



Soil – A source of life

Closing event of the International Year of Soils 2015

The EU perspective

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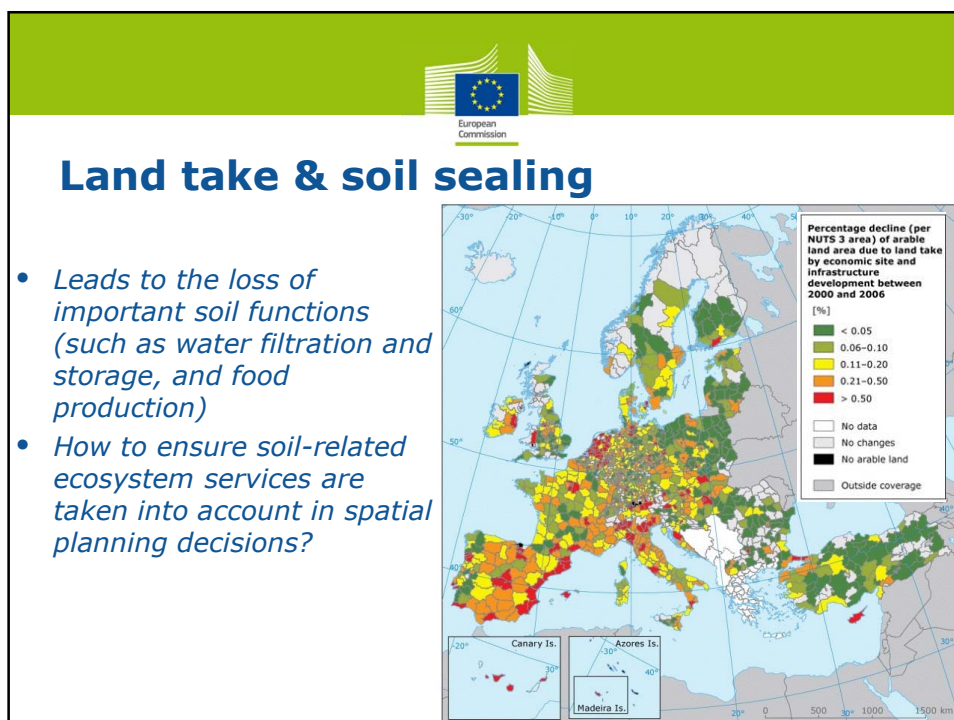
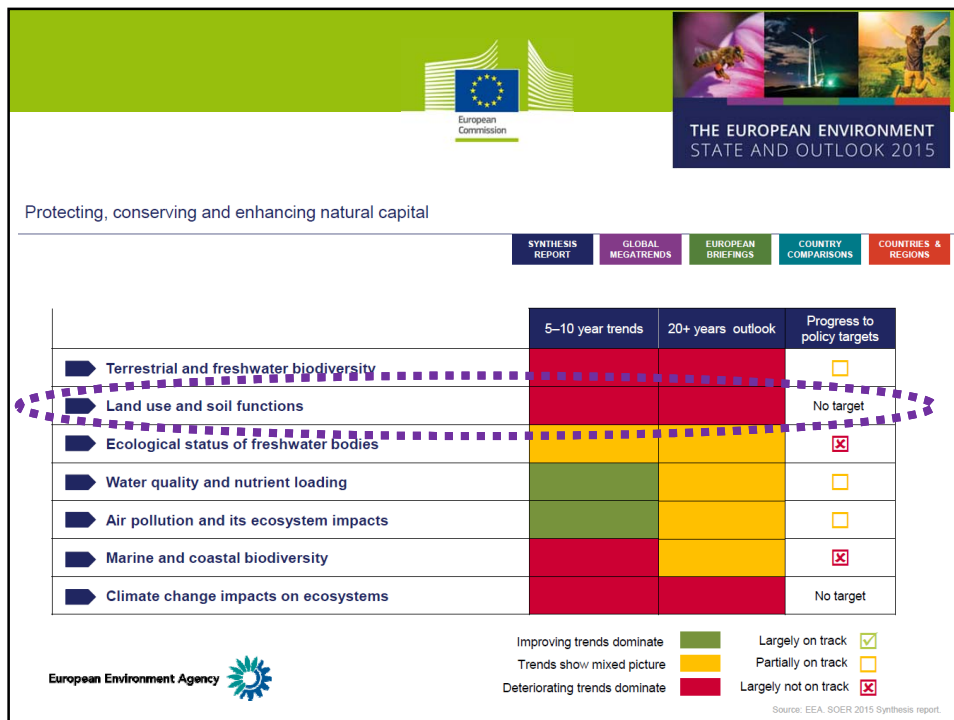


