

**Support to EU Danube Strategy  
Danube Land and Soil Nexus**

**Workshop to develop 250,000 soil database for Danube Basin using eSOTER methodology**

# **Bosnia and Herzegovina**

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**JRC – Ispra - Italy,  
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# State of soil data products

**Main source of soil data:** Soil map of Bosnia and Herzegovina in analog format

**Scale:** 1:50,000

**No. of sheets:** 116 (out of it 71 cover BiH, 45 sheets are border with neighbouring countries), each covering 56,000 ha

**No. of observed locations:** around 400 per sheet

**Type of profiles:** representative and reference profiles

## **Attributes:**

Table 1. Field observation for all profiles grouped in a systematic order, laboratory analysis of all topsoil horizons of all profiles (pH in H<sub>2</sub>O and KCl, and available P<sub>2</sub>O<sub>5</sub>, K<sub>2</sub>O)

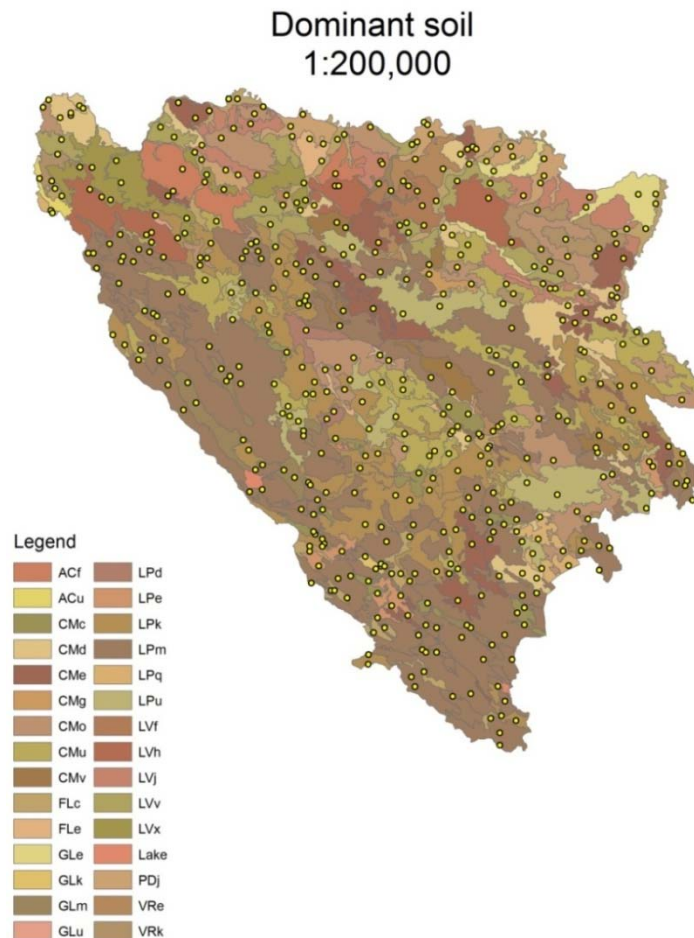
Table 2. Physical properties for all representative profiles (mechanical properties, structure, stability of micro and macro aggregates, bulk and real density, porosity, retention capacity, air capacity)

Table 3. Chemical properties for all representative profiles for all horizons (pH in H<sub>2</sub>O and KCl, total N, humus, CaCO<sub>3</sub>, hydrolytical acidity, adsorption capacity P<sub>2</sub>O and K<sub>2</sub>O)

# State of digital soil data products

Out of total number of profiles (4,000 ), 10% in a digital format

**Needs:** coordinates of profiles should be additionally checked on the field; some samples should be taken for the analysis (in some cases)



# Institutional ability

The Faculty of Agriculture and Food Sciences University of Sarajevo is oldest high educational institution in Bosnia and Herzegovina.

The Faculty has implemented numerous internationally funded projects including TEMPUS, CARDS, PHARE, FP6, FP7 and FAO.

## Institute for Pedology, Agro-chemistry and Melioration (PAM)

### Departments:

- Department of Pedology and Melioration,
- Department of Agro-Chemistry, Chemistry and Bio-Chemistry.

The Institute comprises three modern laboratories: one for chemistry, one for agro-chemistry and one for pedology.

Referent center for CORINE Land Cover Projects.

15 employees, master and PhD students “Sustainable land management and rural planning “

# Institutional ability

## Scientific and Research Work Areas

- **Research of the conditions for the formation of soil, its genesis, evolution, classification, morphology, physical, water-physical, physical-mechanical and chemical properties;**
- **Application of GIS in development of specific-purpose maps required for land classification, restructuring and protection;**
- **Research of soil fertility** (macro and micro-element supplies), fertilization of farming crops with organic and mineral fertilizers, physiology of plant nutrition;
- **Research of water balance** (evapotranspiration, soil water deficits), irrigation regime and methods and their impact on the yield and quality in major farming crops;

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**-Research of soil erosion and conservation measures;**

