

JOINT RESEARCH CENTRE

EUROPEAN SOIL DATA CENTRE (ESDAC)

ESDAC: http://esdac.jrc.ec.europa.eu ESDAC Newsletter No 147 (November 2022)

Multiple concurrent soil erosion processes

Using a multi-model approach, we show the spatial risk of soil erosion by water, wind, tillage and harvesting and where the co-occurrence of these different processes is observed. Moreover, in a study in Nature Sustainability, we analysed where these locations of multiple erosion co-occurrence are likely to intersect with the projected increase of dry/wet climate conditions. Of the circa 110 million hectares (M ha) of arable land in the European Union, our estimates show that 43 M ha are vulnerable to a single driver of erosion, 15.6 M ha to two drivers and 0.81 M ha to three or more drivers. About 3.2 M ha of arable land are vulnerable to the possible interaction of increased flood, drought, water and wind erosion. For first time, we also present the data on tillage erosion. Data for all erosion processes are available:



https://esdac.jrc.ec.europa.eu/content/multiple-concurrent-soil-erosion-processes

Recordings and presentations of the Second EUSO Stakeholder forum

With the involvement of the Slovak State Secretary, several Commission services, and almost 1000 registrations, the Second EUSO Stakeholder Forum showed the high level of interest in efforts by the EU and Member States to develop policies to protect soils while enhancing the ecosystem services that they provide. The event was very well-received, with participants from over 70 countries. The Forum was an opportunity to showcase the EUSO work of the JRC to a global audience. The EUSO is an excellent example of how the JRC is providing technical support and scientific knowledge to efforts that go towards meeting the objectives of the Green Deal. In the Stakeholders Forum, we had the opportunity to update the audience on various themes including: the latest developments in EU soil policy, the state of soil science, new and ongoing soil research projects as well as methods to assess soil health in the EU and beyond. Agenda, recordings and presentations are available from



https://esdac.jrc.ec.europa.eu/euso/second-euso-stakeholders-forum

Soil erosion workshop (June 2022)

In June 2022, the **EUSO technical working group on Soil Erosion** organized a 3-days workshop addressing the following challenges in relation to soil erosion: Climate change, farm/field scale modelling, large scale modelling, mitigation options & management practices, linking landslides to erosion, sediments dynamics, early career research on land degradation, soil organic carbon and food security. With 333 participants from 63 countries, the workshop addressed various issues in soil erosion research, 70 presentations are available from this workshop:



https://esdac.jrc.ec.europa.eu/euso/euso-wg-soil-erosion-europe

ESDAC 2.0

The European Soil Data Centre (ESDAC) hosts more than 95 blocks of datasets, 6000 maps, six soil atlases, 500 scientific publications, and a copious amount of soil-related material. Through its data repository publishing activities, ESDAC has licensed over 50,000 datasets during the past 15 years; 10,000 of them in 2022 alone. It has published 147 monthly newsletters and it is followed by more than 12,000 subscribed users, who receive regular updates. In this study, we make a summary of ESDAC performance and provide insights on future developments: new data flows (LUCAS modules, HORIZON programmes) plus technical advancements. Data in ESDAC:



https://esdac.jrc.ec.europa.eu/resource-type/datasets

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