(EEA) European Environment State and Outlook 2015

- *The ability of soil to deliver ecosystem services is under increasing pressure.*
 - **Food production, biodiversity pools and as a regulator of gasses, water and nutrients**
- *Observed rates of soil sealing, erosion, contamination and decline in organic matter all reduce soil capability.*
 - **Organic carbon stocks in agricultural soil may have been overestimated by 25%.**

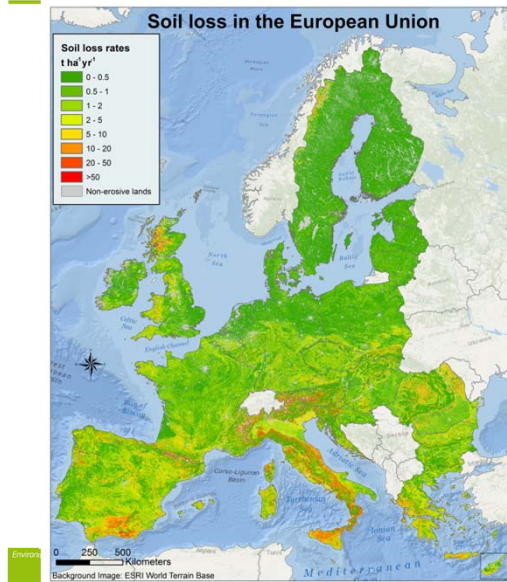
European Environment Agency





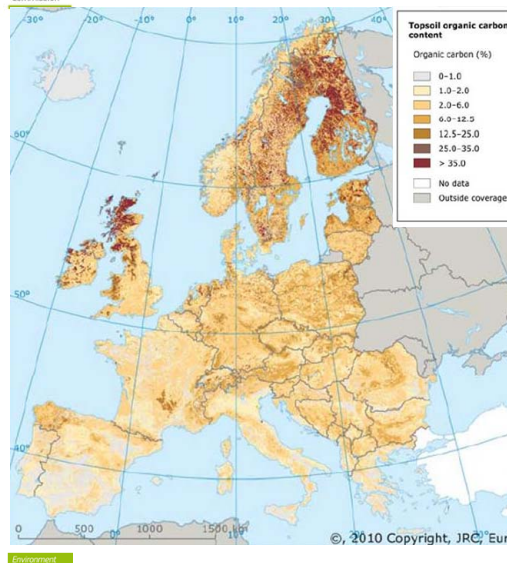
Soil erosion

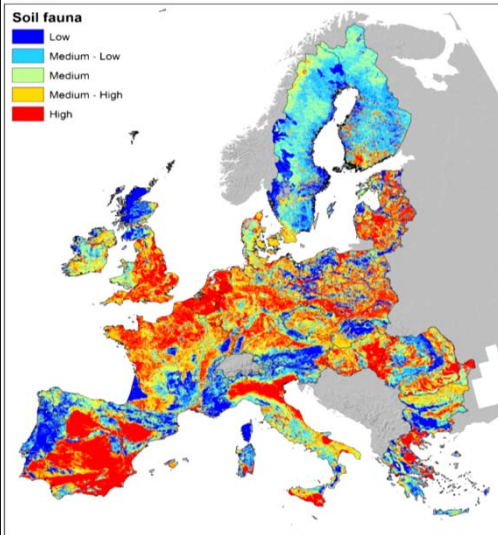
- *Almost 20% of EU soils subject to loss in excess of 10 t/ha/y.*
⇒ **soils move**
- *Loss of productive capacity + impact on water quality and sediments.*



Soil organic carbon

- *Essential for biomass production and climate change mitigation and adaptation*
- *Variable stock across the EU, probably overestimated. Need to improve accounting under LULUCF*
- *Protection and restoration linked to land use changes and management*





