

# Roadmap on the New EU Soil Strategy - healthy soil for a healthy life

## Feedback from ClientEarth

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ClientEarth is a non-profit European environmental law organisation with offices in Brussels, London, Madrid, Berlin, Warsaw and Luxembourg (as well as Beijing and Los Angeles). In total, ClientEarth currently has over 200 staff working on projects in more than 50 countries. Using the power of the law, we develop legal strategies and tools to address major environmental issues, we provide legal support and information to most of the environmental NGOs in Brussels (and beyond) and use the courts where necessary to enforce environmental law. The organisation is composed of programmes on Climate, Energy, Fossil Fuels Infrastructure, Trade, Oceans, Harmful chemicals, Plastics, Clean air, Wildlife, Forest, Agriculture and Environmental Democracy.

ClientEarth welcomes the “New Soil Strategy – healthy soil for a healthy life.” Pressures on European soils are increasing, with the risk of jeopardising the services provided by properly functioning, healthy soils. Soils are essential for food security and water purification, as well as for biodiversity and climate change mitigation.<sup>1</sup>

Soil is addressed in many EU policy instruments, but there is no a specific soil protection legislation in place at European level. While legislation on agriculture, chemicals, water, waste, nature protection contribute, to some extent, to conserve soils, the lack of a harmonised approach for the protection and sustainable use of soils throughout Europe translates into damage to soils and great discrepancies among Member States. Standards for soil conservation significantly vary among individual Member States: while

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<sup>1</sup> European Environment Agency (EEA), *The European environment state and Outlook 2020. Knowledge for transition to a sustainable Europe*, December 2019.

some countries – such as Germany – already have national legislation on soil conservation, in some others, soil protection has until now, not been a political priority.

Currently, there is a lack of EU-wide binding policy targets for soil health as well as gaps in the protection offered, as some threats to soil – *i.e.* compaction, salinization and soil sealing – are not addressed in existing European legislation. Therefore, ClientEarth considers it key that the EU elaborates a new directive, which: i) highlights the importance of soil functions; ii) addresses all existing threats to soil and iii) sets binding and time-bound targets to restore and protect soil.

## 1. Legal framework needed

The EU is not on track to protect its soil resources based on the existing strategies.<sup>2</sup> While we welcome the New Soil Strategy as a positive step towards a more comprehensive and coherent framework to protect soils, we consider that a new legally binding instrument is urgently needed to fulfil this strategy and to ensure a common and harmonised approach to soil health. Thus, in ClientEarth's view, the New Soil Strategy should launch a new directive on soil that would, in an integrated manner: conceptualise soil issues (including common definitions on good status); support the creation of representative databases;<sup>3</sup> define harmonised indicators and monitoring parameters on soil quality; set out priorities and targets; and identify different policy instruments to ensure good soil status.

In addition, the new directive on soil should take into account its multifunctionality. Soil has several functions, such as food and biomass production; habitat and gene pool; storing, filtering, transformation; carbon pool; source of raw materials; physical and cultural environment, and geological and archaeological archive.<sup>4</sup> There is limited recognition in EU law of soil functions, what these are and how these can be maintained or improved. It is therefore crucial to raise awareness, among governments and citizens, of the importance of soil. A better understanding of soil functions will help justify the adoption of a new directive.

### 1.1. Coherence, consistency and integration

The New Soil Strategy must be **coherent** with EU international commitments related to soil such as the Sustainable Development Goals (SDGs)<sup>5</sup> and with the European Green Deal<sup>6</sup> objectives, such as healthy and sustainable food. The New Soil Strategy must also be coherent with the policy initiatives under the

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<sup>2</sup> European Environment Agency (EEA), *The European environment state and Outlook 2020. Knowledge for transition to a sustainable Europe*, December 2019

<sup>3</sup> No standard approach exists regarding collection and interpretation of data and information needed to assess soil degradation in a consistent manner across EU countries.

