

## **JOINT RESEARCH CENTRE**

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

ESDAC: http://esdac.jrc.ec.europa.eu EUSO/ESDAC Newsletter No 163 (March 2024)

#### **Land suitability in temperate Europe**

Land suitability assessment is used in conjunction with geographic information systems to spatially model diverse aspects of soil functions, having the potential to facilitate a sustainable increase in agricultural production, reduce land degradation, or aid humans in adapting to climate change. Compared to the existing datasets, this study provides a new higher resolution geospatial assessment of the agricultural land suitability for several crops and land uses in the temperate continental climate across Europe. This dataset includes land suitability maps for several crops and land uses (14 crops , 7 fruit trees, 3 land-use types) in the temperate continental climate of Europe (2.7 million Km²). To model the land suitability we used geospatial data depicting seventeen eco-pedological indicators (e.g. soil texture, pH, porosity, temperature, precipitation, slope). Data available:



https://esdac.jrc.ec.europa.eu/content/land-suitability-temperate-europe

#### **Database on Soil health related citizen-science projects**

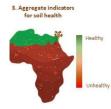
Soil-related citizen science projects have gained significant interest driven by the prominence of soil within public policy agendas. EUSO in collaboration with the <u>ECHO</u> Soil Mission project makes a review on previous citizen science projects, initiatives and activities that have engaged citizens to monitor soil. In this work, over 60 citizen science projects that considered soil health were reviewed. Citizen science projects were collected based on literature search, expert interviews, project partner contributions and through the mailing lists of the European Network for Soil Awareness (ENSA) and the European Soil Data Center (ESDAC). Download the database:



https://esdac.jrc.ec.europa.eu/content/soil-health-related-citizen-science-projects

## Vacancy for a researcher in JRC/EUSO: "Soil Scientist for improving soil health in Africa"

The modeller will focus on three major soil functions: 1) Carbon sequestration in the context of climate change 2) Soil biodiversity and habitat provision 3) Productivity in the context of food security and malnutrition; We look for candidates with PhD degree, modelling skills, solid publications record, experience in soil carbon, soil biodiversity, and soil fertility. Application open in the JRC website: <a href="https://recruitment.jrc.ec.europa.eu/">https://recruitment.jrc.ec.europa.eu/</a> (code: 2024-IPR-D3-FGIV-025181). The contract agent position can be up to 6 years—Deadline: 10.4.24. Visit also the 15 ESDAC announcements for soil-related posts: <a href="https://esdac.jrc.ec.europa.eu/vacancies">https://esdac.jrc.ec.europa.eu/vacancies</a>



### 46 Publications from the JRC EUSO group in 2023

In 2023, the JRC EUSO group published 46 papers in peer review journals. The section on Publications in Journals includes around 400 published papers from the Soil Group in the JRC. Most of the papers refer to the last 10 years (2013-2023). Among others, we select the following ones as highlights: Patterns in soil microbial diversity across Europe (Nature Communications), Projected landscape-scale repercussions of global action for climate and biodiversity protection (Nature Communications), Soil biodiversity needs policy without borders (Science), Policy implications of multiple concurrent soil erosion processes in European farmland (Nature Sustainability), Ecosystem type drives soil eukaryotic diversity and composition in Europe (Global Change Biology). In most of the cases the papers document the datasets published in ESDAC. Find all the publications of EUSO:



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

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