Monitoring considerations for the Soil Health law proposal

18 April 2023

Mirco Barbero
Team leader Soil protection and sustainable land use
ENV.D1 Land Use & Management
European Commission

The European Green Deal

CLIMATE PACT AND CLIMATE LAW

INVESTING IN MORE SUSTAINABLE, SMARTER MOBILITY

PROMOTING CLEAN ENERGY

STRIVING FOR GREENER INDUSTRY

PROTECTING NATURE

ELIMINATING POLLUTION

FROM FARM TO FORK

ENSURING A JUST TRANSITION FOR ALL

LEADING THE GREEN CHANGE GLOBALLY

MAKING HOMES ENERGY EFFICIENT

FINANCING GREEN PROJECTS

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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_2 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

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.
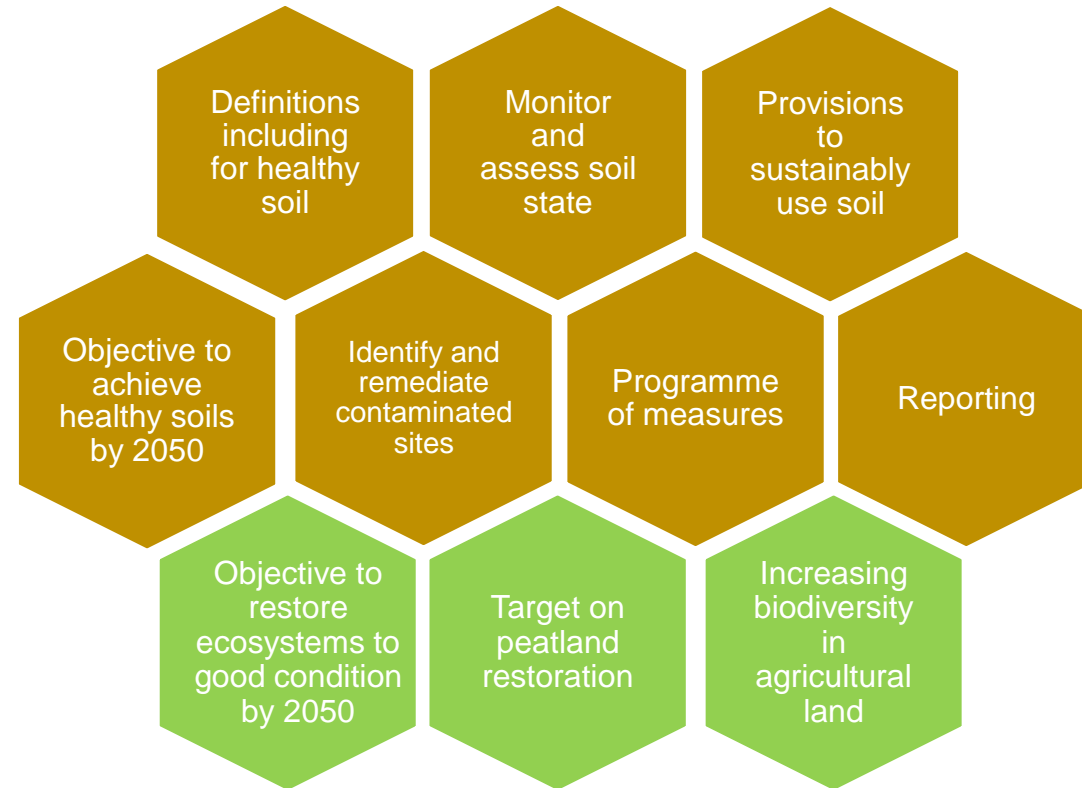
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What is a healthy soil?

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.

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Key elements for defining healthy soils

aspect of soil degradation	descriptor	criteria for healthy soil	methodology	transfer function
loss of SOC				
unsustainable erosion				
compaction				
soil contamination				
excess nutrients in soil				
acidification				
salinization				
loss of soil biodiversity				
loss of water retention capacity				
sealing and artificialization				

SHL: mix of flexibility & harmonization to help MS

Common Definitions

- **Definition of Healthy Soils** based on latest scientific knowledge (EEA report 18/01/2023) – a **minimum set** of parameters – ranges only for many of them

- But **flexibility left to MS** to adapt some ranges locally

- Definition of **land take** for a common monitoring

Monitoring & assessment of soil health

- **Obligation to assess and monitor soil health** in a sufficient number of points (approx. 5 times more than current LUCAS soil) to account for **variability of soil conditions**

- **Flexibility left to MS** to define how to measure – **harmonization achieved** by comparing methods with LUCAS Soil (scientific work ongoing). MS will be able to count LUCAS Soil data!

- Regular measurement (rolling) campaigns (e.g. every 5-6 years) to follow progress.

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Thank you! Questions?

Mirco.barbero@ec.europa.eu

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