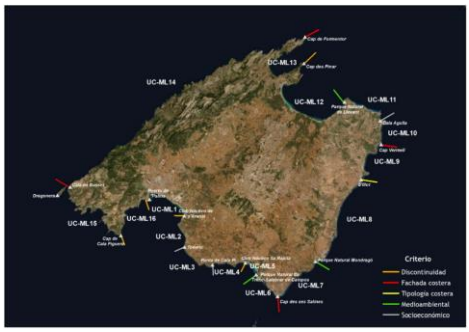
STRATEGIES FOR THE COASTAL PROTECTION OF THE BALEARIC ISLANDS, CONSIDERING THE EFFECTS OF CLIMATE CHANGE

Evaluación de la información básica e identificación de unidades costeras

The development of Coastal Protection Strategies considering the climate change effects for the Balearic Islands is an initiative financed by the EC´s Structural Reform Support Programme upon request Directorate General for the Coast and the Sea (DGCS) of the Spanish Ministry for the Ecological Transition and the Demographic Challenge (MITECO). It aims to apply an integrated approach, considering those physical, environmental and institutional factors interrelated with coastline evolution, flood risk, public domain occupations, erosion problems and the effects of climate change, to identify the most appropriate coastal protection measures for the Balearic Islands.

The Strategies need to be developed at a level of detail appropriate to the analysis at **regional scale.** It is therefore proposed to perform this analysis by coastal stretches of about 10 km longitudinally, which will be the subject of the diagnosis.

The first step has been the **identification of COASTAL UNITS (CU)** through the segmentation of the coast of the 6 islands under study. The boundaries between CUs have been defined according to physical, environmental, socio-economic and administrative criteria, seeking to maximise the homogeneity of the coastal stretch of each CU and, at the same time, maximise the differentiation between contiguous CUs. A total of 40 CU are proposed, distributed across the 6 islands: Mallorca 16, Menorca 10, Ibiza 6, Formentera 6, Cabrera 1 and Dragonera 1.



The baseline information collected is synthesised at UC level, including the identification of the **Elementary Units (EUs)** contained in each UC, which comprise: beaches, dunes, transitional waters (e.g. marshes, wetlands), soft cliffs and rocky coasts, rigid coasts (e.g. breakwaters, seawalls) and the rest of the territory belonging to the Maritime-Terrestrial Public Domain (MTPD).

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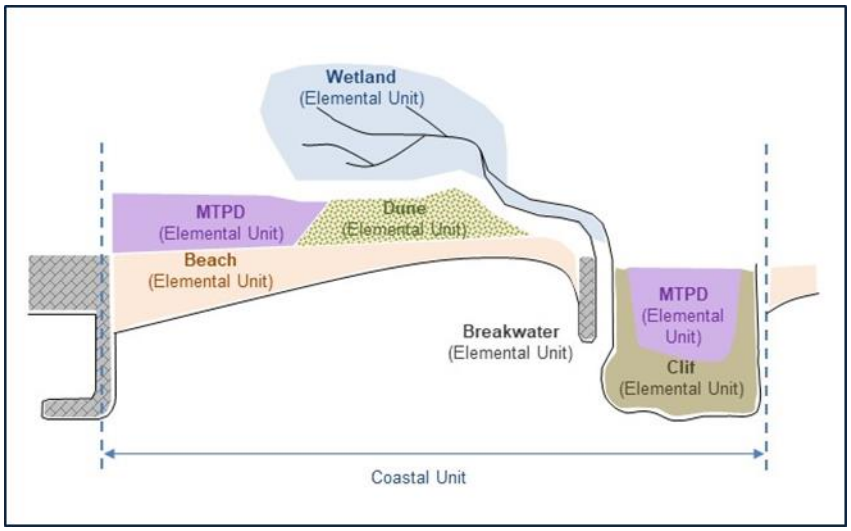

Schematic example of a Coastal Unit including several Elemental Units (beach, dune, breakwater, rocky cliff and wetland).

For each UC, the **BASELINE ASSESSMENT REPORT** describes:

- The natural environment: beaches, dunes, cliffs, marshes, mudflats, torrents, as well as existing protection figures.
- The physical-anthropic environment: maritime climate, areas of potential significant flood risk, morphodynamic operating system and existing coastal structures.
- The socio-economic environment: municipalities, land uses, main economic activities, occupations and concessions in MTPD.

Finally, the assessment indicates the **main coastal management actions** carried out in each CU and identifies and evaluates **the critical points** pointed out by the DGCS. The critical points have been organised into categories according to the type of coastal management problem following expert criteria in line with the qualitative scope of the analysis performed.

This analysis, which incorporates the **outcome of the local stakeholders' consultations** carried out during November 2020 through an online questionnaire and telephone interviews, as well as the results of the **coastal erosion and flood risk analysis**, forms part of the Integrated Diagnosis that will lead to the next phase of the Proposal of Coastal Protection Measures.

For further information: https:/www.miteco.gob.es/es/costas/temas/proteccion-costa/estrategias-proteccion-costa

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