



OPINION

European Economic and Social Committee

New EU Soil Strategy

Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on EU Soil Strategy for 2030 - Reaping the benefits of healthy soils for people, food, nature and climate
[COM(2021) 699 final]

NAT/838

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Referral	European Commission, 20/12/2021
Legal basis	Article 304 of the Treaty on the Functioning of the European Union
Section responsible	Section for Agriculture, Rural Development and the Environment
Adopted in section	08/03/2022
Adopted at plenary	23/03/2022
Plenary session No	568
Outcome of vote (for/against/abstentions)	169/0/5

1. **Conclusions and recommendations**

- 1.1 The Committee welcomes the communication of the European Commission on a Soil Strategy for 2030 and wishes to be regularly informed and actively contribute to the preparation of the proposal for soil protection.
- 1.2 Soil is a strategic and threatened economic and environmental asset and it deserves a framework of targets, programmes and regulations. The Committee urges the Commission to promote a European legal framework that is effective at preventing soil degradation, supporting restoration programmes and fixing the road map towards a good soil health status. The Committee also calls for the necessary allocation of resources from the European budget for the implementation of the Soil Strategy.
- 1.3 For the implementation of the strategy, the Commission foresees the adoption of a Soil Health Law. However, the EESC recommends carrying out the planned impact assessment and then to decide upon the most appropriate instruments. The EESC also recommends for the framework to build on the following principles, so as to ensure a level playing-field for all stakeholders operating in the economic sectors linked with soil and its use:
 - providing a clear definition of "healthy soils", indicators and threshold values developed on a scientifically sound basis;
 - setting clear targets for 2030 based on the definition of "healthy soils";
 - guaranteeing an adequate level of environmental protection and climate action;
 - fully respecting the principle of subsidiarity, given the heterogeneity of soils, the variety of uses and demands for use, the different geological, climatic and landscape conditions as well as the differentiated hazards and national rules already in place;
 - prioritising of measures on education, advice, knowledge transfer and incentives for soil protection over additional legal obligations;
 - keeping the administrative burden for all actors to a reasonable level while ensuring its affordability.
- 1.4 The Committee recommends having the broadest possible discussion, with economic and social actors as well as with civil society organisations, about the contents of the legislative initiative. For this reason, the Committee calls on the Commission to present a proposal as soon as possible, in order to allow time for the discussion before the vote of the text within the current legislative mandate.
- 1.5 The Committee highlights the need to address all aspects of soil degradation, with a special focus on the topics of soil contamination, land take by urban developments and infrastructure, and of organic matter depletion in agricultural soils, as these phenomena have a particularly deep and potentially irreversible impact on soil health and its capability in terms of providing ecosystem services.
- 1.6 There is a great diversity of soils in Europe, reflecting differences in climate, geology and land use; the threats to which soils are exposed also differ in type and intensity, therefore the policies developed in order to prevent soil degradation requires adaptation to different geographical and

cultural contexts. Legislation for soil protection in Member States (MSs) is heterogeneous and fragmented, and many soil threats are not addressed by the policy and legislative frameworks of several MSs.

- 1.7 The Committee also point out the crucial and urgent need to address the human caused impacts on soils due to climate change. Therefore, the Committee strongly recommends to integrate in the new EU Soil Strategy actions against erosion and desertification linked to extreme floods, droughts and fires.
- 1.8 The Committee expresses great concern about land take caused by urbanisation processes which, in the vast majority of cases, affect fertile soils of plains and coastal areas. The goal "zero net land take" to be pursued by 2050, must be accompanied by incentives to encourage the reuse of abandoned sites and the restoration of unused impermeable surfaces.
- 1.9 The Committee considers a priority, consistent with the challenge of a circular and resource-efficient economy, safeguarding the ecological productivity of European soils, thus reducing the footprint of EU demand towards third countries. It considers an absolute priority the finalisation of the initiatives for deforestation-free guarantees in international trade.

2. **Background**

- 2.1 On 20 May 2020, the Commission published its proposal for a EU Biodiversity Strategy for 2030. This communication emphasises that "soil is a hugely important non-renewable resource, vital for human and economic health, as well as the production of food and new medications"¹ and stresses the need to tackle land take and restore soil ecosystems. It announces the Commission's commitment to updating the Soil Thematic Strategy in 2021 and to forming a mission in the area of "soil health and food" under Horizon Europe, in order to develop solutions for restoring soil health and functions.
- 2.2 On 28 April 2021, the European Parliament adopted a resolution on soil protection, stressing the need to protect, sustainably manage and restore Europe's soils, to preserve their multifunctional role and capacity to support the production of healthy food and raw materials, and to provide society with a multitude of ecosystem services. The resolution highlights that healthy soils are essential in order to achieve the objectives of the European Green Deal, including climate neutrality and biodiversity restoration. It also complains about the lack of a level playing-field between Member States regarding their different soil protection regimes, and calls on the Commission "to design an EU-wide common legal framework, with full respect for the subsidiarity principle, for the protection and sustainable use of soil".
- 2.3 On 9 June 2021, the European Parliament welcomed the proposed European Biodiversity Strategy for 2030, approving a resolution in which, among nearly 200 recommendations, the central role of soil biodiversity is greatly highlighted. The European Parliament again urges the Commission to present a proposal for the establishment of a common legal framework for the

