OPTAIN : Bassin versant de la Wimbe [Belgique]

Year of issue

2025

Summary

Le bassin de la Wimbe couvre environ 112 km² et est classé comme une biorégion continentale. Le bassin comprend les masses d'eau LE8-10. Les communes situées dans le bassin sont Daverdisse, Wellin, Beauraing, Gedinne et Rochefort. L'utilisation des sols dans le bassin est répartie comme suit : 2 % urbain, 21 % terres arables, 11 % prairies et 66 % forêts. La région traversée par le cours d'eau est représentative de la Famenne schisteuse et le paysage y est ouvert. La région est vulnérable à la fois aux inondations et aux faibles débits. La zone est également vulnérable à une concentration en nitrates dans l'eau dépassant ou susceptible de dépasser 50 mg/l, ce qui peut avoir entraîné ou est susceptible d'entraîner une eutrophisation.

The OPTAIN project will support the case study team with identifying and developing efficient land management strategies and small technical solutions to improve the soils' infiltration and water holding capacities as well as its capacity to filter, buffer and transform pollutants.

Photo Gallery



Location

50.067272, 5.226663

Project

OPTAIN

Sector

Agriculture

Contact

Ghent University

Overview

Country

Belgium

Sponge measures implemented in the case study

Buffer strips and hedges

Wetland restoration and management

Maintenance of forest cover in headwater areas

Forest riparian buffers

Involved partners

Authority type	Authority name	Authority role	Comments
NGO	Natagriwal	Determination of design details of the measure	They advise farmers, land owners related to implementing the measures, also support related to the administrations, regarding the design, yes to some extent they do this. They are “A non-profit association or ASBL
NGO	Natagora	Implementation	They implement the measures to some extent, or help in implementing the measure. They also maintain the measures that they implement.
NGO	CRLesse	Implementation	They implement measures via the funding given to them by the government. They are “A non-profit association or ASBL. Their role is to bring together all water users with the aim of maintaining or restoring good ecological status of the water, through concerted management, each within the framework of their responsibilities."

Site Information

Precipitation

844.00 mm

Temperature (°C)

9.80 °C

Evapotranspiration

405.00 mm

Runoff

331.00 mm

Elevation range

250-299 m

Soil type

Cambisols

Vegetation class

La surface agricole (~35 %) est principalement cultivée avec des graminées. Du maïs et des céréales y sont également cultivés en plus des graminées.

WFD Ecological status

Good

WFD Chemical status

Failing to achieve good

Financing

Financing authorities

Authority name	Type of funding	Comments
CAP Pillar 2	EU-funds: Rural development funds	EU funds
Wallonie government	Sub-national funds	regional funds

Policy and Governance

Policy description

The Wimbe basin is vulnerable to both flooding and low flow events. Agricultural activity within the watershed has impacted the quality of the water, leaving the area vulnerable to nitrate pollution, with concentrations exceeding 50mg/L in certain areas, and instances of eutrophication documented.

The project will be implemented in coordination with the following stakeholders: Contrat de rivière Lesse, Parc Naturel de l’Ardenne Méridoniale, Natagriwal, Fédération Belge du Secteur de l’eau Belgaqua, SPW-GISER Agriculture, Ressources Naturelles et Environnement, Fédération Wallonne de l’Agriculture, Province Namur Cellule Cours d’Eau, Commune de Daverdisse, and local farmers.

Land ownership

Environ 70 % des terres agricoles sont louées.

Policy targets

Erosion Control

Pollutants Removal

Peak-flow reduction

Requirement directive

Requirement directive
Common Agriculture Policy
Nitrate Directive (NiD) 91/676/EEC
European Natura 2000 Network

Part of a wider plan

Oui

Wider plan

Wider plan type
Regional

Public consultation

Non

Has contractual arrangements

Non

Impacts and Monitoring

Monitoring System

Presence of formal monitoring system

Oui

Lessons Learned

Barriers

Barrier type	Barrier role	Comments
Other	Main barrier	loss of land, economic loss
Other	—	administrative burden

Drivers

Driver type	Driver role	Comments
Other	Main driver	landowners, land users
Organisation committed to it	Main driver	Policy makers and advice of experts to policymakers

Success factors

Success factor type	Success factor role	Comments
Available support tools	Main factor	Incentives
Existing staff and consultant knowledge	Main factor	Assistance from non profit organizasation
Existing regulations	Main factor	Legislation