



# EU Soil Strategy for 2030

Reaping the benefits of healthy soils for people, food, nature and climate

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ENV.D1 Land Use & Management

# | EU Biodiversity Strategy to 2030

## Commitments for soil:

- It is essential to step up efforts to protect **soil fertility**, reduce soil **erosion** and increase **soil organic matter**.
- This should be done by adopting **sustainable soil management practices**, including as part of the CAP.
- Significant progress is also needed on **identifying contaminated sites, restoring degraded soils, defining the conditions for their good ecological status, introducing restoration objectives, and improving the monitoring of soil quality**.
- To address these issues in a comprehensive way and help to fulfil EU and international commitments on land-degradation neutrality, the Commission will update the **EU Soil Thematic Strategy** in 2021.



# | The process

- Various stakeholder conferences in the past few years
- Soil expert group: regular discussions on soil policy since 2015
  - Several questionnaires and MS input with most urgent actions for soil policy
- [Roadmap consultation](#): 4 weeks, closed on 10 December 2020, with 228 replies
- [Open public consultation](#): 12 weeks, closed on 27 April 2021 with 1673 replies
- Adoption on 17 November 2021
- Presentation and discussion on 25 November and 20 December in Council



# | The package

- **Communication** that provides a framework for the protection, restoration and sustainable use of soils with a long-term vision, a set of existing objectives and actions to achieve them. The Strategy answers to the request of the Parliament to propose a legal framework for soil.
- **Staff working document** containing the essence of the knowledge base underpinning the Soil Strategy, the history of the file, the positions of the other institutions and the summary of the stakeholder consultations.



# Links with other policies



# Policy context

- Soil degradation continues and aggravates in the EU
  - Common solutions necessary
- Soil recognized as a necessary solution for the climate and biodiversity crisis
  - Factual and political momentum
- Soil degradation costs more than 50 billion EUR per year in the EU. Costs of no action amount globally between EUR 5.4 and 8.6 trillion/year. Benefits of soil restoration outweigh costs 6 times.
  - Sense of urgency



# Challenges: what do we need tackle?

**60-70%**  
of soils are NOT  
healthy

**13%**  
of EU soils  
suffer from high  
erosion with  
1.25 bEUR  
yearly losses in  
crop yield

**78%**  
of land take  
takes place in  
agricultural  
land

**7.4 million  
tonnes**  
of CO<sub>2</sub>  
lost yearly by  
mineral soils  
under cropland

**25%**  
of land in Southern,  
central and Eastern  
Europe at high or  
very high risk of  
desertification

**200 – 800 k**  
deaths globally  
per year due to  
soil  
contamination

**390.000**  
contaminated  
sites to be  
remediated

Erosion, compaction, organic matter decline, pollution, loss of soil biodiversity, salinization, desertification, land take and sealing



# | Science-policy

Policy framework

Long-term  
data reservoir



Funding mechanism



# The vision for soil

- By 2050, all EU soil ecosystems are in healthy condition and are thus more resilient, which will require very decisive changes in this decade.
- By then, protection, sustainable use and restoration of soil has become the norm. Healthy soils contribute as key solution to our big challenges to achieve climate neutrality, a clean and circular economy, revert biodiversity loss, safeguard human health, halt desertification and revert land degradation.

# Existing objectives (medium term)

- By 2030, combat desertification, restore degraded land and soil , including land affected by desertification, drought and floods, and strive to achieve a **land degradation-neutral world** (Sustainable Development Goal 15.3).
- By 2030, significant areas of degraded and **carbon-rich ecosystems** are restored.
- By 2030, achieve an **EU greenhouse gas net removal** of 310 million tonnes CO2 equivalent for the land use, land use change and forestry (**LULUCF**) sector.
- By 2027, reach good ecological status and good chemical status in **surface waters** and good chemical status and good quantitative status in **groundwater**.
- By 2030, reduce **nutrient losses** by at least 50%, the overall **use and risk of chemical pesticides** by 50% and the **use of more hazardous pesticides** by 50%.
- By 2030, significant progress has been made in the **remediation of contaminated sites**.



# | Existing objectives (long term)

- By 2050, reach **no net land take**.
- By 2050, **soil pollution** should be reduced to levels no longer considered harmful to human health and natural ecosystems and respect the boundaries our planet can cope with, thus creating a toxic-free environment.
- By 2050, achieving a **climate-neutral Europe**, and as the first step by 2035 to achieve land-based climate neutrality in the EU.
- By 2050, achieve a **climate-resilient** society, fully adapted to the unavoidable impacts of climate change.



# What is a healthy soil?

Soils are healthy when they are in good chemical, biological and physical condition, and thus able to continuously provide as many of the following ecosystem services as possible:

- provide food and biomass production, including in agriculture and forestry;
- absorb, store and filter water and transform nutrients and substances, thus protecting groundwater bodies;
- provide the basis for life and biodiversity, including habitats, species and genes;
- act as a carbon reservoir;
- provide a physical platform and cultural services for humans and their activities;
- act as a source of raw materials;
- constitute an archive of geological, geomorphological and archaeological heritage.

