

How can agriculture support water resilience in Europe?

Case studies from across the continent

Agriculture and water have a symbiotic relationship. While we're heavily reliant upon water for growing our food in Europe – with agriculture accounting for around 40 % of total annual water use per year on the continent - unsustainable land use practices by the agricultural sector are currently a major threat to European water resilience.

In some regions, agricultural practices that degrade land are accelerating drought and desertification brought on by climate change. Indeed, the way land is used for growing food determines its ability to hold and store water over time, meaning agriculture can make or break water availability in certain areas. Agricultural runoff is also one of the number causes of water pollution on the continent

Producing food in a way that supports both food and water security will be key to mitigating and adapting to the environmental crisis we face in the coming years. Thankfully, a growing body of evidence suggests that nature-based solutions, such as holistic landscape restoration and regenerative agriculture, offer promising avenues for addressing these challenges head-on.

In this event, we will spotlight real-world examples of water resilience projects from across Europe. These case studies will illustrate how restoring degraded landscapes, implementing regenerative farming techniques, and enhancing natural water retention capacities can yield significant benefits for both people and the planet.

Event programme

1. Opening and initial discussion: how can agriculture support both food and water security and resilience in Europe?
2. 5-minute presentations from 2-3 speakers from different regions in Europe (see case studies below): What are the main challenges you face when it comes to water resilience in your agricultural work, and what solutions have you found to be effective?
3. Break-out rooms per case study, enabling participants to dive deeper into water resilience techniques in the type of ecosystem they are most interested in.
4. Closing discussion: what are the systemic barriers you face? How can decision-makers (policy and finance actors) create an enabling environment for you to ensure water resilience in your region?

The case studies include:

1. The use of regenerative agricultural techniques to reverse desertification in Southern Spain: Farmers in Spain from the AIVelAI Association have been drawing upon ancient water retention and harvesting techniques – like building swales and keylines, and employing agroecological practices like cover crops -

to improve soil fertility, prevent erosion, and increase water infiltration rates, leading to more resilient agricultural systems.

2. Using nature-based water filtration techniques in Ireland: Land managers and farmers in Waterford, Ireland, have pioneered nature-based water filtration systems like creating wetlands to improve water quality and availability in a region where dairy farming dominates.
3. Soil health for better water retention in The Netherlands: Farmers operating in the Peat Meadow landscape surrounding Amsterdam are experimenting with multiple regenerative farming practices to ensure healthy moist soils.
4. Agro-forestry in the French Adour Garonne Region: Farmers and other stakeholders in France's Adour Garonne Region are employing agroforestry as a way to boost biodiversity and restore their local river basin, in response to dwindling water availability at the regional level.

As Europe grapples with the complex challenges of water resilience, these case studies offer tangible examples of the potential of nature-based solutions in different types of ecosystems. During the event, participants will have the opportunity to dive deeper into techniques for specific biomes through the break-out rooms.

By scaling up landscape restoration efforts and promoting regenerative agricultural practices, Europe can chart a course towards food security and a more sustainable, water-secure future for all.