<sup>4</sup> *Thematic Strategy for Soil Protection*

<sup>5</sup> Many of the *Sustainable Development Goals* of the UN Agenda 2030 refer to land and soil either directly (SDG 2, 3, 15) or indirectly (SDG 6, 11, 13, 14), by addressing other issues inherently linked to soil and land, such as food and water security and climate change. Please, refer to *Providing support in relation to the implementation of soil and land related Sustainable Development Goals at EU level. Interim report*. November 2019. Wageningen, Milieu and Deltares.

<sup>6</sup> *The European Green Deal*

European Green Deal, including the Farm to Fork Strategy,<sup>7</sup> the Biodiversity Strategy<sup>8</sup> and the Circular Economy Action Plan.<sup>9</sup>

We highlight the need for **consistency** between ongoing initiatives. As there are several instruments that are expected to be adopted in the near future, consistent policy development is essential between the New Soil Strategy, the Zero Pollution Action Plan,<sup>10</sup> the Chemical Strategy for Sustainability,<sup>11</sup> the EU Nature Restoration Plan,<sup>12</sup> the Strategy for a Sustainable Built Environment, the 8th Environment Action Programme<sup>13</sup> and the Climate Law.<sup>14</sup>

Policies on, *among others*, agriculture have a significant impact on soil. Soil protection will need to be further **integrated** into other policy areas, if the goals of this strategy are to be met.

## 2. Addressing the different soil threats

The 2006 Thematic Strategy for Soil Protection<sup>15</sup> identified the key **soil threats** in the EU as: *erosion, floods and landslides, loss of soil organic matter, salinization, contamination, compaction, sealing, and loss of soil biodiversity*. It also recognises that a combination of some of these threats can ultimately lead to arid or sub-arid climatic conditions to *desertification*.

Soil threats and soil functions are closely linked because **each soil threat leads to decreased functions of soil**. This means, to maintain soil functions, soil threats must be addressed. In ClientEarth's view, it is crucial that the New Soil Strategy identifies reduction targets for all soil threats to maintain and improve soil functions in the future. These targets should, as a follow-up step, be translated into a new legislative framework or, at least, integrated into existing legislation.

### 2.1. Soil threats and the Common Agricultural Policy

Agriculture occupies a substantial proportion of European land and consequently plays an important role in combating various forms of soil degradation. The main soil degradation processes are **closely linked to agriculture**,<sup>16</sup> therefore improvements in agricultural practices would be beneficial to address most of the soil threats listed above.

The Common Agricultural Policy (CAP) is a key tool to address soil health. However, current negotiations on the post-2020 CAP have failed to integrate the EU Green Deal's agro-related targets<sup>17</sup> into the CAP and have substantially decreased the ambition of its so-called "green architecture."<sup>18</sup> This translates into a lack of binding targets for the EU agricultural sector on e.g. reduction of nutrients and reduction of

<sup>7</sup> [A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system](#)

<sup>8</sup> [EU Biodiversity Strategy for 2030 Bringing nature back into our lives](#)

<sup>9</sup> [Circular Economy Action Plan for a cleaner and more competitive Europe](#)

<sup>10</sup> [Zero pollution action plan](#)

<sup>11</sup> [Chemicals Strategy for Sustainability](#)

<sup>12</sup> [Protecting biodiversity: nature restoration targets under EU biodiversity strategy](#)

<sup>13</sup> [The 8th Environment Action Programme \(EAP\) to 2030](#)

<sup>14</sup> [European Climate Law – Proposal for Regulation](#)

<sup>15</sup> [Thematic Strategy for Soil Protection \(2006\)](#)

<sup>16</sup> *Providing support in relation to the implementation of soil and land related Sustainable Development Goals at EU level. Interim report.* November 2019. Wageningen, Milieu and Deltares

<sup>17</sup> Namely, reduction of 30% of the greenhouse gas emissions, reduction of 50% of nutrient losses, at least 10% of utilized agricultural area (UAA) covered by high-biodiversity landscape features, reduction of 50% of the use of antibiotics in agriculture, reduction of 50% of risks and impacts of pesticides, 25% of UAA under organic farming.

