

Elements for soil quality and health

IEEP's response to the European Commission's public consultation on the new Soil Strategy

Context: In relation to the European Green Deal and the EU Biodiversity strategy, the quality and health of soil is pivotal to sustain biodiversity, food production and clean water.

As part of the EU Biodiversity Strategy, the European Commission is launching a review of the "Soil Thematic Strategy" which aims at addressing soil degradation and preserving land resources. The new EU Soil Strategy will focus on soil- and land-related issues, with the aim to help achieve land degradation neutrality by 2030.

In general, soil demonstrates diverse functions and is of great importance to agriculture. Healthy soils are less prone to erosion, and they filter our drinking water. Currently, European soils are under threat, experiencing great pressure on biodiversity and soil organic matter.

27 April 2021 | The IEEP welcomes the opportunity to provide feedback on the future Soils Strategy in the context of the Biodiversity Strategy and the European Green Deal. Our contribution draws on more than 40-years of experience in EU environmental policy and EU agricultural policy.

For this feedback, the recommendations derive from our membership to the Mission Assembly 'Soil Health and Food', as well as project work under the H2020 project iSQAPER, our convening work through the European Sustainable Agriculture Dialogue, and our analyses of the F2F strategy and the Biodiversity strategy in relation with the European Green Deal objectives.

1. EU legislation and political developments

The European Parliament ENVI committee recently adopted a draft resolution on "soil protection", in which MEPs ask the European Commission to put forward a proposal for a soil legislative framework. This would correct the historical lack of equivalence to the European air and water protection policies in the legislative arsenal, and the withdrawal of the Soil Framework Directive by the European Commission in 2014.

The IEEP welcomes the initiative from the co-legislator as it sends a positive signal of changed positions in accordance with the cumulative evidence of widespread soil degradation in Europe. Together with the Green Deal objectives, the situation can only be addressed via the adequate protection of soil health and ecosystems in the EU. Indeed, the European Commission will table (pursuant to the Biodiversity Strategy) its zero pollution action plan and nature restoration targets this year. Soils cannot be left out of the plan as they hold 25% of global biodiversity. Still, soils are globally facing ever greater pressure, from sealing to contamination resulting from agricultural and industrial activities. Indicators from the European Environmental Agency show that European soil still are going towards further deterioration by 2030.

In respect of Green Deal ambitions, the upcoming proposal for EU nature restoration targets will require harmonised and comparable indicators for soil degradation and restoration in order to measure progress. Furthermore, a legislative proposal for a soil protection framework could require national scale planning instruments, such as is developed under the CAP Strategic Plans, to guarantee effective soil protection while respecting local specificities and national competences and responding to EU overall objectives. In accordance with suggestions made by the European Parliament's ENVI committee, the identification of contaminated sites and appropriate remediation could be envisaged. Such legislative actions would ensure that the EU's commitment to SDG 15.3 and a "land degradation-neutral" by 2030 is better acted upon.

Additionally, the current design of CAP Strategic Plans by Member States and its regular review by Commission services offers the European Commission an opportunity to enhance coherence with the future Soil Strategy. Agriculture still is a major driver of soil degradation and is neither prioritised nor regulatorily enforced in Member States' application of CAP instruments and measures.

2. General remarks and overall objectives of the Soil strategy

Back in December, IEEP welcomed the roadmap as a good starting point for mapping the scope and challenges of the future Soil Strategy. The text below reinstates various points that could underpin the upcoming strategy.

Looking at the current legislative structure related to the protection of soils, it must be noted that the 2006 strategy is no longer adapted to the current situation. Not only is an update necessary but also a deeper review, with a focus on new **objectives aligned to the SDGs, the Paris Agreement** and respond to challenges addressed in the **European Green Deal**.

