

## **JOINT RESEARCH CENTRE**

# **EUROPEAN SOIL DATA CENTRE (ESDAC)**

## Post-fire soil erosion in Europe

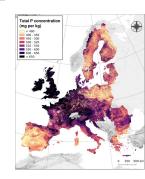
Annually, millions of hectares of land are affected by wildfires worldwide, disrupting ecosystems functioning by affecting on-site vegetation, soil, and above- and belowground biodiversity, but also triggering erosive off-site impacts such as water-bodies contamination or mudflows. In a JRC study, we present a soil erosion assessment following the 2017's wildfires at the European scale, including an analysis of vegetation recovery and soil erosion mitigation potential. Results indicate a sharp increase in soil losses with 19.4 million Mg additional erosion in the first post-fire year when compared to unburned conditions. Over five years, 44 million tons additional soil losses were estimated, and 46% of the burned area presented no signs of full recovery. Post-fire mitigation could attenuate these impacts by 63 to 77%, reducing soil erosion to background levels by the 4th post-fire year. Those insights may help identifying target policies to reduce land degradation in post-fire areas. Data are available:



https://esdac.jrc.ec.europa.eu/content/post-fire-soil-erosion-europe

## Measured data on Total Phosphorus in EU

As part of LUCAS 2009/2012, the laboratory analysis of samples included Total Phosphorus. Measured data for 21,681 samples across the EU and the UK are made available. The available P was already distributed with the dataset on <u>chemical properties</u>. The Total P spatial distribution in the EU agricultural soils follows similar spatial patterns to the ones of available P with a mean concentration of 572 mg P kg $^{-1}$ . This means that the ratio between available P and Total P is about 1:17 in European agricultural lands with high regional variation. In addition we provide a consolidated file of LUCAS 2009/2012 including the Total P. Point data and maps are available:



https://esdac.irc.ec.europa.eu/content/phosphorus-budget-and-p-stocks

### Soil Mission Calls (2023) are open

Under Horizon Europe, the European Commission funds research and innovation in order to protect and restore soils in Europe and beyond. This funding is in line with the EU Mission "A Soil Deal for Europe". The call for proposals for 2023 is open till **20.9.2023**. This includes the following 9 topics: Discovering subsoil, prevent & combat desertification, soils in spatial planning, soil friendly practices in horticulture, bringing communities & citizens closer to soil, digital technologies to monitor nutrients/chemical and biological stressors to soils, carbon farming in living labs, Cocreating solutions for soil health in living labs, soil pollution processes.



https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-search;callCode=HORIZON-MISS-2023-SOIL-01

### **Presentations of the Second EUSO Stakeholder forum**

The Second EUSO Stakeholder Forum confirmed the high level of interest in efforts by the EU and Member States to develop policies to protect soils. The EUSO forum included presentations from high level speakers, working groups and new funded research projects. The 70 presentations are available: <a href="https://esdac.jrc.ec.europa.eu/euso/presentations-2nd-euso-stakeholders-forum">https://esdac.jrc.ec.europa.eu/euso/presentations-2nd-euso-stakeholders-forum</a>



## **Soil Mapping for a Sustainable Future**

This conference takes place in Orleans (France) 7-9 February 2023. Main topics include: Digital Soil Mapping and assessments, Advancing DSM and GlobalSoilMap. Emphasis is given in global, regional and national state of the art DSM products. Also, the conference addresses issues in methodologies, sampling, validation, uncertainties and use of DSM products for decision making.



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