<sup>18</sup> Meaning the combination of rules supporting sustainable farming, including, conditionality and eco-schemes.

pesticides, as well as into the risk that the CAP budget supports agricultural activities, which are detrimental to soil protection.

Trilogues on the post-2020 CAP are ongoing. Co-legislators still have the opportunity to improve several provisions related to soil, focusing on managing and storing carbon in the soil for climate mitigation purposes, as well as on improved nutrient management to increase water quality and reduce emissions.

An ambitious EU-level approach to soil protection within the CAP is even more essential for the future CAP. Under the so-called “new delivery model,” Member States will enjoy greater freedom to shape rules and CAP funding allocations around local needs and conditions. Therefore, clear EU provisions are key to guide their actions and to monitor their performance. The integration of adequate soil protection provisions in the CAP is a necessary step towards healthier soils across the EU.

## 2.2. Erosion and loss of soil organic matter

The Biodiversity Strategy for 2030 highlights that it is essential to step up efforts to protect soil fertility, reduce erosion and increase soil organic matter by adopting sustainable soil management practices, including as part of the CAP. By supporting agricultural production, the CAP contributes to the acceleration of erosion and loss of soil organic matter. However, the post-2020 CAP also includes – in Annex III of the CAP Strategic Plan Regulation Proposal<sup>19</sup> – good agricultural and environmental conditions (GAECs), beneficial to the soil threats under analysis. Specifically, GAEC 3 – regarding soil organic matter – and GAEC 6 – dealing with erosion –, if included in the final text of the regulation, will be helpful to establish a common EU-level baseline of protection.

We consider that the New Soil Strategy is the key instrument to achieve the above-mentioned goals. However, it must include quantitative and time-bound targets guiding future EU actions in order to make the reduction goals for soil threats more operational and ensure the maintenance and improvement of soil functions.

## 2.3. Compaction

The Roadmap for a New Soil Strategy does not mention soil compaction. Soil compaction is one kind of physical soil degradation and it refers to the deterioration of soil structure by mechanistic pressure, predominantly from agricultural practices.<sup>20</sup>

None of the existing EU policies specifically addresses soil compaction. There is an evident lack of awareness and data on soil compaction that makes its prevention difficult. The New Soil Strategy should therefore support the collection of data on this threat and promote sustainable agricultural measures aimed at reducing the use of heavy machinery.

## 2.4. Loss of soil biodiversity

While biodiversity loss is receiving increased global awareness, the biodiversity of soil and soil organisms are rarely considered in EU legislation. Several policies are in place to protect and restore biodiversity (e.g. the Habitats Directive) and others have a strong impact on soil biodiversity (e.g. rules on pesticides) but there is no a specific focus on soil biodiversity *per se*. Even the CAP, while including elements to

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<sup>19</sup> Dedicated to “Rules on conditionality pursuant to Article 11”

<sup>20</sup> <https://esdac.jrc.ec.europa.eu/themes/soil-compaction>

improve farm biodiversity, does not address this threat directly. The New Soil Strategy represents a crucial opportunity to raise awareness on this topic and to stimulate further collection of data and research.

The EU Biodiversity Strategy has recently recognised the need for significant progress to identify contaminated soil sites, restoring degraded soils, defining the conditions for their good ecological status, introducing restoration objectives, and improving the monitoring of soil quality. Soil restoration is an activity that will be integral to national restoration planning, due to its importance both in achieving the legally binding nature restoration targets<sup>21</sup> and in contributing towards the objectives of the New Soil Strategy. Both the legally binding nature restoration targets and the New Soil Strategy are indispensable instruments for the implementation of the European Green Deal. For these reasons, it is key that these two instruments are coordinated meticulously, during both drafting and implementation.