# Solutions

- A basket of measures/ actions:
  - Combination of voluntary and legally binding measures
  - At local, regional, national, EU and global level
- The concept of healthy soils: to be developed with MS and stakeholders
- Soil monitoring
- Sustainable soil management
- Restoration of degraded soils

# Soil Health Law complements Nature Restoration Law

SHL	NRL
Objective to achieve healthy soils by 2050: definitions including soil health and land take	Objective to restore ecosystems to good condition by 2050
Requirements for the sustainable use of soil	Target on peatlands
Better coordination of soil and water management	Enhance biodiversity in agricultural land
Identification, registration and remediation of contaminated sites	
Legal basis LUCAS	
Monitoring, assessment and reporting on soil health, net land take and management of contaminated sites	
Assess need and potential for EU soil health certificate and EU passport for excavated soils	
Assess if reduction of nutrient losses with 50% should be made legally binding	

# | Key actions

- **Soil health for climate change mitigation and adaptation**



- Assess the **state of peatlands** in the Global Peatlands initiative
- Join the global **4 per 1000 initiative**
- Present **carbon farming initiative** (2021) and proposal on **carbon removal certification** (2022)

- **Soil health and the circular economy**



- Benchmark streams of **excavated soils** in the EU (2023)
- Promote the **land take hierarchy** and ask MS to **set targets** for 2030
- Provide guidance and exchange of practices to **reduce sealing** (2024)
- Close the nutrient and carbon circle by **safely recycling biowaste**

- **Soil biodiversity for human, animal and plant health**

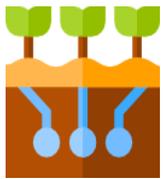


- Assess **soil biodiversity, antimicrobial resistance** (2022) and **invasive alien species**
- Put soil biodiversity on the **international agenda** (e.g. CBD COP 15, GSP)



# | Key actions

- **Healthy soils for clean water**



- Improve **soil-sediment-water nexus**
- Guidance on sustainable management of **sediment**
- Better integrate soil and land use management in the **River Basin Management Plans**

- **Making Sustainable Soil Management (SSM) the new normal**



- **Set of SSM practices** and criteria to phase out unsustainable practices
- Launch together with MS the **Test Your Soil For Free initiative**
- Promote **sustainable soil management through the CAP** and build a network of practitioners

- **Prevent desertification**



- Develop a common **methodology to assess desertification and land degradation** and report regularly
- Propose to declare the **EU as affected party under the UNCCD**
- Continue to support development projects **outside the EU**



# | Key actions

- **Prevent pollution**

- Improve the **risk assessment of chemicals on soil quality** and of soil contaminants on human health and the environment
- **Restrict microplastics** (2022) and **PFAS** under the REACH Regulation, and develop a policy framework on bio-based, biodegradable and **compostable plastics** (2022)
- Revise the **SUP Directive**, evaluate the **Sewage Sludge Directive** (2022) and review the **Fertilising Products Regulation** (2026)



- **Restore degraded soil and remediate contaminated sites**

- Facilitate an exchange between MS on **risk assessment methodologies**
- Develop an **EU priority list for soil contaminants** (2024)
- Revise the **Industrial Emissions Directive** (2022) and evaluate the **Environmental Liability Directive** (2023)



# | Key actions

- Improve digital knowledge, monitoring and research on soil



- Implement the **EU Soil Observatory**, the **Land Information System for Europe** and the **Soil Mission**

- Enable the transition to healthy soil

- With private finance and EU funding



- Publish a **guide** with an overview of EU funding opportunities for healthy soils (2022)
- Foster investments towards sustainable soil management through the **EU Taxonomy Regulation**

- Through soil literacy and societal engagement



- Launch a **soil literacy initiative**
- Exchange and **share best practices** in communication and engagement on soil
- Use the European common reference framework of **sustainability competences**



# What is in it for whom?

## What is in it for land users (e.g. farmers, foresters)?

- Better knowledge of soil quality
- Long-term viability and food security
- More funding and test for free initiative
- Carbon farming and innovative business models

## What is in it for citizens?

- A more sustainable future with healthy soils
- Better informed choices and literacy
- Greener urban and rural environment
- Tackling of climate change and biodiversity loss

## Soil Strategy

## What is in it for industry and economic operators?

- Level playing field
- Legal certainty on liabilities for soil contamination
- Green and clean innovation potential
- Sustainable supply of raw materials

## What is in it for public authorities?

- Clear legal framework and targets across the EU
- Reduced cost and impact of inaction
- More environmental awareness and citizen support
- Improved governance



# Thank you! Questions?

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