

## Building coastal resilience in Šibenik-Knin County in Croatia - Coastal Plan

### AT A GLANCE

The "Integration of climatic variability and change into national strategies to implement the ICZM Protocol in the Mediterranean" project ("**ClimVar & ICZM**") is a collective effort to promote the use of Integrated Coastal Zone Management (ICZM) in countries sharing the Mediterranean as an effective tool to deal with the impacts of climate variability and change in coastal zones, by mainstreaming them into the ICZM process. It was adopted in January 2012 and will be completed in late 2015.

The project is led by UNEP/MAP, within the framework of the MedPartnership project. Its executing partners are PAP/RAC, Plan Bleu/RAC and GWP-Med.

**Participating countries:** Albania, Algeria, Bosnia and Herzegovina, Croatia, Egypt, Libya, Montenegro, Morocco, Palestine, Syria and Tunisia.

Total budget: USD 9.2 million.

USD 2.2 million: Global Environment Facility; USD 7 million: Participating countries, executing agencies, and donors.

### ABSTRACT

The Coastal Plan, as foreseen by the ICZM Protocol, recommends ways to increase the resilience of coastal zone and sustainability of its development. It addresses the planning process defined in the MedPartnership project and is supported by PAP/RAC's guidelines from the ClimVar and ICZM project. It is based on several assessments and was prepared for coastal zone of the Šibenik-Knin County by a multi-disciplinary team of experts. The Plan and those assessments were guided by local knowledge, expressed at "*Climagine*" workshops that paralleled Plan preparation.

The Plan was completed in September 2015 and is ready for adoption. It will feed into local spatial plans, a regional development strategy and other sectoral policy documents.

The Plan generated interest by stakeholders around the Mediterranean. During its preparation, it was presented at national and international conferences and workshops. The need for a systematic approach to increase coastal resilience is recognised by many coastal regions. This Plan, based on scientific projections and local responses, represents an example to follow.

## ACTIVITY DESCRIPTION

This activity falls under the project objective to support implementation of the ICZM Protocol for the Mediterranean and capacity building. Its goal is to develop a Coastal Plan, as required by Article 18 of the ICZM Protocol. In this case the Coastal Plan, which may be self-standing or integrated into other plans and programmes, has a strong focus on adaptation to climate variability and change (CVC).

## THE EXPERIENCE

Building coastal resilience is becoming a goal for all coastal regions. Since the Mediterranean coasts have always been attractive for living and more recently for tourism as well, this objective is even more important. The Coastal Plan for Šibenik-Knin County, based on scientific projections and local responses, is an example of how this complex issue can be tackled.



*Photo: Daria Povh Škugor*

## Methodology

The methodology used to prepare the Coastal Plan is one proposed in the IMF Guidelines of the MedPartnership project. The methodology encompasses several planning phases: Establishment (scoping); Analysis and Futures (diagnostic analysis); Setting the Vision; Designing the Future; and finally, Realising the Vision. Especially focused on CVC, this Plan was developed in parallel to the “Guidelines for Adapting to Climate Variability and Change along the Mediterranean Coasts”, which was also published as part of this project. All named outputs were feeding each other in the process of their preparation.

The Coastal Plan addresses the challenges posed by CVC to the county’s coastal zone, primarily in terms of spatial planning, coastal protection, water management, regional development and biodiversity management. Because of the great pressures on the narrow coastal belt, special attention was devoted to preserving landscape values.

The Plan was developed in parallel with the “*Clímagine*” participatory workshops. Each of the four workshops had an educational component. These workshops were also used to agree on a vision for the future coast and to discuss the expert findings in the Plan preparation.

The Local Assessment of Vulnerability to CVC, which assessed CVC impacts on different economic sectors of the county and other impacts, such as those on forest fires, cultural heritage and human health, served as an input for the Plan.

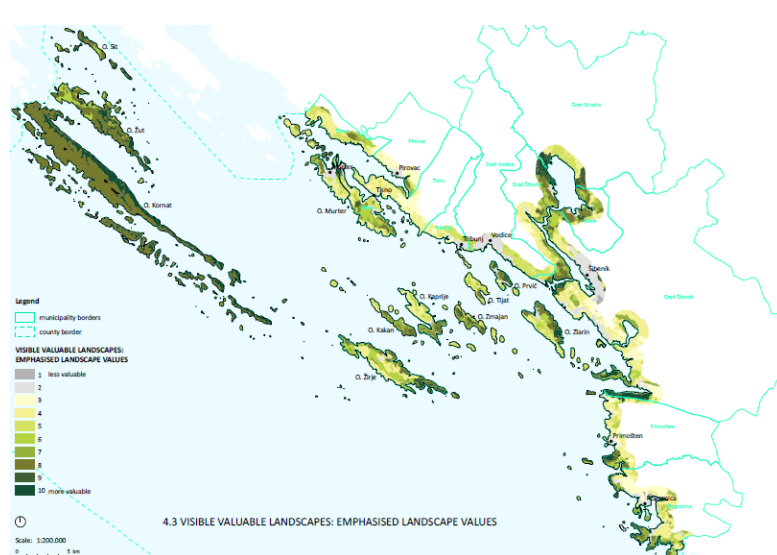
GIS tools were intensively used for spatial analysis, but also as tools for communicating the findings. A GIS course has been organised. Finally, the Plan will be presented to the County Assembly for adoption. It will provide recommendations for spatial plans in the coastal zone, for regional development strategy and for plans for other sectors facing CVC impacts.

