

Soil Monitoring and Resilience (Soil Monitoring Directive)

2023/0232(COD) - 05/07/2023 - Legislative proposal

PURPOSE: put in place a solid and coherent soil monitoring framework for all soils across the EU to achieve healthy soils by 2050.

PROPOSED ACT: Directive of the European Parliament and of the Council.

ROLE OF THE EUROPEAN PARLIAMENT: the European Parliament decides in accordance with the ordinary legislative procedure and on an equal footing with the Council.

BACKGROUND: soil is a vital, limited, non-renewable and irreplaceable resource that is crucial for the economy, the environment and the society. Healthy soils are in good chemical, biological and physical condition so that they can provide ecosystem services that are vital to humans and the environment, such as safe, nutritious and sufficient food, biomass, clean water, nutrients cycling, carbon storage and a habitat for biodiversity. However, 60 to 70 % of the soils in the Union are deteriorated and continue to deteriorate.

In addition, soil degradation affects the potential long-term fertility of agricultural soils. It is estimated that between 61% and 73% of agricultural soils in the EU is affected by erosion, loss of organic carbon, nutrient (nitrogen) exceedances, compaction or secondary salinisation (or a combination of these threats). For instance, soil compaction can lower crop yields by 2.5-15 %. Without sustainable management and action to regenerate soils, deteriorating soil health will be a central factor in future food security crises.

Sustainable management and regeneration of soils makes sound economic sense and can significantly increase the price and value of the land in the Union.

Current EU law contains several provisions of relevance to soil but there is a **clear and indisputable gap** in the current EU legal framework that this proposal on soil health is designed to close.

In its [resolution](#), the European Parliament called on the Commission to develop an **EU legal framework for soil** including the definition and criteria for good soil status and sustainable use, objectives, harmonised indicators, a methodology for monitoring and reporting, targets, measures, and financial resources.

The proposal complements existing environmental legislation by providing a coherent EU-level framework for soils.

CONTENT: the Commission is proposing this draft Directive which aims to put in place a solid and coherent soil monitoring framework for all soils across the EU and to continuously improve soil health in the Union with the view to achieve healthy soils by 2050 at the latest, so that they can supply multiple services at a scale sufficient to meet environmental, societal and economic needs and to reduce soil pollution to levels no longer considered harmful to human health. The draft directive contributes to preventing and mitigating the impacts of climate change, increasing resilience against natural disasters and ensuring food security.

The operational objectives are:

- to establish measures to stop degrading soils and regenerate soil health;

- to establish an effective framework to ensure implementation in particular by the obligation for the Member States to assess soil health as well as for reporting and review.

Monitoring

There is currently a lack of comprehensive and harmonised data on soil health from soil monitoring. Some Member States have soil monitoring schemes in place, but they are fragmented, not representative and not harmonised. Member States apply different sampling methods, frequencies and densities, and use different metrics and analytical methods, resulting in a lack of consistency and comparability across the EU. This proposal aims to address the current gap of knowledge on soils.

The soil monitoring framework is crucial to provide the **data and information** needed to define the right measures. This data is also likely to lead to technological development and innovation and stimulate academic and industrial research, for example artificial intelligence solutions based on data from sensing systems and field-based measuring systems. It will also support the development of remote sensing for soil and enable the Commission to pool resources, based on current mechanisms and technology (LUCAS, Copernicus) to offer cost-efficient services to interested Member States. This technological progress is expected to give farmers and foresters easier access to soil data, and also lead to a wider range, better availability and more affordable technical support for sustainable soil management, including decision support tools.

Contaminated sites

The proposal sets an overarching obligation to take a risk-based approach to identifying and investigating potentially contaminated sites and for managing contaminated sites. It sets out that Member States must carry out a **site-specific risk assessment** to ascertain whether the contaminated site poses unacceptable risks to human health or the environment and to take the appropriate risk reduction measures.

Member States should be required to draw up a **register of contaminated sites** and potentially contaminated sites. The register should be publicly accessible and kept up to date.

The proposal will also improve the application of the **polluter pays principle** and strengthen societal equity by stimulating actions that will benefit disadvantaged households living near contaminated sites.

Union financing

Given the priority inherently attached to the establishment of soil monitoring and sustainable management and regeneration of soils, the implementation of this Directive should be supported by existing Union financial programmes in accordance with their applicable rules and conditions.