The new Soil Strategy could be a first step towards filling the lack of a comprehensive and coherent policy framework to protect land and soil, as rightly identified by the EEA and mentioned in the December roadmap. The 2006 Soil Thematic Strategy already revolved around the objective of land degradation neutrality defined under SDG 15.3. The ancillary objectives attached to it, such as the zero-net land take by 2050 would need to remain core elements of the future Soil Strategy. However, to ensure a contribution of the strategy to the climate neutrality objective set out in the Green Deal, intermediate targets are necessary to build up a milestone for progress.

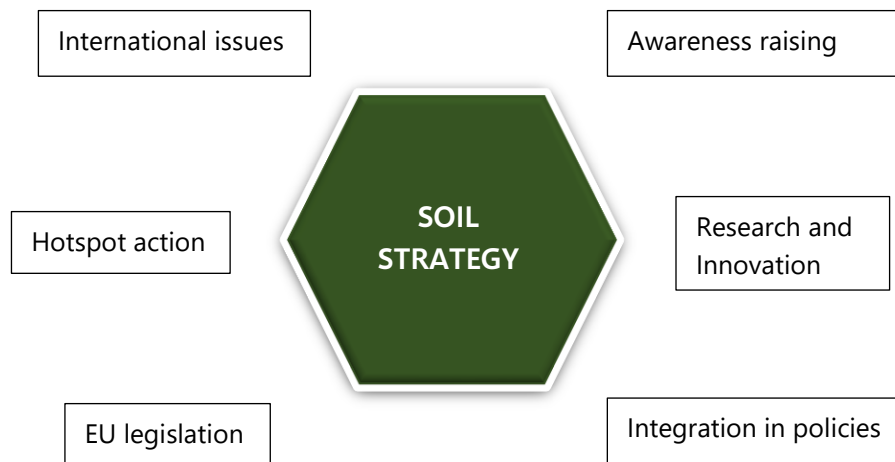
One aspect of improvement can be noted for terms used, in relation to documents on the roadmap and strategy referring to soil health. While the parameters for soil quality have been previously defined, the **parameters for soil health** are poorly defined in the literature and research community. Using the parameters for soil quality may provide a clearer picture and are more tangible to use. The strategy could demonstrate a systemic approach of soil functions, for example by integrating the notion of **soil multifunctionality**.

For targets, the strategy may establish intermediate land take reduction objective to be achieved by 2030. It could also draw restoration objectives from last year's soil mission board report, advising the achievement of 75% of healthy soil in each Member State by 2030.¹ All **objectives could be precisely defined and linked to progress indicators**, themselves constructed based on existing and new instruments for data gathering, such as the new soil observatory. Moreover, refinement of indicators may also be envisaged when research projects deliver new outcomes, and the knowledge base expands.

¹ The definition of healthy soils in the report is based upon indicators defined in Table 1 and section 2.2. of the document.

3. Architecture of the Strategy

From the initial four-pillars of the 2006 strategy, two more pillars could become part of the new Soil Strategy in 2021: a 5th pillar to focus on short-term immediate actions of **soil protection and restoration**, for a limited number of **hotspot issues** where severe land degradation would occur very soon without concrete swift action. This recognises the urgency we are facing now. **International issues** could be the subject of a 6th pillar, which is justified by the existence of negative spill overs effects of activities in the EU on land degradation globally and the simultaneous need to protect and restore soil all over the planet. IEEP sees a need in coordinating and developing synergies with recently launched world-level initiatives, being at the level of the UN and FAO or by international partnership (like the “4 per 1000” initiative”).



Awareness raising

Public awareness of the need to protect and regenerate EU soils will create a greater understanding of soil functionalities and the urgency of the issues. Research and positive change can only be obtained with a common understanding and participation of citizens, first and foremost landowners, farmers and foresters. Along these lines, civil society could be encouraged to engage in soil protection education and be supported financially in this undertaking where appropriate. For instance, the number of educational gardening projects could be increased and offered to groups of employees (e.g. team buildings) and schools. Furthermore, developing a simple and impactful symbol to visualize the soil strategy would help the communication. Earthworms could for instance play a similar role for healthy soils as bees for pollination, providing a concrete link in citizen’s minds between issues and indicators.

