



OPERANDUM

OPEn-air laboRAtories for Nature based
solUtions to Manage hydro-meteo risks

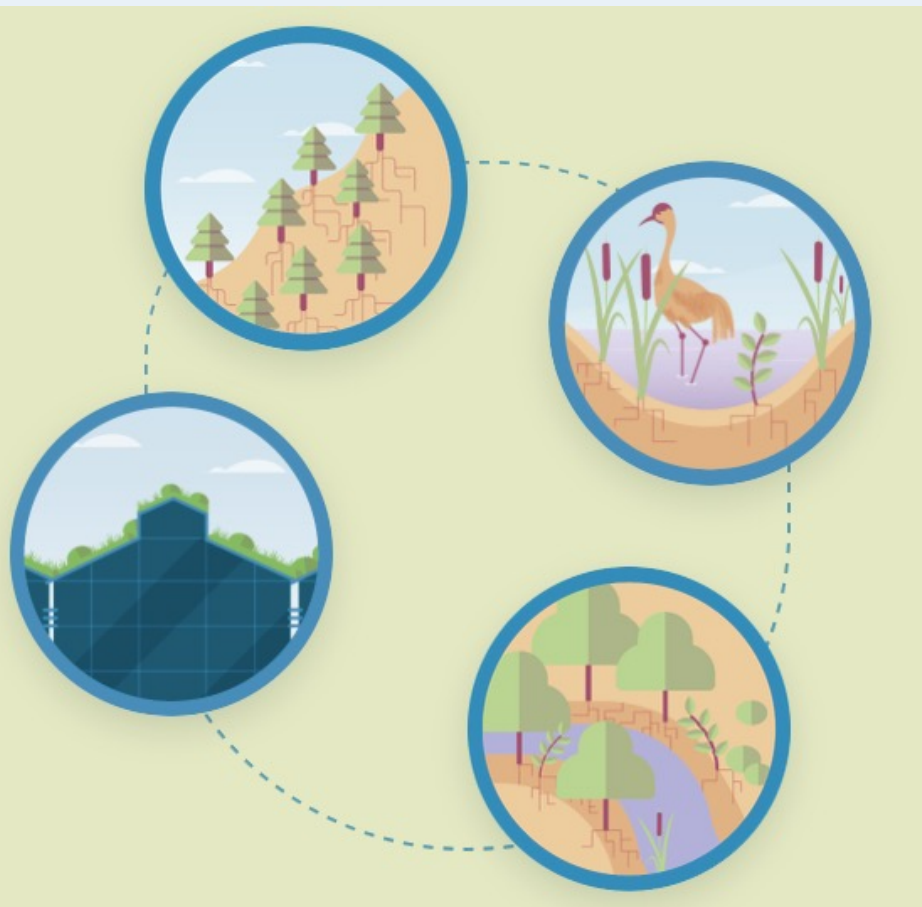
GeoIKP

**Platform for Nature-based Solutions
as mitigation measures for hydro-
meteorological hazards**

Joy Ommer
KAJO
25th May 2022



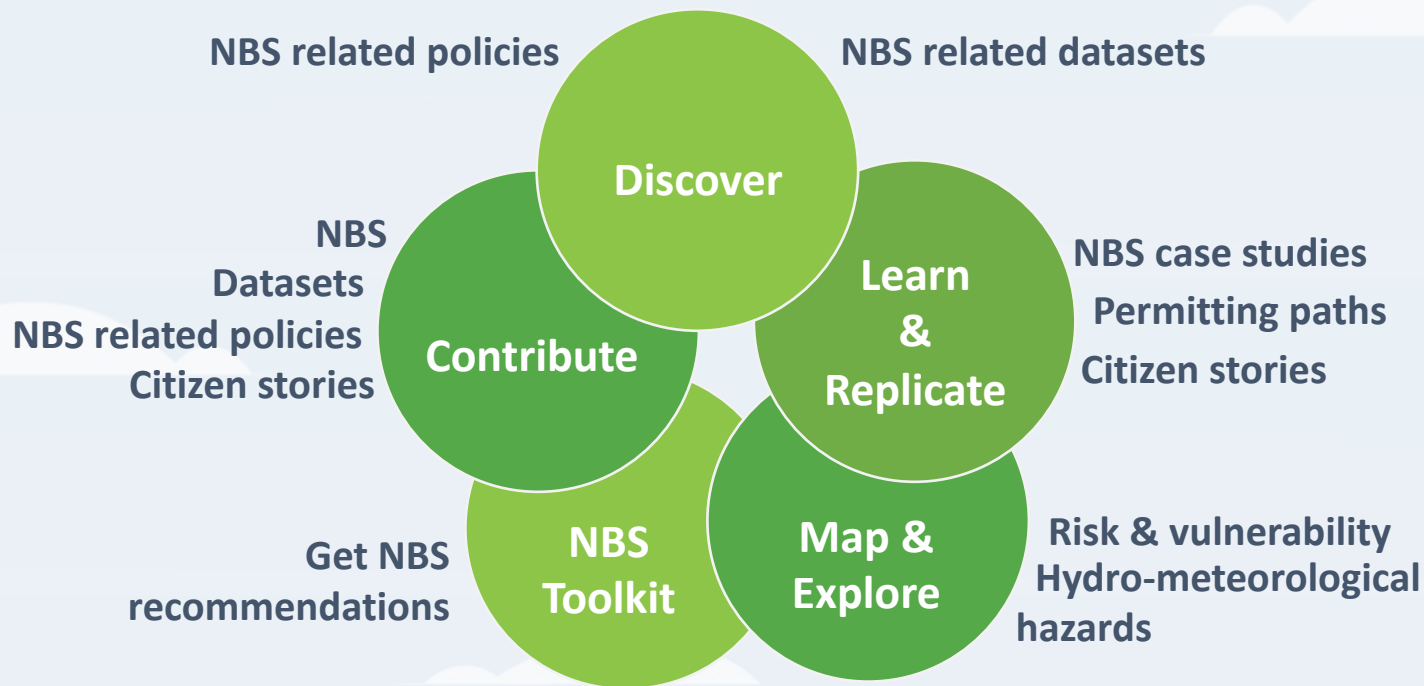
Nature-based Solutions



*‘Nature-based Solutions are **actions to protect, conserve, restore, sustainably use and manage** natural or modified terrestrial, freshwater, coastal and marine **ecosystems**, which **address social, economic and environmental challenges** effectively and adaptively, while simultaneously **providing human well-being, ecosystem services and resilience and biodiversity benefits.**’*

