



Plenary sitting

A9-0138/2024

20.3.2024

*****I**
REPORT

on the proposal for a directive of the European Parliament and of the Council
on Soil Monitoring and Resilience (Soil Monitoring Law)
(COM(2023)0416 – C9-0234/2023 – 2023/0232(COD))

Committee on the Environment, Public Health and Food Safety

Rapporteur: Martin Hojsik

Rapporteur for the opinion of the associated committee pursuant to Rule 57 of
the Rules of Procedure:

Maria Noichl, Committee on Agriculture and Rural Development

Symbols for procedures

- * Consultation procedure
- *** Consent procedure
- ***I Ordinary legislative procedure (first reading)
- ***II Ordinary legislative procedure (second reading)
- ***III Ordinary legislative procedure (third reading)

(The type of procedure depends on the legal basis proposed by the draft act.)

Amendments to a draft act

Amendments by Parliament set out in two columns

Deletions are indicated in ***bold italics*** in the left-hand column. Replacements are indicated in ***bold italics*** in both columns. New text is indicated in ***bold italics*** in the right-hand column.

The first and second lines of the header of each amendment identify the relevant part of the draft act under consideration. If an amendment pertains to an existing act that the draft act is seeking to amend, the amendment heading includes a third line identifying the existing act and a fourth line identifying the provision in that act that Parliament wishes to amend.

Amendments by Parliament in the form of a consolidated text

New text is highlighted in ***bold italics***. Deletions are indicated using either the **■** symbol or ~~strikeout~~. Replacements are indicated by highlighting the new text in ***bold italics*** and by deleting or striking out the text that has been replaced.

By way of exception, purely technical changes made by the drafting departments in preparing the final text are not highlighted.

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DRAFT EUROPEAN PARLIAMENT LEGISLATIVE RESOLUTION

**on the proposal for a directive of the European Parliament and of the Council Soil Monitoring and Resilience (Soil Monitoring Law)
(COM(2023)0416 – C9-0234/2023 – 2023/0232(COD))**

(Ordinary legislative procedure: first reading)

The European Parliament,

- having regard to the Commission proposal to Parliament and the Council (COM(2023)0416),
 - having regard to Article 294(2) and Article 192(1) of the Treaty on the Functioning of the European Union, pursuant to which the Commission submitted the proposal to Parliament (C9-0234/2023),
 - having regard to Article 294(3) of the Treaty on the Functioning of the European Union,
 - having regard to the reasoned opinion submitted, within the framework of Protocol No 2 on the application of the principles of subsidiarity and proportionality, by the Dutch Senate of the States General and the Dutch House of Representatives of the States General asserting that the draft legislative act does not comply with the principle of subsidiarity,
 - having regard to the opinion of the European Economic and Social Committee¹,
 - after consulting the Committee of the Regions,
 - having regard to Rule 59 of its Rules of Procedure,
 - having regard to the opinion of the Committee on Agriculture and Rural Development,
 - having regard to the report of the Committee on the Environment, Public Health and Food Safety (A9-0138/2024),
1. Adopts its position at first reading hereinafter set out;
 2. Calls on the Commission to refer the matter to Parliament again if it replaces, substantially amends or intends to substantially amend its proposal;
 3. Instructs its President to forward its position to the Council, the Commission and the national parliaments.

¹ OJ C, C/2024/887, 06.02.2024, ELI: <http://data.europa.eu/eli/C/2024/887/oj>.

Amendment 1
Proposal for a directive
Recital 2

Text proposed by the Commission

(2) 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.

Amendment

(2) 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. ***Soil is essential to ensuring food security.*** However, ***it is estimated that*** 60 to 70 % of the soils in the Union are deteriorated and continue to deteriorate.

Amendment 2
Proposal for a directive
Recital 3

Text proposed by the Commission

(3) Soil degradation is costing the Union several tens of billion euro every year. Soil health is impacting the provision of ecosystem services that have an important economic return. ***Sustainable management and regeneration of soils therefore*** makes sound economic sense and can significantly increase the price and value of the land in the Union.

Amendment

(3) Soil degradation is costing the Union several tens of billion euro every year. Soil health is impacting the provision of ecosystem services that have an important economic return. ***Its improvement*** makes sound economic sense and can significantly increase the price and value of the land in the Union. ***Moreover, it can take up to 1 000 years to produce just 1 centimetre of top soil, while the degradation process and complete loss of soil can happen rapidly.***

Amendment 3
Proposal for a directive
Recital 11

Text proposed by the Commission

(11) Funding is vital to enable a transition to healthy soils. The Multiannual Financial Framework presents several

Amendment

(11) Funding is vital to enable a transition to healthy soils. The Multiannual Financial Framework presents several

funding opportunities available for the protection, sustainable management and regeneration of soils. A ‘Soil Deal for Europe’ is one of the five EU missions of the Horizon Europe programme and is specifically dedicated to promoting soil health. The Soil Mission is a key instrument for the implementation of this Directive. It aims to lead the transition to healthy soils through funding an ambitious research and innovation programme, establishing a network of 100 living labs and lighthouses in rural and urban areas, advancing the development of a harmonized soil monitoring framework and increasing the awareness of the importance of soil. Other Union programmes that present objectives contributing to healthy soils are the Common Agricultural Policy, the Cohesion Policy funds, the Programme for Environment and Climate Action, the Horizon Europe work programme, the Technical Support Instrument, the Recovery and Resilience Facility and InvestEU.

funding opportunities available for the protection, sustainable management and regeneration of soils. A ‘Soil Deal for Europe’ is one of the five EU missions of the Horizon Europe programme and is specifically dedicated to promoting soil health. The Soil Mission is a key instrument for the implementation of this Directive. It aims to lead the transition to healthy soils through funding an ambitious research and innovation programme, establishing a network of 100 living labs and lighthouses in rural and urban areas, advancing the development of a harmonized soil monitoring framework and increasing the awareness of the importance of soil. Other Union programmes that present objectives contributing to healthy soils are the Common Agricultural Policy, the Cohesion Policy funds, the Programme for Environment and Climate Action, the Horizon Europe work programme, the Technical Support Instrument, the Recovery and Resilience Facility and InvestEU. ***As the goal to have all soils within the Union in healthy status is of common interest, there is a need to increase the mobilisation of resources to support the uptake of sustainable soil management and regenerative practices, including through provision of support from the European Investment Bank via de-risking mechanisms. The Commission should assess the overall financial needs and gaps and if needed put in place for the post-2027 period additional financial resources under the Multiannual Financial Framework and adopt measures to ensure policy coherence in relation to the objectives of this Directive.***

Amendment 4
Proposal for a directive
Recital 12

Text proposed by the Commission

(12) The Soil Strategy for 2030

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Amendment

(12) The Soil Strategy for 2030

7/209

PE754.698v02-00

announced that the Commission would table a legislative proposal on soil health to enable the objectives of the Soil Strategy and to achieve good soil health across the EU by 2050. In its resolution of 28 April 2021 on soil protection⁴², the European Parliament emphasised the importance of protecting soil and promoting healthy soils in the Union, bearing in mind that the degradation continues, despite the limited and uneven action being taken in some Member States. The European Parliament called on the Commission to design a Union wide common legal framework, with full respect for the subsidiarity principle, for the protection and sustainable use of soil, addressing all major soil threats.

announced that the Commission would table a legislative proposal on soil health to enable the objectives of the Soil Strategy and to achieve good soil health across the EU by 2050. In its resolution of 28 April 2021 on soil protection⁴², the European Parliament emphasised the importance of protecting soil and promoting healthy soils in the Union, bearing in mind that the degradation continues, despite the limited and uneven action being taken in some Member States. The European Parliament called on the Commission to design a Union wide common legal framework, with full respect for the subsidiarity principle, for the protection and sustainable use of soil, addressing all major soil threats. ***Importantly, the European Parliament underlined the risks stemming from the absence of a level playing field between Member States and their different protection regimes for soil to the functioning of the internal market and the strong potential to stimulate fair competition in the private sector, develop innovative solutions and know-how and strengthen the export of technologies outside the Union.***

⁴² European Parliament resolution of 28 April 2021 on soil protection (2021/2548(RSP)).

⁴² European Parliament resolution of 28 April 2021 on soil protection (2021/2548(RSP)).

Amendment 5

Proposal for a directive

Recital 18

Text proposed by the Commission

(18) It is ***necessary*** to set measures for monitoring and ***assessing*** soil health, managing soils sustainably and tackling contaminated sites to achieve healthy soils by 2050, to maintain them in healthy condition and meet the Union's objectives on climate and biodiversity, to prevent and respond to droughts and natural disasters,

Amendment

(18) It is ***vital*** to set ***appropriate*** measures for ***Union-wide harmonised*** monitoring and ***assessment of*** soil health, managing soils sustainably and tackling contaminated sites to achieve healthy soils by 2050, to maintain them in healthy condition and meet the Union's objectives on climate and biodiversity, to prevent and

to protect human health and to ensure food security and safety.

respond to droughts and natural disasters, to protect human health and to ensure food security and safety.

Amendment 6
Proposal for a directive
Recital 19

Text proposed by the Commission

(19) Soils host more than 25% of all biodiversity and are the second largest carbon pool of the planet. Due to their ability to capture and store carbon, healthy soils contribute to the achievement of the Union's objectives on climate change. Healthy soils also provide a favourable habitat for organisms to thrive and are crucial for enhancing biodiversity and the stability of ecosystems. Biodiversity below and above ground are intimately connected and interact through mutualistic relationships (e.g. mycorrhizal fungi that connect plant roots).

Amendment

(19) Soils host more than 25% of all biodiversity and are the second largest carbon pool of the planet. Due to their ability to capture and store carbon, healthy soils contribute to the achievement of the Union's objectives on climate change. ***Soil biodiversity encompasses micro-organisms, including bacteria, fungi, protozoa and nematodes, as well as larger organisms such as earthworms, insects, and plant roots, which collectively contribute to the ecological and functional diversity of soil ecosystems.*** Healthy soils also provide a favourable habitat for organisms to thrive and are crucial for enhancing biodiversity and the stability of ecosystems. Biodiversity below and above ground are intimately connected and interact through mutualistic relationships (e.g. mycorrhizal fungi that connect plant roots).

Amendment 7
Proposal for a directive
Recital 19 a (new)

Text proposed by the Commission

Amendment

(19a) Soil organic matter is crucial for the provision of soil ecosystem services and functions, by reducing soil degradation, erosion and compaction, while increasing the buffering, water holding and cation exchange capacity of the soil and soil organic carbon, which ultimately could increase crop yields.

Additionally, soil organic matter positively affects soil biodiversity and could increase the carbon sequestered in soils, thereby contributing to climate change mitigation.

Amendment 8
Proposal for a directive
Recital 21 a (new)

Text proposed by the Commission

Amendment

(21a) Per- and polyfluoroalkyl substances (PFAS) have been frequently observed to contaminate groundwater, surface water as well as soil. They can alter soil properties and structures, with some of the reported effects including a decrease in soil respiration and water stable aggregates, and an increase in soil pH.

Amendment 9
Proposal for a directive
Recital 22

Text proposed by the Commission

Amendment

(22) Soil degradation impacts fertility, yields, pest resistance and nutritional food quality. Since 95 % of our food is directly or indirectly produced on soils and the global population continues to increase, it is key that this finite natural resource remains healthy to ensure food security in the long-term and secure the productivity and profitability of Union agriculture. Sustainable soil management practices maintain or enhance soil health and contribute to the sustainability and resilience of the food system.

(22) Soil degradation impacts fertility, yields, pest resistance and nutritional food quality. Since 95 % of our food is directly or indirectly produced on soils and the global population continues to increase, it is key that this finite natural resource remains healthy to ensure food security in the long-term and secure the productivity and profitability of Union agriculture. Sustainable soil management practices, ***including those set out by the common agricultural policy***, maintain or enhance soil health and contribute to the sustainability and resilience of the food system. ***Reducing nutrient losses and pesticide residues are essential in this respect.***

Amendment 10
Proposal for a directive
Recital 23

Text proposed by the Commission

(23) The long-term objective of the Directive is to achieve healthy soils by 2050. As an intermediate step, in light of the limited knowledge about the condition of soils and about the effectiveness and costs of the measures to regenerate their health, the directive takes a staged approach. In the first stage the focus will be on setting up the soil monitoring framework and assessing the situation of soils throughout the EU. ***It also includes requirements to lay down measures to manage soils sustainably and regenerate unhealthy soils once their condition is established, but without imposing an obligation to achieve healthy soils by 2050 neither intermediate targets.*** This proportionate approach will allow sustainable soil management and regeneration of ***unhealthy*** soils to be well prepared, incentivised and set in motion. In a second stage, as soon as the results of the first assessment of soils and trends analysis are available, the Commission will take stock of the progress towards the 2050 objective and the experience thereof, and will propose a review of the directive if necessary to ***accelerate progress towards 2050.***

Amendment 11
Proposal for a directive
Recital 24

Text proposed by the Commission

(24) Addressing the pressures on soils and identifying the appropriate measures to maintain or regenerate soil health requires

Amendment

(23) The long-term objective of the Directive is to achieve healthy soils ***across the Union*** by 2050. As an intermediate step, in light of the limited knowledge about the condition of soils and about the effectiveness and costs of the measures to regenerate their health, the directive takes a staged approach. In the first stage the focus will be on setting up the soil monitoring framework and assessing the situation of soils throughout the EU. ***Member States should define sustainable soil management practices taking into account the non-binding principles set in Annex III to this Directive. The Member States are given the flexibility to decide on the concrete practices to be implemented, when appropriate, reflecting local conditions and its feasibility, in order to facilitate achieving healthy soils by 2050.*** This proportionate approach will allow sustainable soil management and regeneration of soils ***that are not healthy*** to be well prepared, incentivised and set in motion. In a second stage, as soon as the results of the first assessment of soils and trends analysis are available, the Commission will take stock of the progress towards the 2050 objective and the experience thereof, and will propose a review of the directive if necessary to ***meet the 2050 goal.***

Amendment

(24) Addressing the pressures on soils and identifying the appropriate measures to maintain or regenerate soil health requires

that the variety of soil types, the specific local and climatic conditions and the land use or the land cover is taken into account. It is therefore appropriate that Member States establish soil districts. Soil districts should constitute the basic governance units to manage soils and to take measures to comply with the requirements laid down in this Directive, in particular with regard to the monitoring and assessment of soil health. ***The number, geographic extent and boundaries of soil districts for each Member State should be determined in order to facilitate the implementation of Regulation (UE) .../... of the European Parliament and of the Council***⁺. There should be a minimum number of soil districts in each Member State taking into account the size of the Member State. This minimum number of soil districts for each Member State shall correspond to the number of NUTS 1 territorial units established in Regulation (EC) No 1059/2003 of the European Parliament and of the Council⁴⁸.

+OP please insert in the text the number of the Regulation on the carbon removal certification contained in document COM(2022) 672 final and insert the number, date, title and OJ reference of that Directive in the footnote.

⁴⁸ Regulation (EC) No 1059/2003 of the European Parliament and of the Council of 26 May 2003 on the establishment of a common classification of territorial units for statistics (NUTS) (OJ L 154, 21.6.2003, p. 1).

that the variety of soil types, the specific local and climatic conditions and the land use or the land cover is taken into account. It is therefore appropriate that Member States establish soil districts ***that are capable of adequately reflecting pedoclimatic conditions and soil variety on their whole territory***. Soil districts should constitute the basic governance units to manage soils and to take measures to comply with the requirements laid down in this Directive, in particular with regard to the monitoring and assessment of soil health. There should be a minimum number of soil districts in each Member State taking into account the size of the Member State. This minimum number of soil districts for each Member State shall correspond to the number of NUTS 1 territorial units established in Regulation (EC) No 1059/2003 of the European Parliament and of the Council⁴⁸. ***Member States can decide to set up their soil districts according to their number of NUTS 2 territorial units in order to better reflect their local conditions and the competences of their national authorities.***

⁴⁸ Regulation (EC) No 1059/2003 of the European Parliament and of the Council of 26 May 2003 on the establishment of a common classification of territorial units for statistics (NUTS) (OJ L 154, 21.6.2003, p. 1).

Amendment 12
Proposal for a directive
Recital 24 a (new)

(24a) Soil districts are the most appropriate level for adopting programmes of measures and, where necessary, intermediate targets, including via local soil district plans, taking into account local conditions and the views of local stakeholders, to ensure that the respective soils improve their classification. As it takes more time to restore critically degraded soils, a sufficient timeline of up to 10 years should be given to ensure that their ecological classification improves. Soils registered as contaminated that are covered by specific management and mitigation plans could be subject to a different timeline.

Amendment 13
Proposal for a directive
Recital 25

(25) In order to ensure an appropriate governance on soils, Member States should be required to appoint a competent authority for each soil district. Member States should be allowed to appoint any additional competent authority at appropriate level including at national or regional level.

(25) In order to ensure an appropriate governance on soils, Member States should be required to appoint a competent authority for each soil district. Member States should be allowed to appoint any additional competent authority at appropriate level including at national or regional level, ***including across territories of Member States. In order to minimise costs, Member States should primarily appoint authorities that are already set up. One authority could be responsible for several areas, which could improve consistency in the implementation of this Directive. In the event that Member States change the allocation of competences among competent authorities, they should communicate those changes to the Commission to keep the information up to date.***

Amendment 14
Proposal for a directive
Recital 27

Text proposed by the Commission

(27) In order to *describe soil degradation it is necessary to establish soil descriptors that can be measured or estimated. Even if there is significant variability between soil types, climatic conditions and land uses, the current scientific knowledge allows to set criteria at Union level for some of those soil descriptors. However, Member States should be able to adapt the criteria for some of these soil descriptors based on specific national or local conditions and define the criteria for other soil descriptors for which common criteria at EU level cannot be established at this stage. For those descriptors for which clear criteria that would distinguish between healthy and unhealthy condition cannot be identified now, only monitoring and assessment are required. This will facilitate the development of such criteria in future.*

Amendment 15
Proposal for a directive
Recital 27 a (new)

Text proposed by the Commission

Amendment

(27) In order to *provide for a common framework and to allow for comparability of data, the Commission should by means of delegated acts, adopt a methodology for determining threshold values for soil descriptors for each soil ecological status. It is important that this methodology take into account the most recent scientific evidence and provide for means to account for different climatic conditions and types of soil. Using this methodology Member States should identify draft threshold values for soil descriptors for each soil ecological status taking into consideration climate conditions, the type of soil, type of land area and scientific evidence and submit them to the Commission. In order to ensure a level playing field among Member States and to avoid Member States adopting threshold values which allow similar soil to be categorised in a very different manner, thereby affecting the efforts required to improve its soil ecological status, the Commission should assess the draft threshold values and their scientific justification. The Commission should be able to ask Member States for additional information or revision of their draft threshold values. The Commission should approve the threshold values, provided that its observations have been adequately taken into account.*

Amendment

(27a) An integrated view on the assessment of soil health that goes beyond solely looking

at degradation factors and provides a clear path for its improvement is necessary. The overall assessment of soil ecological status should, therefore, be categorised according to five classes from "high soil ecological status", "good ecological status", "moderate", "degraded soils" to "critically degraded soils", taking into consideration, inter alia, the presence of degradation factors and soil functions.

Amendment 16
Proposal for a directive
Recital 27 b (new)

Text proposed by the Commission

Amendment

(27b) To respect the autonomy of the Member States that are willing to implement more comprehensive monitoring systems, Member States should be able to choose among 3 monitoring tiers. Tier 1 provides a minimum set of soil descriptors. In Tier 2, 20% of the sampling points are determined according to the LUCAS programme and double sampled for continuous monitoring and the establishment of transfer functions, while the remaining 80% of the sampling points are determined by the Member State, also for continuous monitoring and following the criteria set in the annexes to this Directive. In Tiers 1 and 2, 20% of sampling points are dedicated to targeted monitoring, allowing Member States to expand risk-based assessments, conduct investigations, or target areas of particular interest. The establishment of a tiered approach increases the number of soil descriptors assessed but also the level of autonomy that Member States have in determining the thresholds associated to the ecological status of soils. The main goal of such a tiered approach is to allow all Member States to implement their monitoring systems and take advantage of any current national systems that already

monitor soils. Tier 2 will allow gaps to be filled in the scope and extent of the soil descriptors considered. In Tier 3, the number of soil descriptors is expanded further to refine particular aspects of the soil monitoring systems.

Amendment 17
Proposal for a directive
Recital 28

Text proposed by the Commission

Amendment

(28) In order to create incentives, Member States should set up mechanisms to recognize the efforts of landowners and land managers to maintain the soil in healthy condition, including in the form of soil health certification complementary to the Union regulatory framework for carbon removals, and supporting the implementation of the renewable energy sustainability criteria set out in article 29 of Directive (EU) 2018/2001 of the European Parliament and of the Council⁵⁰. The Commission should facilitate soil health certification by inter alia exchanging information and promoting best practices, raising awareness and assessing feasibility of developing recognition of certification schemes at Union level. Synergies between different certification schemes should be exploited as much as possible to reduce administrative burden for those applying for relevant certifications.

deleted

⁵⁰ Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (recast) (OJ L 328, 21.12.2018, p. 82).

Amendment 18
Proposal for a directive

Recital 30

Text proposed by the Commission

(30) Soil is a limited resource subject to an ever-growing competition for different uses. Land take is a process often driven by economic development needs, that transforms natural and semi-natural areas (including agricultural and forestry land, gardens and parks) into artificial land development, using soil as a platform for constructions and infrastructure, as a direct source of raw material or as archive for historic patrimony. This transformation may cause the loss, often irreversibly, of the capacity of soils to provide other ecosystem services (provision of food and biomass, water and nutrients cycling, basis for biodiversity and carbon storage). In particular, land take often affects the most fertile agricultural soils, putting food security in jeopardy. Sealed soil also exposes human settlements to higher flood peaks and more intense heat island effects. Therefore, it is necessary to monitor land take and soil sealing and their effects on soil's capacity to provide ecosystem services. It is also appropriate to lay down certain principles to mitigate the impacts of land take *as part of* sustainable soil management.

Amendment 19

Proposal for a directive

Recital 31

Text proposed by the Commission

(31) The assessment of soil health based on the monitoring network should be accurate while at the same time keeping the costs of such monitoring at reasonable level. It is therefore appropriate to lay down criteria for sampling points that are representative of the soil condition under different soil types, climatic conditions and land use. The grid of sampling points

Amendment

(30) Soil is a limited resource subject to an ever-growing competition for different uses. Land take is a process often driven by economic development needs, that transforms natural and semi-natural areas (including agricultural and forestry land, gardens and parks) into artificial land development, using soil as a platform for constructions and infrastructure, as a direct source of raw material or as archive for historic patrimony. This transformation may cause the loss, often irreversibly, of the capacity of soils to provide other ecosystem services (provision of food and biomass, water and nutrients cycling, basis for biodiversity and carbon storage). In particular, land take often affects the most fertile agricultural soils, putting food security in jeopardy. Sealed soil also exposes human settlements to higher flood peaks and more intense heat island effects. Therefore, it is necessary to monitor land take and soil sealing and their effects on soil's capacity to provide ecosystem services. It is also appropriate to lay down certain principles to mitigate the impacts of land take **complementing** sustainable soil management.

Amendment

(31) The assessment of soil health based on the monitoring network should be accurate while at the same time keeping the costs of such monitoring at reasonable level. It is therefore appropriate to lay down criteria for sampling points that are representative of the soil condition under different soil types, climatic conditions and land use. The grid of sampling points

should be determined by using geostatistical methods and be sufficiently dense to provide an estimation of the area of healthy soils, at national level, within an uncertainty of not more than 5%. This value is commonly considered to provide a statistically sound estimation and reasonable assurance that the objective has been achieved.

should be determined by using geostatistical methods and be sufficiently dense to provide an estimation of the area of healthy soils, at national level, within an uncertainty of not more than 5%. This value is commonly considered to provide a statistically sound estimation and reasonable assurance that the objective has been achieved. ***It is important that the soil monitoring methodology and framework include harmonised sampling criteria, including sampling depth.***

Amendment 20
Proposal for a directive
Recital 31 a (new)

Text proposed by the Commission

Amendment

(31a) Soil archives preserve a snapshot of soils from a specific time and location, allowing Member States to use one sample for various purposes and to streamline field sampling activities, thus reducing the long-term costs of in-situ monitoring. In addition, soil archives enable researchers to re-evaluate soils of the past in the context of the present for an improved understanding of long-term soil change, or for other research purposes, including medical research. It is therefore imperative that the Commission, including services such as the Joint Research Centre (JRC), together with the Member States and the European Soil Observatory, ensure that the samples, DNA extracts and raw data taken for the compliance with Union and national environmental law are well preserved in physical archives and that the samples and raw data of those archives remain available for further research and innovation.

Amendment 21
Proposal for a directive

Recital 32

Text proposed by the Commission

(32) The Commission should assist and support Member States' monitoring of soil health by continuing to carry out and enhancing regular in-situ soil sampling and related soil measurements (LUCAS soil) as part of the Land Use/Cover Area frame statistical Survey (LUCAS) Programme. For that purpose, the LUCAS Programme **shall** be enhanced and upgraded to fully align it with the specific quality requirements to be met for the purpose of this Directive. In order to alleviate the burden, Member States should be allowed to take into account the soil health data surveyed under the enhanced LUCAS soil. The Member States thus supported should take the necessary legal arrangements to ensure that the Commission can carry out such in-situ soil sampling, including on privately owned fields, and in compliance with applicable national or Union legislation.

Amendment

(32) ***As a complement to existing national inventories,*** the Commission should assist and support Member States' monitoring of soil health by continuing to carry out and enhancing regular in-situ soil sampling and related soil measurements (LUCAS soil) as part of the Land Use/Cover Area frame statistical Survey (LUCAS) Programme. For that purpose, the LUCAS Programme **should** be enhanced and upgraded to fully align it with the specific quality requirements **and all the descriptors** to be met for the purpose of this Directive. In order to alleviate the burden, Member States should be allowed to take into account the soil health data surveyed under the enhanced LUCAS soil. ***LUCAS soil will sample and analyse at least 20 % of the size of national samples, thereby contributing to the monitoring carried out by Member States. The analysis by LUCAS is essential to allowing Member States to calculate and calibrate valid transfer functions in order to allow them to continue using alternative monitoring design in accordance with Tier 2. The Commission should at the request of a Member State provide further assistance with up to 50% of the sampling during the first national monitoring round.*** The Member States thus supported should take the necessary legal arrangements to ensure that the Commission can carry out such in-situ soil sampling, including on privately owned fields, ***with the agreement of the owners,*** and in compliance with applicable national or Union legislation.

Amendment 22
Proposal for a directive
Recital 33

Text proposed by the Commission

(33) The Commission is developing remote sensing services in the context of Copernicus as a user-driven programme, hereby also supporting Member States. In order to increase the timeliness and effectiveness of soil health monitoring, and where relevant, Member States should use remote sensing data including outputs from the Copernicus services for monitoring relevant soil descriptors and for assessing soil health. The Commission and the European Environment Agency should support exploring and developing soil remote sensing products, to assist the Member States in monitoring the relevant soil descriptors.

Amendment

(33) The Commission is developing remote sensing services in the context of Copernicus as a user-driven programme, hereby also supporting Member States. In order to increase the timeliness and effectiveness of soil health monitoring, and where relevant, Member States should use remote sensing data including outputs from the Copernicus services for monitoring relevant soil descriptors and for assessing soil health. The Commission and the European Environment Agency should support exploring and developing soil remote sensing products, to assist the Member States in monitoring the relevant soil descriptors. ***The Commission and Member States should further support the use of reliable and available digital technologies, such as electronic databases, geographic information systems, automated image identification or e-DNA, to improve knowledge sharing and transparency with regard to soil health and to reduce the costs of soil measurements and monitoring.***

Amendment 23
Proposal for a directive
Recital 34

Text proposed by the Commission

(34) Building on and upgrading the existing EU soil observatory, the Commission should establish a digital soil health data portal that should be compatible with the EU Data Strategy⁵⁰ and the EU data spaces and which should be a hub providing access to soil data coming from various sources. That portal should primarily include ***all the*** data collected by the Member States and the Commission as required by this Directive. It should also be possible to integrate in the portal, on a voluntary basis, other relevant soil data collected by Member States or

Amendment

(34) Building on and upgrading the existing EU soil observatory, the Commission should establish a digital soil health data portal that should be compatible with the EU Data Strategy⁵⁰ and the EU data spaces and which should be a hub providing access to soil data coming from various sources. ***The soil health data should be made publicly available in a format that can be used by the research community, landowners and managers, advisors working within the farm advisory system and the public, ensuring compliance with Union law on***

any other party (and in particular data resulting from projects under Horizon Europe and the Mission ‘A Soil Deal for Europe’), provided that those data meet certain requirements as regards format and specifications. Those requirements should be specified by the Commission by way of implementing acts.

the protection of personal data. That portal should primarily include ***relevant*** data collected by the Member States and the Commission as required by this Directive ***and serve as a platform for the establishment of a Sustainable Soil Management Toolbox that will provide up-to-date context-specific information about sustainable soil management practices based on different soil type, land use and climatic conditions.*** It should also be possible to integrate in the portal, on a voluntary basis, other relevant soil data collected by Member States or any other party (and in particular data resulting from projects under Horizon Europe and the Mission ‘A Soil Deal for Europe’), provided that those data meet certain requirements as regards format and specifications. Those requirements should be specified by the Commission by way of implementing acts. ***Member States and the Commission should ensure that research institutions have easy and free access to all data at their request.***

⁵⁰Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on a European strategy for data, COM(2020)66 final.

⁵⁰ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on a European strategy for data, COM(2020)66 final.

Amendment 24

Proposal for a directive

Recital 35

Text proposed by the Commission

(35) It is also necessary to improve the harmonization of soil monitoring systems used in the Member States and exploit the synergies between Union and national monitoring systems in order to have more comparable data across the Union.

Amendment

(35) It is also necessary to improve the harmonization of soil monitoring systems used in the Member States and exploit the synergies between Union and national monitoring systems ***and make full use of already existing harmonised monitoring tools such as LUCAS*** in order to have more comparable data across the Union.

Moreover, harmonisation of monitoring systems in Member States would help to scale up investments in advanced soil monitoring techniques and technologies.

Amendment 25
Proposal for a directive
Recital 36

Text proposed by the Commission

(36) In order to make the widest possible use of soil health data generated by the monitoring carried out under this Directive, Member States should be required to facilitate the access to such data for relevant stakeholders such as farmers, foresters, land owners and local authorities.

Amendment

deleted

Amendment 26
Proposal for a directive
Recital 37

Text proposed by the Commission

(37) To maintain or enhance soil health, soils need to be managed sustainably. Sustainable soil management will enable the long-term provision of soil services, including improved air and water quality and food security. It is therefore appropriate to lay down sustainable soil management principles to guide soil management practices.

Amendment

(37) To maintain or enhance soil health, soils need to be managed sustainably. Sustainable soil management will enable the long-term provision of soil services, including improved air and water quality and food security. It is therefore appropriate to lay down **non-binding sustainable soil management principles to guide soil management practices.**

Amendment 27
Proposal for a directive
Recital 38

Text proposed by the Commission

(38) Economic instruments, including those under the Common Agricultural Policy (CAP) that provide support to

Amendment

(38) Economic instruments, including those under the common agricultural policy (CAP) that provide support to farmers,

farmers, have a crucial role in the transition to the sustainable management of agricultural soils and, to a lesser extent, forest soils. The CAP aims to support soil health through the implementation of conditionality, eco-schemes and rural development measures. Financial support for farmers and foresters who apply sustainable soil management practices can also be generated by the private sector. Voluntary sustainability labels in the food, wood, bio-based, and energy industry, for example, established by private stakeholders, can take into account the ***sustainable soil management principles set out in*** this Directive. This can enable food, wood, and other biomass producers that follow those principles in their production to reflect these in the value of their products. Additional funding for a network of real-life sites for testing, demonstrating and upscaling of solutions, including on carbon farming, will be provided through the Soil Mission's living labs and lighthouses. Without prejudice to the polluter pays principle, support and advice should be provided by Member States to help landowners and land users affected by action taken under this Directive taking into account, in particular, the needs and limited capacities of small and medium sized enterprises.