¹ European Commission, 2020, Biodiversity Strategy for 2030, https://ec.europa.eu/environment/strategy/biodiversity-strategy-2030_en.

protection of soil and "for the effective integration of that protection in all relevant EU policies". In its resolution, the European Parliament also points out that "the EU has committed to achieving land degradation neutrality by 2030, but this target is unlikely to be achieved", as concluded by a special report of the European Court of Auditors².

- 2.4 On 17 November 2021, the Commission published, as part of the EU Biodiversity Strategy, its proposal for a European Soil Strategy for the EU, subtitled "Reaping the benefits of healthy soils for people, food, nature and climate".
- 2.5 The Commission's proposal upgrades the former Soil Strategy, in line with the strategic mission of the European Green Deal, for tackling the climate and biodiversity crises and to underpin a EU ambition for global action on soil.
- 2.6 The strategy aims to make a decisive contribution to achieving many objectives of the Green Deal, including: combatting desertification and restoring degraded land and soil, and striving to achieve a land degradation-neutral world by 2030 (Sustainable Development Goal (SDG) 15.3); contributing to greenhouse gas (GHGs) removal; reaching good ecological and chemical status in surface and groundwaters by 2027; reducing nutrient losses by 50% and the overall use and risk of pesticides by 50% by 2030; reducing soil pollution to levels no longer considered harmful to human health and natural ecosystems, thus creating a toxic-free environment by 2050; and reaching no net land take by 2050³.
- 2.7 The strategy sets out a definition of "healthy soil" as one that is in good chemical, biological and physical condition, and thus able to continuously provide as many of its expected ecosystem services as possible, such as food and biomass provision, water storage and filtering, mineral nutrients cycling, supporting life and biodiversity, carbon storage, and supporting human activities, landscapes and cultural heritage. This definition is consistent with that provided by United Nations organisations⁴. In the vision depicted by the strategy, good soil health is to be achieved by 2050, through commitments to sustainable land use and restoration efforts: the EC has estimated that, currently, 60% to 70% of EU soils are "unhealthy as a direct result of current management practices"⁵ with strong differences between different countries; however, "a 75% goal of healthy soil by 2030 through a radical change in current land management practices is both feasible and necessary"⁶.
- 2.8 The strategy aims to ensure the same level of protection for soil as exists for water and air, overcoming the lack of soil legislation at EU level. It therefore announces a Soil Health Law to be drafted by 2023, following an impact assessment, a subsidiarity check and a consultation of

² ECA Special Report 33/2018: Combating desertification in the EU: a growing threat in need of more action.

³ The strategy refers to soil as the complex and biologically active system (pedosphere) that supports terrestrial vegetation, lying at the interface between the lithosphere and the atmosphere and interacting with the hydrosphere. It does not include marine and lake sediments. According with the FAO communications, soil is the basis of 95% of world food production.

⁴ Healthy soils are the basis for healthy food production, FAO 2015, <https://www.fao.org/documents/card/en/c/645883cd-ba28-4b16-a7b8-34babbb3c505/>.

⁵ European Commission 2020, Caring for soil is caring for Life, Report of the Mission Board for Soil Health and Food, <https://op.europa.eu/en/web/eu-law-and-publications/publication-detail/-/publication/32d5d312-b689-11ea-bb7a-01aa75ed71a1>.

⁶ Ibidem.

stakeholders and the MSs. The new Soil Health Law should address the cross-border impacts of soil degradation and ensure policy coherence at EU and national levels in order to pursue the goals of the strategy.

2.9 The strategy encompasses a combination of new voluntary and legally binding measures, to be developed in full respect of subsidiarity and building on existing national soil policies designed to:

