



Soil biodiversity and EU environmental policies

towards healthy soils

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The upcoming **EU Soil Strategy**



- **Adoption targeted at 17 November 2021**
- **After an intense consultation process:**
 - **Roadmap consultation: 4 weeks, closed on 10 December 2020, with 228 replies**
 - **Open Public Consultation: 12 weeks, closed on 27 April 2021 with 1669 replies**
 - **Various stakeholder conferences in the past few years**
 - **Regular discussions with MS authorities in the EU Expert Group on Soil Protection**
- **Results of the public consultation:**



The upcoming EU Soil Strategy:

The new EU Soil Strategy will provide:

“the **overarching framework** and the **concrete pathway** towards achieving” the objectives set in the EU Biodiversity Strategy for 2030 – **healthy soils**, protected, sustainably managed, restored as key solutions for our key challenges (climate, biodiversity, health, resources).

- a “**Staff Working Document**” containing the essence of the knowledge base supporting the Strategy and the summary of the open consultation
- a **Communication** (consistent with all other legislation and communication)

with a long-term vision, in a set of existing objectives and actions to achieve them

Actions are defined for the short and medium term

it answers to the request of the Parliament to propose a legal framework for soil



Links of soil policy with other policy areas





Soil biodiversity for human, animal and plant health

- Soil biodiversity is key for life and ecosystem services!
- It's under threat - We need to protect it!
- We strongly need to know more on it!



Soil biodiversity for human, animal and plant health

- Soil biodiversity sustains life on Earth. Soil hosts the first stages of life of many insects and pollinators.
- Soil biodiversity greatly contributes to human health. Some concrete examples:
 - antibiotics produced by soil microbes, such as penicillin, have saved millions of lives.
 - Several cholesterol-lowering drugs were developed from soil fungi.
 - Children often playing in healthy forest soils have a stronger immune system.
- Many soil bacteria are capable of breaking complex contaminants, performing bioremediation for free.
- Also link of healthy living soils with cleaner water and air.



Soil biodiversity for human, animal and plant health

- The ‘One Health’ principle connects soil biodiversity with human and planet health.
- Another example: the soil fungal network has been shown to be key in maintaining healthy forests by enabling trees to share nutrients, water or defense signals.
- Yet we only know 1% of soil microorganisms.
- Soil biodiversity, just as the above ground organisms, is threatened by land-use change, overexploitation, pollution, climate change and invasive alien species such as the flatworms



Soil biodiversity for human, animal and plant health

Protecting and preserving soil biodiversity: how to?

- the achievement of many of the EU Biodiversity Strategy and Farm to Fork targets will also benefit soil biodiversity.
- We need to know more about them!
 - A. Need to increase the knowledge on **the impact of pressures on soil biodiversity**,
 - B. We need a **genetic assessment** of EU soil biodiversity
 - C. We need to assess **antimicrobial resistance genes**
 - D. We need to assess the risk of **flatworms**
- We need to cooperate at global level (e.g. Rio Conventions and their upcoming COPs) to recognize the importance of soil biodiversity and step up efforts to assess and protect it

More information on EU Soil policy:

https://ec.europa.eu/environment/soil/index_en.htm



Thank you for your attention!