Climate-ADAPT use case 12 — City of Bologna

Using Climate-ADAPT to develop the Bologna Urban Adaptation Plan and guidelines for medium-sized Italian cities

Climate-ADAPT features used: database (reports); countries, regions, cities (country pages and interactive Map Viewer; knowledge (Urban Adaptation Support Tool)

Sector: adaptation in general

Governance level: municipality

Biogeographical region: southern Europe

Macro-region: Mediterranean

Policy stage: policy development

The challenge

The city of Bologna has actively worked in recent years on sustainable development, by participating in several international, national and local projects in the fields of nature protection, environmental policy, and information and communication. The City of Bologna participated in 2 of the 56 approved Italian projects funded by the LIFE+ programme (2007-2013). In this context, Bologna was the coordinator of the LIFE+ Project BLUE AP (42) (Bologna Local Urban Environment Adaptation Plan for a Resilient City (43)) and was the first Italian municipality to develop an action plan. The aim of the project was to identify and test concrete local climate resilience measures to make the city able to meet climate change challenges. The study conducted

during the project revealed that the main vulnerabilities affecting the urban area are heatwaves, water scarcity and drought, extreme rain events and hydrogeological risk; therefore, the plan contains strategies, targets and concrete actions to tackle extreme weather events related to climate change.

The city is also part of many important European networks, such as ICLEI and Eurocities; the city has also signed up to the Covenant of Mayors and the Mayors Adapt initiative and is actively committed to carrying out all the mitigation and adaptation actions added to its plans.

The approach

As coordinator of the LIFE+ BLUE AP project consortium, the city of Bologna used the Climate-ADAPT 'Country information' pages (44) to see the state play of adaptation strategies at European level (i.e. in other European countries and regions) and to collect best practices and urban adaptation planning approaches for the implementation of the Bologna Urban Adaptation Plan. This helped the city to make a first selection of the most relevant urban planning approaches and methodologies developed at European level and to select information useful for the drafting of ten 'good practices sheets' and actions to be implemented in Bologna.

More specifically, the report Adaptation strategies for European cities: final report (45) provided useful information for setting up the general framework of the Bologna Adaptation Strategy.

Detailed information about EU urban case studies was gathered from both the Climate-ADAPT database

---

(42) http://www.blueap.eu/site/en
(43) http://www.blueap.eu/site/wp-content/uploads/2015/06/PianoBlueApfinale03062015.pdf
(44) http://climate-adapt.eea.europa.eu/countries-regions/countries
(45) http://climate-adapt.eea.europa.eu/metadata/publications/eu-cities-adapt-adaptation-strategies-for-european-cities-final-report

and the Urban Adaptation Support Tool and was used for describing, in the good practice sheets, the results obtained, the lessons learned and the methods adopted in a synthesised and communicative way.

Moreover, the Covenant of Mayors city profile pages ([46]) enabled the city to make contacts and to cooperate with other cities that implemented their adaptation strategies. The interactive database ([47]) (allowing the use of keywords) and the case study research tool ([48]) made research into the specific adaptation measures developed by forerunner EU cities easier. The features used on the platform were both the Case Study Search Tool ([49]) and the interactive maps for the city profiles ([50]). In addition, the interactive Map Viewer allowed the city to find useful information about adaptation strategies and regulations in other countries. This helped the city to define the framework and the main topics for the Bologna Local Strategy and then for the Bologna Urban Adaptation Plan.

An important outcome of the project is that the planning and testing of actions developed in Bologna are intended to lead to the creation of guidelines useful for the definition of similar adaptation plans, which could be adopted by other medium-sized Italian cities. Thus, Bologna became a pilot city that was the first in Italy to tackle climate change with appropriate and creative measures.

Future plans

The city of Bologna is currently working on implementing the measures in the Adaptation Plan. Currently, around 20 % of the actions have been completed and 50 % are ongoing. To improve its resilience to extreme weather events, the city is involved in the Life+ RainBO ([51]) project, the aim of which is to prevent flooding events through an innovative forecast, modelling and alert system.

The city is also a partner of the PREPAIR LIFE project ([52]), the aim of which is to improve air quality in the whole of northern Italy. Poor air quality is a very important issue related to heatwaves and drought; as temperatures rise and the number of days without rainfall increases, the concentrations of air pollutants also rise.

Figure A12   Process scheme used in the development of the adaptation plan in the city of Bologna
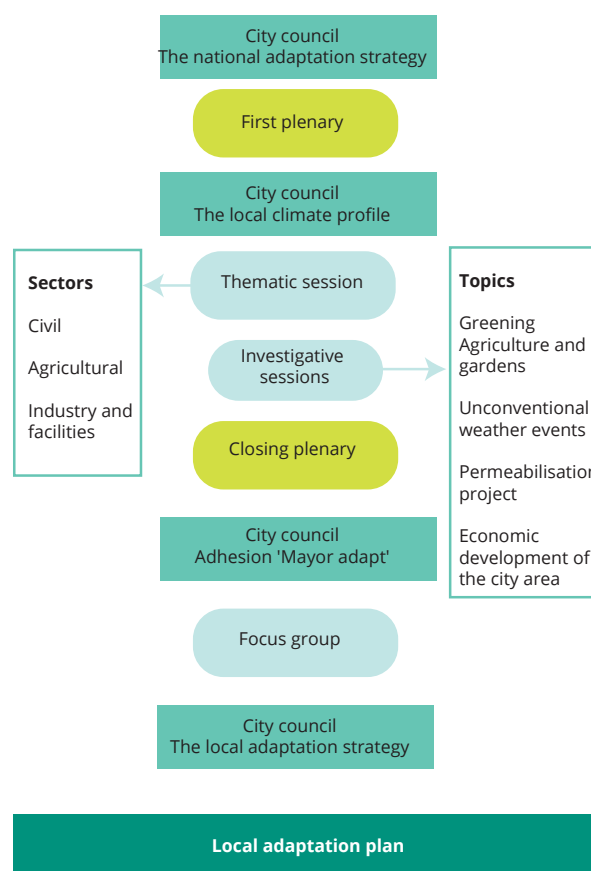
Source: Bologna Città Resiliente/Bologna Resilient City (BLUE AP layman's report).

To help Bologna in carrying out all these activities, it would be helpful if Climate-ADAPT could focus more on examples of adaptation strategies, plans and actions in cities.

([46]) http://climate-adapt.eea.europa.eu/eu-adaptation-policy/covenant-of-mayors
([47]) http://climate-adapt.eea.europa.eu/data-and-downloads#b_start=0
([48]) http://climate-adapt.eea.europa.eu/sat
([49]) http://climate-adapt.eea.europa.eu/sat
([50]) http://climate-adapt.eea.europa.eu/eu-adaptation-policy/covenant-of-mayors
([51]) https://www.rainbolife.eu/en
([52]) http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=6102