

The water system map for Europe

Many landscapes in Western Europe have been altered for agricultural intensification and urban development. These changes have decreased the resilience of hydrological systems. Climate change is increasing the frequency and extremity of weather events, resulting in droughts and floods that have an unacceptable impact on society. The challenge for land use planning is to restore sufficient natural diversity of ecosystems and create (semi-)natural opportunities for ecosystem service development that can compensate for climate change and anthropogenic impact. This is known as Ecosystem-based Adaptation (EbA) and is considered an important approach to increase resilience against flooding and droughts. However, random implementation of EbA measures in the limited available space of our landscapes is not effective.

A spatial prioritisation tool for climate change adaptation measures

To provide guidance to the implementation of Ecosystem-based Adaptation (EbA) measures, we produced a 'water system map' for the 2 Seas region, including catchments in the Netherlands, England, Flanders and France. This spatial prioritisation tool displays how the landscape functions from a hydro-geomorphic point of view. It identifies hotspots of hydrological functioning that are conditional to sustain system functioning (e.g. key recharge zones, landscape depressions, seepage areas, moorlands, frequently inundated areas). Restoring functional ecosystems in these hotspots within the landscape would provide an increased resilience to system disturbances.

A cross-border cooperation

From November 2017 to February 2023, 10 partners from Flanders, the Netherlands and the United Kingdom work together on PROWATER. The project has a budget of more than 5.5 million euros. In each country, water production companies, governments and research institutes as well as land managers are involved in order to achieve a supported vision for Ecosystem-based Adaptation.

The project PROWATER receives 3.315.974 € through the Interreg 2 Seas fund, co-funded by the European Regional Development Fund (ERDF), to work on climate change adaptation and to increase resilience against droughts and extreme precipitation based on ecosystem services. Interreg 2 Seas is a European territorial cooperation programme for the United Kingdom, France, the Netherlands and Belgium (Flanders).

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WATER SYSTEM MAP :**



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