Amendment 28
Proposal for a directive
Recital 39 a (new)

Text proposed by the Commission

have a crucial role in the transition to the sustainable management of agricultural soils and, to a lesser extent, forest soils. The CAP aims to support soil health through the implementation of conditionality, eco-schemes and rural development measures. Financial support for farmers and foresters who apply sustainable soil management practices can also be generated by the private sector. Voluntary sustainability labels in the food, wood, bio-based, and energy industry, for example, established by private stakeholders, can take into account the ***contributions to improve soil health in accordance with*** this Directive. This can enable food, wood, and other biomass producers that follow those principles in their production to reflect these in the value of their products. Additional funding for a network of real-life sites for testing, demonstrating and upscaling of solutions, including on carbon farming, will be provided through the Soil Mission's living labs and lighthouses. Without prejudice to the polluter pays principle, support and advice should be provided by Member States to help landowners and land users affected by action taken under this Directive taking into account, in particular, the needs and limited capacities of small and medium sized enterprises.

Amendment

(39a) Good agricultural and environmental conditions (GAECs) 5, 6 and 7 as set out in Regulation (EU) 2021/2115 include standards to improve tillage management to reduce the risk of soil degradation and erosion, including by consideration of the slope gradient and minimum land management reflecting site specific conditions to limit erosion,

minimum soil cover to avoid bare soil, protection of soils in periods that are most sensitive as well as crop rotation on arable land. In addition, GAEC 1 on protection of permanent pasture and GAEC 2 on protecting wetlands and peatlands and soils high in organic matter, are relevant for soil protection.

Amendment 29
Proposal for a directive
Recital 40

Text proposed by the Commission

(40) ***In order to ensure that the best sustainable soil management practices are implemented***, Member States should be required to closely monitor the impact of soil management practices and adjust practices and recommendations as necessary, taking into account new knowledge from research and innovation. Valuable contributions are expected in this respect from the Horizon Europe Mission ‘A Soil Deal for Europe’ and in particular its living labs and activities to support soil monitoring, soil education and citizen engagement.

Amendment

(40) Member States should be required to closely monitor the impact of soil management practices and adjust practices and recommendations as necessary, taking into account new knowledge from research and innovation. Valuable contributions are expected in this respect from the Horizon Europe Mission ‘A Soil Deal for Europe’ and in particular its living labs and activities to support soil monitoring, soil education and citizen engagement.

Amendment 30
Proposal for a directive
Recital 42

Text proposed by the Commission

(42) To ensure synergies between the different measures adopted under other Union legislation that may have an impact on soil health, and the measures that are to be put in place to sustainably manage and regenerate soils in the Union, Member States should ensure that the sustainable soil management and regeneration practices are coherent with the national restoration plans adopted in accordance

Amendment

(42) To ensure synergies between the different measures adopted under other Union legislation that may have an impact on soil health, and the measures that are to be put in place to sustainably manage and regenerate soils in the Union, Member States should ensure that the sustainable soil management and regeneration practices are coherent with the national restoration plans adopted in accordance

with Regulation (UE) .../... of the European Parliament and of the Council⁵²⁺; the strategic plans to be drawn up by Member States under the Common Agricultural Policy in accordance with Regulation (EU) 2021/2115, the codes of good agricultural practices and the action programmes for designated vulnerable zones adopted in accordance with Council Directive 91/676/EEC⁵³, the conservation measures and prioritized action framework established for Natura 2000 sites in accordance with Council Directive 92/43/EEC⁵⁴, the measures for achieving good ecological and chemical status of water bodies included in river basin management plans prepared in accordance with Directive 2000/60/EC of the European Parliament and of the Council⁵⁵, the flood risk management measures established in accordance with Directive 2007/60/EC of the European Parliament and of the Council⁵⁶, the drought management plans promoted in the Union Strategy on Adaptation to Climate Change⁵⁷, the national action programmes established in accordance with Article 10 of the United Nations Convention to Combat Desertification, targets set out under Regulation (EU) 2018/841 of the European Parliament and of the Council⁵⁸ and Regulation (EU) 2018/842 of the European Parliament and of the Council⁵⁹, the integrated national energy and climate plans established in accordance with Regulation (EU) 2018/1999 of the European Parliament and of the Council⁶⁰, the national air pollution control programmes prepared under Directive (EU) 2016/2284 of the European Parliament and of the Council⁶¹, risk assessments and disaster risk management planning established in accordance with Decision No 1313/2013/EU of the European Parliament and of the Council⁶², and national action plans established in accordance with **Regulation (UE) .../...** of the European Parliament and of the Council⁶³ +. Sustainable soil management

with Regulation (UE) .../... of the European Parliament and of the Council⁵²⁺; **the national biodiversity strategies and action plans established in accordance with Article 6 of the United Nations Convention on Biological Diversity**, the strategic plans to be drawn up by Member States under the Common Agricultural Policy in accordance with Regulation (EU) 2021/2115, the codes of good agricultural practices and the action programmes for designated vulnerable zones adopted in accordance with Council Directive 91/676/EEC⁵³, the conservation measures and prioritized action framework established for Natura 2000 sites in accordance with Council Directive 92/43/EEC⁵⁴, the measures for achieving good ecological and chemical status of water bodies included in river basin management plans prepared in accordance with Directive 2000/60/EC of the European Parliament and of the Council⁵⁵, the flood risk management measures established in accordance with Directive 2007/60/EC of the European Parliament and of the Council⁵⁶, the drought management plans promoted in the Union Strategy on Adaptation to Climate Change⁵⁷, the national action programmes established in accordance with Article 10 of the United Nations Convention to Combat Desertification, targets set out under Regulation (EU) 2018/841 of the European Parliament and of the Council⁵⁸ and Regulation (EU) 2018/842 of the European Parliament and of the Council⁵⁹, the integrated national energy and climate plans established in accordance with Regulation (EU) 2018/1999 of the European Parliament and of the Council⁶⁰, the national air pollution control programmes prepared under Directive (EU) 2016/2284 of the European Parliament and of the Council⁶¹, risk assessments and disaster risk management planning established in accordance with Decision No 1313/2013/EU of the European Parliament and of the Council⁶²,

and regeneration practices should be, as far as possible, integrated within these programmes, plans and measures to the extent that they contribute to the achievement of their objectives.

Consequently, relevant indicators and data, such as soil-related result indicators under the CAP Regulation and statistical data on agricultural input and output reported under Regulation (EU) 2022/2379 of the European Parliament and of the Council⁶⁴, should be accessible to the competent authorities responsible for sustainable soil management and regeneration practices and soil health assessment in order to cross-link these data and indicators and thus enable the most accurate possible assessment of the effectiveness of the measures chosen.

and national action plans established in accordance with *Directive 2009/128/EC* of the European Parliament and of the Council. Sustainable soil management and regeneration practices should be, as far as possible, integrated within these programmes, plans and measures to the extent that they contribute to the achievement of their objectives.

Consequently, relevant indicators and data, such as soil-related result indicators under the CAP Regulation and statistical data on agricultural input and output reported under Regulation (EU) 2022/2379 of the European Parliament and of the Council⁶⁴, should be accessible to the competent authorities responsible for sustainable soil management and regeneration practices and soil health assessment in order to cross-link these data and indicators and thus enable the most accurate possible assessment of the effectiveness of the measures chosen.

⁵² OP : please insert please insert in the text the number of Regulation on nature restoration contained in document COM(2022) 304 and insert the number, date, title and OJ reference of that Regulation in the footnote Regulation (UE) .../... of the European Parliament and of the Council on nature restoration

⁵³ Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ L 375, 31.12.1991, p. 1).

⁵⁴ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (OJ L 206, 22.7.1992, p. 7).

⁵⁵ Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, pp. 1-73).

⁵² OP : please insert please insert in the text the number of Regulation on nature restoration contained in document COM(2022) 304 and insert the number, date, title and OJ reference of that Regulation in the footnote Regulation (UE) .../... of the European Parliament and of the Council on nature restoration

⁵³ Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ L 375, 31.12.1991, p. 1).

⁵⁴ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (OJ L 206, 22.7.1992, p. 7).

⁵⁵ Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, pp. 1-73).

⁵⁶ Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risks (OJ L 288, 6.11.2007, p. 27).

⁵⁷ Communication from the European Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Forging a climate-resilient Europe - the new EU Strategy on Adaptation to Climate Change COM(2021)82 final.

⁵⁸ Regulation (EU) 2018/841 of the European Parliament and of the Council of 30 May 2018 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework, and amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU (OJ L 156, 19.6.2018, p. 1).

⁵⁹ Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013 (OJ L 156, 19.6.2018, p. 26).

⁶⁰ Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council (OJ L 328, 21.12.2018, p. 1).

⁵⁶ Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risks (OJ L 288, 6.11.2007, p. 27).

⁵⁷ Communication from the European Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Forging a climate-resilient Europe - the new EU Strategy on Adaptation to Climate Change COM(2021)82 final.

⁵⁸ Regulation (EU) 2018/841 of the European Parliament and of the Council of 30 May 2018 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework, and amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU (OJ L 156, 19.6.2018, p. 1).

⁵⁹ Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013 (OJ L 156, 19.6.2018, p. 26).

⁶⁰ Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council (OJ L 328, 21.12.2018, p. 1).

⁶¹ Directive (EU) 2016/2284 of the European Parliament and of the Council of 14 December 2016 on the reduction of national emissions of certain atmospheric pollutants, amending Directive 2003/35/EC and repealing Directive 2001/81/EC (OJ L 344, 17.12.2016, p. 1).

⁶² Decision No 1313/2013/EU of the European Parliament and of the Council of 17 December 2013 on a Union Civil Protection Mechanism (OJ L 347, 20.12.2013, p. 924).

⁶³ + **OP: please insert in the text the number of the Regulation on the sustainable use of plant protection products and amending Regulation (EU) 2021/2115 contained in document COM(2022)305 and insert the number, date, title and OJ reference of that Directive in the footnote**

⁶⁴ Regulation (EU) 2022/2379 on statistics on agricultural input and output.

⁶¹ Directive (EU) 2016/2284 of the European Parliament and of the Council of 14 December 2016 on the reduction of national emissions of certain atmospheric pollutants, amending Directive 2003/35/EC and repealing Directive 2001/81/EC (OJ L 344, 17.12.2016, p. 1).

⁶² Decision No 1313/2013/EU of the European Parliament and of the Council of 17 December 2013 on a Union Civil Protection Mechanism (OJ L 347, 20.12.2013, p. 924).

⁶⁴ Regulation (EU) 2022/2379 on statistics on agricultural input and output.

Amendment 31 **Proposal for a directive** **Recital 43**

Text proposed by the Commission

(43) Contaminated sites are the legacy of decades of industrial activity in the EU and may lead to risks for human health and the environment now and in the future. It is therefore necessary **first** to identify and investigate potentially contaminated sites and then, in case of confirmed contamination, to assess the risks and take measures to address **unacceptable risks**. Soil investigation may prove that a potentially contaminated site is in fact not contaminated. In that case, the site should no longer be labelled by the Member State as potentially contaminated, unless contamination is suspected based on new evidence.

Amendment

(43) Contaminated sites are the legacy of decades of industrial activity in the EU and may lead to risks for human **and animal** health and the environment now and in the future. **Building on existing knowledge**, it is therefore necessary to identify and investigate potentially contaminated sites and then, in case of confirmed contamination, to assess the risks and take measures to address **them**. Soil investigation may prove that a potentially contaminated site is in fact not contaminated. In that case, the site should no longer be labelled by the Member State as potentially contaminated, unless contamination is suspected based on new

evidence.

Amendment 32
Proposal for a directive
Recital 44

Text proposed by the Commission

(44) To identify potentially contaminated sites, Member States should collect evidence among others through historical research, past industrial incidents and accidents, environmental permits and notifications by the public or authorities.

Amendment

(44) To identify potentially contaminated sites, Member States should collect evidence among others through historical research, past industrial incidents and accidents, environmental permits, **health surveys** and notifications by the public or authorities.

Amendment 33
Proposal for a directive
Recital 45

Text proposed by the Commission

(45) In order to ensure that soil investigations on potentially contaminated sites are carried out timely and effectively, Member States should, in addition to the obligation to lay down the deadline by which those investigations should be carried out, be required to lay down specific events that also trigger such investigation. Such triggering events may include the request or review of an environmental or building permit or an authorisation required pursuant to Union legislation or national legislation, soil excavation activities, land use changes or land or real estate transactions. Soil investigations may follow different stages, such as a desk study, site visit, preliminary or exploratory investigation, more detailed or descriptive investigation, and field or laboratory testing. Baseline reports and monitoring measures implemented in accordance with Directive 2010/75/EU of the European Parliament and of the Council⁶⁵ could also qualify as soil

Amendment

(45) In order to ensure that soil investigations on potentially contaminated sites are carried out timely and effectively, **as requested in the European Parliament's resolution of 28 April 2021 on soil protection**, Member States should, in addition to the obligation to lay down the deadline by which those investigations should be carried out, be required to lay down specific events that also trigger such investigation. Such triggering events may include the request or review of an environmental or building permit or an authorisation required pursuant to Union legislation or national legislation, soil excavation activities, land use changes or land or real estate transactions. Soil investigations may follow different stages, such as a desk study, site visit, preliminary or exploratory investigation, more detailed or descriptive investigation, and field or laboratory testing. Baseline reports and monitoring measures implemented in accordance with Directive 2010/75/EU of

investigation where appropriate.

the European Parliament and of the Council⁶⁵ could also qualify as soil investigation where appropriate.

⁶⁵ Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (OJ L 334, 17.12.2010, p. 17).

⁶⁵ Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (OJ L 334, 17.12.2010, p. 17).

Amendment 34

Proposal for a directive

Recital 46

Text proposed by the Commission

(46) Flexibility for the management of potentially contaminated sites and contaminated sites is needed to take account of costs, benefits and local specificities. Member States should therefore **at least** adopt a risk-based approach for managing potentially contaminated sites and contaminated sites, taking into account the difference between these two categories, and which allows to allocate resources taking account of the specific environmental, economic and social context. Decisions should be taken based on the nature and extent of potential risks for human health and the environment resulting from exposure to soil contaminants (e.g. exposure of vulnerable populations such as pregnant women, persons with disabilities, elderly people and children). The cost-benefit analysis of undertaking remediation should be **positive**. The optimum remediation solution should be sustainable and selected through a balanced decision-making process that takes account of the environmental, economic and social impacts. The management of potentially contaminated sites and contaminated sites should respect the polluter-pays, precautionary and proportionality principles. Member States should lay down the specific methodology for determining

Amendment

(46) Flexibility for the management of potentially contaminated sites and contaminated sites is needed to take account of costs, benefits and local specificities. Member States should therefore adopt a risk-based approach for managing potentially contaminated sites and contaminated sites, taking into account the difference between these two categories, and which allows to allocate resources taking account of the specific environmental, economic and social context. Decisions should be taken **in cooperation with local health practitioners, health authorities and the scientific community**, based on the nature and extent of potential risks for human health and the environment resulting from exposure to soil contaminants (e.g. exposure of vulnerable populations such as pregnant women, persons with disabilities, elderly people and children), **including exposure, and cumulative effects on human health, soil ecosystems and associated ecosystem services**. The cost-benefit analysis of undertaking remediation should be **balanced, taking into account the advantages for future generations**. The optimum remediation solution should be sustainable and selected through a balanced decision-making process that takes account of the environmental,

the site-specific risks of contaminated sites. Member States should also define what constitutes an unacceptable risk from a contaminated site based on scientific knowledge, the precautionary principle, **local specificities**, and current and future land use. In order to reduce the risks of contaminated sites to an acceptable level for human health and the environment, Member States should take adequate risk reduction measures including remediation. It should be possible to qualify measures taken under other Union legislation as risk reduction measures under this Directive when those measures effectively reduce risks posed by contaminated sites.

economic and social impacts. The management of potentially contaminated sites and contaminated sites should respect the polluter-pays, precautionary and proportionality principles. Member States should lay down the specific methodology for determining the site-specific risks of contaminated sites. Member States should also define what constitutes an unacceptable risk from a contaminated site based on scientific knowledge, the precautionary principle, **the opinion of health authorities and practitioners**, and current and future land use. In order to reduce the risks of contaminated sites to an acceptable level for human **and animal** health and the environment, Member States should take adequate risk reduction measures, **while prioritising in- or ex-situ** including remediation. It should be possible to qualify measures taken under other Union legislation as risk reduction measures under this Directive when those measures effectively reduce risks posed by contaminated sites.

Amendment 35
Proposal for a directive
Recital 46 a (new)

Text proposed by the Commission

Amendment

(46a) Land take mitigation principles should facilitate the Union's food security while taking into account sustainable housing, essential infrastructure and renewable energy projects.

Amendment 36
Proposal for a directive
Recital 47

Text proposed by the Commission

Amendment

(47) Measures taken pursuant to this Directive should also take account of other

(47) Measures taken pursuant to this Directive should also take account of other

EU policy objectives, *such as the objectives pursued by [Regulation (EU) xxxx/xxxx⁶⁶ +] that aim at ensuring secure and sustainable supply of critical raw materials for Europe's industry.*

EU policy objectives.

⁶⁶+ OP: please insert in the text the number of the Regulation establishing a framework for ensuring a secure and sustainable supply of critical raw materials and amending Regulations (EU) 168/2013, (EU) 2018/858, 2018/1724 and (EU) 2019/1020 contained in document COM(2023)160 and insert the number, date, title and OJ reference of that Directive in the footnote.

Amendment 37
Proposal for a directive
Recital 48 a (new)

Text proposed by the Commission

Amendment

(48a) In order to protect soils from pollution by emerging chemicals that have the potential to cause significant risks to human and animal health and to contaminate surrounding air, surface waters, groundwater, and subsequently oceans, policy mechanisms to detect and assess such substances of emerging concern should be established. In that regard, an approach that allows monitoring and analysis of those substances or groups of substances via watch lists, as is already the case for surface water and groundwater, should be developed for soil contamination. The substances or groups of substances to be placed on the watch list should be selected from amongst those substances for which the information available indicates that they could pose a significant risk at Union level to, or via, the soil environment, and for which the monitoring data are insufficient. The number of such substances or groups of substances to be

monitored and analysed under the watch lists should not be limited.

Amendment 38
Proposal for a directive
Recital 48 b (new)

Text proposed by the Commission

Amendment

(48b) Substances such as persistent organic pollutants, materials and particles, including microplastics or nanoplastics, pose a clear risk to soil health, but also to essential activities such as the development of agriculture. Their presence in soils can have implications for soil fertility, thereby compromising the health and healthy development of crops. It is therefore essential that this Directive provide for a framework for both substances and materials to be included in the monitoring of soil contaminants, and for the establishment of environmental quality standards and a set of measures to prevent and remediate soil contamination from known and emerging threats, where appropriate.

Amendment 39
Proposal for a directive
Recital 50

Text proposed by the Commission

Amendment

(50) Directive (EU) 2019/1024 of the European Parliament and of the Council⁶⁸ mandates the release of public sector data in free and open formats. The overall objective is to continue the strengthening of the EU's data economy by increasing the amount of public sector data available for re-use, ensuring fair competition and easy access to public sector information, and enhancing cross-border innovation based on data. ***The main principle is that government data should be open by***

(50) Directive (EU) 2019/1024 of the European Parliament and of the Council⁶⁸ mandates the release of public sector data in free and open formats. The overall objective is to continue the strengthening of the EU's data economy by increasing the amount of ***interoperable*** public sector data available for re-use, ensuring fair competition and easy access to public sector information, and enhancing cross-border innovation based on data. Directive 2003/4/EC of the European Parliament and

default and design. Directive 2003/4/EC of the European Parliament and of the Council⁶⁹ is aimed at guaranteeing the right of access to environmental information in the Member States in line with the Aarhus Convention. The Aarhus Convention and Directive 2003/4/EC encompass broad obligations related both to making environmental information available upon request and actively disseminating such information. Directive 2007/2/EC of the European Parliament and of the Council⁷⁰ is also of broad scope, covering the sharing of spatial information, including data sets on different environmental topics. It is important that provisions of this Directive related to access to information and data-sharing arrangements complement those Directives and do not create a separate legal regime. Therefore, the provisions of this Directive regarding information to the public and information on monitoring of implementation should be without prejudice to Directives (EU) 2019/1024, 2003/4/EC and 2007/2/EC.

of the Council⁶⁹ is aimed at guaranteeing the right of access to environmental information in the Member States in line with the Aarhus Convention. The Aarhus Convention and Directive 2003/4/EC encompass broad obligations related both to making environmental information available upon request and actively disseminating such information. Directive 2007/2/EC of the European Parliament and of the Council⁷⁰ is also of broad scope, covering the sharing of spatial information, including data sets on different environmental topics. It is important that provisions of this Directive related to access to information and data-sharing arrangements complement those Directives and do not create a separate legal regime. Therefore, the provisions of this Directive regarding information to the public and information on monitoring of implementation should be without prejudice to Directives (EU) 2019/1024, 2003/4/EC and 2007/2/EC.

⁶⁸ Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on open data and the re-use of public sector information (OJ L 172, 26.6.2019, p. 56).

⁶⁹ Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC (OJ L 41, 14.2.2003, p. 26).

⁷⁰ Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE) (OJ L 108, 25.4.2007, p. 1).

⁶⁸ Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on open data and the re-use of public sector information (OJ L 172, 26.6.2019, p. 56).

⁶⁹ Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC (OJ L 41, 14.2.2003, p. 26).

⁷⁰ Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE) (OJ L 108, 25.4.2007, p. 1).

Amendment 40 **Proposal for a directive**

Recital 51

Text proposed by the Commission

(51) In order to ensure the necessary adaptation of the rules on soil health monitoring, ***sustainable soil management*** and management of contaminated sites, the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union should be delegated to the Commission in respect of amending this Directive to adapt to technical and scientific progress the methodologies for monitoring soil health, ***the list of sustainable soil management principles***, the indicative list of risk reduction measures, the phases and requirements for the site-specific risk assessment ***and the content of the register of contaminated and potentially contaminated sites***. It is of particular importance that the Commission carries out appropriate consultations during its preparatory work, including at expert level, and that those consultations be conducted in accordance with the principles laid down in the Interinstitutional Agreement on Better Law-Making of 13 April 2016⁷¹. In particular, to ensure equal participation in the preparation of delegated acts, the European Parliament and the Council receive all documents at the same time as Member States' experts, and their experts systematically have access to meetings of Commission expert groups dealing with the preparation of delegated acts.

⁷¹ Interinstitutional Agreement between the European Parliament, the Council of the European Union and the European Commission on Better Law-Making of 13 April 2016 (OJ L 123, 12.5.2016, p. 1).

Amendment

(51) In order to ensure the necessary adaptation of the rules on soil health monitoring, ***assessment*** and management of contaminated sites, the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union should be delegated to the Commission in respect of amending ***or supplementing*** this Directive ***to adopt a methodology for determining threshold values for soil descriptors to be established by Member States, and*** to adapt to technical and scientific progress the methodologies for monitoring soil health, the indicative list of risk reduction measures, the phases and requirements for the site-specific risk assessment ***and establishment of the minimum tolerable values in relation to the definition of an unacceptable risk for health and the environment resulting from*** contaminated sites. It is of particular importance that the Commission carries out appropriate consultations during its preparatory work, including at expert level, and that those consultations be conducted in accordance with the principles laid down in the Interinstitutional Agreement on Better Law-Making of 13 April 2016⁷¹. In particular, to ensure equal participation in the preparation of delegated acts, the European Parliament and the Council receive all documents at the same time as Member States' experts, and their experts systematically have access to meetings of Commission expert groups dealing with the preparation of delegated acts.

⁷¹ Interinstitutional Agreement between the European Parliament, the Council of the European Union and the European Commission on Better Law-Making of 13 April 2016 (OJ L 123, 12.5.2016, p. 1).

Amendment 41
Proposal for a directive
Recital 53

Text proposed by the Commission

(53) The Commission should carry out an evidence-based evaluation and, where relevant, a revision of this Directive, 6 years after its entry into force on the basis of the results of the soil health assessment. The evaluation should assess in particular ***the need to set more specific requirements to make sure unhealthy soils are regenerated and the objective to achieve healthy soils by 2050 is achieved.*** The evaluation should also assess the need to adapt the definition of healthy soils to scientific and technical progress by adding provisions on certain descriptors or criteria based on new scientific evidence relating to the protection of soils or on the grounds of a problem specific to a Member State arising from new environmental or climatic circumstances. Pursuant to paragraph 22 of the Interinstitutional Agreement on Better Law-Making, that evaluation should be based on the criteria of efficiency, effectiveness, relevance, coherence and EU value added and should provide the basis for impact assessments of possible further measures.

Amendment 42
Proposal for a directive
Recital 55 a (new)

Text proposed by the Commission

Amendment

(53) The Commission should carry out an evidence-based evaluation and, where relevant, a revision of this Directive, 6 years after its entry into force on the basis of the results of the soil health assessment. The evaluation should assess in particular ***the gap and measures needed*** to achieve healthy soils by 2050. The evaluation should also assess the need to adapt the definition of healthy soils to scientific and technical progress by adding provisions on certain descriptors or criteria based on new scientific evidence relating to the protection of soils or on the grounds of a problem specific to a Member State arising from new environmental or climatic circumstances. Pursuant to paragraph 22 of the Interinstitutional Agreement on Better Law-Making, that evaluation should be based on the criteria of efficiency, effectiveness, relevance, coherence and EU value added and should provide the basis for impact assessments of possible further measures.

(55a) This Directive is aimed at meeting the long-term objective of healthy soil in the Union by 2050 based on a coherent framework for soil monitoring and improvement of its health. Given its nature as a directive, in accordance with Article 288 of the Treaty on the Functioning of the European Union, this Directive is binding as to the result to be

achieved in the Member States to whom it is addressed, while leaving national authorities the power to choose the form and methods to achieve the result. It will therefore be up to Member States to devise their own laws on how to reach the goals laid down in this Directive. The proposed instrument of a directive leaves much flexibility to the Member States to identify the best measures for them and to adapt the approach to local conditions. This is crucial to take account of the regional and local specificities as regards soil variability, land use, climatological conditions and socio-economic aspects. The nature of the instrument implies that principles laid down in this Directive do not entail direct obligations on individuals.

Amendment 43
Proposal for a directive
Article 1 – paragraph 1

Text proposed by the Commission

1. The objective of the Directive is 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 and maintain soils in healthy condition, so that they can supply multiple ecosystem services at a scale sufficient to meet environmental, societal and economic needs, prevent and mitigate the impacts of climate change and biodiversity loss, increase the resilience against natural disasters and for food security and that soil contamination is reduced to levels no longer considered harmful to human health and the environment.

Amendment

1. The objective of the Directive is to put in place a **clear**, solid, coherent **and flexible framework for** soil monitoring **and assessment** for all soils across the EU **in order** to continuously improve soil health in the Union with the view to achieve healthy soils by 2050 and maintain soils in healthy condition **and prevent their deterioration** so that they can supply multiple ecosystem services at a scale sufficient to meet environmental, societal and economic needs, prevent and mitigate the impacts of climate change and biodiversity loss, increase the resilience against natural disasters and for food security and that soil contamination is reduced to levels no longer considered harmful to human health and the environment.

This Directive, therefore, establishes a framework within which Member States

are required to put in place measures that are technically feasible and based on a cost-benefit analysis, with a view to achieving healthy soils by 2050.

Amendment 44
Proposal for a directive
Article 1 – paragraph 1 a (new)

Text proposed by the Commission

Amendment

1a. This Directive contributes to fulfilling international and Union-level commitments, objectives and goals, including those contained in:

(a) the Kunming-Montreal Global Biodiversity Framework;

(b) the Paris Agreement;

(c) the UN Convention to Combat Desertification (UNCCD);

(d) the 7th EU Environment Action Programme (Decision No 1386/2013/EU);

(e) the 8th EU Environment Action Programme (Decision (EU) 2022/591);

(f) the Roadmap to a Resource Efficient Europe (COM/2011/0571).

Amendment 45
Proposal for a directive
Article 1 – paragraph 2 – point a

Text proposed by the Commission

Amendment

(a) monitoring **and assessment of** soil health;

(a) monitoring, **maintaining, improving, rehabilitating and assessing** soil health, **based on its ecological status**;

Amendment 46
Proposal for a directive
Article 3 – paragraph 1 – point 1 a (new)

Text proposed by the Commission

Amendment

(1a) ‘soil ecological status’ means the ecological quality of a soil evaluated according to the soil’s diversity, biological and functional activity, habitat and the presence of degradation factors, and determined according to the following classification:

(a) ‘high soil ecological status’ refers to soils with high biological and functional activity;

(b) ‘good ecological status’ refers to soils in an overall good ecological status but that show evidence of slight adverse impacts from one or multiple degradation factors;

(c) ‘moderate ecological status’ refers to soils with evidence of slight adverse impacts from degradation factors;

(d) ‘degraded soils’ refers to soils with clear evidence of adverse impacts from one degradation factor; and

(e) ‘critically degraded soils’ refers to soils with clear evidence of adverse impacts from more than one degradation factor;

Amendment 47
Proposal for a directive
Article 3 – paragraph 1 – point 1 b (new)

Text proposed by the Commission

Amendment

(1b) ‘soil ecological functions’ means the set of interrelated processes and interactions within the soil ecosystem that sustain life, support and are the result of soil biodiversity and maintain the overall health and productivity of terrestrial environments, such as nutrient cycling, organic matter decomposition, soil structure formation, water filtration and purification, carbon sequestration, and the provision of habitats and resources for a diverse range of organisms;

Amendment 48
Proposal for a directive
Article 3 – paragraph 1 – point 3

Text proposed by the Commission

(3) ‘ecosystem services’ means indirect contributions of ecosystems to the economic, social, cultural and other benefits that people derive from those ecosystems;

Amendment

(3) ‘ecosystem services’ means **direct and** indirect contributions of ecosystems to the **wellbeing of society as a whole, and** economic, social, cultural, **environmental** and other benefits that people derive from those ecosystems;

Amendment 49
Proposal for a directive
Article 3 – paragraph 1 – point 3 a (new)

Text proposed by the Commission

Amendment

(3a) ‘soil biodiversity’ means the variation in soil life, from genes to communities, and the ecological complexes of which they are part, that is complexes ranging from soil micro-habitats to landscapes;

Amendment 50
Proposal for a directive
Article 3 – paragraph 1 – point 4

Text proposed by the Commission

(4) ‘soil health’ means the physical, chemical and biological condition of the soil determining its capacity to function as a vital living system and to provide ecosystem services;

Amendment

(4) ‘soil health’ means the physical, chemical, **functional** and biological condition of the soil determining its capacity to function as a vital living system and to provide ecosystem services, **taking land use into account;**

Amendment 51
Proposal for a directive
Article 3 – paragraph 1 – point 5

Text proposed by the Commission

Amendment

(5) ‘sustainable soil management’ means soil management practices that maintain or enhance the ecosystem services provided by the soil without impairing the functions enabling those services, or being detrimental to other properties of the environment;

(5) ‘sustainable soil management’ means soil **and land** management practices that maintain or enhance **soil productivity, soil biodiversity and** the ecosystem services provided by the soil without impairing the functions enabling those services, or being detrimental to other properties of the environment;

Amendment 52

Proposal for a directive

Article 3 – paragraph 1 – point 8

Text proposed by the Commission

(8) ‘soil district’ means the part of the territory of a Member State, as delimited by that Member State in accordance with this Directive;

Amendment

(8) ‘soil district’ means the part of the territory of a Member State **or several Member States**, as delimited by that Member State **or those Member States** in accordance with this Directive;

Amendment 53

Proposal for a directive

Article 3 – paragraph 1 – point 10

Text proposed by the Commission

(10) ‘contaminated site’ means a delineated area of one or several plots with confirmed presence of soil contamination caused by **point-source anthropogenic activities**;

Amendment

(10) ‘contaminated site’ means a delineated area of one or several plots with confirmed presence of soil contamination caused by **the presence of a substance or material in the soil in a concentration that may be harmful to health or the environment**;

Amendment 54

Proposal for a directive

Article 3 – paragraph 1 – point 17 a (new)

Text proposed by the Commission

Amendment

(17a) ‘soil sealing’ means the covering of land with impermeable material, particularly in the context of using land as a platform for buildings and

infrastructure;

Amendment 55
Proposal for a directive
Article 3 – paragraph 1 – point 17 b (new)

Text proposed by the Commission

Amendment

(17b) ‘de-sealing of soil’ means the re-conversion of land that no longer performs its natural soil functions, such as infiltration, percolation and hydrological functionality, into functional soil;

Amendment 56
Proposal for a directive
Article 3 – paragraph 1 – point 19

Text proposed by the Commission

Amendment

(19) ‘public concerned’ means the public affected or likely to be affected by soil degradation, or having an interest in the decision-making procedures related to the implementation of the obligations under this Directive, including land owners and **land** users, as well as non-governmental organisations promoting the protection of human health or the environment and meeting any requirements under national law.

