the actual impacts.

Consideration of the potential impacts of hydrographical alterations on the different habitats (depending of the sensitivity of each habitat, kind of species, degree of alterations, etc)

## Indicator 16. “Length of coastline subject to physical disturbance due to the influence of man-made structures”

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### Indicator under development

Working on calculations:

-length and location of human-made coastline (hard coastal defence structures, ports, etc)

-Percentage (%) of natural coastline on the total coastline length

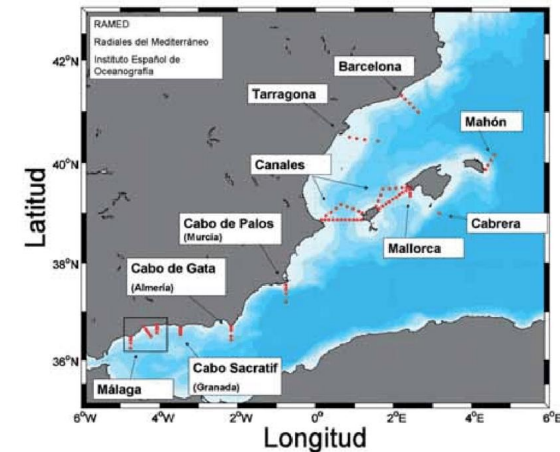
**Question:** Considerations about effects of structures on coastal dynamics?

# Cross Cutting Issues

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## Alteration of hydrography by other factors

Monitoring program for hydrography and BGQ (IEO). Routinely measuring quarterly since early 2000's. Historical records back from 1948.



Generation of observational-modeled products for waves and sea level (whole Mediterranean)

**Lack of comprehensive information for currents and turbidity**



# Thank you

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Address / email / contact information  
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