*(United Nations Environment Assembly
(UNEP/EA5/L9/REV.1))*

Platform for Nature-based Solutions



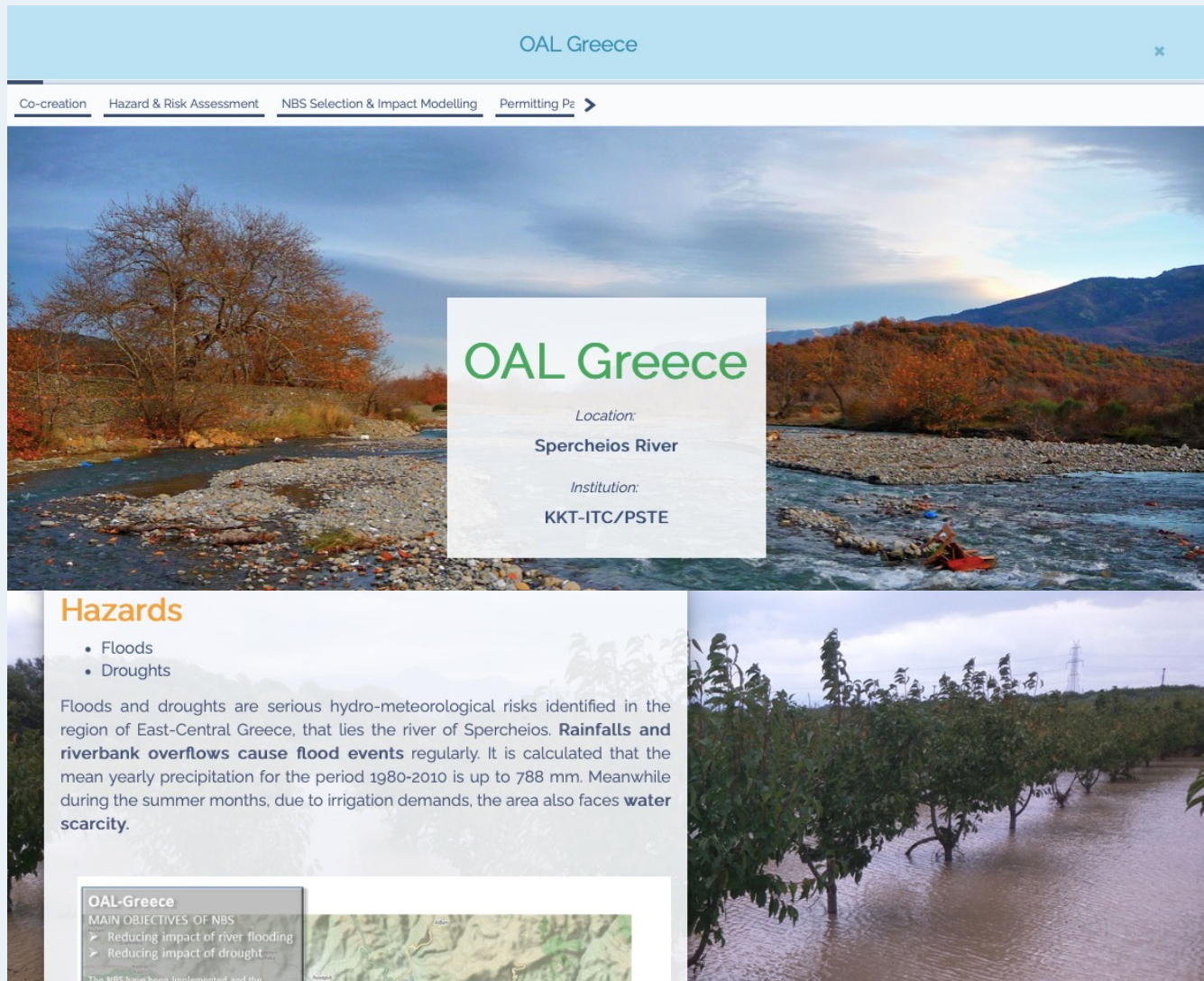
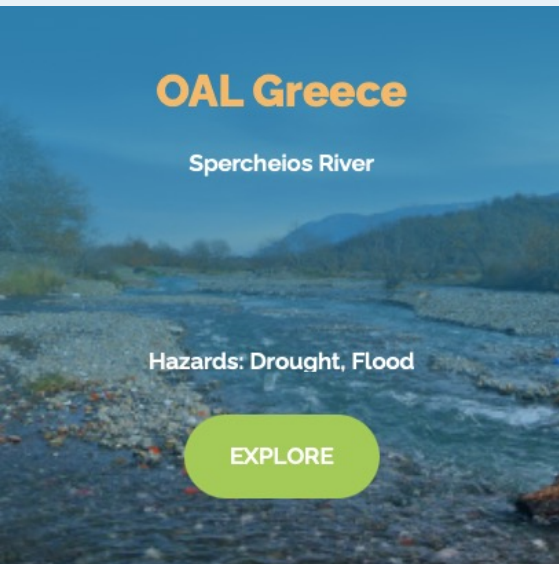
GeolKP



www.geoikp.operandum-project.eu



Open-air Laboratory in Greece



Citizens Getting Active



*Flood and drought prevention
through collaboration between
citizens, the municipality and
local experts*

Greece, Sterea Ellada

Flood, Drought



Basic info

Hazard: Flood, Drought

Nature-based Solution: 1. Restoration and stabilization of the river banks, cleaning the bed material load and widening the river bed 2. Re-meandering the river course 3. Flood storage reservoir with an earth dam