- enhance the protection of organic soils and peatlands;
- support the Commission initiative for sustainable carbon cycles, including rewarding practices of carbon sequestration in agricultural soils;
- support the reuse of excavated soils, including introducing a "passport" to ensure that they are transported, treated and re-used in a safe way;
- require the Member States to set, by 2023, national targets for the reduction of land taken up by new settlements and infrastructure, in line with the goal of "net zero land take" by 2050, and introducing a hierarchy for the better use of urban soils, prioritising reuse of the built environment and phasing out local fiscal benefits for the urban transformation of agricultural land;
- promote the recycling of organic matter such as compost, digestate, sewage sludge, processed manure and other agricultural residues, in a safe and sustainable way;
- assess, protect and restore soil biodiversity;
- integrate and coordinate soil and water management and promote the adoption of nature-based solutions for surface and rainwater management;
- support sustainable soil management in agriculture;
- monitor desertification trends and adopt measures to mitigate and prevent soil degradation;
- prevent soil pollution by regulating and restricting the use and release of microplastics, polyfluoroalkyl substances (PFAS) and other toxic chemicals into the soil;
- cooperate with the Member States to identify contaminated sites and remediate them;
- assess the feasibility of introducing a soil health certificate for land transactions;
- improve soil monitoring activities and the adoption of digital tools for nutrient management;
- substantially fund research activity on soil biodiversity and solutions to soil degradation and contamination;
- implement communication, education and citizen engagement to promote soil health.

2.10 In its 2017 opinion NAT/713, entitled *Land use for sustainable food production and ecosystem services*, the EESC agreed on the decisive importance of an updated EU policy framework for the sustainable use and protection of soil, in particular referring to agricultural soil, including a definition of good soil status and uniform terminology and harmonised criteria for monitoring, and called for the principles of sustainable soil management to be incorporated into EU policy measures.

3. **General comments**

3.1 The Committee welcomes the Commission's proposal of a European Soil Strategy for 2030, strongly rooted in the framework of the Green Deal and its vision to turn the threats of climate

change, biodiversity loss and environmental degradation into an opportunity to transform the EU into a modern, resource-efficient and competitive economy.

- 3.2 The Committee acknowledges the strategic role played by healthy soils which, in their entirety and diversity, constitute one of the most important natural assets that citizens can rely on for their well-being and security.
- 3.3 The Committee is aware that soil is a unique and limited resource, threatened by a multiplicity of pressures. Soil degradation and the associated loss of fertility may contribute to the European footprint on global soils, leading to increased dependence on imports of food and non-food raw materials from third countries in which the growth of inappropriate cultivation triggers land degradation processes, associated with deforestation and GHG emissions.
- 3.4 The Committee highlights the absolute requirement and need to finalise the initiatives for deforestation-free guarantees in trade with third countries, and considers it a priority, consistent with the challenge of creating a circular and resource-efficient economy, to reduce the impact of internal demand by safeguarding and restoring the long-term ecological productivity of European soils. A more sustainable use of soil, based on agroecology principles, can make a big difference, both at the European and the global scale, in achieving the targets of the European Green Deal and the SDGs of the UN 2030 Agenda.
- 3.5 It is necessary to overcome a reductionist concept of soil as a mere platform for settlements and activity: as soil is a complex biotic system on which the provision of ecosystem services and essential goods depends, its management requires appropriate governance, including landowner and user stewardship, responsibility of local administrators, and the role of national governments. European leadership is needed, as the challenges of food security, water storage, biodiversity conservation and climate change response are strictly related to good soil management.
- 3.6 The Committee stresses the need for the Soil Strategy to use fair methods and tools, in accordance with the principles of subsidiarity, for the sustainable management of soils: each level of government on land must be given appropriate tasks and responsibilities, and adequate resources in the allocation of funds; special attention must be given to supporting small rural communities. The Committee also calls for greater inclusion of citizens, civil society organisations, trade unions and businesses, sharing responsibilities and resources in achieving the goal of combating soil degradation.
- 3.7 For the implementation of the strategy, the European Commission foresees the adoption of a Soil Health Law. However, the EESC recommends carry out the planned impact assessment and then to decide upon the most appropriate instruments. The EESC also recommends for the framework to build on the following principles, so as to ensure a level playing-field for all stakeholders operating in the economic sectors linked with soil and its use.
 - providing a clear definition of "healthy soils", indicators and threshold values developed on a scientifically sound basis;
 - setting clear targets for 2030 based on the definition of "healthy soils";
 - guaranteeing an adequate level of environmental protection and climate action;

- fully respecting the principle of subsidiarity, given the heterogeneity of soils, the variety of uses and demands for use, the different geological, climatic and landscape conditions as well as the differentiated hazards and national rules already in place;
- prioritizing of measures on education, advice, knowledge transfer and incentives for soil protection over additional legal obligations;
- keeping the administrative burden for all actors to a reasonable level while ensuring its affordability.

3.8 The new proposal for soil protection must create synergies with legislation on climate, water, air and biodiversity, as well as with the Common Agricultural Policy. The Committee calls on the Commission to anticipate the presentation of the framework in order to allow for a wider discussion of its contents with the different stakeholders, before it is submitted for final approval within the current legislative term.

