



The European Soil Data Centre: a one-stop-shop for soil science

Since the arrival of the European Soil Data Centre in 2006, assessing the state of soils at European level has never been easier, more efficient or more reliable, according to a new report by its designers. The database, which contains state-of-the-art scientific information for a range of key environmental concerns, was accessed 26,000 times in the first 11 months of operation.

Characteristics of soil quality, such as erosion, compaction and loss of biodiversity, are frequently used by policymakers in a wide range of major pieces of EU environmental legislation. For example, knowing where regions of poor soil quality exist has implications for agriculture, water quality, flooding protection, biofuels, biodiversity protection, health and sustainable development policy. This means that access to the most up-to-date, reliable soil data at a European scale is critical to responsible decision-making in all these areas.

The European Soil Data Centre (ESDAC)¹ was designed to be the first point of contact for all the EU's soil data needs. It is an online repository of scientific information (datasets, documents, reports, maps, events and projects) relating to various aspects of soil science. It houses major ongoing initiatives, such as the European Soil Database and data from national research organisations, as well as the results of recent EU-funded projects.

One priority in the design of ESDAC was that it should be simple to access and to use. Through a user-friendly online interface, policymakers can search for information relating to a specific theme (e.g. landslides), or they can view one of around 6,000 maps showing key aspects of soil quality, such as pH or areas most affected by erosion. They can then download as much data as required, providing no copyright restrictions exist.

While the database has valuable uses for policymakers and local authorities, these actually make up less than 10% of the total user population. The largest proportion of the data accessed (68%) is used by scientific researchers, mainly for computer models that simulate the carbon cycle, land use, climate change, biodiversity and habitat management. Nearly 6% of the data accessed is used for education or joint education and research purposes, i.e. for schools and universities.

Since the ESDAC is also available to the general public, it has an important role for raising public awareness of soil-related environmental issues. For example, a section of the ESDAC website provides materials for citizens to present at meetings, conferences and workshops. A monthly newsletter also keeps members informed of updates to ESDAC as well as policy developments and upcoming meetings.

The ESDAC is one of ten 'Environmental Data Centres' situated around Europe to coordinate scientific information in a critically important policy area. Others include natural resources, climate change, waste, land use and forests. Statistics reveal that the ESDAC has been accessed by users in 57 different countries to date, with the biggest proportion coming from Germany (15%), UK (13%), Spain (9%), Italy (8%), France (8%) and the Netherlands (7%). Interestingly, 12% of users have been from outside the EU. How each country uses the data seems to depend on whether they have their own national soil data centre in operation. If not, the ESDAC appears to take over this role.

1. See: <http://esdac.jrc.ec.europa.eu/>
2. European Soil Portal: <http://eussoils.jrc.ec.europa.eu>

Source: Panagos, P., Van Liedekerke, M., Jones, A. & Montanarella, L. (2012). European Soil Data Centre: Response to European policy support and public data requirements. *Land Use Policy*. 29: 329-338.

Contact: panos.panagos@jrc.ec.europa.eu

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