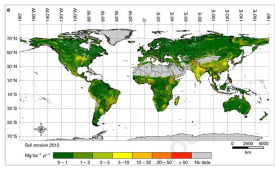
JOINT RESEARCH CENTRE
EUROPEAN SOIL DATA CENTRE (ESDAC)
ESDAC: http://esdac.jrc.ec.europa.eu ESDAC Newsletter No **106** (November 2017)

An Assessment of the global impact of 21st century land use change on soil erosion



Human activity and related land use change are the primary cause of accelerated soil erosion, which has substantial implications for nutrient and carbon cycling, land productivity and in turn, worldwide socio-economic conditions. In a recent published article in Nature Communications, we present an unprecedentedly high resolution (250 × 250 m) global potential soil erosion model, using a combination of remote sensing, GIS modelling and census data. We challenge the previous annual soil erosion reference values (published in the literature), as our estimate of 35.9 Pg yr^{-1} of soil eroded in 2012, is at least two times lower. Moreover, we model the spatial and temporal effects of land use change between 2001 and 2012 and the potential offset of the global application of conservation practices. Our findings indicate a potential overall increase in global soil erosion driven by cropland expansion.

https://esdac.jrc.ec.europa.eu/themes/global-soil-erosion

Land and Soil Management Award

The prize rewards land use and soil management practices mitigating soil threats i.e. soil degradation, erosion, reduction of organic matter content, diffuse contamination and compaction, as well as the reduction of soil biodiversity, salinization, sealing, flooding and landslides. In doing so, the award sheds light on outstanding achievements, encouraging new concepts of land and soil protection and their implementation in land management, as well as enhancing awareness about the importance of land and soil functions. Farmers, landowners, land managers, groups of farmers, on their own or in collaboration with research institutes, universities and/or private companies can apply for the award. Deadline for applications: 31.12.2017

http://www.europeanlandowners.org/awards/soil-land-award

TERRAenVISION, 29 January-2 February 2018, Barcelona

A new conference on Science for Society. This conference aims to focus on the scientific research towards finding solutions for the societal issues of our time. TERRAenVISION promotes interdisciplinary collaboration and networking. Abstract submission for poster contributions are open until 22th January 2018. Oral presentations are only on invitation by the organisers of the sessions (please contact them if you wish to have an oral presentation). Please note that a special session on modelling erosion will be organized.

https://terraenvision2018.eu/

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Are you interested in JRC's soil team projects, publications, events and open positions? You can get continuous updates on all that and much more by following our official Twitter profiles:

Panos Panagos (@PanosPanagos33) Alberto Orgiazzi (@lultimoalbero) Arwyn Jones (@Arwyn_Italy) Cristiano Ballabio (@ballabiott) Luca Montanarella (@mont81258) and Emanuele Lugato (@EmanueleLugato)

Here is the official JRC Twitter account: @EU_ScienceHub

More Details

Download the ESDAC Newsletter: PDF Format. **Feedback**: panos.panagos@ec.europa.eu

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