

## EU Soil Strategy for 2030

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

8 June 2022 AEIAR general assembly Bavo Peeters 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

- EU soil expert group: regular discussions on soil policy since 2015
- <u>Roadmap consultation</u>: 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
- Exchange of views on 6 December 2021 in the ENVI Committee of the European Parliament, on 20 December 2021 in the Environment Council, and in the European Economic & Social Committee



## 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, and has transboundary impacts

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

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

**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

**390.000** contaminated sites to be remediated

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



#### State and outlook of the environment report by EEA

Trends/developments show a mixed picture

Deteriorating trends/developments dominate



#### Table ES.1 Summary of past trends, outlooks and prospects of meeting policy objectives/targets

Theme	Past trends and outlook		Prospects	Prospects of meeting policy objectives/targets	
	Past trend (10-15 year	s Outlook s) to 2030	2020	2030	2050
Protecting, conserving and enhancing natural capital					
Terrestrial protected areas			M		
Marine protected areas					
EU protected species and habitats					
Common species (birds and butterflies)					
Ecosystem condition and services					
Water ecosystems and wetlands			$\boxtimes$		
Hydromorphological pressures			X		
State of marine ecosystems and biodiversity					
Pressures and impacts on marine ecosystems					
Urbanisation and land use by agriculture and forestry					$\mathbf{X}$
Soil condition			R		_
Air pollution and impacts on ecosystems					
Chemical pollution and impacts on ecosystems					
Climate change and impacts on ecosystems					
Resource-efficient, circular and low-carbon economy					
Material resource efficiency					
Circular use of materials					
Waste generation					
Waste management					
Greenhouse gas emissions and mitigation efforts				$\bowtie$	$\boxtimes$
Energy efficiency				$\mathbf{X}$	$\mathbf{X}$
Renewable energy sources				$\boxtimes$	$\boxtimes$
Emissions of air pollutants					
Pollutant emissions from industry					
Clean industrial technologies and processes					
Emissions of chemicals					
Water abstraction and its pressures on surface and groundwater					
Sustainable use of the seas					
Safeguarding from environmental risks to health and well-be	ing				
Concentrations of air pollutants			$\boxtimes$		
Air pollution impacts on human health and well-being					
Population exposure to environmental noise and impacts on human health			$\boxtimes$		
Preservation of quiet areas			$\bowtie$		
Pollution pressures on water and links to human health			$\boxtimes$		
Chemical pollution and risks to human health and well-being					
Climate change risks to society					
Climate change adaptation strategies and plans					
Indicative assessment of past trends (10-15 years)	Indicative assessment of prospects of meeting selected				
and outlook to 2000	poncy obje	cuves/targets			
improving cends/developments dominate	rear 🖬 L	argely on track			

Year 🔲 Partially on track

Year

Largely not on track



#### Land use change and land take



ESPON (2020), Sustainable Urbanization and land-use Practices in European Regions



#### **Science-policy framework**







#### 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.



### New proposal for Soil Health Law

- Definitions (including for net land take)
- Indicators for soil health and range of values to be achieved by 2050
- Requirements for sustainable use of soil
- Target for reduction of nutrient losses
- Passport for excavated soil and soil health certificate
- Identification, registration and remediation of contaminated sites
- Monitoring soil health (including legal basis for LUCAS survey)
- Reporting on progress (including on net land take, contaminated sites)



#### Legislative process SHL

• Call for evidence 16/02/2022 - 16/03/2022: 189 replies

https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13350-Soil-health-protecting-sustainably-managing-and-restoring-EU-soils\_en

- Upcoming public consultation in summer 2022
- Monthly meetings with EU expert group on soil protection
- Targetted consultations and stakeholder meetings
- Preparation of the impact assessment
- Commission proposal: first half 2023
- Co-decision by the European Parliament and Council



- 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)



#### Land take hierarchy

1. AVOID

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Avoid additional land take and sealing as much as possible.

#### 2. REUSE

If land take or sealing cannot be avoided, then it is better to reuse land that is already taken or sealed (for a different or the same land use), e.g. by demolishing buildings, soil remediation, de-sealing or densification.

#### 3. MINIMISE

If it is not possible to avoid land take and sealing, and to reuse land, then land should be taken or sealed that is in already less favourable condition (e.g. no healthy forest or fertile agricultural land).

#### 4. COMPENSATE

If land is taken or sealed, mitigation and compensation measures should be applied to minimize the loss of ecosystem services (e.g. infiltration and rainwater collection for water absorbtion, green roofs for water retention and biodiversity; green buildings for cooling; urban farms and gardens for biomass production).



- 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



• Prevent pollution



- **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)



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



# Thank you! Questions?

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