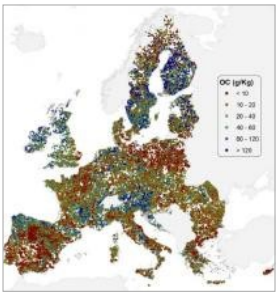
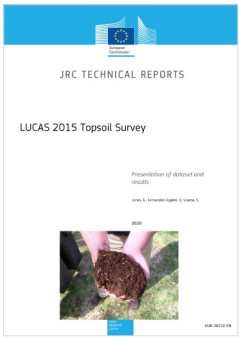
JOINT RESEARCH CENTRE
EUROPEAN SOIL DATA CENTRE (ESDAC)
ESDAC: http://esdac.jrc.ec.europa.eu ESDAC Newsletter No **124** (September - October 2020)

LUCAS soil 2015



The JRC is pleased to announce the release of the soil dataset based on samples collected during the 2015 LUCAS Survey (LUCAS Soil 2015). LUCAS Soil provides harmonised data for the entire territory of the European Union (EU), addressing all major land cover types simultaneously, in a single sampling period (April – October 2015), using a standard sampling protocol and a single laboratory for analysis. Data are presented for **21,859** locations across all EU Member States and cover 90% of the locations where soil samples were taken in 2009 and 2012 (only Romania and Bulgaria). The remaining 10% were substituted by new locations in each country, new territories, and points above 1,000 m elevation. In addition to the parameters analysed in 2009 and 2012, electrical conductivity has been added to measure salt content in soils. Data to be downloaded: https://esdac.jrc.ec.europa.eu/content/lucas2015-topsoil-data

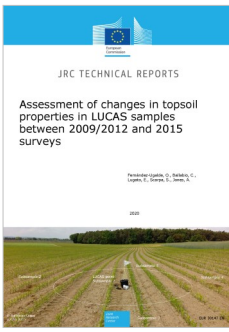
LUCAS 2015 Topsoil Survey (presentation of dataset and results)



This report accompanies the release of the LUCAS 2015 soil dataset. It presents an overview of the laboratory analysis data and provides a detailed description of the results for the EU-28 territory. The report describes the spatial variability of soil properties by land cover (LC) class and a comparative analysis of the soil properties by NUTS 2 regions. The LUCAS Soil Module is the only mechanism that currently provides a harmonised and regular collection of soil data for the entire territory of the European Union (EU). Regular monitoring provides a unique perspective on pressures affecting soils. LUCAS Soil supports the specific needs of the European Commission by collecting data that characterises soil condition and health.

https://esdac.jrc.ec.europa.eu/public_path/shared_folder/dataset/66/JRC121325_lucas_2015_topsoil_survey_final_1.pdf

Assessment of changes in topsoil properties in LUCAS samples between 2009/2012 and 2015 surveys



In this report, we provide a detailed evaluation of the LUCAS topsoil sampling and the laboratory analysis. We also assess changes in topsoil properties between LUCAS 2009/2012 and 2015 surveys based on data of paired samples (i.e. samples collected in revisited LUCAS soil points in 2009/2012 and in 2015). The ultimate goal of this report is to assess the efficacy of the LUCAS Topsoil Module for the early detection of changes in soil conditions, since this is a primary objective for scientific and policy organizations to improve their policies for a sustainable land use and management.

https://esdac.jrc.ec.europa.eu/public_path/shared_folder/dataset/66/JRC120138_lucas_changes_09-15_-_final_1.pdf

More than 280 publications from the Soil group in JRC

Most of the papers refer to the last 7 years (2013-2020). An important number of papers has been published in high impact factor journals: Nature, Nature Climate Change, Nature Communications, Science Advances, Science, PNAS, Global Change Biology, Science of the Total Environment, etc. The publications are relevant to soil themes, functions and threats. The datasets generated during and/or analysed during most of the presented studies are available in the ESDAC datasets section. Almost all the publications are Open Access. You can download them (A hyperlink is provided per each publication): https://esdac.jrc.ec.europa.eu/resource-type/publications-journals

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