ReSoil® by envit

The Study Case #8 – ReSoil®-Agro in Meza Valley, SLOVENIA

Information of site owner/site provider

- Municipality Prevalje, Slovenia
- Source of funding: EU HORIZON-RIA, grant agreement No. 101112723

Objective

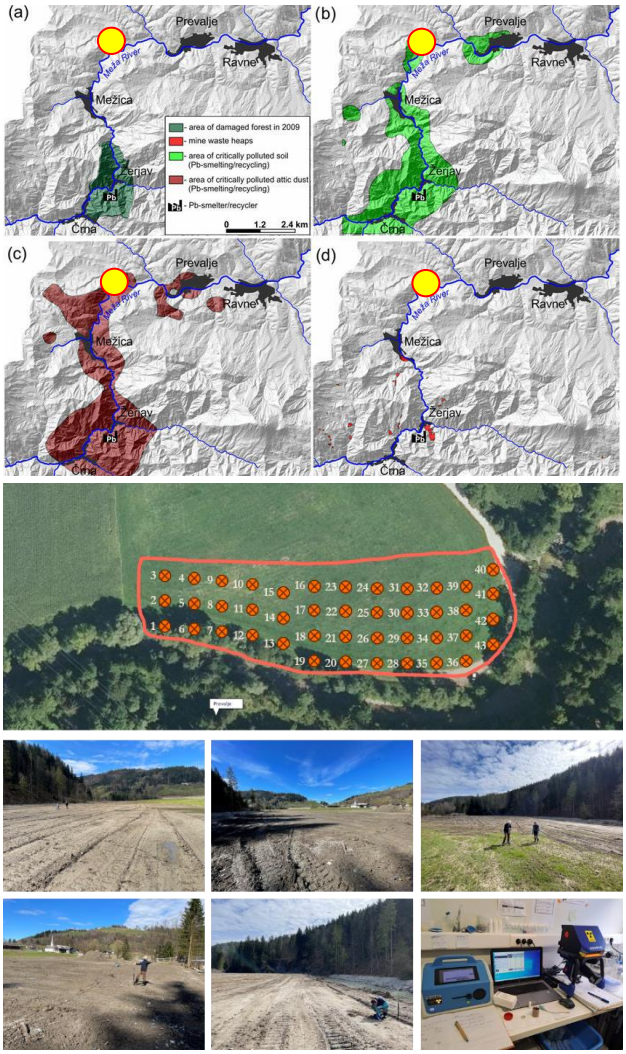
ReSoil® technology appraisal under the EU Horizon ARAGORN project. ARAGORN assesses its sustainability, contaminant removal effectiveness, and environmental remediation viability.

Contaminated site characterization

- Remediation of soil, contaminated with 1239 mg kg^{-1} Pb, 2190 mg kg^{-1} Zn, 11 mg kg^{-1} Cd, and 1200 mg kg^{-1} Mn
- pH: 7.4

Remediation results

- 72% Pb, 8% Zn, 52% Cd and 46% Mn were removed



Source: Envit Ltd. and Polluted areas in Meza Valley in Žibret et al., 2018. Land Degradation & Development, 29(12).

Site description

The Meza Valley in Slovenia has a 500-year history of lead-zinc mining, leading to environmental contamination. Flooding has spread pollutants downstream, affecting areas like Prevalje. Devastating floods in the autumn of 2023 worsened contamination, highlighting the urgent need for soil remediation.

ReSoil® REMEDIATION EFFICIENCY

Initial metal concentration

Pb	Zn	Cd	Mn
1230 mg kg^{-1}	2190 mg kg^{-1}	11 mg kg^{-1}	1200 mg kg^{-1}

Reduction in metal concentration