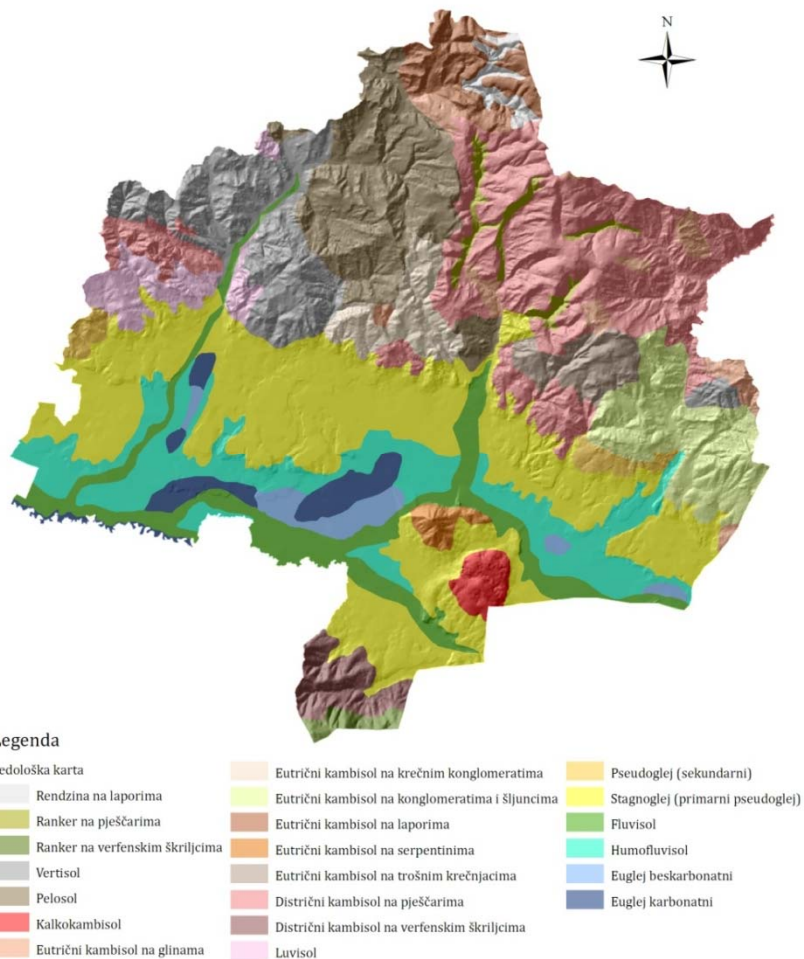
**-Research of soil drainage options, organization and ways of maintenance and exploitation of drainage channels and systems;**

**- Soil-water-plant interactions;**

# Institutional ability

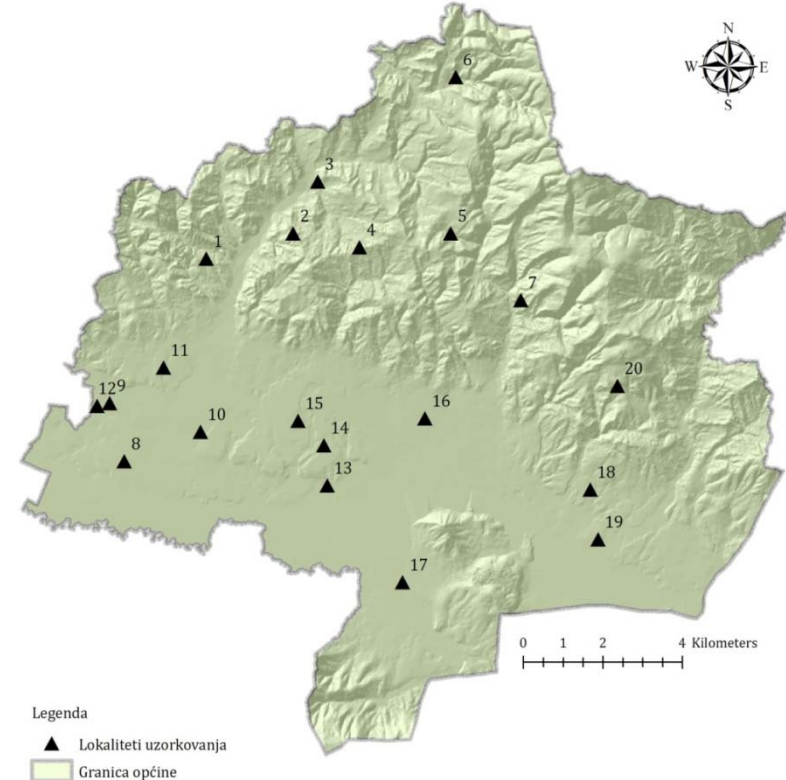
**Institute for Pedology, Agro-chemistry and Melioration (PAM)** has an interdisciplinary team gathered around the concept of sustainable development that carries out technical and other tasks related to **soil management, mapping and surveying of land, land and soil availability and quality, definition of agricultural land areas and their rational utilization, land capability.**

Pedološka karta



Općina Kalesija

Lokaliteti uzorkovanja zemljišta za analizu sadržaja teških metala





**THANK YOU**