(19) ‘public concerned’ means the public affected or likely to be affected by soil degradation, or having an interest in the decision-making procedures related to the implementation of the obligations under this Directive, including **citizens**, land owners, **managers** and users, as well as non-governmental organisations promoting the protection of human **or animal** health or the environment and meeting any requirements under national law.

Amendment 57
Proposal for a directive
Article 3 – paragraph 1 – point 19 a (new)

Text proposed by the Commission

Amendment

(19a) ‘public’ means one or more natural or legal persons and, in accordance with national law or practice, associations, organisations or groups comprising such persons;

Amendment 58
Proposal for a directive
Article 3 – paragraph 1 – point 20

Text proposed by the Commission

(20) ‘soil contamination’ means the presence of a **chemical or** substance in the soil in a concentration that may **be** harmful **to** human health or the environment;

Amendment

(20) ‘soil contamination’ means the presence of a substance **or material** in the soil in a concentration that may **lead, directly or indirectly, to** harmful **effects on** human **or animal** health or the environment;

Amendment 59
Proposal for a directive
Article 3 – paragraph 1 – point 23

Text proposed by the Commission

(23) ‘risk’ means the possibility of harmful effects to human health or the environment resulting from exposure to soil contamination;

Amendment

(23) ‘risk’ means the possibility of harmful effects to human **or animal** health or the environment resulting from exposure to soil contamination;

Amendment 60
Proposal for a directive
Article 3 – paragraph 1 – point 26

Text proposed by the Commission

(26) ‘soil remediation’ means a regeneration action that reduces, isolates or immobilizes contaminant concentrations in the soil.

Amendment

(26) ‘soil remediation’ means a regeneration action that reduces, isolates or immobilizes contaminant concentrations in the soil **below a toxicity threshold for which significant dangers for organisms in contact with that soil can be excluded, with the aim of improving the ecological status.**

Amendment 61
Proposal for a directive
Article 4 – paragraph 1 – subparagraph 1

Text proposed by the Commission

Member States shall establish soil districts throughout their territory.

Amendment

Member States shall, ***in consultation with local, regional and cross-regional authorities***, establish soil districts, ***based on, where appropriate, existing administrative units*** throughout their ***own*** territory ***and in cross-border territories together with neighbouring Member States***.

Amendment 62

Proposal for a directive

Article 4 – paragraph 1 – subparagraph 2

Text proposed by the Commission

The number of soil districts for each Member State shall as a minimum correspond to the number of NUTS 1 territorial units established under Regulation (EC) No 1059/2003.

Amendment

The number of soil districts for each Member State, ***including the cross-border soil districts between neighbouring Member States referred to in the first subparagraph***, shall as a minimum correspond to the number of NUTS 1 territorial units established under Regulation (EC) No 1059/2003.

Amendment 63

Proposal for a directive

Article 4 – paragraph 2 – introductory part

Text proposed by the Commission

2. When establishing the geographic extent of soil districts, Member States may take into account existing administrative units and shall ***seek*** homogeneity within each soil district regarding the following parameters:

Amendment

2. When establishing the geographic extent of soil districts, Member States may take into account existing ***land use, governance structures and*** administrative units and shall ***prioritise*** homogeneity within each soil district regarding the following parameters:

Amendment 64

Proposal for a directive

Article 4 – paragraph 2 – point d a (new)

Text proposed by the Commission

Amendment

(da) river basin districts pursuant to Directive 2000/60/EC and water bodies used for abstraction of water intended for human consumption as defined in Directive (EU) 2020/2184.

Amendment 65
Proposal for a directive
Article 4 – paragraph 2 a (new)

Text proposed by the Commission

Amendment

(2a) Member States shall, where appropriate, ensure that soil districts of neighbouring Member States in which there are transboundary effects on soil, comparable land use across borders or similar values for the parameters referred to in paragraph 2, points (a) to (d), cooperate with each other to exchange best practices. Member States shall also ensure that a coherent approach is taken by soil districts across borders.

Amendment 66
Proposal for a directive
Article 4 – paragraph 2 b (new)

Text proposed by the Commission

Amendment

(2b) The Commission shall support Member States in ensuring that their soil districts cooperate on a cross-border basis and shall facilitate harmonisation of monitoring systems, transfer functions, monitoring design and classification of ecological status at the level of the soil descriptors listed in Annex I.

Amendment 67
Proposal for a directive
Article 4 – paragraph 2 c (new)

Text proposed by the Commission

Amendment

(2 c) Relevant competent authorities shall, if they consider it necessary, draw up soil district plans, taking fully into account the other provisions set out in this Directive, and set up intermediate targets to achieve measurable improvement of soil health.

The relevant competent authorities shall ensure that the process of drawing up the soil district plans is open, inclusive and effective and that the public concerned, including the population of the relevant soil district, landowners, land managers, non-governmental organisations and researchers are given early and effective opportunities to participate. The soil district plans shall be made available online by the respective competent authority. The Commission shall issue guidelines concerning soil district plans by ... [insert the date of 1 year from the entry into force of this Directive].

Amendment 68
Proposal for a directive
Article 5 – paragraph 1

Text proposed by the Commission

Member States shall designate the competent authorities responsible at an appropriate level for carrying out the duties laid down in this Directive.

Amendment

Member States shall designate the competent authorities responsible at an appropriate level for carrying out the duties laid down in this Directive, ***taking into account existing administrative divisions and responsibilities, including in the case of cross-border soil districts.***

Amendment 69
Proposal for a directive
Article 5 – paragraph 2

Text proposed by the Commission

Member States shall designate one

Amendment

Member States shall designate one

competent authority for each soil district established in accordance with Article 4.

competent authority for each soil district established in accordance with Article 4.
Member States may designate one competent authority for several soil districts.

Amendment 70
Proposal for a directive
Article 5 – paragraph 2 a (new)

Text proposed by the Commission

Amendment

Member States shall communicate to the Commission the list of competent authorities referred to in paragraphs 1 and 2 of this Article in accordance with Article 18(3), point (b). The Commission shall maintain an updated list of the competent authorities on its website.

Amendment 71
Proposal for a directive
Article 6 – paragraph 1

Text proposed by the Commission

Amendment

1. Member States shall establish a monitoring framework based on the soil districts established in accordance with Article 4(1), to ensure that regular and accurate monitoring of soil health is carried out in accordance with this Article and Annexes I and II.

1. Member States shall establish a monitoring framework based on the soil districts established in accordance with Article 4(1), to ensure that regular and accurate monitoring of soil health is carried out in accordance with this Article and Annexes I and II, ***and is complementary to the assessment approach established by Directive 2000/60/EC.***

Amendment 72
Proposal for a directive
Article 6 – paragraph 2

Text proposed by the Commission

Amendment

2. Member States shall monitor soil health and land take in each soil district.

2. Member States shall monitor soil health and land take in each soil district.
Member States shall make use of the

expertise of national research institutes, existing national monitoring systems and available data. The monitoring activities carried out by the Member States shall not result in a financial burden for the land managers.

Amendment 73
Proposal for a directive
Article 6 – paragraph 3 – point b

Text proposed by the Commission

(b) the soil sampling points to be determined in accordance with Article 8(2);

Amendment

(b) the soil sampling points **and sampling depth** to be determined in accordance with Article 8(2);

Amendment 74
Proposal for a directive
Article 6 – paragraph 3 – point d

Text proposed by the Commission

(d) **the** remote sensing data and products referred to in paragraph 5 of this Article, if any;

Amendment

(d) **scientifically robust** remote sensing data and products referred to in paragraph 5 of this Article, if any;

Amendment 75
Proposal for a directive
Article 6 – paragraph 4

Text proposed by the Commission

4. The Commission shall, **subject to agreement from** Member States **concerned**, carry out regular soil measurements on soil samples taken in-situ, based on the relevant descriptors and methodologies referred to in Articles 7 and 8, to support Member States' monitoring of soil health. **Where a Member State provides agreement in accordance with this paragraph, it** shall ensure that the Commission can carry out such in-situ soil sampling.

Amendment

4. The Commission shall, **in cooperation with** Member States, carry out regular soil measurements on soil samples taken in-situ **at least every three years**, based on the relevant descriptors and methodologies referred to in Articles 7 and 8, to support Member States' monitoring of soil health. Member States shall **provide the necessary support to the Commission, including requesting the permission of landowners and land managers, where applicable, in order to** ensure that the

Commission can carry out such in-situ soil sampling.

Amendment 76
Proposal for a directive
Article 6 – paragraph 4 a (new)

Text proposed by the Commission

Amendment

4a. *The Commission shall ensure that the first soil measurement referred to in paragraph 4 is performed by ... [OP: please insert the date = three years from the entry into force of this Directive].*

The Commission shall contribute to the monitoring carried out by Member States by providing sampling and analysing of at least 20 % of the size of national samples.

The Commission shall, at the request of a Member State, provide further assistance with up to 50% of the sampling during the first national monitoring round.

Amendment 77
Proposal for a directive
Article 6 – paragraph 6 – introductory part

Text proposed by the Commission

Amendment

6. The Commission and the EEA shall, on the basis of existing data and within two years of the entry into force of this Directive, establish a digital soil health data portal that shall provide access in georeferenced spatial format to at least the available soil health data resulting from:

6. The Commission and the EEA shall, on the basis of existing data and within two years of the entry into force of this Directive, establish a digital soil health data portal that shall provide access in georeferenced spatial format, ***in line with Regulation (EC) No 223/2009 of the European Parliament and of the Council^{1a}***, to at least the available soil health data resulting from:

^{1a} Regulation (EC) No 223/2009 of the European Parliament and of the Council of 11 March 2009 on European statistics and repealing Regulation (EC, Euratom) No 1101/2008 of the European

Parliament and of the Council on the transmission of data subject to statistical confidentiality to the Statistical Office of the European Communities, Council Regulation (EC) No 322/97 on Community Statistics, and Council Decision 89/382/EEC, Euratom establishing a Committee on the Statistical Programmes of the European Communities (OJ L 087 31.3.2009, p. 164).

Amendment 78
Proposal for a directive
Article 6 – paragraph 6 a (new)

Text proposed by the Commission

Amendment

6a. *The soil monitoring framework referred to in paragraphs 3 to 6 shall build on existing monitoring frameworks at Union and national level, including data from the LUCAS Soil Observatory.*

Amendment 79
Proposal for a directive
Article 6 – paragraph 7 a (new)

Text proposed by the Commission

Amendment

7a. *The digital soil health data portal shall include the Sustainable Soil Management Toolbox referred to in Article 10a.*

Amendment 80
Proposal for a directive
Article 6 – paragraph 8

Text proposed by the Commission

Amendment

8. The Commission shall adopt implementing acts to establish formats or methods for sharing or collecting the data referred to in paragraph 7 or for integrating

8. The Commission shall adopt implementing acts to establish formats or methods for sharing or collecting the data referred to in paragraph 7 or for integrating

those data in the digital soil health data portal. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 21.

those data in the digital soil health data portal, ***ensuring compliance with Union law on the protection of personal data.*** Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 21.

Amendment 81
Proposal for a directive
Article 6 – paragraph 8 a (new)

Text proposed by the Commission

Amendment

8a. The Commission shall provide to Member States the necessary capacity building, assistance and consulting services and support their monitoring initiatives, multilateral harmonisation of regulations, methods and archives, and thereby close existing data gaps and workflow bottlenecks by sharing common expertise. To that end, the Commission shall build on existing mechanisms, including the Soil BON initiative.

Amendment 82
Proposal for a directive
Article 6 a (new)

Text proposed by the Commission

Amendment

Article 6a

Efficient use and preservation of soil samples

1. The Commission, together with Member States and the European Soil Observatory, shall put in place measures to ensure that the physical archives of soils, DNA extracts and the digital archive of raw data, at both Union and national level, remain available for further research and innovation. The Commission and Member States shall ensure that samples are stored in a manner appropriate to their long-term

sustainable use.

2. By ... [OP: please insert the date = 12 months from the date of entry into force of this Directive], the Commission shall provide guidelines with protocols of reference to use soil samples in the most cost-efficient way.

Amendment 83
Proposal for a directive
Article 7 – title

Text proposed by the Commission

Soil descriptors, criteria for **healthy soil condition, and** land take and soil sealing indicators

Amendment

Soil descriptors, criteria for **soil ecological status**, land take and soil sealing indicators

Amendment 84
Proposal for a directive
Article 7 – paragraph 1

Text proposed by the Commission

1. When monitoring and assessing soil health, Member States shall apply the soil descriptors and soil health criteria listed in Annex I.

Amendment

1. When monitoring and assessing soil health, Member States shall apply the soil descriptors and soil health criteria listed in Annex I **according to the respective Tier (Tier 1, Tier 2 or Tier 3) for soil monitoring design.**

Amendment 85
Proposal for a directive
Article 7 – paragraph 2

Text proposed by the Commission

2. Member States **may adapt the soil descriptors and the soil health criteria referred to in part A of Annex I**, in accordance with the **specifications referred to in the second and third columns** in part A of Annex I.

Amendment

2. Member States **shall select the adequate tier for the soil monitoring design for which they qualify** in accordance with the **conditions of Annex I, and shall ensure that they include at least all soil descriptors** in Part A of Annex I.

Amendment 86
Proposal for a directive
Article 7 – paragraph 3

Text proposed by the Commission

3. Member States shall determine the organic contaminants for the soil descriptor related to soil contamination referred to in part **B** of Annex I.

Amendment

3. Member States shall determine the organic contaminants for the soil descriptor related to soil contamination referred to in part **A** of Annex I.

Amendment 87
Proposal for a directive
Article 7 – paragraph 4

Text proposed by the Commission

4. **Member States shall set soil health criteria for the soil descriptors listed in part B of Annex I in accordance with the provisions set out in the third column in part B of Annex I.**

Amendment

deleted

Amendment 88
Proposal for a directive
Article 7 – paragraph 5

Text proposed by the Commission

5. Member States may set additional soil descriptors and land take indicators, including but not limited to the **optional** descriptors and indicators listed in part **C** and **D** of Annex I, for monitoring purposes (**'additional soil descriptors' and 'additional land take indicators'**).

Amendment

5. Member States may set additional soil descriptors and land take indicators, including but not limited to the descriptors and indicators listed in part **D** of Annex I, for monitoring purposes.

Amendment 89
Proposal for a directive
Article 7 – paragraph 6

Text proposed by the Commission

6. Member States shall inform the Commission when soil descriptors, land

Amendment

6. Member States shall inform the Commission when soil descriptors, land

take indicators and soil health criteria are set or adapted in accordance with paragraphs 2 to 5 of this Article.

take indicators and soil health criteria are set or adapted in accordance with paragraphs 2 to 5 of this Article **and with Article 9.**

Amendment 90
Proposal for a directive
Article 8 – paragraph 1

Text proposed by the Commission

1. Member States shall determine sampling points by applying the methodology set out in **part A of Annex II.**

Amendment

1. Member States shall determine sampling points by applying the methodology set out in Annex **I according to the selected tier for soil monitoring design, taking into account risk assessments based on existing monitoring systems.**

Amendment 91
Proposal for a directive
Article 8 – paragraph 2 – point a

Text proposed by the Commission

(a) the values of the soil descriptors as set in Annex I;

Amendment

(a) the values of the soil descriptors **according to the selected tier for soil monitoring design** as set in Annex I;

Amendment 92
Proposal for a directive
Article 8 – paragraph 3 – subparagraph 1 – point a

Text proposed by the Commission

(a) the methodologies for determining or estimating the values of the soil descriptors set out in **part B of Annex II;**

Amendment

(a) the methodologies for determining or estimating the values of the soil descriptors set out in Annex II;

Amendment 93
Proposal for a directive
Article 8 – paragraph 3 – subparagraph 2

Text proposed by the Commission

Member States may apply other methodologies than the ones listed in the first subparagraph, points (a) and (b), provided that validated transfer functions are available, as required in Annex II, part B, fourth column.

Amendment

Member States may apply other methodologies than the ones listed in the first subparagraph, points (a) and (b), provided that validated transfer functions are available ***or may be estimated by comparing data taken at national level with in-situ monitoring coordinated by the Commission***, as required in Annex II, part B, fourth column.

Amendment 94
Proposal for a directive
Article 8 – paragraph 4

Text proposed by the Commission

4. Member States shall ensure that the first soil measurements are performed at the latest by... (OP: please insert the date = 4 years after date of entry into force of the Directive).

Amendment

4. Member States shall ensure that the first soil measurements are performed at the latest by... (OP: please insert the date =3 years after date of entry into force of the Directive).

Amendment 95
Proposal for a directive
Article 8 – paragraph 5

Text proposed by the Commission

5. Member States shall ensure that new soil measurements are performed at least every 5 years.

Amendment

5. Member States shall ensure that new soil measurements are performed at least every ***6 years or earlier, whenever soil status modification is suspected. Member States shall also facilitate soil monitoring being carried out at shorter intervals to facilitate in-situ soil monitoring coordinated by the Commission.***

Member States shall ensure that the value of the land take and soil sealing indicators are updated at least every year.

Member States shall ensure that the value of the land take and soil sealing indicators are updated at least every ***two*** years.

Amendment 96
Proposal for a directive

Article 8 – paragraph 6

Text proposed by the Commission

6. The Commission is empowered to adopt delegated acts in accordance with Article 20 to amend Annex II in order to adapt the reference methodologies mentioned in it to scientific and technical progress, ***in particular where values of soil descriptors can be determined by remote sensing referred to in Article 6(5).***

Amendment

6. The Commission is empowered to adopt delegated acts in accordance with Article 20 to amend Annex II in order to adapt the reference methodologies mentioned in it to scientific and technical progress.

Amendment 97

Proposal for a directive

Article 9 – paragraph 1 – subparagraph 1

Text proposed by the Commission

Member States shall assess the soil health in all their soil districts based on the data collected in the context of the monitoring referred to in Articles 6, 7 and 8 for each of the soil descriptors referred to in ***Parts A and B*** of Annex I.

Amendment

Member States shall assess the soil health in all their soil districts based on the data collected in the context of the monitoring referred to in Articles 6, 7 and 8 for each of the soil descriptors referred to in Annex I ***according to the selected tier for soil monitoring design, while taking into account the historical and natural circumstances of the soil.***

Amendment 98

Proposal for a directive

Article 9 – paragraph 1 – subparagraph 2

Text proposed by the Commission

Member States shall also take into account the data collected in the context of soil investigations referred to in Article 14.

Amendment

For the assessment of the soil ecological status, Member States shall also take into account the data collected in the context of soil investigations referred to in Article 14.

Amendment 99

Proposal for a directive

Article 9 – paragraph 1 – subparagraph 3

Text proposed by the Commission

Member States shall ensure that **soil health** assessments are performed at least every **5** years and that the first **soil health** assessment is performed by ... (OP: please insert the date = 5 years after date of entry into force of the Directive).

Amendment

Member States shall ensure that assessments **of soil ecological status** are performed at least every **6** years and that the first assessment is performed by ... (OP: please insert the date = 5 years after date of entry into force of the Directive), **accompanied by reports on relative improvement, trends, progress or regression**.

Amendment 100
Proposal for a directive
Article 9 – paragraph 2 – subparagraph 1

Text proposed by the Commission

A soil is considered healthy in accordance with this Directive where the **following cumulative conditions are fulfilled**:

(a) the values for all soil descriptors listed in part A of Annex I meet the criteria laid down therein and, where applicable, adapted in accordance with Article 7;

(b) the values for all soil descriptors listed in part B of Annex I meet the criteria set in accordance with Article 7 ('healthy soil').

Amendment

A soil is considered healthy in accordance with this Directive where the **soil is classified either with good or high ecological status**.

Amendment 101
Proposal for a directive
Article 9 – paragraph 2 – subparagraph 2

Text proposed by the Commission

By way of derogation from the first subparagraph the assessment of soils within a land area listed in the fourth column of Annex I, shall not take into account the values set out in the third column for that land area.

Amendment

deleted

Amendment 102
Proposal for a directive
Article 9 – paragraph 2 – subparagraph 3

Text proposed by the Commission

Soil is unhealthy where at least one of the criteria referred to in subparagraph 1 is not met ('unhealthy soil').

Amendment

deleted

Amendment 103
Proposal for a directive
Article 9 – paragraph 3 – subparagraph 1

Text proposed by the Commission

Member States shall analyse the values for the soil descriptors listed in *part C* of Annex I and assess whether there is a critical loss of ecosystem services, taking into account the relevant data and available scientific knowledge.

Amendment

Member States shall analyse the values for the soil descriptors listed in *parts A, B and C* of Annex I, **according to the selected tier for soil monitoring design**, and assess whether there is a critical loss of **soil biodiversity and** ecosystem services, taking into account the relevant data and available scientific knowledge.

Amendment 104
Proposal for a directive
Article 9 – paragraph 4

Text proposed by the Commission

4. Based on the assessment of soil health carried out in accordance with this Article, the competent authority shall, where relevant in coordination with local, regional, national authorities, identify, in each soil district, the areas **which present unhealthy soils** and inform the public in accordance with Article 19.

Amendment

4. Based on the assessment of soil health carried out in accordance with this Article, the competent authority shall, where relevant in coordination with local, regional, national authorities, identify, in each soil district, the areas **of soil that are not of high soil ecological status or good ecological status** and inform the public in accordance with Article 19.

Amendment 105
Proposal for a directive

Article 9 – paragraph 4 a (new)

Text proposed by the Commission

Amendment

4a. The Commission shall adopt delegated acts by 31 December 2026 in accordance with Article 20 to supplement this Regulation by establishing a methodology for determining threshold values for soil descriptors in Annex I for each soil ecological status. The methodology shall take into consideration the most recent scientific evidence and account for different climatic conditions and type of soils.

Amendment 106

Proposal for a directive

Article 9 – paragraph 4 b (new)

Text proposed by the Commission

Amendment

4b. By 30 June 2028, Member States shall submit to the Commission draft threshold values for soil descriptors in Annex I, taking into consideration climate conditions, the type of soil and type of land area, together with the scientific justification and evidence on which they based their choices.

Amendment 107

Proposal for a directive

Article 9 – paragraph 4 c (new)

Text proposed by the Commission

Amendment

4c. Within 6 months of the date of the submission of the draft threshold values referred to in paragraph 4b, the Commission shall make observations on the draft threshold values, assessing the scientific justification and ensuring a level playing field within the internal market. Upon request from the Commission, Member States shall provide

to the Commission all necessary additional information and, where appropriate, revise the proposed threshold values.

Amendment 108
Proposal for a directive
Article 9 – paragraph 4 d (new)

Text proposed by the Commission

Amendment

4d. *Provided that any observations made by the Commission in accordance with paragraph 4c have been adequately taken into account, the Commission shall, by means of implementing acts, approve threshold values no later than 31 December 2029.*

Amendment 109
Proposal for a directive
Article 9 – paragraph 4 e (new)

Text proposed by the Commission

Amendment

4e. *Member States shall ensure that the soil ecological status in the respective soil districts is improved as follows:*

(a) from critically degraded soils to degraded soils within 10 years;

(b) from degraded soils to moderate ecological status and from moderate ecological status to good ecological status within 6 years.

By way of derogation from the first subparagraph of this paragraph, Member States may apply different periods for sites registered as contaminated, pursuant to Articles 15 and 16, on condition that management and mitigation plans with predefined timelines and targets are in place.

Amendment 110

Proposal for a directive
Article 9 – paragraph 4 f (new)

Text proposed by the Commission

Amendment

4f. When applying a Tier 2 for soil monitoring design, Member States may benefit from variation of up to 20% in comparison to the threshold values set in accordance with paragraph 4d.

Amendment 111
Proposal for a directive
Article 9 – paragraph 5 – subparagraph 1

Text proposed by the Commission

Amendment

Member States shall set up a mechanism for a voluntary soil health certification for land owners and managers pursuant to the conditions in paragraph 2 of this Article.

deleted

Amendment 112
Proposal for a directive
Article 9 – paragraph 5 – subparagraph 2

Text proposed by the Commission

Amendment

The Commission may adopt implementing acts to harmonise the format of soil health certification. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 21.

deleted

Amendment 113
Proposal for a directive
Article 9 – paragraph 6

Text proposed by the Commission

Amendment

6. Member States shall communicate soil health data and assessment referred to in Articles 6 to 9 to the relevant land

6. Member States shall communicate soil health data and assessment referred to in Articles 6 to 9 to the relevant land

owners and land managers *upon their request*, in particular to support the development of the advice referred to in Article 10(3).

owners and land managers *and make them available free of charge*, in particular to support the development of the advice referred to in Article 10(3). *Member States shall ensure that research institutions have easy and continuous access to samples, DNA extracts and raw data free of charge.*

Amendment 114

Proposal for a directive

Article 10 – paragraph 1 – subparagraph 1 – introductory part

Text proposed by the Commission

1. From (OP: please insert the date = 4 years after date of entry into force of the Directive), Member States shall take *at least* the following measures, taking into account the type, use and condition of soil:

Amendment

1. From (OP: please insert the date = 4 years after date of entry into force of the Directive), Member States shall take the following measures, taking into account the *geographical and climatic differences*, type, *intended function, land* use and condition of soil:

Amendment 115

Proposal for a directive

Article 10 – paragraph 1 – subparagraph 1 – point a

Text proposed by the Commission

(a) defining sustainable soil management practices *respecting the* sustainable soil management principles listed in Annex III to be gradually implemented on *all* managed soils *and*, on the basis of the outcome of the soil assessments carried out in accordance with Article 9, *regeneration practices to be gradually implemented on the unhealthy soils in the Member States*;

Amendment

(a) defining sustainable soil management practices *taking into account the non-binding* sustainable soil management principles listed in Annex III to be gradually implemented on managed soils, *where appropriate*, on the basis of the outcome of the soil assessments carried out in accordance with Article 9;

Amendment 116

Proposal for a directive

Article 10 – paragraph 1 – subparagraph 1 – point b

Text proposed by the Commission

(b) defining soil management practices and other practices ***affecting negatively the*** soil health to be avoided by soil managers.

Amendment

(b) defining soil management practices and other practices ***that have significantly negative effects on*** soil health to be avoided by soil managers.

Amendment 117

Proposal for a directive

Article 10 – paragraph 1 – subparagraph 2

Text proposed by the Commission

When defining the practices and measures referred to in this paragraph, Member States shall take into account the programmes, plans, targets and measures listed in Annex IV as well as the latest existing scientific knowledge including results coming out of the Horizon Europe Mission a Soil Deal for Europe.

Amendment

When defining the practices and measures referred to in this paragraph, Member States shall take into account the ***indicative list of*** programmes, plans, targets and measures listed in Annex IV as well as the latest existing scientific knowledge including results coming out of the Horizon Europe Mission a Soil Deal for Europe, ***in particular the activities from the Mission Soil Living Labs.***

Amendment 118

Proposal for a directive

Article 10 – paragraph 1 – subparagraph 2 a (new)

Text proposed by the Commission

Amendment

Member State shall ensure that practices referred to in this paragraph are technically feasible and duly take into account the socio-economic impacts.

Amendment 119

Proposal for a directive

Article 10 – paragraph 1 – subparagraph 4

Text proposed by the Commission

Member States shall ensure that the process of elaboration of the practices referred to in the first subparagraph is open, inclusive and effective and that the

Amendment

Member States shall ensure that the process of elaboration of the practices referred to in the first subparagraph is open, inclusive and effective and that the

public concerned, in particular landowners and managers, are involved and are given early and effective opportunities to participate in their elaboration.

public concerned, in particular **experts**, landowners and managers, are involved and are given early and effective opportunities to participate in their elaboration.

Amendment 120

Proposal for a directive

Article 10 – paragraph 2 – subparagraph 1

Text proposed by the Commission

2. Member States shall ensure easy access to impartial and independent advice on sustainable soil management, training activities and capacity building for soil managers, landowners and relevant authorities.

Amendment

2. Member States shall ensure easy **and equal** access to impartial and independent advice on sustainable soil management, training activities and capacity building for soil managers, landowners and relevant authorities, **in all their soil districts**.

Amendment 121

Proposal for a directive

Article 10 – paragraph 2 – subparagraph 2 – point b

Text proposed by the Commission

(b) promoting research **and** implementation of **holistic** soil management concepts;

Amendment

(b) promoting research, **citizens science and encourage** implementation of **sustainable** soil management concepts;

Amendment 122

Proposal for a directive

Article 10 – paragraph 2 – subparagraph 2 – point c

Text proposed by the Commission

(c) making available a regularly updated mapping of available funding instruments and activities to support the implementation of sustainable soil management.

Amendment

(c) making available a regularly updated mapping of available funding instruments and activities to support the implementation of sustainable soil management, **and other activities to support the implementation of this Directive, including research and citizen science**.

Amendment 123
Proposal for a directive
Article 10 – paragraph 4

Text proposed by the Commission

Amendment

4. The Commission is empowered to adopt delegated acts in accordance with Article 20 to amend Annex III in order to adapt the sustainable soil management principles to take into account scientific and technical progress.

deleted

Amendment 124
Proposal for a directive
Article 10 – paragraph 4 a (new)

Text proposed by the Commission

Amendment

4a. The Commission shall, upon request, assist and provide guidance to Member States regarding the development of specific measures linked to the sustainable soil management principles listed in Annex III.

Amendment 125
Proposal for a directive
Article 10 a (new)

Text proposed by the Commission

Amendment

Article 10a

Sustainable Soil Management Toolbox

1. In order to support the implementation of this Directive, the Commission shall establish a sustainable soil management toolbox that provides soil managers with practical information on the use of sustainable soil management practices, which includes information provided by the Member States.