## RESULTS

The coastal plan was completed in September 2015. It is composed of two major parts. In the first part, which may be called strategic, the vision of the desirable future of the Šibenik-Knin County coastal zone was defined. This vision serves as a foundation for scenarios of development and management of the coastal zone. In the second part, key management policies are defined, as follows:

- policies for sustainable spatial development;
- policies for sustainable economic development;
- policies for water resources management; and
- policies for emergency situations.

For each of these policies a set of measures was defined for each coastal settlement. These represent solutions for building coastal resilience to CVC through reducing vulnerability (physical and economic), improvement in water management, management of spatial development and landscape valorisation and management. Implementing recommendations and measures of the Coastal Plan will decrease the damage caused by CVC, assist the internalization of environmental costs for more sustainable development, and provide a more resilient economy in the county's coastal zone. Consequently, the region will become a more desirable place to live.



Emphasized landscape values

The Coastal Plan also raised new questions. The level of investment to adapt to sea-level rise will be substantial, which puts forward an important question: Who will pay for these investments? In some settlements of the county primary residents own less than 25% of the houses. Studies conducted in the Hérault region of France (H. Rey-Valette, 2014) showed a difference in perceptions of climate risks depending on whether a person was a primary resident or the owner of a secondary home. Thus, their willingness to pay may also differ.

## LESSONS LEARNED

When preparing any coastal plan, one of the tasks during the scoping stage will be to identify key issues. The Plan should apply a holistic approach, but due to different limitations (time, resources) it will often have to deal with several priority issues that are creating the greatest challenges for the zone.

Territorial coverage must also be defined. Whatever the definition may be, it is important to apply a problem-solving approach – meaning that key issues may extend beyond the Plan's territorial coverage. In that case, these problems may be analysed outside the Plan's boundaries.

Integration is easy to recommend but difficult to achieve. Establishing a steering committee with representatives from different sectors and an advisory board may help in this regard.

A Coastal Plan offers a number of recommendations, but also opens a number of questions. Climate change has opened new levels of uncertainty. Decision makers and planners must learn how to function with these new levels of uncertainty, which are higher than ever before. Consistent solutions require new levels of integration.

## IMPACTS

The Coastal Plan for Šibenik-Knin County was presented to the Inter-Ministerial Committee for preparation and implementation of Marine and Coastal Strategy for Croatia. The Plan is to be adopted by the County Assembly in order to gain the legal status. The impact of the Plan on public awareness is evident. Because of the size of the challenge posed by climate change on the one hand and the short policy cycles of decision makers on the other, it is clear that the public's role in dealing with climate crises will be particularly important.

To illustrate the impact of the Coastal Plan for Šibenik-Knin County, we cite the statement of the Director of the County Department for Environment and Municipal Affairs: *"We expected a lot from this Plan. At this moment, we must say that we got much more than we expected."*



Photo: Daria Povh Škugor

## REFERENCES

Priority Actions Programme/Regional Activity Centre (PAP/RAC), Croatia, <http://www.pap-thecoastcentre.org/>  
 daria.povh@papr.org  
 neven.stipica@papr.org

## KEYWORDS

Coastal plan; resilience; ICZM; adaptation; sustainable development.

## EXECUTING PARTNER

PAP/RAC was established in 1977 in Split, Croatia, as part of the Mediterranean Action Plan (MAP) of the United Nations Environment Programme (UNEP). PAP/RAC's mandate is to provide support to Mediterranean countries in the implementation of the Barcelona Convention and its Protocols, and in particular of the Protocol on Integrated Coastal Zone Management. PAP/RAC is oriented towards carrying out of activities contributing to sustainable development of coastal zones and strengthening capacities for their implementation. Thereby, it co-operates with national, regional and local authorities, as well as with a large number of international organisations and institutions.



MedPartnership and CLIMVAR&ICZM Projects  
 UNEP/MAP Information Office  
 48, Vas Konstantinou  
 Athens, 11635, Greece

Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem

Together for the Mediterranean Sea

MedPartnership



**Executing partners:** Plan Bleu, PAP/RAC and UNEP-Grid/Geneva.

**Participating countries:** Albania, Algeria, Bosnia and Herzegovina, Croatia, Egypt, Libya, Morocco, Montenegro, Palestine, Syria, and Tunisia.