

Area at risk of severe soil erosion by water (sdg_15_50)

ESMS Indicator Profile (ESMS-IP)
Compiling agency: Eurostat, the statistical office of the European Union

Eurostat metadata

Reference metadata

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Eurostat Quality Profile

4.5. Source data	Joint Research Centre, EC
5.1. Frequency of dissemination	Not Available
5.2. Timeliness	> T+2 years
6.1. Reference area	All EU MS
6.2. Comparability - geographical	All EU MS
6.3. Coverage - Time	> 10 years
6.4. Comparability - over time	3 to 4 data points

Description of Eurostat quality grading system under the following [link](#).

For any question on data and metadata, please contact: [Eurostat user support](#)

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1. Contact

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1.1. Contact organisation	Eurostat, the statistical office of the European Union
1.2. Contact organisation unit	E2: Environmental statistics and accounts; sustainable development.
1.5. Contact mail address	e-mail contact: ESTAT-SDG-MONITORING@ec.europa.eu

2. Metadata update

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2.1. Metadata last certified	31/03/2023
2.2. Metadata last posted	02/05/2024
2.3. Metadata last update	12/04/2024

3. Relevance

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The indicator is part of the EU Sustainable Development Goals (SDG) indicator set. It is used to monitor progress towards SDG 15 on protecting, restoring and promoting sustainable use of land and towards SDG 2 on ending hunger, achieving food security and improved nutrition and promoting sustainable agriculture which are embedded in the European Commission's Priorities under the European Green Deal.

SDG 15 seeks to protect, restore and promote the conservation and sustainable use of terrestrial, inland-water and mountain ecosystems. This includes efforts to sustainably manage forests and halt deforestation, combat desertification, restore degraded land and soil, halt biodiversity loss and protect threatened species.

SDG 2 seeks to end hunger and malnutrition and ensure access to safe, nutritious and sufficient food. Realising this goal will largely depend on promoting sustainable production systems and increasing investment in rural infrastructure and agricultural research and development.

The [Soil Strategy for 2030](#) recognises erosion as a threat to soil in the EU. Europe's [Common Agricultural Policy](#) sets requirements to protect utilised agricultural areas against erosion and establishes a framework of standards that aim, among others, to contribute to preventing soil erosion.

4. Statistical Indicator

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4.1. Data description

The indicator estimates the area potentially affected by severe soil erosion by water such as rain splash, sheet-wash and rills (soil loss > 10 tonnes/hectare/year). This area is expressed in km² and as a percentage of the total non-artificial, erodible area in the country. Where there is no land that is at risk of soil erosion by water of more than 10 tonnes per hectare, a country will have a zero value. Soil erosion may still be occurring in areas of those countries, but at a rate of less than 10 tonnes per hectare.

These numbers are estimated using a modified version of the Revised Universal Soil Loss Equation model (RUSLE 2015), which delivers estimates on a 100 m resolution based on peer-reviewed input layers of rainfall erosivity, soil erodibility, topography, land use and management. The following classes of the [CORINE Land Cover \(CLC\) nomenclature](#) are included: Agricultural areas (2), forest and semi natural areas (3) excluding beaches, dunes, sand plains (3.3.1), bare rock (3.3.2), glaciers and perpetual snow (3.3.5). Generally, artificial, sandy, rocky and icy surfaces as well as wetlands and water bodies are not included.

4.2. Unit of measure

km² and % of the non-artificial erodible area.

4.3. Reference Period

Calendar year.

4.4. Accuracy - overall

Indicator from non-ESS source. For assessment of accuracy please refer to the original source (see link to external data source and metadata in "Annexes").

4.5. Source data

Joint Research Centre, ECData source: European Soil Data Centre ([AEI PR SOILER](#))

Data provider: European Commission – Joint Research Centre (JRC)

5. Frequency and Timeliness of dissemination[Top](#)**5.1. Frequency of dissemination****Not Available**

Indicator is disseminated a-periodically.

5.2. Timeliness**> T+2 years**

New data points are disseminated within 3 years after the reference year.

6. Coverage and comparability[Top](#)**6.1. Reference area****All EU MS**

Data are presented for all EU Member States plus the United Kingdom.

6.2. Comparability - geographical**All EU MS**

Data are comparable between EU Member States and the other presented countries.

6.3. Coverage - Time**> 10 years**

Presented time series starts in 2000. Data points are 2000, 2010, 2016.

6.4. Comparability - over time**3 to 4 data points**

Length of comparable time series without methodological break is 3 data points (2000, 2010, 2016). However, the improved Revised Universal Soil Loss Equation (RUSLE) 2015 model, using 100 m resolution peer-reviewed input layers, has only been used since 2010. Data for the year 2000 are based on a 1 km resolution.

7. Accessibility and clarity[Top](#)**7.1. Dissemination format - Publications**

Analysis of indicator is presented in Eurostat's annual monitoring report on Sustainable development in the EU (progress towards SDGs in the EU context).

7.2. Dissemination format - online databaseSee table [sdg_15_50](#)**7.3. Dissemination format - other**Eurostat dedicated section on SDGs: <http://ec.europa.eu/eurostat/web/sdi/overview>**8. Comment**[Top](#)Copyrights: [Eurostat Copyright/Licence Policy](#) is applicable.**Related metadata**[Top](#)

aei_pr_soiler_esms - Estimated soil erosion by water, by erosion level, land cover and NUTS 3 regions

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