2. The toolbox shall contain:

(a) recommendations and examples of best practices from the Member States'

competent authorities which monitor the impact of soil management practices, and information about the impact of such practices on various ecosystem services and soil threats;

(b) the context-specific information related to combinations of soil type, land use and climatic conditions;

(c) new knowledge from research and innovation, including from the Horizon Europe mission ‘A Soil Deal for Europe’;

(d) other relevant information collected by the Commission or provided to the Commission by the Member States.

3. The toolbox shall be publicly available free of charge, and be included in the digital soil health data portal established in accordance with Article 6(6).

The Commission shall actively update and take all appropriate measures to promote the content of the toolbox to land managers.

Amendment 126
Proposal for a directive
Article 11 – title

Text proposed by the Commission

Amendment

Land take mitigation *principles*

Land take mitigation

Amendment 127
Proposal for a directive
Article 11 – paragraph 1 – introductory part

Text proposed by the Commission

Amendment

Member States shall *ensure that* the following *principles are respected in case of land take*:

In case of land take, Member States shall *consider* the following *actions, while taking into account local specificities and socio-economic impacts*:

Amendment 128

Proposal for a directive

Article 11 – paragraph 1 – point a – introductory part

Text proposed by the Commission

(a) ***avoid or reduce*** as much as technically and economically possible the loss of the capacity of the soil to provide multiple ecosystem services, including food production, by:

Amendment

(a) ***avoiding or reducing*** as much as technically and economically possible the loss of the capacity of the soil to provide multiple ecosystem ***and other*** services, including ***agriculture***, food production ***and sustainable forest management*** by:

Amendment 129

Proposal for a directive

Article 11 – paragraph 1 – point a – point i

Text proposed by the Commission

(i) reducing the area affected by the land take ***to the extent*** possible ***and***

Amendment

(i) reducing the area affected by the land take ***as much as*** possible;

Amendment 130

Proposal for a directive

Article 11 – paragraph 1 – point a – point ii

Text proposed by the Commission

(ii) ***selecting*** areas where the loss of ecosystem services would be minimized ***and***

Amendment

(ii) ***prioritising*** areas where the loss of ecosystem services would be minimized;

Amendment 131

Proposal for a directive

Article 11 – paragraph 1 – point a – point iii

Text proposed by the Commission

(iii) performing the land take in a way that ***minimizes the negative impact on soil***;

Amendment

(iii) performing the land take in a way that ***is aligned with sustainable development, including preserving soil fertility, biodiversity, water permeability, filtration and retention to the extent possible***;

Amendment 132
Proposal for a directive
Article 11 – paragraph 1 – point b

Text proposed by the Commission

(b) **compensate** as much as possible the loss of soil capacity to provide multiple ecosystem services.

Amendment

(b) **if possible compensating** as much as possible the loss of soil capacity to provide multiple ecosystem services. **Such compensation, where applicable, may take place on an aggregated level or cross border between Member States if the soil district has the same characteristics as an adjacent soil district in a neighbouring Member State or a cross-border soil district.**

Amendment 133
Proposal for a directive
Article 11 – paragraph 1 – point b a (new)

Text proposed by the Commission

Amendment

(ba) adopting measures to ensure fair compensation of landowners in case of land take;

Amendment 134
Proposal for a directive
Article 11 – paragraph 1 – point b b (new)

Text proposed by the Commission

Amendment

(bb) putting in place measures to prevent or limit land take, including mapping of abandoned brownfield and industrial sites and incentives to restore and reuse abandoned areas with sealed soils.

Amendment 135
Proposal for a directive
Article 12 – paragraph 1

Text proposed by the Commission

1. Member States shall manage the risks for human health and the environment of potentially contaminated sites and contaminated sites, and keep them to acceptable levels, taking account of the environmental, social and economic impacts of the soil contamination and of the risk reduction measures taken pursuant to Article 15 paragraph 4.

Amendment

1. Member States shall manage **and reduce** the risks for human **and animal** health and the environment of potentially contaminated sites and contaminated sites, and keep them to acceptable levels **considering the intended use of the soil**, taking account of the environmental, social and economic impacts of the soil contamination and of the risk reduction measures taken pursuant to Article 15 paragraph 4.

Amendment 136
Proposal for a directive
Article 12 – paragraph 4 – introductory part

Text proposed by the Commission

4. The public **concerned** shall be given early and effective opportunities:

Amendment

4. The public shall be given early and effective opportunities:

Amendment 137
Proposal for a directive
Article 12 – paragraph 4 – point a

Text proposed by the Commission

(a) to participate in the establishment and concrete application of the risk-based approach as defined in this Article;

Amendment

(a) to participate in the establishment and concrete application of the risk-based approach as defined in this Article, **the identification of potentially contaminated sites in accordance with Article 13, the investigation of potentially contaminated sites in accordance with Article 14 and the assessment and management of contaminated sites in accordance with Article 15, when all options are still available;**

Amendment 138
Proposal for a directive
Article 12 – paragraph 4 – point b

Text proposed by the Commission

Amendment

(b) to provide information relevant for the *identification of potentially contaminated sites in accordance with Article 13, the investigation of potentially contaminated sites in accordance with Article 14 and the management of contaminated sites in accordance with Article 15*;

(b) to provide information *and evidence* relevant for the *activities referred to in point (a) at any time, such as human biomonitoring or environmental monitoring data*;

Amendment 139

Proposal for a directive

Article 12 – paragraph 4 a (new)

Text proposed by the Commission

Amendment

4a. *For the purposes of paragraph 4, Member States shall ensure that the public is informed in a timely, adequate and effective manner, including by public notices and electronic media, of all relevant information.*

Amendment 140

Proposal for a directive

Article 12 – paragraph 4 b (new)

Text proposed by the Commission

Amendment

4b. *Member States shall take due account of the information submitted in accordance with paragraph 4 when implementing the provisions of this Chapter and in relation to the soil descriptors for soil contamination listed in Annex I.*

Amendment 141

Proposal for a directive

Article 12 – paragraph 4 c (new)

Text proposed by the Commission

Amendment

4c. *Where the evidence shows wide*

dispersive soil pollution or exposure to the substance or mixture concerned via soil, the competent authority shall initiate a risk management process. Where the evidence shows a lack of information on the risk to human or animal health or the environment posed by a hazardous substance or mixture present in the soil, the competent authority shall investigate further with a view to taking risk management measures in line with the precautionary principle, where necessary.

Amendment 142
Proposal for a directive
Article 12 – paragraph 4 d (new)

Text proposed by the Commission

Amendment

4d. Member States shall promptly inform the public of any decision or measure taken pursuant to paragraphs 4 and 4c and of the reasons and considerations upon which the decision or measure is based, including an explanation of how the information was taken into account.

Amendment 143
Proposal for a directive
Article 13 – paragraph 1

Text proposed by the Commission

Amendment

1. Member States shall systematically and actively identify all sites where a soil contamination is suspected based on evidence collected through all *available* means ('potentially contaminated sites').

1. Member States shall systematically and actively identify all sites where a soil contamination is suspected based on evidence collected through all *appropriate* means, **including citizens' input and set procedures** ('potentially contaminated sites').

Amendment 144
Proposal for a directive
Article 13 – paragraph 2 – subparagraph 1 – point d

Text proposed by the Commission

Amendment

(d) operation of an activity referred to in Annex III to Directive 2004/35/CE of the European Parliament and of the Council⁷⁷ ; **deleted**

⁷⁷ **Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage (OJ L 143, 30.4.2004, p. 56)**

Amendment 145

Proposal for a directive

Article 13 – paragraph 2 – subparagraph 1 – point f a (new)

Text proposed by the Commission

Amendment

(fa) any areas used for the abstraction of drinking water;

Amendment 146

Proposal for a directive

Article 13 – paragraph 2 – subparagraph 1 – point g a (new)

Text proposed by the Commission

Amendment

(ga) occurrence of any disease that is presumed to be linked to exposure to contamination via the soil;

Amendment 147

Proposal for a directive

Article 13 – paragraph 2 – subparagraph 1 – point g b (new)

Text proposed by the Commission

Amendment

(gb) any information provided by the public or Member State authorities.

Amendment 148
Proposal for a directive
Article 14 – paragraph 1

Text proposed by the Commission

1. Member States shall ensure that all potentially contaminated sites identified in accordance with Article 13 are subject to soil investigation.

Amendment

1. Member States shall ensure that all potentially contaminated sites identified in accordance with Article 13 are subject to soil investigation ***according to order of priority.***

Amendment 149
Proposal for a directive
Article 14 – paragraph 2 – subparagraph 1

Text proposed by the Commission

Member States shall lay down the rules concerning the deadline, content, form and the prioritisation of the soil investigations. Those rules shall be established in accordance with the risk-based approach referred to in Article 12 and the list of potentially contaminating risk activities referred to in Article 13(2), second subparagraph.

Amendment

Member States shall lay down the rules concerning the deadline, content, form and the prioritisation of the soil investigations, ***taking into account environmental, social and economic aspects.*** Those rules shall be established in accordance with the risk-based approach referred to in Article 12 and the list of potentially contaminating risk activities referred to in Article 13(2), second subparagraph.

Amendment 150
Proposal for a directive
Article 14 – paragraph 2 – subparagraph 1 a (new)

Text proposed by the Commission

Amendment

Potentially contaminated sites located in areas used for the abstraction of water for human consumption shall be prioritised for soil investigation.

Amendment 151
Proposal for a directive
Article 15 – paragraph 2

Text proposed by the Commission

2. Member States shall define what constitutes an unacceptable risk for human health and the environment resulting from contaminated sites by taking into account existing scientific knowledge, the precautionary principle, local specificities, and current and future land use.

Amendment

2. Member States shall define what constitutes an unacceptable risk for human **and animal** health and the environment resulting from contaminated sites by taking into account existing scientific knowledge, the **opinion of health professionals and health authorities**, the precautionary principle, local specificities, and current and future land use.

Amendment 152
Proposal for a directive
Article 15 – paragraph 3

Text proposed by the Commission

3. For each contaminated site identified pursuant to Article 14 or by any other means, the responsible competent authority shall carry out a site-specific assessment for the current and planned land uses to determine whether the contaminated site poses unacceptable risks for human health or the environment.

Amendment

3. For each contaminated site identified pursuant to Article 14 or by any other means, the responsible competent authority shall carry out a site-specific assessment for the current and planned land uses to determine whether the contaminated site poses unacceptable risks for human **and animal** health or the environment.

Amendment 153
Proposal for a directive
Article 15 – paragraph 3 a (new)

Text proposed by the Commission

Amendment

3a. Where appropriate, Member States may consider assessments which have been implemented in accordance with Directives 2010/75/EU, 2011/92/EU or 2012/18/EU as sufficient.

Amendment 154
Proposal for a directive
Article 15 – paragraph 4

Text proposed by the Commission

4. On the basis of the outcome of the assessment referred to in paragraph 3, the responsible competent authority shall **take** the appropriate measures to bring the risks to an acceptable level for human health and the environment ('risk reduction measures').

Amendment 155

Proposal for a directive

Article 15 – paragraph 5 – subparagraph 1

Text proposed by the Commission

The risk reduction measures **may consist of** the measures referred to in Annex V. When deciding on the appropriate risk reduction measures, the competent authority shall take into consideration the costs, benefits, effectiveness, durability, and technical feasibility of available risk reduction measures.

Amendment 156

Proposal for a directive

Article 15 – paragraph 5 – subparagraph 2

Text proposed by the Commission

Amendment 157

Proposal for a directive

Article 15 – paragraph 5 a (new)

Amendment

4. On the basis of the outcome of the assessment referred to in paragraph 3, the responsible competent authority shall **ensure that** the appropriate measures **are taken** to bring the risks to an acceptable level for human health and the environment ('risk reduction measures').

Amendment

The risk reduction measures **shall be based on** the measures referred to in Annex V. When deciding on the appropriate risk reduction measures, the competent authority shall take into consideration the costs, benefits, effectiveness, durability, and technical feasibility of available risk reduction measures **in the short and long term. Member States shall always aim for prevention and soil decontamination.**

Amendment

Risk reduction measures affecting surrounding water bodies used for abstraction of water intended for human consumption shall comply with the acceptable risk standards set out in Directive (EU) 2020/2184.

5a. *The Commission is empowered to adopt delegated acts in accordance with Article 20 to supplement this Directive by establishing maximum tolerable values in relation to the definition of an unacceptable risk for health and the environment resulting from contaminated sites as referred to in paragraph 2.*

Amendment 158

Proposal for a directive

Article 16 – paragraph 4 – subparagraph 1

Text proposed by the Commission

Member States shall make public the register and information referred to in paragraphs 1 and 2. Disclosure of any information may be refused or restricted by the competent authority where the conditions laid down in Article 4 of Directive 2003/4/EC of the European Parliament and of the Council⁷⁸ are fulfilled.

⁷⁸ Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC (OJ L 41, 14.2.2003, p. 26).

Amendment 159

Proposal for a directive

Article 16 – paragraph 5

Text proposed by the Commission

5. The Commission shall adopt implementing acts establishing the format of the register. Those implementing acts

Amendment

Member States shall make public, ***accessible in a user-friendly manner and free of charge*** the register and information referred to in paragraphs 1 and 2. Disclosure of any information may be refused or restricted by the competent authority where the conditions laid down in Article 4 of Directive 2003/4/EC of the European Parliament and of the Council⁷⁸ are fulfilled. The register shall be made available in an online georeferenced spatial database.

⁷⁸ Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC (OJ L 41, 14.2.2003, p. 26).

Amendment

5. The Commission shall ***by ... [OP : please insert date 1 year from entry into force of the Directive]*** adopt implementing

shall be adopted in accordance with the examination procedure referred to in Article 21.

acts establishing the format of the register. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 21.

Amendment 160
Proposal for a directive
Article 17 – title

Text proposed by the Commission

Union financing

Amendment

Union **and Member States'** financing

Amendment 161
Proposal for a directive
Article 17 – paragraph 1 – subparagraph 1

Text proposed by the Commission

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

Amendment

Given the priority inherently attached to the establishment of soil monitoring and sustainable management and regeneration of soils, ***by ... [OP: please insert date = 12 months from the entry into force of this Directive], the Commission shall submit a report to the European Parliament and to the Council evaluating the financial resources available at Union level for the implementation of this Directive.***

Amendment 162
Proposal for a directive
Article 17 – paragraph 1 – subparagraph 1 a (new)

Text proposed by the Commission

Amendment

The Commission shall assess any gap between the available Union funding and funding needs for supporting Member States in the implementation of this Directive, paying specific attention to environmental monitoring needs, including LUCAS soil.

Amendment 163
Proposal for a directive
Article 17 – paragraph 1 – subparagraph 1 b (new)

Text proposed by the Commission

Amendment

Additional financial resources shall be put in place for the post-2027 period in order to promote the sustainable management of soils, their permanent regeneration and monitoring activities.

Amendment 164
Proposal for a directive
Article 17 – paragraph 1 a (new)

Text proposed by the Commission

Amendment

1a. When implementing this Directive, Member States shall make use of financial resources from appropriate sources, including Union, national, regional and local funds, to finance actions with a focus on soil protection, sustainable management and regeneration.

Amendment 165
Proposal for a directive
Article 17 – paragraph 1 b (new)

Text proposed by the Commission

Amendment

1b. The Commission shall monitor the capacity of Member States to absorb Union funds related to soil protection, sustainable management and regeneration. The Commission shall provide training and technical support to increase the absorption capacity of the Member States.

Amendment 166
Proposal for a directive
Article 17 – paragraph 1 c (new)

Text proposed by the Commission

Amendment

1c. Member States and the Commission, in collaboration with the European Investment Bank, shall improve and facilitate the use of innovative financing mechanisms and promote the mobilisation of private capital for actions necessary to achieve the objectives of this Directive.

Amendment 167
Proposal for a directive
Article 17 – paragraph 1 d (new)

Text proposed by the Commission

Amendment

1d. Member States and the Commission shall observe the ‘do no significant harm’ principle within the meaning of Article 17 of Regulation (EU) 2020/852 for the implementation of this Directive.

Amendment 168
Proposal for a directive
Article 18 – paragraph 1 – subparagraph 1 – introductory part

Text proposed by the Commission

Amendment

Member States shall electronically report the following data and information to the Commission and to the EEA every **5** years:

Member States shall electronically report the following data and information to the Commission and to the EEA **at least** every **6** years:

Amendment 169
Proposal for a directive
Article 18 – paragraph 1 – subparagraph 1 – point b

Text proposed by the Commission

Amendment

(b) a trend analysis of the soil health for the descriptors listed in parts A, B, and C of Annex I and for the land take and soil

(b) ***the supporting data, metadata and*** a trend analysis of the soil health for the descriptors listed in parts A, B, and C of

sealing indicators listed in part D of Annex I in accordance with Article 9;

Annex I, according to the selected tier for soil monitoring design and for the land take and soil sealing indicators listed in part D of Annex I in accordance with Article 9, **including the extended descriptors indicated by individual Member States**;

Amendment 170

Proposal for a directive

Article 18 – paragraph 1 – subparagraph 1 – point d

Text proposed by the Commission

Amendment

(d) the data and information contained in the register referred to in Article 16.

(d) the data and information contained in the register referred to in Article 16.

Amendment 171

Proposal for a directive

Article 18 – paragraph 1 – subparagraph 2

Text proposed by the Commission

Amendment

The first reports shall be submitted by ... (OP: please insert date = **5 years and 6** months after entry into force of the Directive).

The first reports shall be submitted by ... (OP: please insert date = **6** years after entry into force of the Directive).

Amendment 172

Proposal for a directive

Article 18 – paragraph 3 – point a

Text proposed by the Commission

Amendment

(a) an up-to-date list and spatial data of their soil districts referred to in Article 4 by ... (OP: please insert the date = **2 years and 3** months after date of entry into force of the Directive);

(a) an up-to-date list and spatial data of their soil districts referred to in Article 4 by ... (OP: please insert the date = **12** months after date of entry into force of the Directive) **and, where available, their respective soil district plans**;

Amendment 173

Proposal for a directive

Article 18 – paragraph 3 – point b

Text proposed by the Commission

(b) an up-to-date list of the competent authorities referred to in Article 5 by ... (OP: please insert the date = **2 years and 3 months** after date of entry into force of the Directive);

Amendment 174
Proposal for a directive
Article 18 – paragraph 3 – point c a (new)

Text proposed by the Commission

Amendment 175
Proposal for a directive
Article 19 – paragraph 1

Text proposed by the Commission

1. Member States shall make **public** the data generated by the monitoring carried out under Article 8 and the **assessment** carried out under Article 9 of this Directive accessible to the public, in accordance with the provisions under Article 11 of Directive 2007/2/EC of the European Parliament and of the Council⁷⁹ for geographically explicit data and Article 5 of Directive (EU) 2019/1024 for other data.

⁷⁹ Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE) (OJ L 108, 25.4.2007, p. 1).

Amendment

(b) an up-to-date list of the competent authorities referred to in Article 5 by ... (OP: please insert the date = **12 months** after date of entry into force of the Directive);

Amendment

(ca) *the measurements of the soil descriptors at the level of the sampling point.*

Amendment

1. Member States shall make the data generated by the monitoring carried out under Article 8 and the **assessments** carried out under Article 9 **and Article 10(3)** of this Directive accessible to the public, in accordance with the provisions under Article 11 of Directive 2007/2/EC of the European Parliament and of the Council⁷⁹ for geographically explicit data and Article 5 of Directive (EU) 2019/1024 for other data.

⁷⁹ Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE) (OJ L 108, 25.4.2007, p. 1).

Amendment 176
Proposal for a directive
Article 19 – paragraph 4 a (new)

Text proposed by the Commission

Amendment

4a. Member States shall adopt measures to ensure that soil related information collected through the implementation of this Directive is made available to the potential buyer or potential tenant of the relevant land plot.

Amendment 177
Proposal for a directive
Article 20 – paragraph 2

Text proposed by the Commission

Amendment

2. The power to adopt delegated acts referred to in Articles 8, **10, 15 and 16** shall be conferred on the Commission for an indeterminate period of time from the date of entry into force of this Directive.

2. The power to adopt delegated acts referred to in Articles 8, **9 and 15** shall be conferred on the Commission for an indeterminate period of time from the date of entry into force of this Directive

Amendment 178
Proposal for a directive
Article 20 – paragraph 3

Text proposed by the Commission

Amendment

3. The delegation of power referred to in Articles 8, **10, 15 and 16** may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of the decision in the Official Journal of the European Union or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.

3. The delegation of power referred to in Articles 8, **9 and 15** may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of the decision in the Official Journal of the European Union or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.

Amendment 179

Proposal for a directive
Article 20 – paragraph 6

Text proposed by the Commission

6. A delegated act adopted pursuant to Articles 8, **10, 15 and 16** shall enter into force only if no objection has been expressed either by the European Parliament or the Council within a period of two months of notification of that act to the European Parliament and the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by two months at the initiative of the European Parliament or of the Council.

Amendment

6. A delegated act adopted pursuant to Articles 8, **9 and 15** shall enter into force only if no objection has been expressed either by the European Parliament or the Council within a period of two months of notification of that act to the European Parliament and the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by two months at the initiative of the European Parliament or of the Council.

Amendment 180
Proposal for a directive
Article 22 – paragraph 2

Text proposed by the Commission

Member States shall determine what constitutes a sufficient interest and impairment of a right, consistently with the objective of providing the public with wide access to justice. ***For the purposes of paragraph 1, any non-governmental organisation promoting environmental protection and meeting any requirements under national law shall be deemed to have rights capable of being impaired and their interest shall be deemed sufficient.***

Amendment

Member States shall determine what constitutes a sufficient interest and impairment of a right, consistently with the objective of providing the public with wide access to justice ***in line with Article 9 of the Aarhus Convention. The recognition of standing shall not be conditional on the member of the public concerned having played a role during a participatory phase of the decision-making procedures under this Directive.***

Amendment 181
Proposal for a directive
Article 23 – paragraph 2

Text proposed by the Commission

2. The penalties referred to in paragraph 1 shall include fines proportionate to the turnover of the legal

Amendment

2. The penalties referred to in paragraph 1 shall include fines proportionate to the turnover of the legal

person or to the income of the natural person having committed the violation. The level of the fines shall be calculated in such a way as to make sure that they effectively deprive the person responsible for the violation of the economic benefits derived from that violation. In the case of a violation committed by a legal person, such fines shall be proportionate to the legal person's annual turnover in the Member State concerned, taking account, *inter alia*, the specificities of small and medium-sized enterprises (SMEs).

person or to the income of the natural person having committed the violation. The level of the fines shall be calculated in such a way as to make sure that they effectively deprive the person responsible for the violation of the economic benefits derived from that violation. In the case of a violation committed by a legal person, such fines shall be proportionate to the legal person's annual turnover in the Member State concerned, taking ***into*** account, *inter alia*, the specificities of small and medium-sized enterprises (SMEs).

Amendment 182
Proposal for a directive
Article 23 – paragraph 3 – introductory part

Text proposed by the Commission

3. Member States shall ensure that the penalties established pursuant to this Article give due regard to the following, as applicable:

Amendment

3. Member States shall ***in accordance with national law*** ensure that the penalties established pursuant to this Article give due regard to the following, as applicable:

Amendment 183
Proposal for a directive
Article 23 – paragraph 3 – point c

Text proposed by the Commission

(c) the population or the environment affected by the violation, bearing in mind the impact of the infringement on the objective of achieving a high level of protection of human health and the environment.

Amendment

(c) the population or the environment affected by the violation, bearing in mind the impact of the infringement on the objective of achieving a high level of protection of human health and the environment ***and on the polluter pays principle;***

Amendment 184
Proposal for a directive
Article 23 – paragraph 3 – point c a (new)

Text proposed by the Commission

Amendment

(ca) any previous infringements by the natural and legal person responsible for the violation.

Amendment 185
Proposal for a directive
Article 23 – paragraph 4 a (new)

Text proposed by the Commission

Amendment

4a. Without prejudice to the penalties established in accordance with this Article and the application of Articles 107 and 108 TFUE, Member States may use incentives in order to guarantee the compliance of natural and legal persons with the obligations laid down in this Directive.

Amendment 186
Proposal for a directive
Article 24 – paragraph 1 – introductory part

Text proposed by the Commission

Amendment

1. By (OP :please insert the date = 6 years after the date of entry into force of the Directive), the Commission shall carry out an evaluation of this Directive to assess the progress towards its objectives and the need to amend its provisions in order to **set more specific** requirements to ensure **that unhealthy soils are regenerated and that all soils will be** healthy by 2050. This evaluation shall take into account, inter alia, the following elements:

1. By (OP :please insert the date = 6 years after the date of entry into force of the Directive), the Commission shall carry out an evaluation of this Directive to assess the progress towards its objectives and the need to amend its provisions in order to **adapt the** requirements **laid down in this Directive** to ensure **continuous progress towards** all soils **being** healthy by 2050. This evaluation shall take into account, inter alia, the following elements:

Amendment 187
Proposal for a directive
Article 24 – paragraph 1 – point c

Text proposed by the Commission

Amendment

(c) relevant scientific and analytical data, including results from research

(c) relevant scientific and analytical data, including results from research

projects funded by the Union;

projects funded by the Union **and by Member States**;

Amendment 188

Proposal for a directive

Article 24 – paragraph 1 – point d

Text proposed by the Commission

(d) an analysis of the gap **towards achieving** healthy soils by 2050;

Amendment

(d) an analysis of the gap **and measures needed to achieve** healthy soils by 2050;

Amendment 189

Proposal for a directive

Article 24 – paragraph 1 – point e – point ii

Text proposed by the Commission

(ii) the establishment of criteria for soil descriptors listed in **part C of** annex I;

Amendment

(ii) the establishment of criteria for soil descriptors listed in annex I;

Amendment 190

Proposal for a directive

Article 24 – paragraph 1 – point e – point iii

Text proposed by the Commission

(iii) the addition of new soil descriptors for monitoring purposes.

Amendment

(iii) the addition of new soil descriptors for monitoring purposes **or the adjustment of existing soil descriptors and criteria in Annex I**;

Amendment 191

Proposal for a directive

Article 24 – paragraph 1 – point e a (new)

Text proposed by the Commission

Amendment

(ea) an analysis of the monitoring designs provided for and threshold values set by Member States under this Directive.

Amendment 192
Proposal for a directive
Article 24 – paragraph 1 – point e b (new)

Text proposed by the Commission

Amendment

(eb) the socioeconomic impact of this Directive.

Amendment 193
Proposal for a directive
Article 24 – paragraph 2

Text proposed by the Commission

Amendment

2. The Commission shall present a report on the main findings of the evaluation referred to in paragraph 1 to the European Parliament, the Council, the European Economic and Social Committee, and the Committee of the Regions.

2. The Commission shall present a report on the main findings of the evaluation referred to in paragraph 1 to the European Parliament, the Council, the European Economic and Social Committee, and the Committee of the Regions, **accompanied, where appropriate, by a legislative proposal.**

Amendment 194
Proposal for a directive
Article 24 – paragraph 2 a (new)

Text proposed by the Commission

Amendment

2a. From ... [OP :please insert the date = eight years from the date of entry into force of this Directive] and every five years thereafter, the Commission shall report to the European Parliament and to the Council on the implementation of this Directive including the measures necessary to comply with this Directive taken by Member States. The report shall include an overall assessment of the progress made towards achieving healthy soils.

Amendment 195
Proposal for a directive

Article 24 – paragraph 2 b (new)

Text proposed by the Commission

Amendment

2b. By ... [OP :please insert the date = 6 years from the date of entry into force of the Directive], the Commission shall assess, as part of the assessment referred to in paragraph 1, the information collected in Member States regarding the occurrence, dispersion and values of soil contaminants, with a view to establishing a list of priority substances, followed by a watch list on soil contaminants, where appropriate.

Amendment 196 Proposal for a directive Article 24 a (new)

Text proposed by the Commission

Amendment

Article 24a

European Union Soil Observatory (EUSO) Forum

The Commission shall, through the EUSO Forum, facilitate the cooperation at regular intervals between stakeholders, including Member States' competent authorities at all relevant levels, industry, civil society, and the scientific community. The EUSO Forum shall facilitate the coordinated implementation of Union law and policies related to soil health monitoring and the improvement of soil health, inter alia by exchange of experience and good practices, including on sustainable soil management and regeneration practices, as well as exchange of experience on soil management practices to be avoided.

Amendment 197 Proposal for a directive Annex I – Title

Text proposed by the Commission

SOIL DESCRIPTORS, CRITERIA **FOR
HEALTHY SOIL CONDITION**, AND
LAND TAKE AND SOIL SEALING
INDICATORS

Amendment

SOIL DESCRIPTORS, CRITERIA **AND
METHODS FOR THE
DETERMINATION OF SOIL
ECOLOGICAL STATUS**, AND LAND
TAKE AND SOIL SEALING
INDICATORS

Amendment 198
Proposal for a directive
Annex I – table – Part A

Text proposed by the Commission

Part A: soil descriptors with criteria for healthy soil condition established at Union level			
Salinisation	Electrical Conductivity (deci-Siemens per meter)	< 4 dS m⁻¹ when using saturated soil paste extract (eEC) measurement method, or equivalent criterion if using another measurement method	Naturally saline land areas; Land areas directly affected by sea level rise
Soil erosion	Soil erosion rate (tonnes per hectare per year)	≤ 2 t ha⁻¹ y⁻¹	Badlands and other unmanaged natural land areas, except if they represent a significant disaster risk
Loss of soil organic carbon	Soil Organic Carbon (SOC) concentration (g per kg)	- For organic soils: respect targets set for such soils at national level in accordance with Article 4.1, 4.2, 9.4 of Regulation (EU) .../...⁺	No exclusion
		- For mineral soils: SOC/Clay ratio > 1/13; Member States may apply a corrective factor where specific soil types or climatic conditions justify it, taking into account the actual SOC content in permanent grasslands.	Non-managed soils in natural land areas

Subsoil compaction	Bulk density in subsoil (upper part of B or E horizon¹); Member States may replace this descriptor with an equivalent parameter (g per cm³)	Soil texture ²	range	Non-managed soils in natural land areas
		sand, loamy sand, sandy loam, loam	<1.80	
		Sandy clay loam, loam, clay loam, silt, silt loam	<1.75	
		silt loam, silty clay loam	<1.65	
		Sandy clay, silty clay, clay loam with 35-45% clay	<1.58	
		Clay	<1.47	
<p>In case a Member State replaces the soil descriptor “bulk density in subsoil” with an equivalent parameter, it shall adopt a criterion for healthy soil condition for the chosen soil descriptor that is equivalent to the criterion set for “bulk density in subsoil”.</p>				
<p>⁺ OP : please insert in the text the number of Regulation on nature restoration contained in document COM(2022) 304</p>				
<p>¹ As defined in the FAO Guidelines for Soil Description, Chapter 5 (https://www.fao.org/3/a0541e/a0541e.pdf)</p>				
<p>² As defined in Arshad, M.A., B. Lowery, and B. Grossman. 1996. Physical tests for monitoring soil quality. p.123- 142. In: J.W. Doran and A.J. Jones (eds.) Methods for assessing soil quality. Soil Sci. Soc. Am. Spec. Publ. 49. SSSA, Madison, WI.</p>				

Amendment

Part A: Tier 1 soil monitoring design			
A Member State qualifies for a Tier 1 soil monitoring design if it meets all the criteria defined in column 2 and includes all soil descriptors.			
Sampling design			
Reference methodology	Criteria to meet	Exceptions	Notes

² As defined in Arshad, M.A., B. Lowery, and B. Grossman. 1996. Physical tests for monitoring soil quality. p.123- 142. In: J.W. Doran and A.J. Jones (eds.) Methods for assessing soil quality. Soil Sci. Soc. Am. Spec. Publ. 49. SSSA, Madison, WI.

