

## EUROPE

## Croatia • Šibenik-Knin

**Context**

Covering 2994 km<sup>2</sup> of land and 2676 km<sup>2</sup> of sea, Šibenik-Knin comitat has 960 km of coastline and a marine area of 285 islands and rocks. Its coastal area includes seven municipalities and three cities with a population of 110,000 inhabitants, and Šibenik is the administrative centre. Highly urbanised (over 70% of coastal residences), the coastal zone of the county is characterised by a concentration of economic activities (tourism, metallurgical industry, shipbuilding, maritime transport and vineyards).

**Stakeholders**

The Coastal Plan of the Šibenik-Knin County focuses on the impacts of climate change in coastal areas. This was prepared and supported by the Split RAC / PAP (Priority Action Programme / Regional Activity Centre) and the Blue Plan, two components of the UNEP Action Programme entitled "Integration of Climate Variability and Change into National Implementation Strategies for the Protocol on Integrated Coastal Zone Management (ICZM) in the Mediterranean". Its objectives include raising awareness of climate variability and change and promoting ICZM as an adaptation tool.

**Methodology**

The process has used the DIVA (Dynamic Integrated Vulnerability Assessment) method for vulnerability analysis, the participatory and prospective Climagine approach and interviews with stakeholders to assess climate variability and observed and expected changes in coastal areas. The preparation of the Coastal Plan began in 2013 and was finalised in 2015. Adopted in 2016, it is not binding but falls within the framework of Article 18(3) of the ICZM Protocol in the Mediterranean in which Croatia is a stakeholder, which stipulates the preparation of a Coastal Plan "at an appropriate territorial scale". The Plan therefore aims to inform national, regional processes and stakeholder decisions through its recommendations.



## VULNERABILITIES

**ANTHROPOGENIC PRESSURES:** overcrowding, uncoordinated urbanisation, poor water resource and flood management

**COASTAL PROTECTION:** flooding of historic cities; coastal erosion

**WATER RESOURCES:** reduction (summer, autumn) and increase (winter) of precipitation; shortage of fresh drinking water (groundwater and springs) and for activities (tourism, agriculture, energy production).

**AGRICULTURE AND FISHERIES:** impact on agricultural (reduced soil moisture, increased evapotranspiration, reduced rainfall) and marine (shellfish) production; invasion of harmful species.

**CONSERVATION:** increase in invasive species; change in aquatic ecosystems; increase in forest fires.

**TOURISM:** risk of reduced tourism; summer water shortages in urban areas and islands; landscape changes.

**OTHER:** impact on the insurance and banking sector; impact on energy consumption and production (hydroelectric power plants); impact on maritime transport and shipbuilding.

## ADAPTATION ACTIONS

**Several actions have been taken to protect water resources and strengthen infrastructure:**

- Rational use measures for drinking water and irrigation; reduction of waste; river management (flow regulation, storage infrastructure); storm water management (urban drainage); giving rivers more space;
- Protection against coastal flooding and rising sea levels; integration of these elements into future infrastructure planning to provide more space for the sea.

**Other strategies aim to better contain regional development, in particular through improved planning and tools for governance and resource management:**

- Re-balancing urban and rural development to reduce pressure in coastal areas; strategic improvement of tourism supply (seasonal extension) and activities (mariculture, agriculture, port management).
- Optimisation of planning through the integration of landscape protection, marine spatial planning, more sustainable management of marine activities and improved prevention through land use planning and forest fire warning systems;
- Establishment of an ICZM coordination body at regional level; strengthening community participation, awareness and local capacity.

## STRENGTHS OF THE APPROACH

- Active participation of stakeholders in the prospective process;
- The Coastal Plan establishes links with existing plans, respects current development policies and has collected a wealth of information and data on the coastal zone;
- Winner of the 2019 Mediterranean Climate Change Adaptation Awards.

## LIMITS OF THE APPROACH

- Ambiguity between the legal basis of the approach and the adequacy with national legislation;
- The coastal zone is not a priority in existing planning tools;
- Climate change is a new issue for the population and local decision-makers and access to relevant information is difficult.

## SOURCES

- ADEME (2018), County of Šibenik-Knin – design of a coastal plan integrating climate change variability, <https://www.medadapt-awards.com/wp-content/uploads/2019/06/Fiche3-Croatie-HR.pdf>
- Priority Actions Programme/Regional Activity Centre (PAP/RAC). The Coastal management center : [https://pap-thecoastcentre.org/pdfs/ClimVar\\_Plan%20Sibenik\\_lessons.pdf](https://pap-thecoastcentre.org/pdfs/ClimVar_Plan%20Sibenik_lessons.pdf) ; <http://iczmplatform.org/storage/documents/njPooVmOxYugcciOcYOX1FmphgsLYqeH3w9juFCe.pdf>