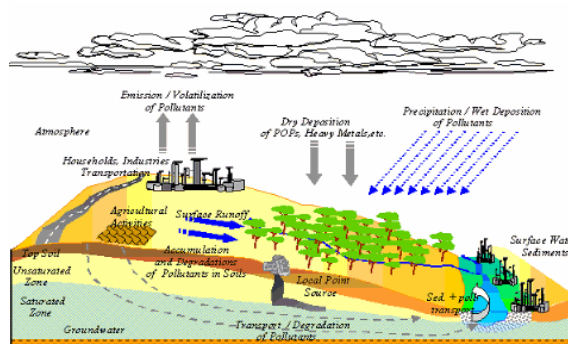
Soil biodiversity

- *Ecosystem services provision relies on soil biodiversity + interactions within soil communities and between below- and above-ground*
- *Main threats:*
 - **Nitrogen fertilization rates,**
 - **Loss soil organic matter**
 - **Land use change**



- *Approximately **2.5 million** sites in Europe where soil contamination is suspected and detailed investigations are needed*
- *Need to improve the reliability and comparability of data on soil contamination and remediation*

Soil contamination



Source: EUGRIS

Do we need rules for soil at EU level?

- **Soil "moves" beyond borders** (soil erosion)
- **Land take and soil sealing** => impacts on EU agriculture and EU food security
- **Soil organic carbon** => impacts on EU agriculture (fertility), EU climate change mitigation and adaptation
- **Soil biodiversity** => EU target and international commitments
- **Soil contamination** => impacts on the internal market
- Through the CAP, transport policy, fiscal recommendations, energy incentives, internal market standards, health legislation, environmental legislation, etc. **EU is already regulating soil** => but lack of a specific instrument



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Soil Thematic Strategy: genesis, structure & objectives

4 pillars

- 2002
 - Communication "Towards Thematic Strategy for Soil Protection, COM(2002)179
 - 6th EAP objective to protect natural resources and promote sustainable use of soil
- **2006: Thematic Strategy for Soil Protection**



Overall objective: protection and sustainable use of soil, based on the following guiding principles:

1. Preventing further soil degradation and preserving its functions:
2. when soil is used and its functions are exploited, action has to be taken on soil use and management patterns, and
3. when soil acts as a sink/receptor of the effects of human activities or environmental phenomena, action has to be taken at source.
4. Restoring degraded soils to a level of functionality consistent at least with current and intended use, thus also considering the cost implications

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Objective

- By 2020: "**land is managed sustainably** in the Union, **soil is adequately protected** and the **remediation of contaminated sites is well underway**;"
- This requires, in particular: "increasing efforts to **reduce soil erosion** and **increase soil organic matter**, to **remediate contaminated sites** and to enhance the **integration of land use aspects** into coordinated decision-making involving all relevant levels of government, supported by the **adoption of targets on soil and on land as a resource**, and land planning objectives;"

Commitments

- "The Union and its Member States should also reflect as soon as possible on **how soil quality issues could be addressed using a targeted and proportionate risk-based approach within a binding legal framework. Targets** should also be set for **sustainable land use and soil.**"

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Soil in the Sustainable Development Goals (2030 Agenda)

- **SDG Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture.**
 - Target 2.4: By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.
 - **SDG Goal 3: Ensure healthy lives and promote well-being for all at all ages.**
 - Target 3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.
 - **SDG Goal 15: Sustainably manage forest, combat desertification, halt and reverse land degradation, halt biodiversity loss.**
 - Target 15.3 By 2020, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land-degradation-neutral world
 - **"All countries and all stakeholders, acting in collaborative partnership, will implement this plan."**
- Environment

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Next steps for EU action:

- EU Expert Group on Soil Protection
 - Bringing together experts nominated by all EU Member States
 - Reflexion on how to address 7th EAP commitments on soil
- Inventory of soil protection measures in all EU MS
 - National legislations + implementation EU policies
 - Regulations, voluntary instruments, support schemes: state of play, implementation, gap analysis
- Pilot Mapping and Assessment of Soil-related Ecosystem Services (MAES)

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Land as a Resource

Objective: Halting degradation of land as natural capital while optimizing socio-economic benefits from land use functions

In line SDG 15.3 "Land Degradation Neutrality" concept



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<http://ec.europa.eu/environment/soil>

Thank you for
your attention!



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