<p><i>The sample survey shall be designed from a complete sample frame containing the best available information on the distribution of soil properties, including but not limited to information resulting from previous national measurements and measurements under the LUCAS programme.</i></p> <p><i>The sampling scheme shall be a stratified random sampling.</i></p> <p><i>The size of the national sample shall meet the requirement of a maximum percent error (or Coefficient of Variation) of 5% for the estimation of the area having healthy soils.</i></p> <p><i>The Commission sample for the survey set under Art 6(4) shall contribute to a minimum of 20% of the size of national samples.</i></p> <p><i>The allocation and size of the sample shall be determined by applying the Bethel algorithm (Bethel, 1989) accounting for the required maximum estimation error.</i></p>	<p>a) <i>Stratified random sampling based on land type; Stratifiers may include climatic conditions, soil type, land type, and administrative regions according to Art. 4</i></p> <p>b) <i>The estimation of the number of samples shall be compliant with the use of the Bethel algorithm accounting for the required maximum estimation error.</i></p> <p>c) <i>allow for a percentage (up to 20% and no less than 10%) of the sampling sites to be dedicated to targeted sampling related to investigations or risk assessment.</i></p>	<p><i>In case there is at the Member State level a sampling design that meets the criteria established for Tier 1, the reference methodology can be adapted or other design approaches proposed to the Commission provided that the implemented design provides sufficient coverage of the Member State in line with the reference methodology (including national and LUCAS samples). When adapting the reference methodology, Member States need to still comply with the in-situ design of the EC.</i></p>	
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Degradation factors			
Degradation factor	Soil descriptor	Exceptions	Notes
<i>Soil erosion</i>	<ul style="list-style-type: none"> <i>Soil erosion rate (tonnes of loss soil per hectare per year (t ha⁻¹ yr⁻¹))</i> 	-	
<i>Loss of soil organic carbon</i>	<ul style="list-style-type: none"> <i>Soil Organic Carbon (SOC) concentration (g of Carbon per kg (g kg⁻¹))</i> 	-	<i>To be conducted for top soil (0-10cm, 10-30cm)</i>
<i>Soil compaction</i>	<ul style="list-style-type: none"> <i>Bulk density in topsoil (g cm⁻³)</i> 	-	<i>To be conducted for top soil (0-10cm, 10-30cm (optional))</i>

<i>Excess nutrient content in soil</i>	<ul style="list-style-type: none"> • <i>Available phosphorus (mg kg⁻¹)</i> • <i>Total Nitrogen in soil (mg g⁻¹)</i> 	-	<i>To be conducted for top soil (0-10cm, 10-30cm)</i>
<i>Soil contamination</i>	<ul style="list-style-type: none"> • <i>Concentration of heavy metals in soil: As, Sb, Cd, Co, Cr (total), Cr (VI), Cu, Hg, Pb, Ni, Tl, V, Zn (µg per kg)</i> • <i>Concentration of a selection of organic contaminants established by Member States and taking into account contaminants covered by Regulation (EU) No 2019/1021 and existing concentration limits e.g. for water quality and air emissions in Union legislation especially priority substances under the Water Framework Directive and related Environmental Quality Standards (Directive 2008/105/EC) and the Groundwater (Directive 2006/118/EC) Directives</i> • <i>Plant protection product candidates for substitution and substances authorised under emergency regime, and biocides residues</i> • <i>Per- and poly-fluorinated alkyl substances (PFAS) total or sum of PFAS total</i> 	-	<i>To be conducted for top soil (0-10cm, 10-30cm (optional))</i>
<i>Reduction of water retention</i>	<ul style="list-style-type: none"> • <i>Soil water holding capacity of the soil sample (% of volume of water)</i> 	-	<i>To be conducted for top soil (0-10cm, 10-30cm (optional))</i>

	<ul style="list-style-type: none"> • <i>Volume of saturated soil</i> 		
<i>Acidification</i>	<ul style="list-style-type: none"> • <i>Soil acidity (pH H₂O)</i> 	-	<i>To be conducted for top soil (0-10cm, 10-30cm (optional))</i>
<i>Soil ecological functions</i>			
<i>Ecological function</i>	<i>Soil descriptor</i>	<i>Exceptions</i>	<i>Notes</i>
<i>Soil aggregation</i>	<ul style="list-style-type: none"> • <i>water-stable aggregates (%)</i> 	-	<i>To be conducted for top soil (0-10cm, 10-30cm (optional))</i>
<i>Soil respiration</i>	<ul style="list-style-type: none"> • <i>Soil microbial basal respiration ($\mu\text{l O}_2 \text{ h}^{-1} \text{ g}^{-1}$ soil dry weight)</i> 	-	<i>To be conducted for top soil (0-10cm, 10-30cm (optional))</i>
<i>Soil biomass</i>	<ul style="list-style-type: none"> • <i>Soil microbial biomass carbon ($C_{mic} \mu\text{g C g}^{-1}$ soil dry weight)</i> 	-	<i>To be conducted for top soil (0-10cm, 10-30cm (optional))</i>
<i>Soil biodiversity</i>			
<i>Soil biodiversity feature</i>	<i>Soil descriptor</i>	<i>Exceptions</i>	<i>Notes</i>
<i>Taxonomic diversity</i>	<ul style="list-style-type: none"> • <i>Diversity of soil organisms through (presence counts per taxonomic group) based on metabarcoding targeting the 16S and 18S rRNA gene regions and using the Internal transcribed spacer region (ITS) in particular for Fungi (additionally, other markers like COI for soil fauna can be considered)</i> 	-	<i>To be conducted for top soil (0-10cm, 10-30cm (optional))</i>
<i>Population abundance</i>	<ul style="list-style-type: none"> • <i>Total abundances of bacteria and archaea (using 16S rRNA gene region copies)</i> 	-	<i>To be conducted for top soil</i>

	<ul style="list-style-type: none"> • <i>Total abundances of fungi (using 18S rRNA gene region copies)</i> • <i>Total number and proportion of pathogenic fungi</i> • <i>Total nematode abundance per functional group based on morphology (bacterial feeders, fungal feeders, root feeders, omnivores, predators)</i> 		<i>(0-10cm, 10-30cm (optional))</i>
<i>Soil habitat</i>			
<i>Soil habitat feature</i>	<i>Soil descriptor</i>	<i>Exceptions</i>	
<i>Soil structure</i>	<ul style="list-style-type: none"> • <i>Size class proportions (sand, silt, clay)</i> • <i>Proportion of coarse materials (>2mm)</i> 	-	<i>To be conducted for top soil (0-10cm, 10-30cm)</i>

Amendment 199
Proposal for a directive
Annex I – table – Part B

Text proposed by the Commission

Part B: soil descriptors with criteria for healthy soil condition established at Member State level		
Excess nutrient content in soil	Extractable phosphorus (mg per kg)	< “maximum value”; The “maximum value” shall be laid down by the Member State within the range 30-50 mg kg⁻¹
Soil contamination	- concentration of heavy metals in soil: As, Sb, Cd, Co, Cr (total), Cr (VI), Cu, Hg, Pb, Ni, Tl, V, Zn (µg per kg) - concentration of a selection of organic contaminants established by Member States and taking into account existing concentration limits e.g. for water quality and air emissions in Union legislation	Reasonable assurance, obtained from soil point sampling, identification and investigation of contaminated sites and any other relevant information, that no unacceptable risk for human health and the environment from soil contamination exists Habitats with naturally high concentration of heavy metals that are included in Annex I of Council Directive 92/43/EEC³ shall remain protected.
Reduction of soil capacity to retain water	Soil water holding capacity of the soil sample (% of volume of water / volume of saturated soil)	The estimated value for the total water holding capacity of a soil district by river basin or subbasin is above the minimal threshold. The minimal threshold shall be set (in tonnes) by the Member State at soil district and river basin or subbasin level at such a value that the impacts of floodings following intense rain events or of periods of low soil moisture due to drought events are mitigated.
³ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (OJ L 206, 22.7.1992, p. 7).		

Amendment

<p>Part B: Tier 2 soil monitoring design</p> <p>A Member State qualifies for a Tier 2 soil monitoring design if:</p> <ul style="list-style-type: none"> - it cumulatively includes all the soil descriptors for Tier 1 and the criteria defined in column 2 for the sampling design in Part B and includes at least 50% of the soil descriptors in Part B, or, - cumulatively meets the criteria for soil sampling design of Tier 1 and includes all the soil descriptors in Part A and B. 			
<p>Sampling design</p>			
Reference methodology	Criteria to meet	Exceptions	Notes
<p><i>Stratified systematic sampling using a spatial grid to ensure a homogeneous coverage of the Member State territory for all land types. Auxiliary information such as environmental zones or soil types can also be used to further refine the sampling design.</i></p> <p><i>When available, Member States shall coordinate allocation of sampling points with other existing monitoring programmes such as national vegetation and forest inventories. The same applies to other types of censuses like the agricultural census to allow for a better data collection regarding management practices and an optimization of costs.</i></p> <p><i>The allocation and size of the sample shall be determined by scientifically established methods for the applied sampling design, such as those referenced to in Bethel (1989) for stratified random sampling.</i></p>	<p>a) ensure the homogeneous coverage of the Member State territory for all land types (e.g., by implementing a systematic stratifier (e.g., a continuous grid) as part of the sampling design.</p> <p>b) Stratified random sampling based on land type; Stratifiers may include climatic conditions, soil type, land type, and administrative regions according to Art. 4</p> <p>c) The estimation of the overall minimum number of samples shall follow the procedure in Tier 1.</p> <p>d) allow for 20% of the sampling sites to be dedicated to targeted sampling related to investigations or risk assessment.</p>	-	<p><i>It is recommended that the design and implementation of the soil monitoring system includes multiple stakeholders and, when needed, international border agreements, to ensure that cost effective measures are considered and that available expertise is taken in consideration.</i></p>
<p>Degradation factors</p>			
Degradation factor	Soil descriptor	Exceptions	Notes
<p>Salinisation</p>	<ul style="list-style-type: none"> • Electrical Conductivity (Siemens per meter ($S\ m^{-1}$)) 	-	<p><i>To be conducted for top soil (0-10cm, 10-30cm (optional))</i></p>

<i>Land take</i>	<ul style="list-style-type: none"> • <i>Soil sealing (as percentage of land sealed by any type of man-made infrastructures per 100m²)</i> 	-	<i>As reference, the sampling site should be considered the centroid of this assessment</i>
<i>Soil contamination</i>	<ul style="list-style-type: none"> • <i>Pharmaceutical and veterinary products</i> 	-	
<i>Soil compaction</i>	<ul style="list-style-type: none"> • <i>Bulk density in subsoil; Member States may replace this descriptor with an equivalent parameter (g per cm³)</i> 	<i>Non-managed soils in natural land areas</i>	<i>To be conducted for sub soil (30-50, 50-100cm)</i>
<i>Soil ecological functions</i>			
<i>Ecological function</i>	<i>Soil descriptor</i>	<i>Exceptions</i>	
<i>Nutrient cycling</i>	<ul style="list-style-type: none"> • <i>nitrogen mineralisation,</i> • <i>nitrogen availability</i> 	-	<i>To be conducted for top soil (0-10cm, 10-30cm (optional))</i>
<i>Soil aggregation</i>	<ul style="list-style-type: none"> • <i>water stable fraction-coarse matter</i> 	-	<i>To be conducted for top soil (0-10cm, 10-30cm (optional))</i>
<i>Enzymatic activity</i>	<ul style="list-style-type: none"> • <i>Enzymatic activity potential for acid phosphatase (EC 3.13.2)</i> • <i>Enzymatic activity potential for N-acetylglucosaminidase (EC 3.2.1.50)</i> • <i>Enzymatic activity potential for xylosidase (EC 3.2.1.37)</i> • <i>Enzymatic activity potential for cellobiohydrolase (EC 3.2.1.91)</i> • <i>Enzymatic activity potential for β-glucosidase (EC 3.2.1.21)</i> 	-	<i>To be conducted for top soil (0-10cm, 10-30cm (optional))</i>
<i>Soil biomass</i>	<ul style="list-style-type: none"> • <i>Microbial biomass as indicated by marker fatty acids (biomass per microbial</i> 	-	<i>To be conducted for top soil (0-</i>

	<i>functional group; ng FAME g⁻¹ soil dry weight)</i>		<i>10cm, 10-30cm (optional)</i>
Soil biodiversity			
Soil biodiversity feature	Soil descriptor	Exceptions	Notes
<i>Taxonomic diversity</i>	<ul style="list-style-type: none"> <i>Diversity (richness) of soil animals per group based on morphological methods and may also include image identification (Nematodes (for nematodes, classification should be done at least to family level) and Earthworms (for earthworms, classification should be done down to species level))</i> <i>Metagenome-based soil biodiversity taxonomic counts per taxonomic group</i> 	-	<i>To be conducted for top soil (0-10cm, 10-30cm (optional))</i>
<i>Population abundance</i>	<ul style="list-style-type: none"> <i>Total abundances of fungi (using the Internal transcribed spacer region (ITS))</i> 	-	<i>To be conducted for top soil (0-10cm, 10-30cm (optional))</i>
Soil habitat			
Soil habitat feature	Soil descriptor	Exceptions	Notes

Amendment 200
Proposal for a directive
Annex I – table – Part C

Text proposed by the Commission

Part C: soil descriptors without criteria	
Aspect of soil degradation	Soil descriptor
<i>Excess nutrient content in soil</i>	<i>Nitrogen in soil (mg g⁻¹)</i>
<i>Acidification</i>	<i>Soil acidity (pH)</i>
<i>Topsoil compaction</i>	<i>Bulk density in topsoil (A-horizon⁴) (g cm⁻³)</i>
<i>Loss of soil biodiversity</i>	<i>Soil basal respiration ((mm³ O₂ g⁻¹ hr⁻¹) in dry soil Member States may also select other optional soil descriptors for biodiversity such as:</i>

	<ul style="list-style-type: none"> - metabarcoding of bacteria, fungi, protists and animals; - abundance and diversity of nematodes; - microbial biomass; - abundance and diversity of earthworms (in cropland); - invasive alien species and plant pests
4	
<p>As defined in the <i>FAO Guidelines for Soil Description, Chapter 5</i> https://www.fao.org/3/a0541e/a0541e.pdf</p>	

Amendment

Part C: Tier 3 soil monitoring design			
<i>A Member State qualifies for a Tier 3 soil monitoring design if it meets Tier 2 conditions and includes at least 50% of the soil descriptors in Part C.</i>			
Degradation factors			
Degradation factor	Soil descriptor	Exceptions	Notes
<i>Soil contamination</i>	<ul style="list-style-type: none"> • Concentration of microplastics and nanoplastics 	-	<i>To be conducted for top soil (0-10cm, 10-30cm (optional))</i>
Soil ecological functions			
Ecological function	Soil descriptor	Exceptions	Notes
<i>Soil biomass</i>	<ul style="list-style-type: none"> • Soil animal biomass (per taxonomic group (Nematodes and Earthworms); mg fresh (for Nematodes)/dry (for Earthworms) weight per g of dry soil) • Root biomass (mg dry weight per g-1 soil dry weight) 	-	<i>To be conducted for top soil (0-10cm, 10-30cm (optional))</i>
<i>Community traits of roots</i>	<ul style="list-style-type: none"> • Total nitrogen present in roots • Root length density • Mean root diameter • Variation in root diameter • Root dry matter content 	-	<i>To be conducted for top soil (0-10cm, 10-30cm (optional))</i>
Soil biodiversity			
Soil biodiversity feature	Soil descriptor	Exceptions	Notes

<i>Taxonomic diversity</i>	<ul style="list-style-type: none"> • <i>Diversity (richness) of soil animals per group (Collembola and mites)</i> • <i>Presence of invasive alien species</i> • <i>Diversity of viruses using metagenomic approaches</i> 	-	<i>To be conducted for top soil (0-10cm, 10-30cm (optional))</i>
<i>Population abundance</i>	<ul style="list-style-type: none"> • <i>Total abundance of soil animals per taxa (for Nematodes and Earthworms)</i> 	-	<i>To be conducted for top soil (0-10cm, 10-30cm (optional))</i>
<i>Soil habitat</i>			
<i>Soil habitat feature</i>	<i>Soil descriptor</i>	<i>Exceptions</i>	<i>Notes</i>

Amendment 201
Proposal for a directive
Annex II – table – Part A

Text proposed by the Commission

Part A: Methodology for determining sampling points

<i>Activity</i>	<i>Minimum criteria for methodology</i>
<i>Determination of soil sampling points (sample survey)</i>	<p><i>The sample survey shall be designed from a complete sample frame containing the best available information on the soil properties distribution, including, but not limited to, information resulting from previous national measurements and measurements under the LUCAS programme.</i></p> <p><i>The sampling scheme shall be a stratified random sampling optimised on the soil health descriptors.</i></p> <p><i>The size of the national sample shall meet the requirement of a maximum percent error (or Coefficient of Variation) of 5% for the estimation of the area having healthy soils.</i></p> <p><i>The Commission sample for the survey set under Art 6(4) may contribute to a maximum of 20 % of the size of national samples.</i></p> <p><i>The allocation and size of the sample shall be determined by applying the Bethel algorithm (Bethel, 1989)⁵ accounting for the required maximum estimation error.</i></p>
<p>⁵ <i>Bethel, J. 1989. "Sample Allocation in Multivariate Surveys." Survey Methodology 15: 47–57.</i></p>	

Amendment

Part A: General methods to sample soil biodiversity and soil ecological functions

Activity	Reference criteria for methodology
Soil ecological monitoring	<p><i>The aim shall be to use a simple soil sampling protocol that can standardise soil ecological sampling across Member States and that is applicable to all Tier 1 and Tier 2 ecological soil descriptors (soil ecological functions, soil biodiversity and soil habitat descriptors) with the exception of soil fauna descriptors.</i></p> <p><i>Following the sampling protocol adopted for SoilBON, considering a homogeneous square area of 30x30 meters, establish nine subsamples matching the corners of the squares, its center, and the intermediate points. Using a metal soil corer or similar, extract the soil with a volume of 5 cm diameter and 10 cm depth. Soil depth can be increased to 30 cm, but the first (up to 10 cm) and second layer should be separated.</i></p>
Soil fauna monitoring	<p><i>For earthworms: hand sorting using protocols according to the sampling protocol laid out in Briones et al. 2020.</i></p> <p><i>For nematodes: following the criteria established in the standard SoilBON sampling protocol.</i></p> <p><i>For Collembola and mites: following the protocols established in Potapov et al. 2022.</i></p>
Other point-based soil descriptors	<i>Member States shall use the LUCAS Soil methodology as a reference for soil sampling.</i>

Amendment 202
Proposal for a directive
Annex II – table – Part B

Text proposed by the Commission

Soil descriptor	Reference methodology	Minimum methodological criteria	Validated transfer function required (if using a methodology different from the reference methodology⁶)?
Soil texture (clay, silt and sand content – needed for the determination of other descriptors and related	Preferred method: ISO 11277:1998 Determination of particle size distribution in mineral soil material – Method by sieving		YES

<i>ranges)</i>	<i>and sedimentation Alternative method: ISO13320:2009 Particle size analysis – Laser diffraction methods</i>		
<i>Electrical Conductivity</i>	<i>Option 1: saturated soil paste extract (eEC) measurement method (FAO SOP: GLOSOLAN-SOP- 087) Option 2: ISO 11265:1994 Determination of The Specific Electrical Conductivity;</i>		YES
<i>Soil erosion rate</i>		<i>Soil erosion rate estimation shall take into account all actions taken to mitigate or compensate the erosion risk, including post-fire mitigation measures. Soil erosion rate estimation shall include all relevant erosion processes such as erosion by water, wind, harvest and tillage. Soil erosion by water shall be assessed by considering the following factors: - soil characteristics (e.g. erodibility, soil crusting, soil roughness), - climate (e.g. rainfall erosivity – intensity and duration, considering relevant climate change projections for a given area), - topography (e.g. slope steepness and</i>	<i>N/A</i>

		<p><i>length),</i></p> <ul style="list-style-type: none"> - <i>vegetation cover, crop type, land use and management practices to control or reduce erosion,</i> - <i>management practices (e.g. cover crops, reduced tillage, mulching, etc.),</i> - <i>burned areas.</i> <p><i>Soil erosion by wind shall be assessed by considering the following factors:</i></p> <ul style="list-style-type: none"> - <i>soil characteristics (e.g. erodibility),</i> - <i>climate (e.g. soil moisture, wind speed, evaporation),</i> - <i>vegetation (e.g. crop type),</i> - <i>management practices to control or reduce erosion (e.g. wind breaks).</i> 	
<i>Soil Organic Carbon (SOC)</i>	<i>ISO 10694:1995 Determination of organic and total carbon after dry combustion</i>		<i>YES</i>
<i>Bulk density in subsoil (B horizon⁸) or equivalent⁹ parameter chosen by Member States</i>	<i>ISO 11272:2017 for determination of dry bulk density</i> <i>In case an equivalent parameter is chosen, the methodology shall be either a European or International standard when available; if such standard is not available, the methodology chosen</i>		<i>YES</i>

	<i>shall either be available in the scientific literature or publicly available.</i>		
<i>Extractable phosphorus</i>	<i>ISO 11263:1994 for spectrometric determination of phosphorus soluble in sodium hydrogen carbonate solution (P-Olsen)</i>		<i>YES</i>
<i>- Concentration of heavy metals in soil: As, Sb, Cd, Co, Cr (total), Cr (VI), Cu, Hg, Pb, Ni, Tl, V, Zn - Concentration of a selection of organic contaminants defined by Member States and taking into account existing EU legislation (e.g. on water quality or pesticides)</i>	<i>Potential environmental available content of heavy metals in soils based on ISO 17586:2016 using dilute nitric acid.</i>	<i>Use European or International standards when available; if such standard is not available, the methodology chosen shall either be available in the scientific literature or publicly available</i>	<i>YES N/A</i>
<i>Soil water holding capacity</i>	<i>Methodology to determine the value for one sample point: Option 1: LABORATORY: ISO 11274:2019 for determination of the water-retention characteristic. Option 2: ESTIMATION: apply methodology described in the scientific article “New generation of hydraulic pedotransfer functions for</i>	<i>Minimum criteria for estimating the total soil water holding capacity of a soil district on a river basin or sub-basin scale: - for the area of land not taken estimate the total value of soil water holding capacity - for the area of land taken, consider setting the water holding capacity of impervious areas to zero, attributing proportionately intermediate values to semi-impervious</i>	<i>YES (for point value)</i>

	<i>Europe</i> ¹⁰ based on texture (or particle size distribution) and soil organic carbon.	<i>and other artificial areas.</i>	
<i>Nitrogen in soil</i>	<i>ISO 11261:1995 for determination of total soil nitrogen using a modified Kjeldahl method</i>		<i>YES</i>
<i>Soil acidity</i>	<i>ISO 10390:2005 for determination of pH in H₂O and CaCl₂ extract (pH-H₂O and pH-CaCl₂)</i>		<i>YES</i>
<i>Bulk density in “topsoil” (A-horizon¹¹³)</i>	<i>ISO 11272:2017 for determination of dry bulk density</i>		<i>YES</i>
<i>Soil basal respiration</i> <i>Member States may also select optional soil biodiversity descriptors such as:</i> <i>-Metabarcoding¹² of bacteria, fungi, protists and animals;</i> <i>- Abundance and diversity of nematodes;</i> <i>- Microbial biomass;</i> <i>- Abundance and diversity of earthworms (in cropland)</i>	<i>Follow indications described in the scientific article “Microbial biomass and activities in soil as affected by frozen and cold storage”¹³</i>	<i>Use European or international standards when available; if such standard is not available, the methodology chosen shall either be available in the scientific literature or publicly available.</i>	<i>YES</i> <i>For other soil biodiversity descriptors: N/A</i>
<i>⁶ The methodologies different from the reference methodology shall either be available in the scientific literature or publicly available.</i>			
<i>⁷ https://www.fao.org/3/cb3355en/cb3355en.pdf</i>			
<i>⁸ As defined in the FAO Guidelines for Soil Description, Chapter 5 (https://www.fao.org/3/a0541e/a0541e.pdf)</i>			
<i>⁹ Equivalent according to the EEA report: Soil monitoring in Europe – Indicators and thresholds for soil health assessments — European Environment Agency (europa.eu)</i>			

³ As defined in the FAO Guidelines for Soil Description, Chapter 5 (<https://www.fao.org/3/a0541e/a0541e.pdf>)

¹¹ As defined in the *FAO Guidelines for Soil Description, Chapter 5* (<https://www.fao.org/3/a0541e/a0541e.pdf>)

¹² *Sequencing of DNA barcodes for measuring taxonomical and functional diversity of archaea, bacteria, fungi and other eukaryotes as was done for LUCAS Soil Biodiversity based on* <https://doi.org/10.1111/ejss.13299>

¹³ <https://www.sciencedirect.com/science/article/abs/pii/S0038071797001259>

Amendment

<i>Soil descriptor</i>	<i>Reference methodology</i>	<i>Minimum methodological criteria</i>	<i>Validated transfer function required (if using a methodology different from the reference methodology)</i>
<i>Soil texture (clay, silt and sand content – needed for the determination of other descriptors and related ranges)</i>	<i>Preferred method: ISO 11277:1998 Determination of particle size distribution in mineral soil material – Method by sieving and sedimentation Alternative method: ISO13320:2009 Particle size analysis – Laser diffraction methods</i>		YES
<i>Electrical Conductivity</i>	<i>Option 1: saturated soil paste extract (eEC) measurement method (FAO SOP: GLOSOLAN-SOP-08⁶) Option 2: ISO 11265:1994 Determination of The Specific Electrical Conductivity;</i>		YES
<i>Soil erosion rate</i>		<i>Soil erosion rate estimation shall take into account all actions taken to mitigate or compensate the erosion risk, including post-fire mitigation measures. Soil erosion rate estimation shall include all relevant erosion processes such as erosion by water, wind, harvest and tillage.</i>	N/A

		<p><i>Soil erosion by water shall be assessed by considering the following factors:</i></p> <ul style="list-style-type: none"> - <i>soil characteristics (e.g. erodibility, soil crusting, soil roughness),</i> - <i>climate (e.g. rainfall erosivity – intensity and duration, considering relevant climate change projections for a given area),</i> - <i>topography (e.g. slope steepness and length),</i> - <i>vegetation cover, crop and forest type, land use and management practices to control or reduce erosion,</i> - <i>management practices (e.g. cover crops, reduced tillage, mulching, etc.),</i> - <i>burned areas.</i> <p><i>Soil erosion by wind shall be assessed by considering the following factors:</i></p> <ul style="list-style-type: none"> - <i>soil characteristics (e.g. erodibility),</i> - <i>climate (e.g. soil moisture, wind speed, evaporation),</i> - <i>vegetation (e.g. crop type),</i> - <i>management practices to control or reduce erosion (e.g. wind breaks),</i> - <i>burned areas</i> 	
<i>Soil Organic Carbon (SOC)</i>	<i>ISO 10694:1995 Determination of organic and total carbon after dry combustion</i>		<i>YES</i>
<i>Bulk density in subsoil or equivalent⁷ parameter chosen by Member States</i>	<i>ISO 11272:2017 for determination of dry bulk density</i> <i>In case an equivalent parameter is chosen, the</i>		<i>YES</i>

	<i>methodology shall be either a European or International standard when available; if such standard is not available, the methodology chosen shall either be available in the scientific literature or publicly available.</i>		
<i>Extractable phosphorus</i>	<i>ISO 11263:1994 for spectrometric determination of phosphorus soluble in sodium hydrogen carbonate solution (P-Olsen)</i>		<i>YES</i>
<p><i>- Concentration of heavy metals in soil: As, Sb, Cd, Co, Cr (total), Cr (VI), Cu, Hg, Pb, Ni, Tl, V, Zn</i></p> <p><i>- Concentration of a selection of organic contaminants defined by Member States and taking into account existing EU legislation (e.g. on water quality or pesticides)</i></p> <p><i>- Pesticide and biocides residues, veterinary products</i></p> <p><i>- PFAS</i></p>	<i>Potential environmental available content of heavy metals in soils based on ISO 17586:2016 using dilute nitric acid.</i>	<p><i>Use European or International standards when available; if such standard is not available, the methodology chosen shall either be available in the scientific literature or publicly available</i></p>	<p><i>YES</i></p> <p><i>N/A</i></p>
<i>Soil water-holding capacity</i>	<p><i>Methodology to determine the value for one sample point:</i></p> <p><i>Option 1: LABORATORY: ISO 11274:2019 for determination of the water-retention characteristic.</i></p> <p><i>Option 2: ESTIMATION: apply methodology described in the scientific article “New generation of</i></p>	<p><i>Minimum criteria for estimating the total soil water-holding capacity of a soil district on a river basin or sub-basin scale:</i></p> <ul style="list-style-type: none"> <i>- for the area of land not taken estimate the total value of soil water holding capacity</i> <i>- for the area of land taken, consider setting the water-holding capacity of impervious areas to zero, attributing</i> 	<i>YES</i>

	<i>hydraulic pedotransfer functions for Europe” based on texture (or particle size distribution) and soil organic carbon.</i>	<i>proportionately intermediate values to semi-impervious and other artificial areas.</i>	
<i>Nitrogen in soil</i>	<i>ISO 11261:1995 for determination of total soil nitrogen using a modified Kjeldahl method</i>		<i>YES</i>
<i>Soil acidity</i>	<i>ISO 10390:2005 for determination of pH in H₂O and CaCl₂ extract (pH-H₂O and pH-CaCl₂)</i>		<i>YES</i>
<i>Bulk density in “topsoil”</i>	<i>ISO 11272:2017 for determination of dry bulk density</i>		<i>YES</i>
<i>Nutrient cycling</i>	<i>For nitrogen mineralization, air-dried soil samples are re-wetted to reach 80% of their water holding capacity and incubated in the laboratory for 14 days at 30°C. The potential net N mineralization rate is estimated as the difference between initial and final inorganic N. The availability of soil nutrients is calculated using root simulators, available N and P is determined by using a colorimetric determination based on the reaction with ammonium molybdate.</i>		<i>YES</i>
<i>Soil aggregation</i>	<i>These soil descriptors are reported as water-stable soil aggregates assessed by determining the resistance of soil aggregates against water as a disintegrating force, by applying an approach modified from Kemper and Rosenau (1986). The resulting index represents the percentage of water-stable</i>		<i>YES</i>

	<p><i>aggregates with a diameter smaller than 4 mm. Additionally, debris (i.e., coarse matter) will be separated from the water-stable fraction to correctly determine the water-stable aggregates (WSA) fraction of the sample: $\%WSA = \frac{\text{water stable fraction} - \text{coarse matter}}{4 \text{ g-coarse matter}}$.</i></p>		
<i>Enzymatic activity</i>	<i>Follow the indications described in Zeiss et al., 2022</i>		YES
<i>Soil respiration</i>	<i>Follow indications described in the scientific article “Microbial biomass and activities in soil as affected by frozen and cold storage”⁸</i>		YES
<i>Litter decomposition</i>		<i>Use European or international standards when available; if such standard is not available, the methodology chosen shall either be available in the scientific literature or publicly available.</i>	N/A
<i>Soil biomass</i>	<i>Follow the indications described in Guerra et al., 2021, Briones et al. 2020, and Potapov et al. 2022</i>		YES
<i>Community traits of roots</i>	<i>Follow the indications described in Guerra et al., 2021</i>		YES
<i>Taxonomic diversity</i>	<i>Follow the indications described in Guerra et al., 2021</i>		YES
<i>Population abundance</i>	<i>Follow the indications described in Guerra et al., 2021</i>		YES
<i>Intraspecific genetic diversity</i>	<i>Follow the indications described in Guerra et al., 2021</i>		YES
<i>Soil structure</i>	<i>Granulometric analysis is performed on sieved soil ($\varnothing < 2 \text{ mm}$), after the</i>		YES

	<p><i>destruction of the organic matter with H₂O₂. The dispersion is carried out with a solution of hexametaphosphate/sodium carbonate and stirred for 16 hours. The granulometric fractions considered are those recommended by the International Union of Soil Science (Atterberg Scale), which are coarse sand (2 > Ø > 0.2 mm), fine sand (0.2 > Ø > 0.02 mm), silt (0.02 > Ø > 0.002 mm) and clay (Ø < 0.002 mm). The coarse sand fraction is determined by sieving, the silt and clay fractions are determined by sedimentation and pipetting using a Robinson pipette and the fine sand by sedimentation and decantation. Sedimentation times are calculated using the Stokes Law.</i></p>		
<p>⁶ https://www.fao.org/3/cb3355en/cb3355en.pdf</p>			
<p>⁷ Equivalent according to the EEA report: Soil monitoring in Europe – Indicators and thresholds for soil health assessments — European Environment Agency (europa.eu)</p>			
<p>⁸ https://www.sciencedirect.com/science/article/abs/pii/S0038071797001259</p>			

Amendment 203
Proposal for a directive
Annex III – Title

Text proposed by the Commission

SUSTAINABLE SOIL MANAGEMENT
PRINCIPLES

Amendment

**INDICATIVE LIST OF SUSTAINABLE
SOIL MANAGEMENT PRINCIPLES**

Amendment 204
Proposal for a directive
Annex III – paragraph 1 – introductory part

Text proposed by the Commission

Amendment

The following principles **shall apply**:

The following principles **are to be taken into account according to Article 10(1), point (a)**:

Amendment 205
Proposal for a directive
Annex III – paragraph 1 – point b

Text proposed by the Commission

Amendment

(b) minimise physical soil disturbance;

(b) minimise physical soil disturbance **and prevent soil degradation**;

Amendment 206
Proposal for a directive
Annex III – paragraph 1 – point c

Text proposed by the Commission

Amendment

(c) avoid inputs or release of substances into soil that may harm human health or the environment, or degrade soil health;

(c) avoid inputs or release of **non-certified substances and** substances into soil that may harm human **or animal** health or the environment, or degrade soil health;

Amendment 207
Proposal for a directive
Annex III – paragraph 1 – point d

Text proposed by the Commission

Amendment

(d) ensure that machinery use is adapted to the strength of the soil, and that the number and frequency of operations on soils are limited so that they do not compromise soil health;

(d) ensure that machinery use is adapted to the strength of the soil, and that the number and frequency of operations on soils are limited so that they do not compromise soil health, **and do not lead to compaction over time**;

Amendment 208
Proposal for a directive
Annex III – paragraph 1 – point e

Text proposed by the Commission

(e) when fertilization is applied, ensure adaptation to the needs of the plant and trees at the given location and in the given period, and to the condition of soil and prioritize circular solutions that enrich the organic content;

Amendment

(e) when fertilization is applied, ensure adaptation to the needs of the plant and trees at the given location and in the given period, and to the condition of soil and prioritize circular solutions that enrich the organic content, ***with a view to improving the efficiency of nutrient use and achieving zero nutrient losses;***

Amendment 209

Proposal for a directive

Annex III – paragraph 1 – point f

Text proposed by the Commission

(f) in case of irrigation, maximise efficiency of irrigation systems and irrigation management and ensure that when recycled wastewater is used, the water quality meets the requirements set out in Annex I of Regulation (EU) 2020/741 of the European Parliament and of the Council¹⁴ and when water from other sources is used, it does not degrade soil health;

Amendment

(f) ***prioritise water retention and*** in case of irrigation, maximise efficiency of irrigation systems and irrigation management and ensure that when recycled wastewater is used, the water quality meets the requirements set out in Annex I of Regulation (EU) 2020/741 of the European Parliament and of the Council¹⁴ and when water from other sources is used, it does not degrade soil health

¹⁴ Regulation (EU) 2020/741 of the European Parliament and of the Council of 25 May 2020 on minimum requirements for water reuse (OJ L 177, 5.6.2020, p. 32).