Research and Innovation

The launch of the Horizon Europe Mission for Soil Health and Food was a significant step forward, however a clear connection to it is missing in the publications around the renewed Soil Strategy. In particular, the multi-stakeholder approach and the network of demonstration farms/living labs are particularly important. The IEEP also recalls its policy advice on this matter and the recommendations to improve the mission definition and implementation.^{2 3} Future research will fill knowledge gaps, in particular in the areas of contaminants such as endocrine disruptors, antibiotics and microplastics pollution, soil-derived diseases to plants, and the 75% of the soil biodiversity currently lacking an accurate description.⁴

Integration in policies

As pointed out above, the CAP strategic plans are central focal points when it comes to policy coherence. The Commission could assess whether each plan ensures a high level of soil protection and actions to regenerate degraded agricultural soils. Other land compartments could also be object of specific measures targeting soil in the Forest Strategy, in the industrial policy and in cities planning (e.g. to stop soil sealing). Coherence with circular economy actions will prove important as soil sealing and rehabilitation of brown-fields will be integrated in the upcoming Strategy for a Sustainable Built Environment and in the Circular Economy Action Plan.

Hotspot action

Due to the fragility of their ecosystems, some European soils are under heightened pressure. This is the case for organic soils, for example, which are very sensitive to drought and poor management practices. Another instance are Mediterranean forest areas, at high risk of wildfires in summer, putting soil integrity and fertility at risk, among other examples. As the risk of natural disaster increases significantly with climate change, it becomes urgent that a flagship initiative from the Commission takes the lead and prompts new actions of protection of such areas and thus avoid soil degradation to occur in the next years. Such an initiative may be funded by European Structural and Investments Funds (ESIF) and the Rural Development fund under the Common Agricultural Policy (CAP).

Moreover, in specific areas faced with a high risk of degradation caused by intensive human activity such as soil sealing or sustained pesticides application, opportunities could

² <https://ieep.eu/news/five-recommendations-for-achieving-healthy-soils-by-2030-through-horizon-europe>

³ http://minisites.ieep.eu/assets/2669/ESAD_FIBL_Soil.pdf

⁴ <https://ieep.eu/news/isqaper-exploring-plastic-pollution-in-soil>; <https://ieep.eu/news/isqaper-ieep-s-role-in-exploring-policy-instruments-and-opportunities-for-soil-protection>

be explored to make use of the Farm to Fork objectives and the Zero Pollution Strategy for a prioritised targeting of soils in need of remediation.

International action

Overall, international action pertaining to soils could be highlighted more in the roadmap. As soil degradation issues have tangible transnational effects, international soil issues could have more momentum in the strategy. Negative spill overs occur from EU's global trade, leading to deforestation, overgrazing or overuse of underneath resources, and all affect soils in the world. As the Commission is about to discuss a Carbon Border Mechanism in 2021, reflexions could also take place beyond carbon on preventive mechanisms to counteract imported soil degradation from third countries. By changing its own policies, the EU could continue to play its leadership role in the international fora. Furthermore, the EU could also support key regenerative initiatives like "4 per 1000", launched in 2015 with the Paris Climate Agreement and supported only by a handful of Member States.

More info

IEEP's response to the European Commission's public consultation drew from a number of papers – references within – [Hiller, Hulot, Kollenda \(2020\)](#), [Hiller, Allen, Hulot \(2020\)](#), [Mäder, Bünemann \(2020\)](#), as well as its membership to the Soil Mission Assembly and its project work (mentioned above).

The response was compiled and submitted by Jean-François Hulot, Nora Hiller and Gauthier Schefer. For more information on IEEP's work on this area, please contact Nora Hiller (nhiller@ieep.eu).



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