

STRATEGY FOR COASTAL PROTECTION OF THE BALEARIC ISLANDS CONSIDERING THE EFFECTS OF CLIMATE CHANGE

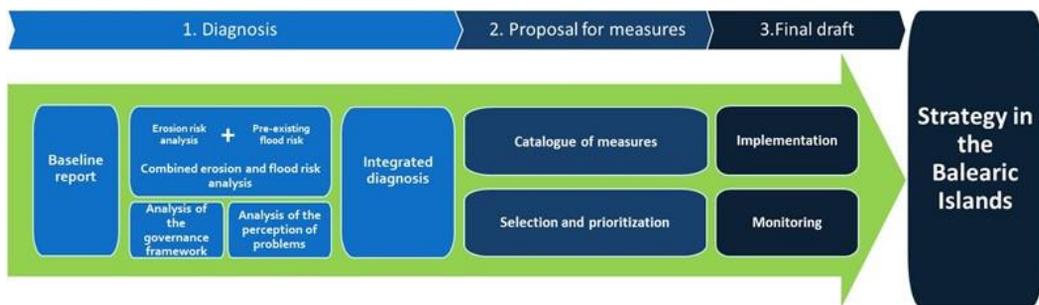
Selection and prioritisation of measures / Implementation and monitoring of Strategies

The development of the Strategy for Coastal Protection of the Balearic Islands Considering the Effects of Climate Change is an initiative funded by the European Union's Structural Reform Support Programme (SRSP), at the request of the Spanish Ministry for the Ecological Transition and Demographic Challenge's (MITECO) Directorate General for the Coast and the Sea (DGCM)

The aim of the Strategy is to guide decision-making concerning the actions of the DGCM within the framework of its competence to manage the risk of coastal erosion, looking for synergies with flood risk management and incorporating climate change adaptation. The Strategy addresses the current management cycle, 2020-2045.

The preparation of the Strategy began in December 2019 and, over the past 24 months, has been divided into 3 successive phases: 1) Diagnosis, to improve the understanding of coastal protection issues, as well as to understand the perception of coastal problems by relevant actors and to analyse the governance framework; 2) Proposal of measures, with the objective of identifying the actions to be carried out by the DGCM, within the framework of its competences; and 3) Final reporting, whose objective is to rank and guide decision-making steps regarding the implementation of these actions.

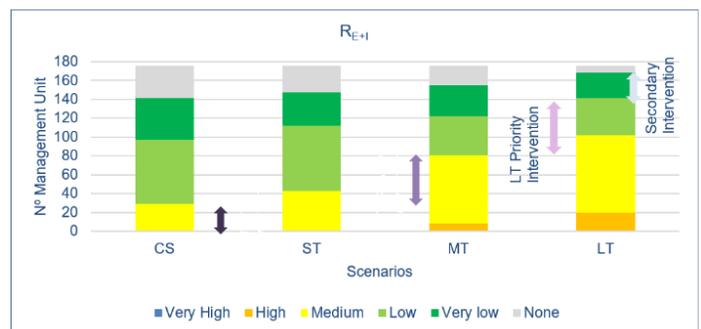
Stages and components of Strategy development:



Following completion of the diagnosis phase¹ and the compilation of a Catalogue² which includes all possible measures to be considered in the Strategies, a methodology was developed, based on the results of the diagnosis, for the Selection and Prioritization in order to, firstly, prioritize the management Units according to the consideration of the need of intervention on each of them as:

- 1) short-term priority (2020-2030),
- 2) medium-term priority (2030-2045),
- 3) long-term priority (2045-2100) or
- 4) secondary

To establish the need for an intervention in each Management Unit, the combined erosion and flood risk level, $RE+F$ is used in the most pessimistic scenarios for each horizon year (SA: 2020; CP:2030; MP: 2045 and LP: 2100).