¹⁴ Regulation (EU) 2020/741 of the European Parliament and of the Council of 25 May 2020 on minimum requirements for water reuse (OJ L 177, 5.6.2020, p. 32).

Amendment 210

Proposal for a directive

Annex III – paragraph 1 – point g

Text proposed by the Commission

(g) ensure soil ***protection*** by the creation and maintenance of adequate landscape features at the landscape level;¹⁵

Amendment

(g) ensure soil ***productivity*** by the creation and maintenance of adequate landscape features at the landscape level; ***for instance through buffer strips, field margins with native flowers, hedgerows, trees, copses, terrace walls, ponds, habitat***

*corridors and stepping stones*¹⁵

¹⁵ This principle does not apply to forest soils

¹⁵ This principle does not apply to forest soils

Amendment 211
Proposal for a directive
Annex III – paragraph 1 – point i

Text proposed by the Commission

(i) ensure optimised water levels in organic soils so that the structure and composition of such soils are not negatively affected;¹⁶

Amendment

(i) ensure optimised water levels in organic soils so that the structure and composition of such soils ***or their productivity*** are not negatively affected;¹⁶

¹⁶ This principle does not apply to urban soils

¹⁶ This principle does not apply to urban soils

Amendment 212
Proposal for a directive
Annex III – paragraph 1 – point i a (new)

Text proposed by the Commission

Amendment

(ia) develop sustainable paludiculture practices;

Amendment 213
Proposal for a directive
Annex III – paragraph 1 – point I a (new)

Text proposed by the Commission

Amendment

(Ia) in case of land use change, avoid losses in the capacity of soils to provide ecosystem services.

Amendment 214
Proposal for a directive
Annex IV – introductory part

Text proposed by the Commission

Amendment

The following indicative list of programmes, plans, targets and measures shall be taken into account:

Amendment 215
Proposal for a directive
Annex IV – point 8 a (new)

Text proposed by the Commission

Amendment

(8a) The national biodiversity strategies and action plans established in accordance with Article 6 of the United Nations Convention on Biological Diversity.

Amendment 216
Proposal for a directive
Annex IV – point 14

Text proposed by the Commission

Amendment

(14) The national actions plans adopted in accordance with Article **8 of Regulation .../...¹⁸** +.

(14) The national actions plans adopted in accordance with Article **4 of Directive 2009/128/EC**.

¹⁸ + OP : please insert in the text the number of Regulation of the European Parliament and of the Council the sustainable use of plant protection products and amending Regulation (EU) 2021/2115 contained in document COM(2022)305

EXPLANATORY STATEMENT

I. Background

Soil is a precious, but very fragile, non-renewable and finite resource that is under increasing pressure. Only in the EU, its health is threatened among others by sealing, compaction, unsustainable soil management, erosion, floods and landslides, droughts, hydrogeological instability, loss of soil organic matter, fires, storms, salinisation, contamination, loss of soil biodiversity, acidification and desertification. Most of the ongoing degradation processes are not adequately addressed or are not addressed at all in existing EU and national legislation.

Healthy soils are a prerequisite to ensure a sustainable and resilient economy, society and environment as they increase our resilience to climate change, to extreme weather events, drought and floods, store and filter water, provide services such as provision of food and biomass for bioeconomy and support our well-being.

Given the above mentioned and the fact that it can take up to 1 000 years to produce just 1 centimetre of top soil, which can be lost with just one heavy rainfall if it is not protected, there is an urgent need to ensure adequate monitoring of soil health and concrete measures to be taken by Member States to ensure healthy soils by 2050.

By this proposal, the Commission respected to vast extent the call of the European Parliament⁴ to design an EU-wide common legal framework, with full respect for the subsidiarity principle, for the protection and sustainable use of soil, addressing all major soil threats.

II. Position of the rapporteur

Chapter I: General provisions

The rapporteur considers that due to the urgency related to the state of soil in the EU, the overall target to achieve **healthy soils in the EU by 2050 should be binding**, with flexibility being given to the Member States in the measures taken to ensure improvement and increasing trends in soils health. **Intermediate targets in 2040 may be set**, depending on the progress done by the Member States, following the first assessment by the European Commission.

The **rapporteur welcomes the bottom-up approach** taken by the Commission when proposing Soil Districts, giving sufficient flexibility to the Member States, while ensuring homogeneity based on environmental conditions. Nevertheless, he suggests closer sharing of knowledge and coordinated approach in neighbouring countries with the same soils, as sometimes more similarities can be found between two countries than between districts in one Member State. The Commission should assist to this aim inter alia by setting up a working group, whose role would also be to boost synergies and to facilitate harmonisation of monitoring systems across the Union. In addition, the rapporteur proposes following to assist the Member States and improve exchange of practices, knowledge and better use of resources:

- Article 6a (new) on **Efficient use and preservation of soil samples** that shall ensure that samples taken in field are used to generate as much information as possible at the time of extraction or in the future, including for further research and innovations.

⁴European Parliament resolution of 28 April 2021 on soil protection (2021/2548(RSP))
https://www.europarl.europa.eu/doceo/document/TA-9-2021-0143_EN.pdf

- **Development of Sustainable Soil Management Toolbox** (Article 10a new) that would serve as a living tool where context-specific information and best practices could be found.
- That the Commission provides the necessary capacity building, assistance and consulting services to Member States, including with regard to their monitoring initiatives.

Chapter II: Monitoring and assessment of soil health

Assessment of soil health based on 5 ecological classes

The rapporteur is proposing a different approach to be taken to assess soil health by moving from classification of soils as healthy or unhealthy in Article 9, to a more gradual approach inspired by the Water Framework Directive, that is familiar to Member States. Therefore, he incorporates in the respective articles 6 to 9, **monitoring and assessment of ecological status distinguishing 5 classes of soils** (from critically degraded to high ecological status). The soils will be considered healthy if they fall in the two best categories -i.e. having “high soil ecological status” or “good ecological status”. For soils that will fall within “moderate”, “degraded soils” or “critically degraded soils”, a realistic timeline to move to a better category is proposed. Soil Districts are not obliged, but encouraged to establish coherent Soil District Plans setting up measures applicable on their territory to ensure improvement of soil ecological status, or to achieve improvement of soils in view achieving the 2050 target for healthy soils, by other means. He believes that the Soil Districts shall aim at inclusive internal processes empowering local citizens, lands owners, farmers, researchers and other stakeholders to actively participate and contribute to achieving the overall objective.

Monitoring design underpinning the assessment of soils

The rapporteur gives more flexibility to Member States in their choice of monitoring design, ensuring balance between **harmonisation** of soil monitoring systems for comparison of results and keeping them the possibility to use and build on their existing monitoring systems (e.g. those using systematic stratifier as an alternative to stratified random sampling). Member States are asked to follow at least Tier I approach that builds on the Commission's proposal. Nevertheless, they can benefit from **autonomy** when selecting the most appropriate Tier for the soil monitoring design and the respective assessment on their territory, provided that they meet the conditions laid down in Annex I for the Tiers. Tiers I, II and III encompass a balanced range of soil descriptors (their thresholds to be differentiated for all 5 soil ecological status groups, taking into consideration local conditions) introduced gradually following the respective Tiers.

The rapporteur deletes the values proposed by the Commission that would lead to a classification of soils either as healthy or unhealthy. He proposes a more nuanced approach with values to be set for Tier I & Tier II for the five-level classification explained above. Member States choosing Tier II approach, may benefit from bigger flexibility in the sampling design and should be able to establish their own threshold values for the assessment of soils, assuming a maximum variation of 20 % from the EU-set thresholds. Therefore, they will be allowed to refine the classification and mapping of soil ecological status within their border. Nevertheless, they will have to include additional descriptors in their monitoring compared to Tier I.

Chapter III: Sustainable soil management

The rapporteur welcomes that the European Commission reflected on the calls of the Parliament and introduced, in Annex III, the principles of sustainable soil management that should be further defined by the Member States. Additionally, he recognizes the added value of future definitions of practices which affect the state of soil negatively.

He believes that it is of importance that Member States facilitate the up-take of sustainable soil management practices in all soil districts without exception, to leave no soil and soil district behind. This would be achieved not only via necessary access to training, capacity building, and citizen science, but also via the introduction of the Sustainable Soil Management Toolbox, which should become an essential tool for sharing best practices across soil districts and Member States.

Chapter IV: Contaminated sites, point source and diffuse pollution

According to the European Environment Agency (EEA), around 300 000 contaminated sites in Europe still require clean-up. As exposure to contamination from soil may lead to serious health diseases and as it is challenging to ensure safe redevelopment of contaminated sites, decontamination (in or ex-situ remediation) should be always considered, when feasible. The costs of implementation of risk reduction measures should be covered by the polluter responsible for contamination, in line with the polluter pays principle. Finally, the rapporteur believes that the Member States shall involve human health organisations in the process of identification of contaminated sites as well as in the assessment of what constitutes an (un)acceptable risk and measures to be taken to ensure protection.

In addition, in line with the EP's resolution on soil protection, the Directive should reflect the scientific evidence and provide a framework to tackle diffuse soil contaminants and contaminants of emergency concerns, such as PFAS or materials like microplastics. The rapporteur therefore believes that following the first monitoring done by the Member States and based on the collected data on the EU and Member States level, an EU list of priority substances could be developed, together with a watch list to improve information on substances when more data is needed. It should be noted that the European Commission committed in the European Soil Strategy for 2030 to the establishment of an EU priority list for contaminants of major and/or emerging concern by 2024.

Finally, the rapporteur introduces a procedure that allows submission of evidence such as human biomonitoring data, by a natural or legal person, to be considered for possible action (e.g. adoption of risk mitigation measures or update of list of contaminated sites).

Chapter V: Financing

Given the urgency of action, the rapporteur invites the Member States to seek and use available resources. He invites the Commission to monitor and to help increase the absorption capacity of Member States to achieve results on the ground swiftly. He considers that a permanent dedicated budget line should be established for the financing of monitoring under the Multiannual Financial Framework. Understanding the importance of private capital mobilisation and policy coherence, he wishes to engage the European Investment Bank to

facilitate the use of innovative mechanisms and the Do No Significant Harm principle to be observed as general rule.

Chapter VII: Access to justice and review

Effective participation of local stakeholders, availability of information, free of charge and in an accessible form and transparency is an important aspect of this Directive that enables monitoring of progress towards achieving healthy soils by 2050. Rapporteur inserts to Article 22 provision that should disallow additional procedural standing rules, that would restrict access to justice e.g. in cases when public would not participate in preceding public consultation, against the provisions of Aarhus Convention.

ANNEX: LIST OF ENTITIES OR PERSONS FROM WHOM THE RAPPORTEUR HAS RECEIVED INPUT

Pursuant to Article 8 of Annex I to the Rules of Procedure, the rapporteur declares that he has received input from the following entities or persons in the preparation of the report, until the adoption thereof in committee:

Entity and/or person
CONSEIL EUROPEEN DES JEUNES AGRICULTEURS
European agri-cooperatives (COGECA)
European Compost Network
Moët Hennessy
Nestlé S.A
European Chemical Industry Council
European Federation of National Associations of Water Services (EurEau)
European Landowners' Organization asbl
European State Forest Association
Confédération Européenne des Propriétaires Forestiers
Finnish Forest Industries Federation (Metsäteollisuus ry)
Growing Media Europe
European Coordination Via Campesina
European Environmental Bureau
ClientEarth AISBL
Danone
The Coca-Cola Company
Pesticide Action Network Europe
Stora Enso Oyj
CEFS (European Association of Sugar Manufacturers)
Eustafor
Wageningen University & Research
Fertilizers Europe
Agroecology Europe
European Biogas Association
Natural Resources Institute Finland (LUKE)
The Council of European Municipalities and Regions (CEMR)
Bayer AG
Merck
American Chamber of Commerce to the European Union
International Association of Waterworks in the Rhine Basin & ERM coalition
European Geosciences Union
Soil BON
Umweltbundesamt
INRAE - National Research Institute for Agriculture, Food and the Environment

The list above is drawn up under the exclusive responsibility of the rapporteur.

MINORITY POSITION

pursuant to Rule 55(4) of the Rules of Procedure
Anders Vistisen, Alessandro Panza, Silvia Sardone, Veronica Rossi, Catherine Griset,
Mathilde Androuët, Aurélia Beigneux, Marie Dauchy

Soil Monitoring Minority Opinion - ID Group

The ID Group strongly opposes the Soil Monitoring Law Directive. Article 192(2)(b) underscores that the ordinary legislative procedure is not applicable to soil-related matters, a point of contention for the ID Group. Furthermore, the ID group asserts that EU jurisdiction in soil-related matters, including penalties outlined in Article 23, exceeds its competence and should fall under Member States' jurisdiction.

The principle of subsidiarity, per Article 5 of the Treaty on European Union (TEU), asserts that EU action is warranted only when better achieved at the EU level. Soil regulation, being inherently tied to local factors, should remain under Member States' environmental competence, as supported by TFEU Articles 4, 6, and 191. Moreover, Article 23's penalties overstep EU criminal law competence outlined in Article 83(1) of the TFEU, which primarily pertains to protecting EU financial interests. Soil monitoring penalties should be subject to national organic laws, as the EU lacks the authority to establish comprehensive criminal codes. In conclusion, Member States are better suited to handle soil monitoring and penalties, aligning with the principles of subsidiarity and respecting the division of competences outlined in the TEU and TFEU.

15.2.2024

OPINION OF THE COMMITTEE ON AGRICULTURE AND RURAL DEVELOPMENT

for the Committee on the Environment, Public Health and Food Safety

on the proposal for a directive of the European Parliament and of the council on Soil Monitoring and Resilience (Soil Monitoring Law)
(COM(2023)416 – C9-0234/2023 – 2023/0232(COD))

Rapporteur for opinion: Maria Noichl

AMENDMENT

The Committee on Agriculture and Rural Development calls on the Committee on the Environment, Public Health and Food Safety, as the committee responsible, to take the following into account:

Amendment 1

Proposal for a directive

Recital 1

Text proposed by the Commission

(1) Soil is a vital, limited, **non-renewable** and irreplaceable resource that is crucial for the economy, the environment and the society.

Amendment

(1) Soil is a vital, limited and irreplaceable resource that is crucial for **agricultural and forestry production**, the economy, the environment, **food production, food security** and the society.

Amendment 2

Proposal for a directive

Recital 2

Text proposed by the Commission

(2) 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.***

Amendment

(2) Healthy soils are in good chemical, biological and physical condition so that they can ***more effectively*** 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.

Amendment 3

Proposal for a directive Recital 2 a (new)

Text proposed by the Commission

Amendment

(2a) The ecosystem services provided by soils include cultural services that enable the generation of scientific knowledge and the promotion of scientific education and dissemination. The scientific and educational value of soils warrants the need to conserve the best examples of the variety of soils found in EU countries so that the scientific research of those materials by current and future generations can continue.

Amendment 4

Proposal for a directive Recital 3 a (new)

Text proposed by the Commission

Amendment

(3a) Soils formation occurs in a very slowly way with 500 years or more needed to create 2,5 cm of new topsoil, according to the European Commission, but soil health can be maintained or improved if appropriate measures are taken and implemented, so this directive should not

impose restrictive measures and unachievable targets;

Amendment 5

Proposal for a directive Recital 9

Text proposed by the Commission

(9) The EU Biodiversity Strategy for 2030 states that it is essential to step up efforts to protect soil fertility, reduce soil erosion and increase soil organic matter by adopting sustainable soil management practices. It also states that significant progress is needed on identifying contaminated soil sites, restoring degraded soils, defining the conditions for good ecological status of soils, introducing restoration objectives, and improving the monitoring of soil health.

Amendment

(9) The EU Biodiversity Strategy for 2030 states that it is essential to step up efforts to protect **and enhance** soil fertility, reduce soil erosion and increase soil organic matter by adopting **or maintaining** sustainable soil management practices. It also states that significant progress is needed on identifying contaminated soil sites, restoring degraded soils, defining the conditions for good ecological status of soils, introducing restoration objectives, and improving the monitoring of soil health.

Amendment 6

Proposal for a directive Recital 10

Text proposed by the Commission

(10) The EU Soil Strategy for 2030 sets the long-term vision that by 2050, all EU soil ecosystems are in **healthy** condition and are **thus** more resilient. As **a key solution**, healthy soils contribute to address the EU's goals of achieving climate neutrality and becoming resilient to climate change, developing a clean and circular (bio)economy, reversing biodiversity loss, safeguarding human health, halting desertification and reversing land degradation.

Amendment

(10) The EU Soil Strategy for 2030 sets the long-term vision that by 2050, all EU soil ecosystems are in **a healthier** condition and are more resilient. As **one of the solutions**, healthy soils contribute to address the EU's goals of achieving climate neutrality and becoming resilient to climate change, developing a clean and circular (bio)economy, reversing biodiversity loss, safeguarding human health, **food security**, halting desertification, **storing groundwater** and reversing land degradation. **Agriculture already makes a fundamental contribution to protecting soil health and preserving the landscape and biodiversity.**

Moreover, the multidimensional role played by agriculture offers additional positive externalities for regions, helping to keep rural communities alive and enhancing our environmental and ecosystem-related heritage.

Amendment 7

Proposal for a directive

Recital 11

Text proposed by the Commission

(11) Funding is vital to enable a transition to healthy soils. The Multiannual Financial Framework presents several funding opportunities available for the protection, sustainable management and regeneration of soils. A ‘Soil Deal for Europe’ is one of the five EU missions of the Horizon Europe programme and is specifically dedicated to promoting soil health. The Soil Mission is a key instrument for the implementation of this Directive. It aims to lead the transition to healthy soils through funding an ambitious research and innovation programme, establishing a network of 100 living labs and lighthouses in rural and urban areas, advancing the development of a harmonized soil monitoring framework and increasing the awareness of the importance of soil. Other Union programmes that present objectives contributing to healthy soils are the Common Agricultural Policy, the Cohesion Policy funds, the Programme for Environment and Climate Action, the Horizon Europe work programme, the Technical Support Instrument, the Recovery and Resilience Facility and InvestEU.

Amendment

(11) ***The additional*** funding is vital to enable a transition to healthy soils. The Multiannual Financial Framework presents several funding opportunities available for the protection, sustainable management and regeneration of soils. A ‘Soil Deal for Europe’ is one of the five EU missions of the Horizon Europe programme and is specifically dedicated to promoting soil health. The Soil Mission is a key instrument for the implementation of this Directive. It aims to lead the transition to healthy soils through funding an ambitious research and innovation programme, establishing a network of 100 living labs and lighthouses in rural and urban areas, advancing the development of a harmonized soil monitoring framework and increasing the awareness of the importance of soil. ***The nine outermost regions should be included in this network (Art. 349 TFEU)^{40a} as they concentrate 80% of the Union's biodiversity.*** Other Union programmes that present objectives contributing to healthy soils are the Common Agricultural Policy, the Cohesion Policy funds, the Programme for Environment and Climate Action, the Horizon Europe work programme, the Technical Support Instrument, the Recovery and Resilience Facility and InvestEU. ***CAP funding, if it can contribute to the general objective, should***

not be affected by this Directive.

40a

https://www.europarl.europa.eu/doceo/document/TA-9-2023-0228_PT.html#def_1_33

Amendment 8

Proposal for a directive Recital 13

Text proposed by the Commission

(13) In its conclusions of 23 October 2020⁴³, the Council supported the Commission in stepping up efforts to better protect soils ***and soil biodiversity, as a non-renewable resource of vital importance.***

⁴³ Council Conclusions on Biodiversity - the need for urgent action, 12210/20.

Amendment

(13) In its conclusions of 23 October 2020⁴³, the Council supported the Commission in stepping up efforts to better protect soils.

⁴³ Council Conclusions on Biodiversity - the need for urgent action, 12210/20.

Amendment 9

Proposal for a directive Recital 14

Text proposed by the Commission

(14) Regulation (EU) 2021/1119 of the European Parliament and of the Council⁴⁴ sets out a binding objective of climate neutrality in the Union by 2050 and negative emissions thereafter, and of prioritising swift and predictable emission reductions and, at the same time, enhancing removals by natural sinks. Sustainable soil management results in increased carbon sequestration and in most cases in co-benefits for ecosystems and biodiversity. The Commission's Communication on Sustainable Carbon Cycles⁴⁵ underlined the need for clear and

transparent identification of the activities that unambiguously remove carbon from the atmosphere such as the development of a EU framework for the certification of carbon removals from natural ecosystems including soils. Moreover, the revised Regulation on Land Use, Land Use Change and Forestry not only places soil carbon central to the achievement of targets on the pathway to a climate neutral Europe, but also calls for Member States to prepare a system for the monitoring of soil carbon stocks, using, inter alia, the land use/cover area frame statistical survey (LUCAS) dataset.

⁴⁴ Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law') (OJ L 243, 9.7.2021, p. 1).

⁴⁵ Communication from the European Commission to the European Parliament and to the Council Sustainable Carbon Cycles COM (2021) 800.

transparent identification of the activities that unambiguously remove carbon from the atmosphere such as the development of a EU framework for the certification of carbon removals from natural ecosystems including soils. Moreover, the revised Regulation on Land Use, Land Use Change and Forestry not only places soil carbon central to the achievement of targets on the pathway to a climate neutral Europe, but also calls for Member States to prepare a system for the monitoring of soil carbon stocks, using, inter alia, the land use/cover area frame statistical survey (LUCAS) dataset, *or existing national measuring systems*.

⁴⁴ Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law') (OJ L 243, 9.7.2021, p. 1).

⁴⁵ Communication from the European Commission to the European Parliament and to the Council Sustainable Carbon Cycles COM (2021) 800.

Amendment 10

Proposal for a directive Recital 17

Text proposed by the Commission

(17) The Commission's Communication on safeguarding food security and reinforcing the resilience of food systems⁴⁷ stressed that food sustainability is fundamental for food security. Healthy soils make the Union food system more resilient by providing the basis for nutritious and sufficient food.

Amendment

(17) The Commission's Communication on safeguarding food security and reinforcing the resilience of food systems⁴⁷ stressed that food sustainability is fundamental for food security *and food sovereignty*. *Productive*, healthy soils make the Union food system more resilient by providing the basis for *safe*, nutritious and sufficient food. *The Common Agricultural Policy provides a*

harmonised framework to ensure food supply security.

⁴⁷ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Safeguarding food security and reinforcing the resilience of food systems, COM (2022) 133 final.

⁴⁷ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Safeguarding food security and reinforcing the resilience of food systems, COM (2022) 133 final.

Amendment 11

Proposal for a directive Recital 19

Text proposed by the Commission

(19) Soils host more than 25% of all biodiversity and are the second largest carbon pool of the planet. Due to their ability to capture and store carbon, healthy soils contribute to the achievement of the Union's objectives on climate change. Healthy soils also provide a favourable habitat for organisms to thrive and are crucial for enhancing biodiversity and the stability of ecosystems. ***Biodiversity below and above ground are intimately connected and interact through mutualistic relationships (e.g. mycorrhizal fungi that connect plant roots).***

Amendment

(19) Soils host more than 25% of all biodiversity and are the second largest carbon pool of the planet. Due to their ability to capture and store carbon, healthy soils contribute to the achievement of the Union's objectives on climate change. Healthy soils also provide a favourable habitat for organisms to thrive and are crucial for enhancing biodiversity and the stability of ecosystems.

Amendment 12

Proposal for a directive Recital 22

Text proposed by the Commission

(22) Soil degradation impacts fertility, yields, pest resistance and nutritional food quality. Since 95 % of our food is directly or indirectly produced on soils and the global population continues to increase, it is key that this finite natural resource

Amendment

(22) Soil degradation impacts fertility, yields, pest resistance and nutritional food quality. Since 95 % of our food is directly or indirectly produced on soils and the global population continues to increase, it is key that this finite natural resource

remains healthy to ensure food security in the long-term and secure the productivity and profitability of Union agriculture. Sustainable soil management practices maintain or enhance soil health and contribute to the sustainability and resilience of the *food system*.

remains healthy to ensure food security in the long-term and secure the productivity and profitability of Union agriculture. Sustainable soil management practices, *as laid down in the Common Agricultural Policy*, maintain or enhance soil health and contribute to the sustainability and resilience of the *agrifood systems*.

Amendment 13

Proposal for a directive Recital 23

Text proposed by the Commission

(23) The long-term objective of the Directive is to achieve healthy soils by 2050. As an intermediate step, in light of the limited knowledge about the condition of soils and about the effectiveness and costs of the measures to regenerate their health, the directive takes a staged approach. In the first stage the focus will be on setting up the soil monitoring framework and assessing the situation of soils throughout the EU. It also includes requirements to lay down measures to manage soils sustainably and regenerate unhealthy soils once their condition is established, but without imposing an obligation to achieve healthy soils by 2050 neither intermediate targets. This proportionate approach will allow sustainable soil management and regeneration of unhealthy soils to be well prepared, incentivised and set in motion. In a second stage, as soon as the results of the first assessment of soils and trends analysis are available, the Commission will take stock of the progress towards the 2050 objective *and the experience thereof, and will propose a review of the directive if necessary to accelerate progress towards 2050*.

Amendment

(23) The long-term objective of the Directive is *to aim* to achieve healthy soils by 2050. As an intermediate step, in light of the limited knowledge about the condition of soils and about the effectiveness and costs of the measures to regenerate their health, the directive takes a staged approach. In the first stage the focus will be on setting up the soil monitoring framework and assessing the situation of soils throughout the EU. It also includes requirements to lay down measures to manage soils sustainably and regenerate unhealthy soils once their condition is established, but without imposing an obligation to achieve healthy soils by 2050 neither intermediate targets. This proportionate approach will allow sustainable soil management and regeneration of unhealthy soils to be well prepared, incentivised and set in motion. In a second stage, as soon as the results of the first assessment of soils and trends analysis are available, the Commission will take stock of the progress towards the 2050 objective.

Amendment 14

Proposal for a directive Recital 24

Text proposed by the Commission

(24) Addressing the pressures on soils and identifying the appropriate measures to maintain or regenerate soil health requires that the variety of soil types, the specific local and climatic conditions and the land use or the land cover is taken into account. It is therefore appropriate that Member States establish soil districts. Soil districts should constitute the basic governance units to manage soils and to take measures to comply with the requirements laid down in this Directive, in particular with regard to the monitoring and assessment of soil health. ***The number, geographic extent and boundaries of soil districts for each Member State should be determined in order to facilitate the implementation of Regulation (UE) .../... of the European Parliament and of the Council⁴⁸***. There should be a minimum number of soil districts in each Member State taking into account the size of the Member State. This minimum number of soil districts for each Member State ***shall*** correspond to the number of NUTS 1 territorial units established in Regulation (EC) No 1059/2003 of the European Parliament and of the Council⁴⁹.

⁴⁸ ***+OP please insert in the text the number of the Regulation on the carbon removal certification contained in document COM(2022) 672 final and insert the number, date, title and OJ reference of that Directive in the footnote.***

⁴⁹ Regulation (EC) No 1059/2003 of the European Parliament and of the Council of 26 May 2003 on the establishment of a common classification of territorial units for statistics (NUTS) (OJ L 154, 21.6.2003,

Amendment

(24) Addressing the ***region-specific*** pressures on soils and identifying the appropriate measures to maintain or regenerate soil health requires that the variety of soil types, the specific local and climatic conditions and the land use or the land cover is taken into account. It is therefore appropriate that Member States establish soil districts. Soil districts should constitute the basic governance units to manage soils and to take measures to comply with the requirements laid down in this Directive, in particular with regard to the monitoring and assessment of soil health. There should be a minimum number of soil districts in each Member State taking into account the size of the Member State. This minimum number of soil districts for each Member State ***may*** correspond to the number of NUTS 1 territorial units established in Regulation (EC) No 1059/2003 of the European Parliament and of the Council⁴⁹.