4. **Specific comments**

4.1 Among the forms of soil degradation, one of the most severe and difficult to reverse is certainly land take associated with urbanisation processes: in the period 2012-18, land take in the EU-28 occurred at a rate of 539 km²/year, with 78% of land taken at the expense of agricultural areas, and only 13% of urban developments occurring over recycled land⁷. The Committee believes that the goal of "net zero land take" by 2050 must be accompanied by shorter intermediate and realistic targets, supported by incentives to encourage the reuse of abandoned settlements and the restoration of unused sealed surface. Targets to reduce land take for urban development and infrastructure can and should take account of different demographic developments in Member States and regions. Special attention should be paid to the protection and restoration of the coastal territory, in particular the Mediterranean shore, which has undergone extensive urbanisation processes, causing significant damage to coastal biodiversity and tourism.

4.2 The undisturbed soils of natural ecosystems are a key source of support for biodiversity and a natural carbon reservoir, whose status must be preserved. For this reason, the Committee believes that the Soil Strategy must prioritise the protection of such soils, and their associated vegetations, maintaining their integrity and supporting their management through appropriate husbandry or cultivation.

4.3 Specific support should be given to the maintenance of permanent pastures and grasslands, as their proper management by sustainable husbandry can help to preserve their carbon-rich soils

4.4 Soil organic matter is the key component in regulating the ability of soil to support a high level of biodiversity and provide ecosystem services related to its fertility, as well as constituting a stock of carbon removed from the atmosphere. The decline of organic matter in European soils is a major cause for concern, mainly because of the loss of fertility and the risks of desertification that this entails, but also because of the resulting GHG emissions: it has been

⁷ EEA (2020), Land take in Europe – Indicator assessment, <https://www.eea.europa.eu/data-and-maps/indicators/land-take-3/assessment>.

calculated that these amount to more than 170 Mton CO₂ per year⁸, or more than 4% of EU27 global GHG emissions, mainly related to land use change of organic and peat soils. The new Soil Strategy should ensure the protection of peatlands and wetlands, and adequately support farmers with new forms of revenues for adoption of practices, based on agroecological concepts, which favour the maintenance and increase of organic matter in soils. Dissemination of knowledge related to good practices and sustainable management of agricultural soils should be prioritized, and targeted particularly at small farmers.

- 4.5 In addition to the importance of organic matter in the soil, the EESC stresses the need of avoiding depletion or loss of soil mineral nutrients. The use of fertilizers must be dosed according to crop needs, avoiding over-application and pursuing a 50% reduction in nitrogen and phosphorus leakage from soils by 2030, in line with the targets of the Farm to Fork Strategy.
- 4.6 Soils that have suffered past or recent industrial contaminations continue to pose a threat to public health and the chemical state of water resources; 2.8 million sites in the EU have potentially contaminated soil, of which about 390 000 require remediation⁹. Decisions on how to restore them should be made according to sustainable remediation criteria and based on site-specific risk analyses. The Committee expects that the strategy will provide, based on the most advanced national experiences, homogeneous methods and criteria for the conduct of these procedures, so as to avoid the significant inconsistencies that are found between different national regulations.
- 4.7 The Committee, appreciating that the strategy focuses on the key concept of "healthy soil"¹⁰, stresses the need to develop a system of effective indicators to unambiguously frame the health status of soils in a Soil Health Index, the general targets to be achieved and their articulation in the diversity of European pedoclimatic conditions. In order to monitor the achievement of these objectives, reliable tools must be available to unequivocally estimate the soil health index at the individual parcel level.
- 4.8 The Committee stresses the need to increase the level of awareness and knowledge about soil, its ecology and functions. To this end, it is necessary to support information programmes for citizens and education for schools, as well as training for farmers and, in general, for professionals working with land and soil, in traditional or emerging areas of the bio-economy and circular economy, as well as for local and regional decision-makers on whom choices that determine changes in land use depend.
- 4.9 Access to healthy soil is vital for various economic sectors; jobs and competitiveness should not be affected by the strategy's economic and social implications. In particular, there is a need to safeguard income in rural communities and families which are depending on soil to live. The strategy should ensure equitable distribution of costs and benefits among stakeholders:

8 JRC-EC (2015), Soil threats in Europe: status, methods, drivers and effects on ecosystem services, technical report https://esdac.jrc.ec.europa.eu/public_path/shared_folder/doc_pub/EUR27607.pdf.

9 JRC-EC 2018, Status of local soil contamination in Europe <https://publications.jrc.ec.europa.eu/repository/handle/JRC107508>.

10 "Vision and objectives: achieving good soil health by 2050", European Commission 2021, EU Soil Strategy for 2030, https://ec.europa.eu/environment/publications/eu-soil-strategy-2030_en.

vulnerable groups and regions should be protected, subsistence farmers should be supported and funds should be allocated to communities in need.

Brussels, 23 March 2022

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