¹ See sheet on the Integrated Diagnosis

² See sheet on the Catalogue of Measures

The document further addresses the **selection of the most suitable measures** from the Catalogue to compose the intervention at each Management Unit level **at the local level** and, establish recommendations related to those addressing the **regional level**.

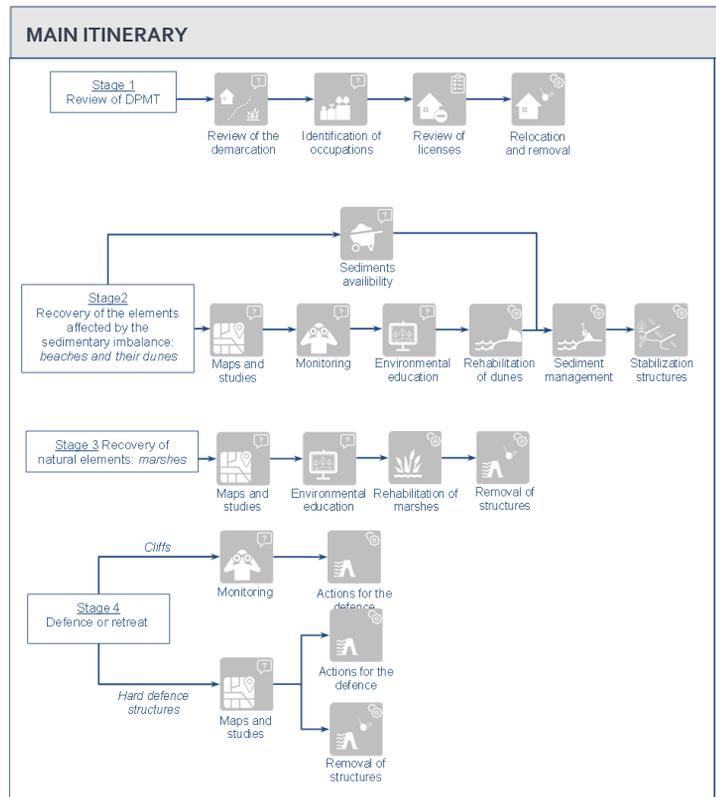
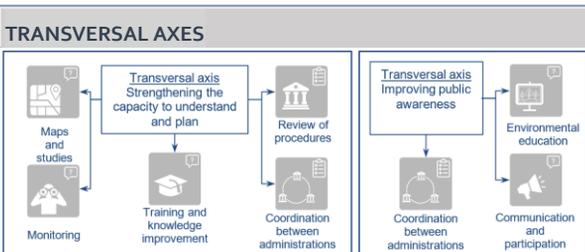
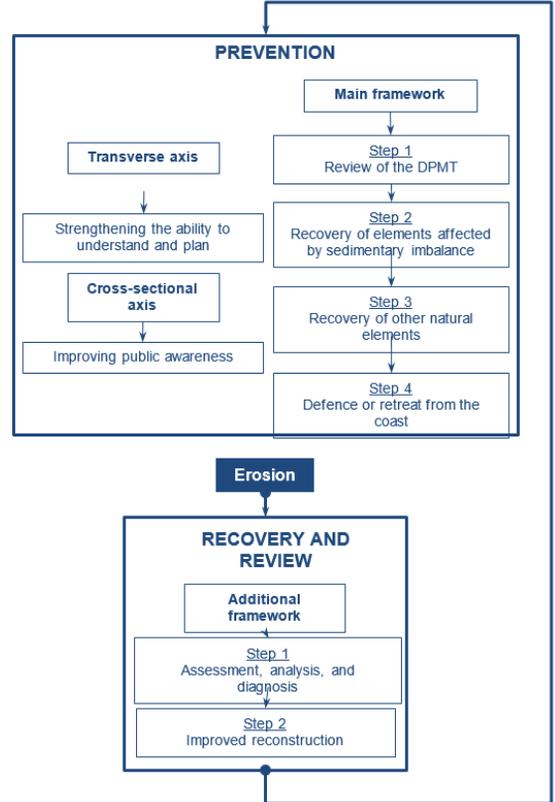
The **selection of measures** is based on the following **logical arrangement in steps (route) and transversal axes** of the measures contributing to the strategic objectives:

- 1) The **main route** for the prevention of coastal erosion risk, including:
 - ⇒ **Four consecutive steps:** 1) Review of Maritime-Terrestrial Public Domain (DPMT); 2) Recovery of the coastal system's natural elements affected by sediment unbalance (beaches and their dunes); 3) Restoration of other natural elements of the coastal system (salt marshes); 4) Coastal defence or realignment.
 - ⇒ and **two transversal axes:** 1) Strengthening of the capacity to understand and plan; 2) Increased public awareness

- 2) **An additional route for recovery and review in the post-event phase.**

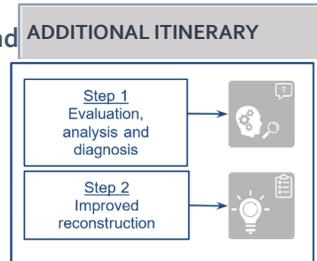
Within the main itinerary, the measures from each of the four stages are implemented **sequentially**, in accordance with the proposed coastal erosion risk management cycle, the aim of which is to, firstly, understand, then plan and, lastly, act.

Unlike the measures from the main itinerary, the measures included in the two transversal axes **are not sequential** and may be implemented in parallel with the measures from the main itinerary and with each other.

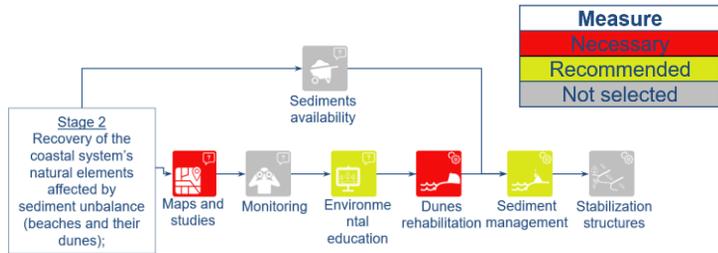


This project is funded by the European Union's Structural Reform Support Programme and implemented in partnership with the EUCC and its partners, and the European Commission.

Lastly, the proposal includes an **additional itinerary for restoration and revision in the post-event stage**, which includes two restoration and revision measures from the Catalogue, ordered into the following two sequential stages, which pursue the objectives of understanding and planning, respectively: 1) Evaluation, analysis and diagnosis and 2) Improved reconstruction.



In each Management Unit, **4 criteria** have been used to select and prioritise the measures: 1) Short-term risk results; 2) Basic information on the natural, physical, human and socio-economic environments; 3) Morphodynamic model of the coastal system; and 4) Perception of the problems – as well as level of **priority**.



The recommendations resulting from the Selection and Prioritisation on the type of measures most adequate for each Management Unit, or those of regional scale, are not to be considered as “obligations” in terms of implementation as they are generic recommendations based on a diagnosis implemented at regional scale and baseline data from 2020 or earlier.

Thus, the Strategies consider an **open and adaptive plan for the implementation of the measures proposed**, based on an annual plan, which aims to establish the actions of the current year throughout the management cycle, depending on the available resources and on the results of the monitoring of the implementation itself, **according to the Monitoring Plan** included.

The annual implementation plans, must address the financing mechanisms, the detailed design of the necessary works (e.g. civil engineering works) and their corresponding execution, as well as the administrative procedures required, among other issues. The risks associated to the implementation of the Strategies should also be analysed on an annual basis.

In addition to the annual planning, the proposed adaptive implementation contemplates the **comprehensive review of the Strategies at the end of the short-term period** (year 2030) and the preparation of **new Strategies at the end of the medium-term period**, which coincides with the end of the current management cycle (year 2045).

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