⁴⁹ Regulation (EC) No 1059/2003 of the European Parliament and of the Council of 26 May 2003 on the establishment of a common classification of territorial units for statistics (NUTS) (OJ L 154, 21.6.2003,

p. 1).

p. 1).

Amendment 15

Proposal for a directive

Recital 25

Text proposed by the Commission

(25) In order to ensure an appropriate governance on soils, Member States should be required to appoint a competent authority for *each soil district*. **Member States should be allowed to appoint any additional competent authority at appropriate level including at national or regional level.**

Amendment

(25) In order to ensure an appropriate governance on soils, Member States should be required to appoint a competent authority for *soil districts*.

Amendment 16

Proposal for a directive

Recital 26

Text proposed by the Commission

(26) In order to have a common definition of healthy soil condition, **there is a need to define** a minimum common set of measurable criteria, **which**, if not respected **leads** to a critical loss in the soil's capacity to function as a vital living system and to provide ecosystem services. **Such criteria should reflect and be based on the existing level of soil science.**

Amendment

(26) In order to have a common definition of healthy soil condition, a minimum common set of measurable criteria **is defined**. **The mix of criteria can vary per soil type and land use. Such criteria should reflect and be based on the existing level of soil science and** if not respected **may lead** to a critical loss in the soil's capacity to function as a vital living system and to provide ecosystem services.

Amendment 17

Proposal for a directive

Recital 28

Text proposed by the Commission

(28) **In order to create incentives, Member States should set up mechanisms to recognize the efforts of landowners and**

Amendment

deleted

land managers to maintain the soil in healthy condition, including in the form of soil health certification complementary to the Union regulatory framework for carbon removals, and supporting the implementation of the renewable energy sustainability criteria set out in article 29 of Directive (EU) 2018/2001 of the European Parliament and of the Council⁵⁰. The Commission should facilitate soil health certification by inter alia exchanging information and promoting best practices, raising awareness and assessing feasibility of developing recognition of certification schemes at Union level. Synergies between different certification schemes should be exploited as much as possible to reduce administrative burden for those applying for relevant certifications.

⁵⁰ *Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (recast) (OJ L 328, 21.12.2018, p. 82).*

Amendment 18

Proposal for a directive Recital 30

Text proposed by the Commission

(30) Soil is a limited resource subject to an ever-growing competition for different uses. Land take is a process often driven by economic development needs, that transforms natural and semi-natural areas (including agricultural and forestry land, gardens and parks) into artificial land development, using soil as a platform for constructions and infrastructure, as a direct source of raw material or as archive for historic patrimony. This transformation may cause the loss, often irreversibly, of the capacity of soils to provide other

Amendment

(30) Soil is a limited resource subject to an ever-growing competition for different uses. Land take is a process often driven by economic development needs, that transforms natural and semi-natural areas (including agricultural and forestry land, gardens and parks) into artificial land development, using soil as a platform for constructions and infrastructure, as a direct source of raw material or as archive for historic patrimony. This transformation may cause the loss, often irreversibly, of the capacity of soils to provide other

ecosystem services (provision of food and biomass, water and nutrients cycling, basis for biodiversity and carbon storage). In particular, land take often affects the most fertile agricultural soils, putting food security in jeopardy. Sealed soil also exposes human settlements to higher flood peaks and more intense heat island effects. Therefore, it is necessary to monitor land take and soil sealing and their effects on soil's capacity to provide ecosystem services. It is also appropriate to lay down certain principles to mitigate the impacts of land take as part of sustainable soil management.

ecosystem services (provision of food and biomass, water and nutrients cycling, basis for biodiversity and carbon storage). In particular, land take often affects the most fertile agricultural soils, putting food security in jeopardy. Sealed soil also exposes human settlements to higher flood peaks and more intense heat island effects. Therefore, it is necessary to monitor land take and soil sealing and their effects on soil's capacity to provide ecosystem services. It is also appropriate to lay down certain principles to mitigate the impacts of land take as part of sustainable soil management. ***The monitoring of land take and the establishment of these principles must be carried out in consultation with local stakeholders and take due account of the socio-economic needs of the territories.***

Amendment 19

Proposal for a directive Recital 31

Text proposed by the Commission

(31) The assessment of soil health based on the monitoring network should be accurate while at the same time keeping the costs of such monitoring at reasonable level. It is therefore appropriate to lay down criteria for sampling points that are representative of the soil condition under different soil types, climatic conditions and land use. The grid of sampling points should be determined by using geostatistical methods and be sufficiently dense to provide an estimation of the area of healthy soils, at national level, within an uncertainty of not more than 5%. This value is commonly considered to provide a statistically sound estimation and reasonable assurance that the objective has been achieved.

Amendment

(31) The assessment of soil health based on the monitoring network should be accurate while at the same time keeping the costs of such monitoring at reasonable level, ***and cannot be paid for by soil managers***. It is therefore appropriate to lay down criteria for sampling points that are representative of the soil condition under different soil types, climatic conditions and land use. The grid of sampling points should be determined by using geostatistical methods and be sufficiently dense to provide an estimation of the area of healthy soils, at national level, within an uncertainty of not more than 5%. This value is commonly considered to provide a statistically sound estimation and reasonable assurance that the objective has been achieved.

Amendment 20

Proposal for a directive Recital 32

Text proposed by the Commission

(32) The Commission should assist and support Member States' monitoring of soil health by continuing to carry out and enhancing regular in-situ soil sampling and related soil measurements (LUCAS soil) as part of the Land Use/Cover Area frame statistical Survey (LUCAS) Programme. For that purpose, the LUCAS Programme shall be enhanced and upgraded to fully align it with the specific quality requirements to be met for the purpose of this Directive. In order to alleviate the burden, Member States should be allowed to take into account the soil health data surveyed under the enhanced LUCAS soil. ***The Member States thus supported should take the necessary legal arrangements to ensure that the Commission can carry out such in-situ soil sampling, including on privately owned fields, and in compliance with applicable national or Union legislation.***

Amendment 21

Proposal for a directive Recital 34

Text proposed by the Commission

(34) Building on and upgrading the existing EU soil observatory, the Commission should establish a digital soil health data portal that should be compatible with the EU Data Strategy⁵¹ and the EU data spaces and which should be a hub providing access to soil data coming from various sources. That portal should primarily include all the data

Amendment

(32) The Commission should assist and support Member States' monitoring of soil health by continuing to carry out and enhancing regular in-situ soil sampling and related soil measurements (LUCAS soil) as part of the Land Use/Cover Area frame statistical Survey (LUCAS) Programme. For that purpose, the LUCAS Programme shall be enhanced and upgraded to fully align it with the specific quality requirements to be met for the purpose of this Directive. In order to alleviate the burden, ***existing soil sampling points, national monitoring and measuring systems will be taken into account and*** Member States should be allowed to take into account the soil health data surveyed under the enhanced LUCAS soil.

Amendment

deleted

collected by the Member States and the Commission as required by this Directive. It should also be possible to integrate in the portal, on a voluntary basis, other relevant soil data collected by Member States or any other party (and in particular data resulting from projects under Horizon Europe and the Mission ‘A Soil Deal for Europe’), provided that those data meet certain requirements as regards format and specifications. Those requirements should be specified by the Commission by way of implementing acts.

⁵¹ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on a European strategy for data, COM(2020)66 final.

Amendment 22

Proposal for a directive Recital 36

Text proposed by the Commission

Amendment

(36) In order to make the widest possible use of soil health data generated by the monitoring carried out under this Directive, Member States should be required to facilitate the access to such data for relevant stakeholders such as farmers, foresters, land owners and local authorities.

deleted

Amendment 23

Proposal for a directive Recital 37

Text proposed by the Commission

Amendment

(37) To maintain or enhance soil health, soils need to be managed sustainably.

(37) To maintain or enhance soil health, soils need to be managed sustainably.

Sustainable soil management will enable the long-term provision of soil services, including improved air and water quality and food security. It is therefore appropriate to lay down sustainable soil management principles to guide soil management practices.

Sustainable soil management will enable the long-term provision of soil services, including improved air and water quality and food security. It is therefore appropriate to lay down ***an indicative list of*** sustainable soil management principles to guide soil management practices.

Amendment 24

Proposal for a directive

Recital 38

Text proposed by the Commission

(38) Economic instruments, including those under the Common Agricultural Policy (CAP) that provide support to farmers, have a crucial role in the transition to the sustainable management of agricultural soils and, to a lesser extent, forest soils. The CAP aims to support soil health through the implementation of conditionality, eco-schemes and rural development measures. Financial support for farmers and foresters who apply sustainable soil management practices can also be generated by the private sector. ***Voluntary sustainability labels in the food, wood, bio-based, and energy industry, for example, established by private stakeholders, can take into account the sustainable soil management principles set out in this Directive. This can enable food, wood, and other biomass producers that follow those principles in their production to reflect these in the value of their products.*** Additional funding for a network of real-life sites for testing, demonstrating and upscaling of solutions, including on carbon farming, will be provided through the Soil Mission's living labs and lighthouses. Without prejudice to the polluter pays principle, support and advice should be provided by Member States to help landowners and land users affected by action taken under this Directive taking into account, in particular,

Amendment

(38) Economic instruments, including those under the Common Agricultural Policy (CAP) that provide support to farmers, have a crucial role in the transition to the sustainable management of agricultural soils and, to a lesser extent, forest soils. The CAP aims to support soil health through the implementation of conditionality, eco-schemes and rural development measures. Financial support for farmers and foresters who apply sustainable soil management practices can also be generated by the private sector. Additional funding for a network of real-life sites for testing, demonstrating and upscaling of solutions, including on carbon farming, will be provided through the Soil Mission's living labs and lighthouses. Without prejudice to the polluter pays principle, support and advice should be provided by Member States, ***ensuring that it reaches the entire territory, including remote regions,*** to help landowners and land users affected by action taken under this Directive taking into account, in particular, the needs and limited capacities of small and medium sized enterprises.

the needs and limited capacities of small and medium sized enterprises.

Amendment 25

Proposal for a directive Recital 39

Text proposed by the Commission

Amendment

(39) Pursuant to Regulation (EU) 2021/2115 of the European Parliament and of the Council⁵², Member States have to describe in their CAP Strategic Plans how the environmental and climate architecture of those Plans is meant to contribute to the achievement of, and be consistent with, the long-term national targets set out in, or deriving from, the legislative acts listed in Annex XIII to that Regulation.

deleted

⁵² Regulation (EU) 2021/2115 of the European Parliament and of the Council of 2 December 2021 establishing rules on support for strategic plans to be drawn up by Member States under the common agricultural policy (CAP Strategic Plans) and financed by the European Agricultural Guarantee Fund (EAGF) and by the European Agricultural Fund for Rural Development (EAFRD) and repealing Regulations (EU) No 1305/2013 and (EU) No 1307/2013 (OJ L 435, 6.12.2021, p. 1).

Amendment 26

Proposal for a directive Recital 40

Text proposed by the Commission

Amendment

(40) In order to ensure that the best sustainable soil management practices are implemented, Member States should be

(40) In order to ensure that the best sustainable soil management practices are implemented, **and if not already doing so,**

required to closely monitor the impact of soil management practices and adjust practices and recommendations as necessary, taking into account new knowledge from research and innovation. Valuable contributions are expected in this respect from the Horizon Europe Mission ‘A Soil Deal for Europe’ and in particular its living labs and activities to support soil monitoring, soil education and citizen engagement.

Member States should be required to closely monitor the impact of soil management practices and adjust practices and recommendations as necessary, taking into account new knowledge from research and innovation. Valuable contributions are expected in this respect from the Horizon Europe Mission ‘A Soil Deal for Europe’ and in particular its living labs and activities to support soil monitoring, soil education and citizen engagement.

Amendment 27

Proposal for a directive Recital 42

Text proposed by the Commission

(42) To ensure synergies between the different measures adopted under other Union legislation that may have an impact on soil health, and the measures that are to be put in place to sustainably manage and regenerate soils in the Union, Member States should ensure that the sustainable soil management and regeneration practices are coherent with the national restoration plans adopted in accordance with Regulation (UE) .../... of the European Parliament and of the Council⁵³⁺; the strategic plans to be drawn up by Member States under the Common Agricultural Policy in accordance with Regulation (EU) 2021/2115, the codes of good agricultural practices and the action programmes for designated vulnerable zones adopted in accordance with Council Directive 91/676/EEC⁵⁴, the conservation measures and prioritized action framework established for Natura 2000 sites in accordance with Council Directive 92/43/EEC⁵⁵, the measures for achieving good ecological and chemical status of water bodies included in river basin management plans prepared in accordance with Directive 2000/60/EC of the European Parliament and of the Council⁵⁶, the flood

Amendment

(42) To ensure synergies between the different measures adopted under other Union legislation that may have an impact on soil health, and the measures that are to be put in place to sustainably manage and regenerate soils in the Union, Member States should ensure that the sustainable soil management and regeneration practices are coherent with the national restoration plans adopted in accordance with Regulation (UE) .../... of the European Parliament and of the Council⁵³⁺; the strategic plans to be drawn up by Member States under the Common Agricultural Policy in accordance with Regulation (EU) 2021/2115, the codes of good agricultural practices and the action programmes for designated vulnerable zones adopted in accordance with Council Directive 91/676/EEC⁵⁴, the conservation measures and prioritized action framework established for Natura 2000 sites in accordance with Council Directive 92/43/EEC⁵⁵, the measures for achieving good ecological and chemical status of water bodies included in river basin management plans prepared in accordance with Directive 2000/60/EC of the European Parliament and of the Council⁵⁶, the flood

risk management measures established in accordance with Directive 2007/60/EC of the European Parliament and of the Council⁵⁷, the drought management plans promoted in the Union Strategy on Adaptation to Climate Change⁵⁸, the national action programmes established in accordance with Article 10 of the United Nations Convention to Combat Desertification, ***targets set out under Regulation (EU) 2018/841 of the European Parliament and of the Council⁵⁹ and Regulation (EU) 2018/842 of the European Parliament and of the Council⁶⁰***, the integrated national energy and climate plans established in accordance with Regulation (EU) 2018/1999 of the European Parliament and of the Council⁶¹, the national air pollution control programmes prepared under Directive (EU) 2016/2284 of the European Parliament and of the Council⁶², risk assessments and disaster risk management planning established in accordance with Decision No 1313/2013/EU of the European Parliament and of the Council⁶³, and national action plans established in accordance with Regulation (UE) .../... of the European Parliament and of the Council⁶⁴ +. Sustainable soil management and regeneration practices should be, as far as possible, integrated within these programmes, plans and measures to the extent that they contribute to the achievement of their objectives. Consequently, relevant indicators and data, such as soil-related result indicators under the CAP Regulation and statistical data on agricultural input and output reported under Regulation (EU) 2022/2379 of the European Parliament and of the Council⁶⁵, should be accessible to the competent authorities responsible for sustainable soil management and regeneration practices and soil health assessment in order to cross-link these data and indicators and thus enable the most accurate possible assessment of the effectiveness of the

risk management measures established in accordance with Directive 2007/60/EC of the European Parliament and of the Council⁵⁷, the drought management plans promoted in the Union Strategy on Adaptation to Climate Change⁵⁸, the national action programmes established in accordance with Article 10 of the United Nations Convention to Combat Desertification, the integrated national energy and climate plans established in accordance with Regulation (EU) 2018/1999 of the European Parliament and of the Council⁶¹, the national air pollution control programmes prepared under Directive (EU) 2016/2284 of the European Parliament and of the Council⁶², risk assessments and disaster risk management planning established in accordance with Decision No 1313/2013/EU of the European Parliament and of the Council⁶³, and national action plans established in accordance with Regulation (UE) .../... of the European Parliament and of the Council⁶⁴ +. Sustainable soil management and regeneration practices should be, as far as possible, integrated within these programmes, plans and measures to the extent that they contribute to the achievement of their objectives. Consequently, relevant indicators and data, such as soil-related result indicators under the CAP Regulation and statistical data on agricultural input and output reported under Regulation (EU) 2022/2379 of the European Parliament and of the Council⁶⁵, should be accessible to the competent authorities responsible for sustainable soil management and regeneration practices and soil health assessment in order to cross-link these data and indicators and thus enable the most accurate possible assessment of the effectiveness of the measures chosen.

measures chosen.

⁵³ OP : please insert please insert in the text the number of Regulation on nature restoration contained in document COM(2022) 304 and insert the number, date, title and OJ reference of that Regulation in the footnote Regulation (UE) .../... of the European Parliament and of the Council on nature restoration

⁵⁴ Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ L 375, 31.12.1991, p. 1).

⁵⁵ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (OJ L 206, 22.7.1992, p. 7).

⁵⁶ Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, pp. 1-73).

⁵⁷ Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risks (OJ L 288, 6.11.2007, p. 27).

⁵⁸ Communication from the European Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Forging a climate-resilient Europe - the new EU Strategy on Adaptation to Climate Change COM(2021)82 final.

⁵⁹ Regulation (EU) 2018/841 of the European Parliament and of the Council of 30 May 2018 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework, and amending Regulation (EU) No 525/2013 and Decision No

⁵³ OP : please insert please insert in the text the number of Regulation on nature restoration contained in document COM(2022) 304 and insert the number, date, title and OJ reference of that Regulation in the footnote Regulation (UE) .../... of the European Parliament and of the Council on nature restoration

⁵⁴ Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ L 375, 31.12.1991, p. 1).

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⁵⁶ Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, pp. 1-73).

⁵⁷ Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risks (OJ L 288, 6.11.2007, p. 27).

⁵⁸ Communication from the European Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Forging a climate-resilient Europe - the new EU Strategy on Adaptation to Climate Change COM(2021)82 final.

529/2013/EU (OJ L 156, 19.6.2018, p. 1).

60 Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013 (OJ L 156, 19.6.2018, p. 26).

⁶¹ Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council (OJ L 328, 21.12.2018, p. 1).

⁶² Directive (EU) 2016/2284 of the European Parliament and of the Council of 14 December 2016 on the reduction of national emissions of certain atmospheric pollutants, amending Directive 2003/35/EC and repealing Directive 2001/81/EC (OJ L 344, 17.12.2016, p. 1).

⁶³ Decision No 1313/2013/EU of the European Parliament and of the Council of 17 December 2013 on a Union Civil Protection Mechanism (OJ L 347, 20.12.2013, p. 924).

⁶⁴ + OP: please insert in the text the number of the Regulation on the sustainable use of plant protection products and amending Regulation (EU) 2021/2115 contained in document COM(2022)305 and insert the number, date, title and OJ reference of that Directive in the footnote

⁶⁵ Regulation (EU) 2022/2379 on statistics on agricultural input and output.

⁶¹ Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council (OJ L 328, 21.12.2018, p. 1).

⁶² Directive (EU) 2016/2284 of the European Parliament and of the Council of 14 December 2016 on the reduction of national emissions of certain atmospheric pollutants, amending Directive 2003/35/EC and repealing Directive 2001/81/EC (OJ L 344, 17.12.2016, p. 1).

⁶³ Decision No 1313/2013/EU of the European Parliament and of the Council of 17 December 2013 on a Union Civil Protection Mechanism (OJ L 347, 20.12.2013, p. 924).

⁶⁴ + OP: please insert in the text the number of the Regulation on the sustainable use of plant protection products and amending Regulation (EU) 2021/2115 contained in document COM(2022)305 and insert the number, date, title and OJ reference of that Directive in the footnote

⁶⁵ Regulation (EU) 2022/2379 on statistics on agricultural input and output.

Amendment 28

Proposal for a directive Recital 48

Text proposed by the Commission

(48) Transparency is an essential component of soil policy and ensures public accountability and awareness, fair market conditions and the monitoring of progress. Therefore, Member States should set up and maintain a national register of contaminated sites and potentially contaminated sites which contains site-specific information that should be made publicly accessible in an online georeferenced spatial database. The register should contain the information that is necessary for the public to be informed on the existence and on the management of potentially contaminated sites and contaminated sites. Because the presence of soil contamination is not yet confirmed but only suspected on potentially contaminated sites, the difference between contaminated sites and potentially contaminated sites has to be communicated and explained well to the public to avoid raising unnecessary concern.

Amendment

(48) Transparency is an essential component of soil policy and ensures public accountability and awareness, fair market conditions and the monitoring of progress. Therefore, Member States should set up and maintain a national register of contaminated sites and potentially contaminated sites which contains site-specific information that should be made publicly accessible in an online georeferenced spatial database, ***without disclosing the identity of the owner of the site.*** The register should contain the information that is necessary for the public to be informed on the existence and on the management of potentially contaminated sites and contaminated sites. Because the presence of soil contamination is not yet confirmed but only suspected on potentially contaminated sites, the difference between contaminated sites and potentially contaminated sites has to be communicated and explained well to the public to avoid raising unnecessary concern.

Amendment 29

Proposal for a directive Recital 49

Text proposed by the Commission

(49) Article 19(1) of the Treaty on European Union (TEU) requires Member States to provide remedies sufficient to ensure effective judicial protection in the fields covered by Union law. In addition, in accordance with the Convention on

Amendment

deleted

access to information, public participation in decision-making and access to justice in environmental matters (Aarhus Convention)⁶⁸, members of the public concerned should have access to justice in order to contribute to the protection of the right to live in an environment which is adequate for personal health and well-being.

⁶⁸ *Convention on access to information, public participation in decision-making and access to justice in environmental matters – Declaration, (OJ L 124, 17.5.2005).*

Amendment 30

Proposal for a directive Recital 50

Text proposed by the Commission

Amendment

(50) Directive (EU) 2019/1024 of the European Parliament and of the Council⁶⁹ mandates the release of public sector data in free and open formats. The overall objective is to continue the strengthening of the EU's data economy by increasing the amount of public sector data available for re-use, ensuring fair competition and easy access to public sector information, and enhancing cross-border innovation based on data. The main principle is that government data should be open by default and design. Directive 2003/4/EC of the European Parliament and of the Council⁷⁰ is aimed at guaranteeing the right of access to environmental information in the Member States in line with the Aarhus Convention. The Aarhus Convention and Directive 2003/4/EC encompass broad obligations related both to making environmental information available upon request and actively disseminating such information. Directive 2007/2/EC of

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the European Parliament and of the Council⁷¹ is also of broad scope, covering the sharing of spatial information, including data sets on different environmental topics. It is important that provisions of this Directive related to access to information and data-sharing arrangements complement those Directives and do not create a separate legal regime. Therefore, the provisions of this Directive regarding information to the public and information on monitoring of implementation should be without prejudice to Directives (EU) 2019/1024, 2003/4/EC and 2007/2/EC.

⁶⁹ *Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE) (OJ L 108, 25.4.2007, p. 1).*

⁷⁰ *Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC (OJ L 41, 14.2.2003, p. 26).*

⁷¹ *Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE) (OJ L 108, 25.4.2007, p. 1).*

Amendment 31

Proposal for a directive Recital 51

Text proposed by the Commission

Amendment

(51) In order to ensure the necessary adaptation of the rules on soil health monitoring, sustainable soil management and management of contaminated sites,

deleted

the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union should be delegated to the Commission in respect of amending this Directive to adapt to technical and scientific progress the methodologies for monitoring soil health, the list of sustainable soil management principles, the indicative list of risk reduction measures, the phases and requirements for the site-specific risk assessment and the content of the register of contaminated and potentially contaminated sites. It is of particular importance that the Commission carries out appropriate consultations during its preparatory work, including at expert level, and that those consultations be conducted in accordance with the principles laid down in the Interinstitutional Agreement on Better Law-Making of 13 April 2016⁷². In particular, to ensure equal participation in the preparation of delegated acts, the European Parliament and the Council receive all documents at the same time as Member States' experts, and their experts systematically have access to meetings of Commission expert groups dealing with the preparation of delegated acts.

⁷² *Interinstitutional Agreement between the European Parliament, the Council of the European Union and the European Commission on Better Law-Making of 13 April 2016 (OJ L 123, 12.5.2016, p. 1).*

Amendment 32

Proposal for a directive Recital 53

Text proposed by the Commission

(53) The Commission should carry out an evidence-based evaluation and, where relevant, a revision of this Directive, **6**

Amendment

(53) The Commission should carry out an evidence-based evaluation and, where relevant, a revision of this Directive, **15**

years after its entry into force on the basis of the results of the soil health assessment. The evaluation should assess in particular the need to set more specific requirements to make sure **unhealthy** soils are regenerated and the objective to achieve healthy soils by 2050 is achieved. ***The evaluation should also assess the need to adapt the definition of healthy soils to scientific and technical progress by adding provisions on certain descriptors or criteria based on new scientific evidence relating to the protection of soils or on the grounds of a problem specific to a Member State arising from new environmental or climatic circumstances. Pursuant to paragraph 22 of the Interinstitutional Agreement on Better Law-Making, that evaluation should be based on the criteria of efficiency, effectiveness, relevance, coherence and EU value added and should provide the basis for impact assessments of possible further measures.***

Amendment 33

Proposal for a directive Recital 54

Text proposed by the Commission

(54) Coordinated measures by all Member States are necessary to achieve the vision to have all soils **healthy** by 2050 and to secure the provision of ecosystem services by soils across the Union in the long-term. Individual actions of Member States have proven ***to be insufficient since the soil degradation is continuing and even deteriorating. Since the objectives of this Directive cannot be sufficiently achieved by the Member States but can rather, by reason of the scale and effects of the action, be better achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 TEU.*** In

years after its entry into force on the basis of the results of the soil health assessment. The evaluation should assess in particular the need to set more specific requirements to make sure **degraded** soils are regenerated and the objective to achieve healthy soils by 2050 is achieved.

Amendment

(54) Coordinated measures by all Member States are necessary to achieve the vision to have all soils **healthier** by 2050 and to secure the provision of ecosystem services by soils across the Union in the long-term. Individual actions of Member States have proven ***that more time is needed as soil improves at a fairly slow pace due to its immobility.*** In accordance with the principle of proportionality as set out in that Article, this Directive does not go beyond what is necessary in order to achieve those objectives.

accordance with the principle of proportionality as set out in that Article, this Directive does not go beyond what is necessary in order to achieve those objectives.

Amendment 34

Proposal for a directive Recital 55 a (new)

Text proposed by the Commission

Amendment

(55a) Living Labs are expected to cover Europe with a certain density and can be expected to have a role in the monitoring efforts and in disseminating good practices, as well as supporting their application. Living Labs could have a crucial role particularly in supporting the large majority of farmers and land managers who have difficult access to knowledge and lack financial capacity to introduce soil regenerative practices.

Amendment 35

Proposal for a directive Article 1 – paragraph 1

Text proposed by the Commission

Amendment

1. The objective of the Directive is 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 and maintain soils in healthy condition***, so that they can supply multiple ecosystem services at a scale sufficient to meet environmental, societal and economic needs, prevent and mitigate the impacts of climate change and biodiversity loss, increase the resilience against natural disasters and for food security and that soil contamination is reduced to levels no

1. The objective of the Directive is to put in place a coherent ***and flexible*** soil monitoring framework for all soils across the EU so that they can supply multiple ecosystem services, ***taking into account of technical feasibility and economic proportionality and their intended use***, at a scale sufficient to meet environmental, societal and economic needs, prevent and mitigate the impacts of climate change and biodiversity loss, increase the resilience against natural disasters and for food security and that soil contamination is reduced to levels no longer considered harmful to human health and the

longer considered harmful to human health and the environment.

environment.

Amendment 36

Proposal for a directive

Article 1 – paragraph 2 – point b

Text proposed by the Commission

Amendment

(b) *sustainable soil management;*

deleted

Amendment 37

Proposal for a directive

Article 1 – paragraph 2 – point c

Text proposed by the Commission

Amendment

(c) contaminated sites.

(c) *monitoring and assesment of* contaminated sites.

Amendment 38

Proposal for a directive

Article 2 – paragraph 1

Text proposed by the Commission

Amendment

This Directive applies to all soils in the territory of Member States.

This Directive applies to all soils in the territory of Member States *when EU action is proven to be more beneficial than national action by Member States.*

Amendment 39

Proposal for a directive

Article 3 – paragraph 1 – point 1

Text proposed by the Commission

Amendment

(1) ‘soil’ means the *top layer of* the Earth’s crust situated between the bedrock and the land surface, which is composed of mineral particles, organic matter, *water*, air and living organisms;

(1) ‘soil’ means the *rooting zone of plants in* the Earth’s crust situated between the bedrock and the land surface, which is composed of mineral particles, organic matter, *liquid components*, air and living organisms, *excluding groundwater, aquifers, water beds and raw material*

deposits;

Amendment 40
Proposal for a directive
Article 3 – paragraph 1 – point 3

Text proposed by the Commission

(3) ‘ecosystem services’ means indirect contributions of ecosystems to the economic, social, cultural and other benefits that people derive from those ecosystems;

Amendment

(3) ‘ecosystem services’ means indirect contributions of ecosystems to the economic, social, cultural and other benefits that people derive from those ecosystems, ***taking into account the specific nature of the site being monitored, with reference to soil and climatic conditions, soil management and, for agricultural sites, the type of crops grown;***

Amendment 41
Proposal for a directive
Article 3 – paragraph 1 – point 4

Text proposed by the Commission

(4) ‘soil health’ means the physical, chemical and biological condition of the soil determining *its* capacity to function as a vital living system and to provide ecosystem services;

Amendment

(4) ‘soil health’ means the physical, chemical and biological condition of the soil determining ***taking into account its productivity and*** capacity to function as a vital living system and to provide ecosystem services ***and improve the vitality of the food production while taking into account the land use, type of land and fitting the function the soil has or intended to have;***

Amendment 42
Proposal for a directive
Article 3 – paragraph 1 – point 5

Text proposed by the Commission

(5) ‘sustainable soil management’ means soil management practices that maintain or enhance the ecosystem services

Amendment

(5) ‘sustainable soil management’ means soil management practices that ***aim to*** maintain or enhance the ***soil*** ecosystem

provided by the soil without impairing the functions enabling those services, or being detrimental to other properties of the environment;

services *taking into account the socio economic effects;*

Amendment 43
Proposal for a directive
Article 3 – paragraph 1 – point 8

Text proposed by the Commission

(8) ‘soil district’ means the part of the territory of a Member State, as ***delimited*** by that Member State in accordance with this Directive;

Amendment

(8) ‘soil district’ means the part of the territory of a Member State, as ***defined*** by that Member State in accordance with this Directive ***and in consultation with the local authorities, taking into account the already existing administrative and territorial governance structure;***

Amendment 44
Proposal for a directive
Article 3 – paragraph 1 – point 9

Text proposed by the Commission

(9) ‘soil health assessment’ means the evaluation of the ***health*** of the soil based on the measurement or estimation of soil descriptors;

Amendment

(9) ‘soil health assessment’ means the evaluation of the ***biological and productive status*** of the soil based on the measurement or estimation of soil descriptors;

Amendment 45
Proposal for a directive
Article 3 – paragraph 1 – point 15 a (new)

Text proposed by the Commission

Amendment

(15 a) 'agricultural productive land' means an area where the conditions of the soil has been optimised to sustain or increase the ecosystem services agricultural production provides;

Amendment 46
Proposal for a directive

Article 3 – paragraph 1 – point 17

Text proposed by the Commission

(17) ‘land take’ means the conversion of natural and semi-natural land into artificial land;

Amendment

(17) ‘land take’ means the conversion of natural and semi-natural land **and agricultural productive land** into artificial land;

Amendment 47

Proposal for a directive

Article 3 – paragraph 1 – point 18

Text proposed by the Commission

(18) ‘transfer function’ means a **mathematical** rule that allows to convert the value of a measurement, performed using a methodology different from a reference methodology, into the value that would be obtained by performing the soil measurement using the reference methodology;

Amendment

(18) ‘transfer function’ means a rule that allows to convert the value of a measurement, performed using a methodology different from a reference methodology, into the value that would be obtained by performing the soil measurement using the reference methodology;

Amendment 48

Proposal for a directive

Article 3 – paragraph 1 – point 19

Text proposed by the Commission

(19) ‘public concerned’ means the public affected or likely to be affected by soil degradation, or having an interest in the decision-making procedures related to the implementation of the obligations under this Directive, including land owners and land users, as well as non-governmental organisations promoting the protection of human health or the environment and meeting any requirements under national law.

