Municipality of Santorso sites, Italy

Year of issue

2026

Summary

In Veneto (Italy), floods, landslides and erosive phenomena have severely affected the region in recent years. Municipalities are exposed to the risk of flooding. This is exacerbated by increasing land consumption, which is more pronounced in northern Italy than in the rest of the country. For this reason, the municipalities of Santorso and Marano Vicentino (in the northern province of Vincenza) have implemented sponge measures in order to mitigate pluvial flooding and improve rainwater management.

Photo Gallery



Location

45.7361111, 11.390555555556

Project

SpongeScapes

Sector

Urban

Overview

Location of the project

The municipality of Santorso (see also related case studies "Timonchio site, Italy" and "Agripolis site, Italy") is located near the Venetian Pre-Alps,and the area is crossed by two main rivers, the Leogra and the Timonchio, as well as by artificial channels. These waterways have played an essential role in the historical development of manufacturing processes and industrialisation, and are still used today for irrigation and runoff control. The history of the region has had a significant influence on the landscape (mix of agricultural, industrial and residential areas).

Sponge measures implemented in the case study

Rain Gardens

Objectives

The main objective of the case study is to analyse the impacts of the widespread adoption of the sponge measures in such a heterogeneous, anthropised environment. The co-benefits and trade-offs associated with these interventions will also be analysed, taking into account their economic implications for local stakeholders.

Involved partners

Authority type	Authority name	Comments
Other	Municipality of Santorso	—
Research institute / University	University of Padua	Department of Land, Environment, Agriculture and Forestry

Design and Implementation

Project area specifications

The sponge measures include various types of natural water retention measures, such as rain gardens, bioretention, grassed swales, pervious pavement or infiltration trenches. In addition, the water retention basin built in a rural area (municipality of Schio) allows water to be stored for irrigation, reducing drought damage to two neighbouring farms and enabling farmers to produce more profitable crops. It also offers ancillary benefits in terms of biodiversity and new recreational services. The implementation of these small, simple but effective solutions has solved some hydraulic problems and prevented flooding in residential and agricultural areas.

Policy and Governance

Policy description

The sites of these case studies are located at the foot of the Venetian Pre-Alps and the area is crossed by two main rivers, the Leogra and the Timonchio, as well as by artificial channels. These waterways have played an essential role in the historical development of manufacturing processes and industrialisation, and are still used today for irrigation and runoff control. The history of the region has had a significant influence on the landscape (mix of agricultural, industrial and residential areas).

Part of a wider plan

Oui

Public consultation

Non

Has contractual arrangements

Non

Impacts and Monitoring

Monitoring System

Monitoring parameters

From 2020, the sponge measures are being monitored to accurately assess the effectiveness of the measures in terms of water retention and infiltration.