

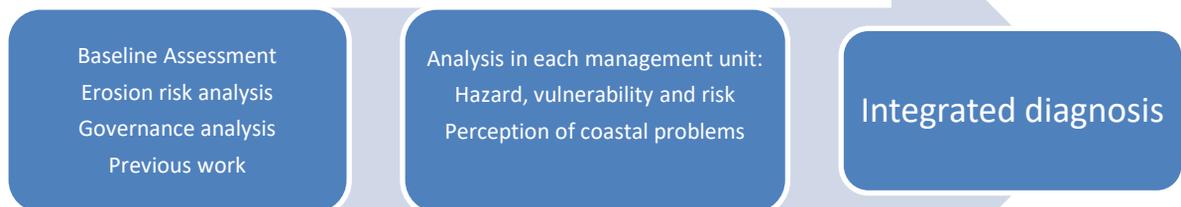
STRATEGIES FOR COASTAL PROTECTION IN THE PROVINCES OF CÁDIZ, MÁLAGA AND ALMERÍA CONSIDERING THE EFFECTS OF CLIMATE CHANGE

Integrated diagnosis: methodological summary

The development of the Strategies for Coastal Protection considering the effects of climate change in the provinces of Cádiz, Málaga and Almería is an initiative funded by the European Union's Structural Reform Support Programme at the request of the Directorate General for the Coast and the Sea (DGCM) of the Ministry for Ecological Transition and the Demographic Challenge. The objective of the Strategies is to apply an integrated approach, taking into account the physical, environmental and institutional factors that are interrelated with the evolution of the coastline, the risk of flooding, occupations in the public domain, erosion problems and the effects of climate change, in order to identify the most appropriate coastal protection measures in the provinces of Cádiz, Málaga and Almería.

The starting point for the development of the Strategies is a suitable diagnosis of the current situation of the coast in the three provinces, in order to understand and characterize the problems from a comprehensive perspective using an approach based on the analysis of coastal risks.

The compilation of the integrated diagnosis relies to a great extent on previous work done for the development of the Strategies.



This factsheet summarizes the methodology developed by IHCantabria in close collaboration with the DGCM. The integrated diagnosis comprises two analysis topics carried out in each management units* into which the coastal strip has been divided (61 in Cádiz, 83 in Malaga and 57 in Almería).

- 1. Analysis of hazard, vulnerability and risk** of coastal erosion and of combined erosion and flooding for the whole coastal system and each of the following subsystems: the human environment, the natural environment, the socio-economic environment and critical infrastructure.

In line with the concepts defined by the IPCC** and adopted in the Strategy for Adaptation to Climate Change of the Spanish Coast, a risk is conceived as the potential negative consequences arising from a given threat. The analysis considers the threats of coastal erosion and flooding through the dynamic interaction of hazard and vulnerability.



The level of risk and its components (hazard and vulnerability) are measured according to a scale of six levels from no risk to very high risk.

- 2. Analysis of the perception of coastal problems** by the DGCM and 67 other important local actors consulted in 14 workshops held throughout the month of January 2020 in the Government Sub-Delegate's Offices of Cádiz, Málaga and Almería. Perceived problems are classified according to the following categories and types:

Level
None
Very low
Low
Medium
High
Very high

Category		Type
Hazard		Coastal erosion
Hazard		Coastal flooding
Impacts of erosion	Natural	Dunes
		Cliffs
		Other natural areas
	Socioeconomic	Occupations of DPTM
		Built seafront
	Critical infrastructures	Sewage
		Transport
Patrimony		
Others		Governance
Others		Other impacts

Perceived coastal problems are assigned a four-level severity scale from no damage to very severe damage.

Level
None
Low
Moderate
High

* See the sheet relating to the evaluation of basic information and identification of coastal units.

**IPCC, 2019: Annex I: Glossary [Weyer, N.M. (ed.)]. In: IPCC Special Report on the Ocean and Cryosphere in a Changing Climate [H.-O. Pörtner, D.C. Roberts, V. Masson-Delmotte, P. Zhai, M. Tignor, E. Poloczanska, K. Mintenbeck, A. Alegría, M. Nicolai, A. Okem, J. Petzold, B. Rama, N.M. Weyer (eds.)]. In Press.

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