How it started

Starting point: community

First approaches: municipality

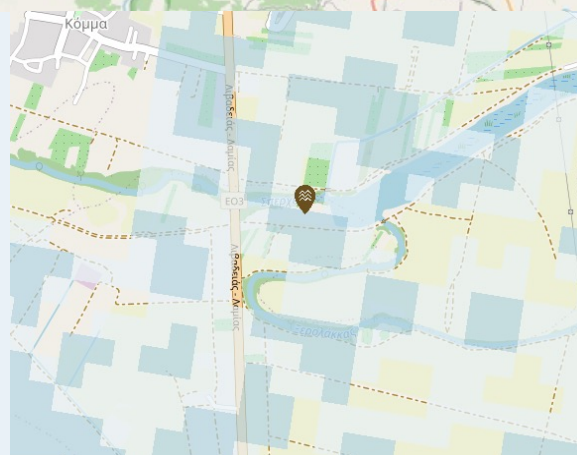
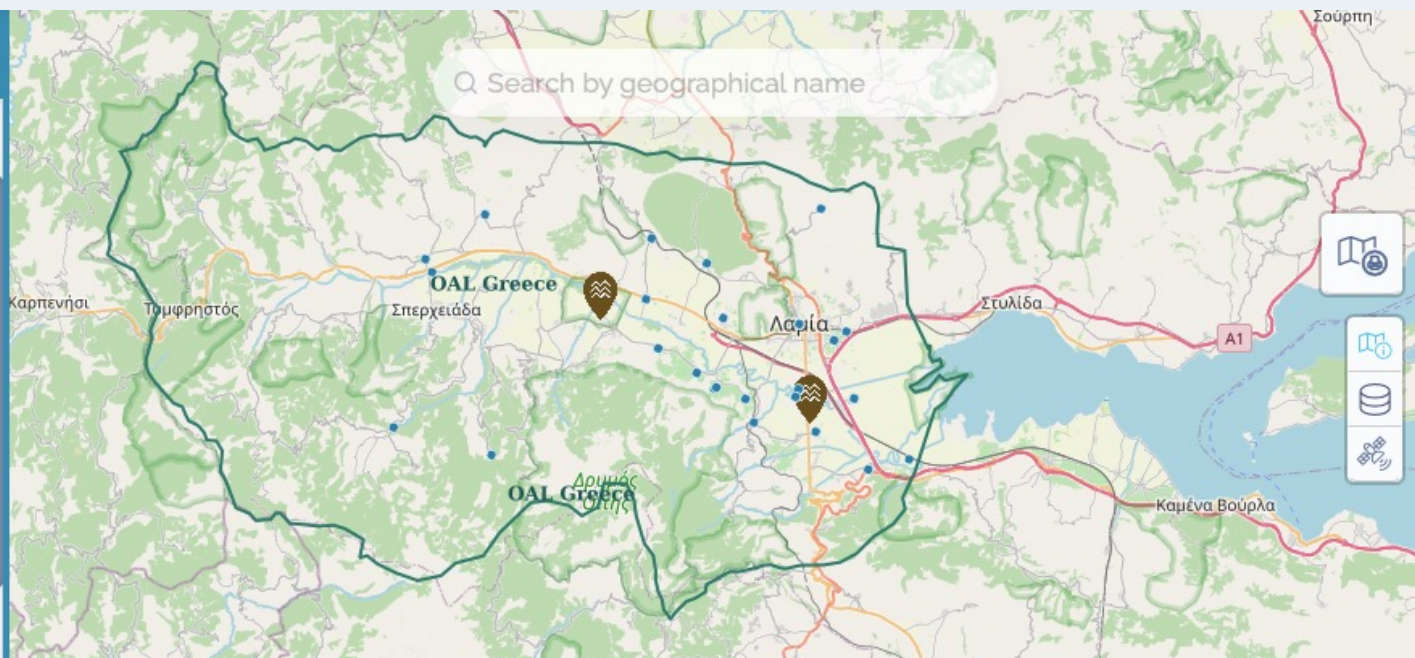
Getting started: Yes, I knew a few people who had the same issue that we cannot go to work sometimes because the bridge is flooded. Together we asked the municipality for help