## 2.5. Salinization

Salinization results mainly from improper agricultural practices such as inappropriate irrigation practices.<sup>22</sup> It is one of the major threats to soils in Europe. Soil salinization is expected to further increase in the future as a consequence of current climate, land use and management changes, especially in Southern Europe where salinization problems are already widespread.<sup>23</sup>

Despite this, none of the existing EU policy instruments address the threat of soil salinization. In ClientEarth's view, legislation that specifically targets the pressures of soil salinization is urgently needed. The New Soil Strategy should identify and promote good and innovative farming practices that can prevent and reduce the threat of soil salinization, or control its negative effects.

## 2.6. Contamination

Contamination is the most addressed soil threat by existing legislative policies.<sup>24</sup> Most of the existing rules in the chemicals and waste sectors aim to prevent or control contamination rather than focus on remediation of existing soil contamination. The New Soil Strategy must focus on both reduction of soil contamination and remediation of contaminated soil sites. To do so, it is key to develop a set of harmonised and binding indicators to measure soil health across the EU and to establish measures for the remediation of existing contaminated soil sites. In this context, consistent policy development is essential between the New Soil Strategy, the Biodiversity Strategy, the Zero Pollution Action Plan and the EU Nature Restoration Plan.

What's more, the New Soil Strategy should include a commitment to adopt regulatory measures to prevent and minimise the pollution of soil by chemicals, in particular persistent chemicals including plastics and microplastics.<sup>25</sup> Agricultural soils are now being affected by plastic pollution, seriously threatening soil health and food security. Currently, agriculture has a multitude of uses for various plastic products including containers, trays, pots, packaging, tunnel and crop row covers, drip irrigation tubing, and crop mulch films.

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<sup>21</sup> *Protecting biodiversity: nature restoration targets under EU biodiversity strategy*

<sup>22</sup> EIP-AGRI Focus Group, *Soil salinisation*. Final Report. July 2020.

<sup>23</sup> FAO, *Status of the World's Soil Resources, Chapter 11 – Regional assessment of soil changes in Europe and Eurasia*, 2015

<sup>24</sup> The Waste Framework Directive, Industrial Emissions Directive, Sewage Sludge Directive, Landfill Directive, the Environmental Liability Directive and the Water Framework Directive, among others.

<sup>25</sup> See more: Zhu et al., *Exposure to nanoplastics disturbs the gut microbiome in the soil oligochaete Enchytraeus crypticus*, Environmental Pollution 239 (2018) 408-415

Biosolids used in agricultural fertilisers (e.g. sewage sludge or compost) and other agro-chemicals very often also contain plastic. In addition, an ambitious reform of the Industrial Emissions Directive<sup>26</sup> is required to ensure the effective implementation of its provisions on soil protection.

## 2.7. Sealing

Soil sealing is one of the main causes of soil degradation in the EU.<sup>27</sup> The current trend of increasing land take results in losses of soil's functions, including loss of biodiversity and agricultural production capacity. There have been only strategies to address this soil threat;<sup>28</sup> but it is time for binding legislative policies to address soil sealing, land take and urban sprawl.

The New Soil Strategy should include concrete targets to reduce annual rates of land take and increase land recycling. Limiting soil sealing should be a priority over mitigation or compensation measures, since soil sealing is an almost irreversible process.<sup>29</sup>

In this context, consistent policy development is essential between the New Soil Strategy and the upcoming Strategy for a Sustainable Built Environment and the Circular Economy Action Plan.

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<sup>26</sup> [\*Industrial Emissions Directive\*](#)

<sup>27</sup> [https://ec.europa.eu/environment/soil/sealing\\_guidelines.htm](https://ec.europa.eu/environment/soil/sealing_guidelines.htm)

<sup>28</sup> The Roadmap to a Resource Efficient Europe, the 7th Environment Action Programme (EAP) and the Guidelines on best practice to limit, mitigate or compensate soil sealing

<sup>29</sup> <https://www.eea.europa.eu/publications/92-9157-202-0/page306.html>