Climate-ADAPT use case 11 — Province of Barcelona

Finding inspiration to develop tools to support municipalities designing climate change adaptation plans

Climate-ADAPT features used: database; share your information; knowledge (Urban Adaptation Support Tool; Urban Vulnerability Map Book)

Sector: adaptation in general

Governance level: sub-national/local

Biogeographical region: Mediterranean

Macro-region: south-west Europe

Policy stage: adaptation planning

The challenge

The Province of Barcelona, Spain (*Diputació de Barcelona*, Diba), is a public authority providing strategic guidance, technical and financial support to Covenant of Mayors signatories and municipalities signing up for the Covenant of Mayors for Climate and Energy (as a Covenant territorial coordinator) since 2008. Diba also became a coordinator of the Mayors Adapt initiative. To appropriately support the 311 municipalities in the province of Barcelona on adaptation, Diba needed to develop several tools and resources. Considering the difficulty of assessing climate change vulnerability at municipal level, especially for medium and small municipalities, Diba had to develop specific assessment tools and a methodology to help in drafting local adaptation plans or sustainable energy and climate action plans (SECAPs) that include an adaptation component, as required by the Covenant of Mayors.

Diba also provides integral assistance to municipalities, helping with drafting adaptation plans and in their implementation, monitoring, communication and dissemination, as well as with capacity-building.

The approach

To provide an applicable methodology for designing municipal adaptation plans in small municipalities, given the very limited resources available, the approach had to be straightforward and practical, considering a set of minimum requirements for adaptation plans. Diba compiled the methodology Metodologia per a la redacció de PAESC using the main steps of the adaptation policy cycle from the Climate-ADAPT platform, mainly through the Urban Adaptation Support Tool. Diba provided guidance that can be applied by small municipalities (less than 5 000 inhabitants) as well as larger ones (more than 50 000 inhabitants). It created a standardised approach so that Diba, as a coordinator, can carry out consistent analyses. Diba expects that the methodology will also help in establishing future strategies for various Diba adaptation tasks.

Furthermore, Diba has developed a specific tool to help municipalities assess their vulnerability to climate change. It is a simple-to-use Microsoft Excel tool called ASVICC that helps to gather information on factors that might affect the vulnerability of the municipality. To define the main threats (e.g. heat, water scarcity and droughts, flooding and forest fires) and exposure, sensitivity and capacity factors, Diba used the interactive Urban Vulnerability Map Book. In addition to the Map Book, Diba made use of information from studies carried out by other public authorities, such as the Catalan government and the Metropolitan Area of Barcelona. A questionnaire within the tool must be answered by the local authority and the resulting output is an initial vulnerability assessment.

An overview of adaptation options might help municipalities to systematically consider all approaches to adaptation that have already been established and to check which might be applied under their specific circumstances. Diba has therefore published a first edition of a catalogue of adaptation options online. The catalogue provides links to examples of good practices in Catalonia and to the support offered by Diba. Diba

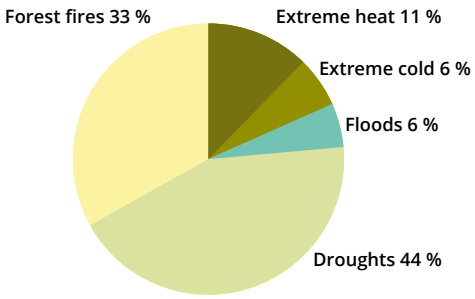
Figure A11 Summary of the actions planned in a SECAP

Adaptation actions

Execution

Number of actions	Investment	Non-investment cost	Total cost
Extreme heat	2 172 899	0	26 700
Extreme cold	5 000	0	0
Heavy rain	0	0	0
Floods	122 395	0	3 200
Sea level rise	0	0	0
Droughts	78 097	0	1 584 059
Storms	0	0	0
Landslides	0	0	0
Forest fires	60 000	0	262 119
Other	0	0	0
Total	**2 438 391**	**0**	**1 881 078**

% actions according to risk



Note: All amounts in the table are in Euros.

Source: SECAP of Oristà, *Ajuntament d'Oristà, Agència d el'energia d'Osona* and *Diputació de Barcelona*.

developed the list of options using the adaptation options available in the Climate-ADAPT knowledge section. Potential adaptation options can be explored on Climate-ADAPT by selecting a specific climate impact and/or adaptation sector of interest. In addition, the experiences of drafting SECAPs and adaptation plans in specific municipalities were considered in the development of the set of options.

Adaptation tools and methodologies are available also on the Spanish national adaptation platform AdapteCCa and in its database of strategies, studies, guidelines and portals. Climate-ADAPT added value for Diba at local level by providing a frame of reference and filling a methodological gap while AdapteCCa was being developed. The guidance and tools available on Climate-ADAPT were helpful because they are very specific regarding adaptation at local level. By providing access to methodologies and tools, Climate-ADAPT helped to inform the policy processes for the development of urban adaptation plans.

Future plans

Diba is working on refining the tools described above and upgrading them with inputs provided by the municipalities. New tools will be developed to facilitate the selection of adaptation measures and to help municipalities in their monitoring and reporting tasks. Considering the other essential aspects of adaptation, Diba is currently developing tools and studies to integrate cost-benefit analyses into the plans.

The tools and case studies presented on Climate-ADAPT and AdapteCCa are important for finding new approaches and successful stories that can inspire Diba. A prominent link should be established on Climate-ADAPT to allow cities to benefit from the new and comprehensive knowledge base on urban adaptation to be developed on the Covenant of Mayors for Climate and Energy website.