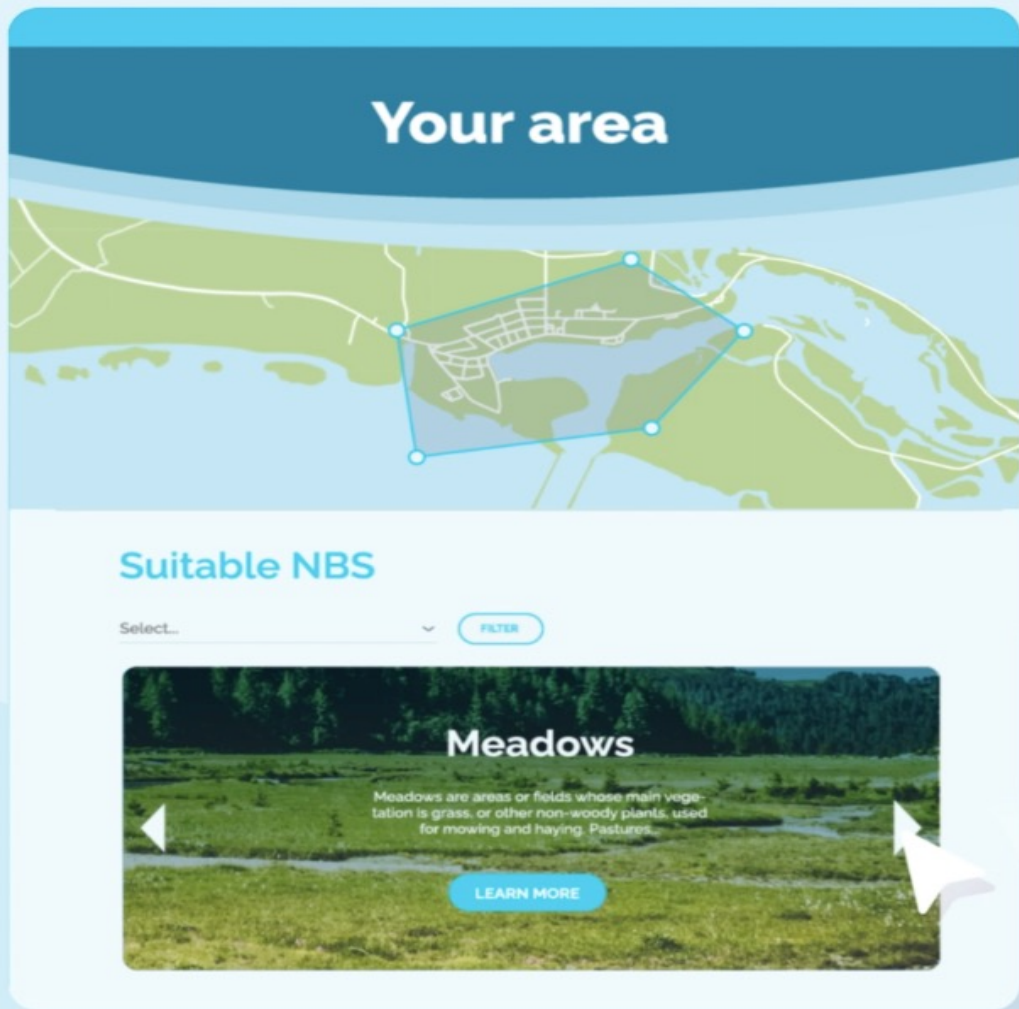
Risk Identification & Site Selection

NBS

- Nature Reserves (OAL EL)
- Railroad Network (OAL EL)
- River Network (OAL EL)
- Settlements (OAL EL)
- Weather Stations (OAL EL)
- Water Areas (OAL EL)
- Water Bodies (OAL EL)
- Average Daily Temperature (OAL EL)
- Average Daily Precipitation (OAL EL)
- Disaster Events (OAL EL)
- ☒ Flood Events (OAL EL)



NBS Selection



Explore NBS Examples



Flood, Drought



Intervention type (e.g. green roofs)



SEARCH



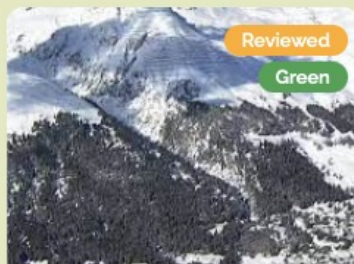
Pending review

Hybrid (green-blue-grey)

A green roof for environmental education at the Aimé Césaire School, Nantes, France

Hazard

Flood



Reviewed

Green

Switzerland Government recognizes the protective capacity of forest against snow avalanches and landslides

Hazard

Snow Avalanche
Soil Erosion
Flood



Reviewed

Hybrid (green-blue-grey)

Water retention basin as water resource for agriculture and flood prevention, Giavenale di Schio, Italy

Hazard

Flood
Meteorological Drought

One Platform Fits All

- ✓ Open-source
- ✓ User customised
- ✓ User-friendly



Scientist

Universities and research organisations engaged in research and development and training of individuals and/or organisations.



Business & Investors

Privately owned profit-orientated business and industrial groups.



Policy-maker

National and local government; organizations which possess membership of more than one country. Public and semi-public entities that have interest in OPERANDUM related topics.



Association

Associations of categories, organizations, interest group.



Citizen

Any person living in close proximity of an OAL or NBS, directly or indirectly impacted or having an influence on the functioning of the OAL or NBS.



News & Media

Any other stakeholder that might use OPERANDUM's GeoIKP to acquire information about the project or NBSs, including social media and news outlets.

Shaping the Platform Together



The GeoIKP Platform:

<https://geoikp.operandum-project.eu>

The GeoIKP video:

<https://youtu.be/WRLnVSO3dMk>

NBS Toolkit video:

<https://geoikp.operandum-project.eu/nbs/toolkit>

The OPERANDUM website:

<https://www.operandum-project.eu>



OPERANDUM

OPEn-air laboRAtories for Nature baseD
solUtions to Manage hydro-meteo risks

www.operandum-project.eu

Thank you!

Joy Ommer
KAJO

joy.ommer@kajoservices.com



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 776848.
The publication reflects only the authors' views and the European Union is not liable for any use that may be made of the information contained therein.