Amendment

(19) ‘public concerned’ means the public affected or likely to be affected by soil degradation, or having an interest in the decision-making procedures related to the implementation of the obligations under this Directive, including land owners, **land managers** and land users, as well as non-governmental organisations promoting the protection of human health or the environment and meeting any requirements under national law.

Amendment 49

Proposal for a directive

Article 3 – paragraph 1 – point 20

Text proposed by the Commission

(20) ‘soil contamination’ means the presence of a chemical or substance in the soil in a concentration that **may be harmful** to human health or the environment;

Amendment

(20) ‘soil contamination’ means the presence of a chemical or substance in the soil in a concentration that **causes a risk** to human health or **an unacceptable risk to** the environment;

Amendment 50
Proposal for a directive
Article 4 – paragraph 1 – subparagraph 1

Text proposed by the Commission

Member States **shall** establish soil districts throughout their territory.

Amendment

Member States **may** establish soil districts throughout their territory.

Amendment 51
Proposal for a directive
Article 4 – paragraph 1 – subparagraph 2

Text proposed by the Commission

The number of soil districts for each Member State shall as a minimum correspond to the number of NUTS 1 territorial units established under Regulation (EC) No 1059/2003.

Amendment

deleted

Amendment 52
Proposal for a directive
Article 4 – paragraph 2 – introductory part

Text proposed by the Commission

2. When establishing the geographic extent of soil districts, Member States may take into account existing administrative units **and shall seek homogeneity within each soil district regarding** the following parameters:

Amendment

2. When establishing the geographic extent of soil districts, Member States may take into account existing administrative units **in order to avoid administrative overload and may use such as** the following parameters:

Amendment 53

Proposal for a directive
Article 4 – paragraph 2 – point d

Text proposed by the Commission

(d) land use or land cover as used in the Land Use/Cover Area frame statistical Survey (LUCAS) programme.

Amendment

(d) land use or land cover as used in the Land Use/Cover Area frame statistical Survey (LUCAS) programme, ***or as used in the national programme already in place;***

Amendment 54
Proposal for a directive
Article 4 – paragraph 2 – point d a (new)

Text proposed by the Commission

Amendment

(d a) the existence of remote archipelagic regions with islands scattered between them, with each island corresponding to a soil district;

Amendment 55
Proposal for a directive
Article 4 – paragraph 2 – point d b (new)

Text proposed by the Commission

Amendment

(d b) soil slope;

Amendment 56
Proposal for a directive
Article 4 – paragraph 2 – point d c (new)

Text proposed by the Commission

Amendment

(d c) use of COPERNICUS on the soil districts delimitation;

Amendment 57
Proposal for a directive
Article 4 – paragraph 2 a (new)

Text proposed by the Commission

Amendment

2 a. *The Commission shall provide:*

(a) scientific input and assistance to Member States in establishing soil districts throughout their territory, upon request;

(b) support Member States to ensure a coherent cross border approach is taken for soil districts, and shall facilitate harmonization of monitoring systems, transfer functions, monitoring design and classification of ecological status at the level of the soil descriptors listed in Annex I.

Amendment 58
Proposal for a directive
Article 5 – paragraph 1

Text proposed by the Commission

Member States **shall** designate the competent authorities responsible at an appropriate level for carrying out the duties laid down in this Directive.

Amendment

It shall be for the Member States, ***in conjunction with their regional authorities, where applicable, to designate by ... [OP: please insert the date = 18 months from the date of entry into force of this Directive]*** the competent authorities responsible, at an appropriate level, for carrying out the duties laid down in this Directive. ***Competent authorities pertaining to different Member States shall ensure efficient cross-border cooperation for soil districts at bordering a neighbouring Member State, in order to carry out the duties laid down in this Directive.***

Amendment 59
Proposal for a directive
Article 5 – paragraph 2

Text proposed by the Commission

Member States shall **designate one** competent **authority for each soil district**

Amendment

Member States shall **inform the Commission on designated** competent

established in accordance with Article 4.

authorities for soil districts established in accordance with Article 4. ***The Commission shall make the list of the competent authorities available for the public on its website without undue delay. The Commission shall regularly update the list, based on updates received from Member States.***

Amendment 60
Proposal for a directive
Article 6 – paragraph 1

Text proposed by the Commission

1. Member States shall establish a monitoring framework based on the soil districts established in accordance with Article 4(1), to ensure that regular and accurate monitoring of soil health is carried out in accordance with this Article and Annexes I and II.

Amendment

1. Member States shall establish a monitoring framework ***that may be*** based on the soil districts established in accordance with Article 4(1), to ensure that regular and accurate monitoring of soil health is carried out in accordance with this Article and Annexes I and II.

Amendment 61
Proposal for a directive
Article 6 – paragraph 2

Text proposed by the Commission

2. Member States shall monitor soil health and land take in each soil district.

Amendment

2. Member States shall monitor soil health and land take in each soil district. ***The aforementioned monitoring activities must not incur any financial burden for the land managers.***

Amendment 62
Proposal for a directive
Article 6 – paragraph 3 – point d

Text proposed by the Commission

(d) the remote sensing data and products referred to in paragraph 5 of this Article, if any;

Amendment

(d) the remote sensing data, ***proven scientifically*** and products referred to in paragraph 5 of this Article, if any;

Amendment 63
Proposal for a directive
Article 6 – paragraph 3 – point e a (new)

Text proposed by the Commission

Amendment

(e a) existing national monitoring frameworks should be prioritised.

Amendment 64
Proposal for a directive
Article 6 – paragraph 4

Text proposed by the Commission

Amendment

4. The Commission shall, subject to agreement from Member States concerned, carry out regular soil measurements on soil samples taken in-situ, based on the relevant descriptors and methodologies referred to in Articles 7 and 8, to support Member States' monitoring of soil health. Where a Member State provides agreement in accordance with this paragraph, it shall ensure that the Commission can carry out such in-situ soil sampling.

deleted

Amendment 65
Proposal for a directive
Article 6 – paragraph 6 – introductory part

Text proposed by the Commission

Amendment

6. The Commission and the EEA shall, on the basis of existing data and within two years of the entry into force of this Directive, establish a digital soil health data portal that shall provide access in georeferenced spatial format **to at least** the available soil health data resulting from:

6. The Commission and the EEA shall, on the basis of existing data and within two years of the entry into force of this Directive, establish a digital soil health data portal that shall provide access in **anonymised** georeferenced spatial format **without disclosing the identity of the owner of the site, on** the available soil health data resulting from:

Amendment 66

Proposal for a directive
Article 6 – paragraph 6 – point b

Text proposed by the Commission

Amendment

(b) the soil measurements referred to in paragraph 4 of this Article; **deleted**

Amendment 67
Proposal for a directive
Article 6 – paragraph 7

Text proposed by the Commission

Amendment

7. The digital soil health data portal referred to in paragraph 6 may also provide access to other soil health related data than the data referred to in that paragraph if those data were shared or collected in accordance with the formats or methods established by the Commission pursuant to paragraph 8. **deleted**

Amendment 68
Proposal for a directive
Article 6 – paragraph 8

Text proposed by the Commission

Amendment

8. The Commission shall adopt implementing acts to establish formats or methods for sharing or collecting the data referred to in paragraph 7 or for integrating those data in the digital soil health data portal. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 21. **deleted**

Amendment 69
Proposal for a directive
Article 7 – paragraph 1 – subparagraph 1

Text proposed by the Commission

Amendment

When monitoring and assessing soil **health**, Member States **shall** apply the soil descriptors **and soil health criteria** listed in Annex I.

When monitoring and assessing soil Member States **may** apply the soil descriptors **that best illustrate the soil characteristics in each soil type at national level** listed in Annex I.

When monitoring land take, Member States shall apply the land take and soil sealing indicators referred to in Annex I.

Amendment 70
Proposal for a directive
Article 7 – paragraph 2

Text proposed by the Commission

2. Member States may adapt the soil descriptors and the soil health criteria referred to in part A of Annex I, in accordance with the specifications referred to in the second and third columns in part A of Annex I.

Amendment

2. Member States may adapt the soil descriptors and the soil health criteria referred to in part A of Annex I, in accordance with the **national and local** specifications **on soil health** referred to in the second and third columns in part A of Annex I.

Amendment 71
Proposal for a directive
Article 7 – paragraph 4

Text proposed by the Commission

4. Member States shall set soil health criteria for the soil descriptors listed in part B of Annex I **in accordance with the provisions set out in the third column in part B of Annex I.**

Amendment

4. Member States shall set soil health criteria for the soil descriptors listed in part B of Annex I **based on the local needs.**

Amendment 72
Proposal for a directive
Article 7 – paragraph 5

Text proposed by the Commission

5. **Member States may set additional soil descriptors and land take indicators, including but not limited to the optional descriptors and indicators listed in part C**

Amendment

deleted

and D of Annex I, for monitoring purposes ('additional soil descriptors' and 'additional land take indicators').

Amendment 73
Proposal for a directive
Article 7 – paragraph 5 a (new)

Text proposed by the Commission

Amendment

5 a. Member States may adapt the soil descriptors and soil health criteria referred to in paragraphs 1 to 4 applying to agricultural productive land for social, environmental and economic sustainability purposes.

Amendment 74
Proposal for a directive
Article 7 – paragraph 6

Text proposed by the Commission

Amendment

6. Member States shall inform the Commission when soil descriptors, land take indicators and soil health criteria are set or adapted in accordance with paragraphs 2 to 5 of this Article.

6. Member States shall inform the Commission when soil descriptors, land take indicators and soil health criteria are set or adapted in accordance with paragraphs 2 to 4 of this Article.

Amendment 75
Proposal for a directive
Article 8 – paragraph 1

Text proposed by the Commission

Amendment

1. Member States shall determine sampling points by applying the methodology set out in part A of Annex II.

1. Member States shall determine sampling points by applying the methodology set out in part A of Annex II **taking into account risk assessments based on existing monitoring systems.**

Amendment 76
Proposal for a directive
Article 8 – paragraph 3 – subparagraph 2

Text proposed by the Commission

Amendment

Member States may apply other methodologies than the ones listed in the first subparagraph, points (a) and (b), ***provided that validated transfer functions are available***, as required in Annex II, part B, fourth column.

Member States may apply other ***equivalent*** methodologies than the ones listed in the first subparagraph, points (a) and (b), as required in Annex II, part B, fourth column.

Amendment 77
Proposal for a directive
Article 8 – paragraph 5 – subparagraph 1

Text proposed by the Commission

Amendment

Member States shall ensure that new soil measurements are performed at least every **5** years.

Member States shall ensure that new soil measurements are performed at least every **10 years or sufficient timeframe in corresponding the sampling interval**.

Amendment 78
Proposal for a directive
Article 8 – paragraph 5 – subparagraph 2

Text proposed by the Commission

Amendment

Member States shall ensure that the value of the land take and soil sealing indicators are updated at least every year.

deleted

Amendment 79
Proposal for a directive
Article 8 – paragraph 6

Text proposed by the Commission

Amendment

6. *The Commission is empowered to adopt delegated acts in accordance with Article 20 to amend Annex II in order to adapt the reference methodologies mentioned in it to scientific and technical progress, in particular where values of soil descriptors can be determined by remote sensing referred to in Article 6(5).*

deleted

Amendment 80
Proposal for a directive
Article 9 – paragraph 1

Text proposed by the Commission

Member States shall assess the soil health ***in all*** their ***soil districts*** based on the data collected in the context of the monitoring referred to in Articles 6, 7 and 8 for each of the soil descriptors referred to in Parts A and B of Annex I.

Member States shall also take into account the data collected in the context of soil investigations referred to in Article 14.

Member States shall ensure that soil health assessments are performed at least every **5** years and that the first soil health assessment is performed by ... (OP: please insert the date = **5** years after date of entry into force of the Directive).

Amendment 81
Proposal for a directive
Article 9 – paragraph 2

Text proposed by the Commission

2. A soil is considered healthy in accordance with this Directive where the following cumulative conditions are fulfilled:

(a) the values for all soil descriptors listed in part A of Annex I meet the criteria laid down therein and, where applicable, adapted in accordance with Article 7;

(b) the values for all soil descriptors listed in part B of Annex I meet the criteria set in accordance with Article 7 ('healthy

Amendment

Member States shall, ***in conjunction with their regional authorities, where applicable,*** assess the soil health, ***related to the intended function of their soils,*** based on the data collected in the context of the monitoring referred to in Articles 6, 7 and 8 for each of the soil descriptors referred to in Parts A and B of Annex I ***taking account the reasoned changes on land use at the sampling areas and the natural and historical circumstances of the soil.***

Member States shall also take into account the data collected in the context of soil investigations referred to in Article 14.

Member States shall ensure that soil health assessments are performed at least every **10** years and that the first soil health assessment is performed by ... (OP: please insert the date = **10** years after date of entry into force of the Directive).

Amendment

deleted

soil’).

By way of derogation from the first subparagraph the assessment of soils within a land area listed in the fourth column of Annex I, shall not take into account the values set out in the third column for that land area.

Soil is unhealthy where at least one of the criteria referred to in subparagraph 1 is not met (‘unhealthy soil’).

Amendment 82
Proposal for a directive
Article 9 – paragraph 3

Text proposed by the Commission

Member States shall analyse the values for the soil descriptors listed in part C of Annex I and assess whether there is a critical loss of ecosystem services, taking into account the relevant data and available scientific knowledge.

Member States shall analyse the values of land take and soil sealing indicators listed in part D of Annex I and assess their impact on the loss of ecosystem services ***and on the objectives and targets established under Regulation (EU) 2018/841.***

Amendment 83
Proposal for a directive
Article 9 – paragraph 4

Text proposed by the Commission

4. Based on the assessment of soil health carried out in accordance with this Article, the competent authority shall, where relevant in coordination with local, regional, national authorities, identify, ***in each soil district,*** the areas which present unhealthy soils and inform ***the public in***

Amendment

Member States shall analyse the values for the soil descriptors listed in part C of Annex I and assess whether there is a critical loss of ecosystem services ***relating to the intended function of the soil,*** taking into account the relevant data and available scientific knowledge.

Member States shall analyse the values of land take and soil sealing indicators listed in part D of Annex I and assess their impact on the loss of ecosystem services ***relating to the intended function of the soil.***

Amendment

4. Based on the assessment of soil health carried out in accordance with this Article, the competent authority shall, where relevant in coordination with local, regional, national authorities, identify, the areas which present unhealthy soils, ***in relation to the intended function of their***

accordance with Article 19.

*soils, and inform **directly the land owners and land managers.***

Amendment 84
Proposal for a directive
Article 9 – paragraph 5

Text proposed by the Commission

Amendment

5. *Member States shall set up a mechanism for a voluntary soil health certification for land owners and managers pursuant to the conditions in paragraph 2 of this Article.*

deleted

The Commission may adopt implementing acts to harmonise the format of soil health certification. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 21.

Amendment 85
Proposal for a directive
Article 9 – paragraph 6

Text proposed by the Commission

Amendment

6. Member States shall communicate soil health data and assessment referred to in Articles 6 to 9 to the relevant land owners and land managers *upon their request*, in particular to support the development of the advice referred to in Article 10(3).

6. Member States shall communicate *automatically* soil health data and assessment referred to in Articles 6 to 9 to the relevant land owners and land managers *within relevant timeframe*, in particular to support the development of the advice referred to in Article 10(3).

Amendment 86
Proposal for a directive
Article 10 – paragraph 1

Text proposed by the Commission

Amendment

1. *From (OP: please insert the date = 4 years after date of entry into force of the Directive), Member States shall take at least the following measures, taking into*

deleted

account the type, use and condition of soil:

(a) defining sustainable soil management practices respecting the sustainable soil management principles listed in Annex III to be gradually implemented on all managed soils and, on the basis of the outcome of the soil assessments carried out in accordance with Article 9, regeneration practices to be gradually implemented on the unhealthy soils in the Member States;

(b) defining soil management practices and other practices affecting negatively the soil health to be avoided by soil managers.

When defining the practices and measures referred to in this paragraph, Member States shall take into account the programmes, plans, targets and measures listed in Annex IV as well as the latest existing scientific knowledge including results coming out of the Horizon Europe Mission a Soil Deal for Europe.

Member States shall identify synergies with the programmes, plans and measures set out in Annex IV. The soil health monitoring data, the results of the soil health assessments, the analysis referred to in Article 9 and the sustainable soil management measures shall inform the development of the programmes, plans and measures set out in Annex IV.

Member States shall ensure that the process of elaboration of the practices referred to in the first subparagraph is open, inclusive and effective and that the public concerned, in particular landowners and managers, are involved and are given early and effective opportunities to participate in their elaboration.

Amendment 87
Proposal for a directive

Article 10 – paragraph 2 – subparagraph 1

Text proposed by the Commission

Member States shall ensure easy access to impartial and independent advice on sustainable soil management, training activities and capacity building for soil managers, landowners and relevant authorities.

Amendment

Member States shall ensure easy access to impartial and independent advice on sustainable soil management, training activities and capacity building for soil managers, landowners, **land managers** and relevant authorities.

Amendment 88

Proposal for a directive

Article 10 – paragraph 2 – subparagraph 2 – point b

Text proposed by the Commission

(b) promoting research and implementation of **holistic** soil management concepts;

Amendment

(b) promoting research, **innovation** and implementation of **sustainable** soil management concepts;

Amendment 89

Proposal for a directive

Article 10 – paragraph 3

Text proposed by the Commission

3. Member States shall regularly assess the effectiveness of the measures taken in accordance with this Article and, where relevant, review and revise those measures, taking into account the soil health monitoring and assessment referred to in Articles 6 to 9.

Amendment

deleted

Amendment 90

Proposal for a directive

Article 10 – paragraph 4

Text proposed by the Commission

4. The Commission is empowered to adopt delegated acts in accordance with Article 20 to amend Annex III in order to adapt the sustainable soil management

Amendment

deleted

principles to take into account scientific and technical progress.

Amendment 91

Proposal for a directive

Article 11 – paragraph 1 – introductory part

Text proposed by the Commission

Member States *shall ensure that* the following *principles are respected* in case of land take:

Amendment

Member States *are encouraged to considere* the following *aspects* in case of land take, *while taking into account local specificities*:

Amendment 92

Proposal for a directive

Article 11 – paragraph 1 – point a – introductory part

Text proposed by the Commission

(a) avoid or reduce as much as technically *and* economically possible the loss of the capacity of the soil to provide multiple ecosystem services, including food production, by:

Amendment

(a) avoid or reduce as much as technically, *socially* economically possible the loss of the capacity of the soil to provide multiple ecosystem services, including *agriculture*, food production *and sustainable forest management* by:

Amendment 93

Proposal for a directive

Article 11 – paragraph 1 – point a – point i

Text proposed by the Commission

(i) reducing the area affected by the land take *to the extent* possible and

Amendment

(i) reducing the area affected by the land take *where* possible and

Amendment 94

Proposal for a directive

Article 11 – paragraph 1 – point a – point ii

Text proposed by the Commission

(ii) selecting areas where the loss of ecosystem services would be minimized

Amendment

(ii) selecting areas where the loss of ecosystem services would be minimized,

and

taking into account the socio-economic balance of the territory concerned, and

Amendment 95

Proposal for a directive

Article 11 – paragraph 1 – point a – point iii

Text proposed by the Commission

Amendment

(iii) performing the land take in a way that minimizes the negative impact on soil;

deleted

Amendment 96

Proposal for a directive

Article 11 – paragraph 1 – point b

Text proposed by the Commission

Amendment

(b) compensate *as much as possible* the loss of soil capacity to provide multiple ecosystem services.

(b) compensate *landowners for* the loss of soil capacity to provide multiple ecosystem services *and/or food production*.

Amendment 97

Proposal for a directive

Article 12 – paragraph 1

Text proposed by the Commission

Amendment

1. Member States shall manage the risks for human health and the environment of potentially contaminated sites and contaminated sites, and keep them to acceptable levels, taking account of the environmental, social and economic impacts of the soil contamination and of the risk reduction measures taken pursuant to Article 15 paragraph 4.

1. Member States shall manage the risks for human health and the environment of potentially contaminated sites and contaminated sites, and keep them to acceptable levels, taking account of the environmental, social and economic impacts of the soil contamination and of the risk reduction measures taken pursuant to Article 15 paragraph 4. ***Human health risk assessments should always be based on type of land use.***

Amendment 98

Proposal for a directive

Article 12 – paragraph 4 – point c

Text proposed by the Commission

(c) to request correction of information contained in the register for contaminated sites and potentially contaminated sites in accordance with Article 16.

Amendment

deleted

Amendment 99

Proposal for a directive

Article 12 – paragraph 4 a (new)

Text proposed by the Commission

Amendment

4 a. On the potentially contaminated soils, land owners and land managers must be given opportunity to provide relevant information and justifications in accordance with the Article 14.

Amendment 100

Proposal for a directive

Article 13 – paragraph 1

Text proposed by the Commission

Amendment

1. Member States shall systematically and actively identify all sites where a soil contamination is suspected based on evidence collected through **all available** means ('potentially contaminated sites').

1. Member States shall, **in conjunction with their regional or local authorities, where applicable,** systematically and actively identify all sites where a soil contamination is suspected based on evidence collected through **appropriate** means **and set procedures** ('potentially contaminated sites').

Amendment 101

Proposal for a directive

Article 13 – paragraph 3

Text proposed by the Commission

Amendment

3. Member States shall ensure that all potentially contaminated sites are

3. Member States shall ensure, **with conjunction with their regional or local**

identified by (OP: please insert date = 7 years after date of entry into force of the Directive) and are duly recorded in the register referred to in Article 16 by that date.

authorities, where applicable, that all potentially contaminated sites are identified by (OP: please insert date = 7 years after date of entry into force of the Directive) and are duly recorded in the register referred to in Article 16 by that date.

Amendment 102
Proposal for a directive
Article 14 – paragraph 1

Text proposed by the Commission

1. Member States shall ensure that all potentially contaminated sites identified in accordance with Article 13 are subject to soil investigation.

Amendment

1. Member States shall ensure that all potentially contaminated sites identified in accordance with Article 13 are subject to soil investigation, **where appropriate and in order of priorities**.

Amendment 103
Proposal for a directive
Article 14 – paragraph 2

Text proposed by the Commission

Member States shall lay down the rules concerning the deadline, content, form and the prioritisation of the soil investigations. Those rules shall be established in accordance with the risk-based approach referred to in Article 12 and the list of potentially contaminating risk activities referred to in Article 13(2), second subparagraph.

Member States may consider baseline reports and monitoring measures implemented in accordance with the Directive 2010/75/EU as soil investigation where appropriate.

Amendment

Member States shall lay down the rules concerning the deadline, content, form and the prioritisation of the soil investigations, **taking duly into account environmental economic and social effects**. Those rules shall be established in accordance with the risk-based approach referred to in Article 12 and the list of potentially contaminating risk activities referred to in Article 13(2), second subparagraph.

Member States may consider baseline reports and monitoring measures implemented in accordance with the Directive 2010/75/EU as soil investigation where appropriate.

Amendment 104
Proposal for a directive
Article 15 – paragraph 3

Text proposed by the Commission

3. For each contaminated site identified pursuant to Article 14 or by any other means, the responsible competent authority shall carry out a site-specific assessment for the current and planned land uses to determine whether the contaminated site poses unacceptable risks for human health or the environment.

Amendment

3. For each contaminated site identified pursuant to Article 14 or by any other means, the responsible competent authority shall carry out a site-specific assessment for the current and planned land uses to determine whether the contaminated site poses unacceptable risks for human health or the environment. ***Member States may, where appropriate, consider assessments carried out in accordance with Directive 2011/92/EU and/or Directive 2010/75/EU and/or Directive 2012/18/EU sufficient.***

Amendment 105
Proposal for a directive
Article 15 – paragraph 5

Text proposed by the Commission

5. The risk reduction measures may consist of the measures referred to in Annex V. When deciding on the appropriate risk reduction measures, the competent authority shall take into consideration the costs, benefits, effectiveness, durability, and technical feasibility of available risk reduction measures.

Amendment

5. The risk reduction measures may consist of the measures referred to in Annex V. When deciding on the appropriate risk reduction measures ***and timing of the enforcement***, the competent authority shall take into consideration the ***current and planned land use***, costs, benefits, effectiveness, durability, and technical feasibility of available risk reduction measures. ***The competent authority shall also take into account the measures already implemented or planned under Directive 2012/18/EU and/or Directive 2010/75/EU.***

Amendment 106
Proposal for a directive
Article 15 – paragraph 6

Text proposed by the Commission

6. The Commission is empowered to adopt delegated acts in accordance with

Amendment

deleted

Article 20 to amend Annexes V and VI to adapt the list of risk reduction measures and the requirements for site-specific risk assessment to scientific and technical progress.

Amendment 107
Proposal for a directive
Article 16 – paragraph 1

Text proposed by the Commission

1. By ... (OP : please insert date = 4 years after entry into force of the Directive), Member States shall, in accordance with paragraph 2, draw up a register of contaminated sites **and potentially contaminated sites**.

Amendment

1. By ... (OP : please insert date = 4 years after entry into force of the Directive), Member States shall, in accordance with paragraph 2, draw up a register of contaminated sites.

Amendment 108
Proposal for a directive
Article 16 – paragraph 4

Text proposed by the Commission

Member States shall make public the register and information referred to in paragraphs 1 and 2. Disclosure of any information may be refused or restricted by the competent authority where the conditions laid down in Article 4 of Directive 2003/4/EC of the European Parliament and of the Council⁷⁹ are fulfilled.

The register shall be made available in an online georeferenced spatial database.

Amendment

Member States shall make public, **where relevant** the register and information referred to in paragraphs 1 and 2. Disclosure of any information may be refused or restricted by the competent authority where the conditions laid down in Article 4 of Directive 2003/4/EC of the European Parliament and of the Council⁷⁹ are fulfilled.

The register shall be made available in an online georeferenced spatial database.

⁷⁹ Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC (OJ L 41, 14.2.2003, p. 26).

⁷⁹ Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC (OJ L 41, 14.2.2003, p. 26).

Amendment 109
Proposal for a directive
Article 17 – paragraph 1

Text proposed by the Commission

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

Amendment

Given the priority inherently attached to the establishment of soil monitoring and sustainable management and regeneration of soils, **by ... [OP : please insert date = 12 months from the entry into force of the Directive], the Commission shall submit a report to the European Parliament and to the Council setting out the financial resources available at Union level for the implementation of this Directive. An additional financial resources shall be put in place for the post-2027 period in order to promote the continued sustainable management of soils, as well as their permanent regeneration.**

Amendment 110
Proposal for a directive
Article 18 – paragraph 1 – subparagraph 1 – introductory part

Text proposed by the Commission

Member States shall electronically report the following data and information to the Commission and to the EEA every 5 years:

Amendment

Member States shall electronically report the following data and information to the Commission and to the EEA every 5 **or 10** years, **depending on the sufficient timeframe or in the corresponding the sampling interval:**

Amendment 111
Proposal for a directive
Article 18 – paragraph 1 – subparagraph 1 – point c – introductory part

Text proposed by the Commission

(c) a summary of the progress on:

Amendment

(c) a **general** summary of the progress on:

Amendment 112

Proposal for a directive

Article 18 – paragraph 1 – subparagraph 1 – point c – point i

Text proposed by the Commission

Amendment

(i) implementing sustainable soil management principles in accordance with Article 10;

deleted

Amendment 113

Proposal for a directive

Article 18 – paragraph 1 – subparagraph 2

Text proposed by the Commission

Amendment

The first reports shall be submitted by ... (OP: please insert date = **5** years and 6 months after entry into force of the Directive).

The first reports shall be submitted by ... (OP: please insert date = **10** years and 6 months after entry into force of the Directive).

Amendment 114

Proposal for a directive

Article 19 – paragraph 1

Text proposed by the Commission

Amendment

1. Member States shall make public the data generated by the monitoring carried out under Article 8 and the assessment carried out under Article 9 of this Directive accessible to the public, in accordance with the provisions under Article 11 of Directive 2007/2/EC of the European Parliament and of the Council⁸⁰ for geographically explicit data and Article 5 of Directive (EU) 2019/1024 for other data.

1. Member States shall make public the **relevant** data generated by the monitoring carried out under Article 8 and the assessment carried out under Article 9 of this Directive accessible to the public, **with the express permission by landowner and land manager, in an aggregated and in the anonymized form and in full compliance with Union law on the protection of personal data** and in accordance with the provisions under Article 11 of Directive 2007/2/EC of the European Parliament and of the Council⁸⁰ for geographically explicit data and Article 5 of Directive (EU) 2019/1024 for other data.

⁸⁰ Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for

⁸⁰ Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for

Spatial Information in the European Community (INSPIRE) (OJ L 108, 25.4.2007, p. 1).

Spatial Information in the European Community (INSPIRE) (OJ L 108, 25.4.2007, p. 1).

Amendment 115
Proposal for a directive
Article 19 – paragraph 2

Text proposed by the Commission

2. The Commission shall ensure that soil health data made accessible through the digital soil health data portal referred to in Article 6 is available to the public in accordance with Regulation (EU) 2018/1725 of the European Parliament and of the Council⁸¹ and Regulation (EC) No 1367/2006 of the European Parliament and of the Council⁸².

⁸¹ Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002/EC (OJ L 295, 21.11.2018, p. 39).

⁸² Regulation (EC) No 1367/2006 of the European Parliament and of the Council of 6 September 2006 on the application of the provisions of the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters to Community institutions and bodies (OJ L 264, 25.9.2006, p. 13).

Amendment 116
Proposal for a directive

Amendment

2. The Commission shall ensure that soil health **relevant** data made accessible through the digital soil health data portal referred to in Article 6 is available to the public **only with the express permission of the landowner and land manager, in an aggregated and anonymised form**, in accordance with Regulation (EU) 2018/1725 of the European Parliament and of the Council⁸¹ and Regulation (EC) No 1367/2006 of the European Parliament and of the Council⁸².

⁸¹ Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002/EC (OJ L 295, 21.11.2018, p. 39).

⁸² Regulation (EC) No 1367/2006 of the European Parliament and of the Council of 6 September 2006 on the application of the provisions of the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters to Community institutions and bodies (OJ L 264, 25.9.2006, p. 13).

Article 19 – paragraph 3

Text proposed by the Commission

3. Member States shall ensure that the information referred to in Article 18 of this Directive is available and accessible to the public in accordance with Directive 2003/4/EC, Directive 2007/2/EC and Directive (EU) 2019/1024 of the Parliament and of the Council⁸³.

⁸³ Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on open data and the re-use of public sector information (OJ L 172, 26.6.2019, p. 56).

Amendment 117 Proposal for a directive Article 20 – paragraph 2

Text proposed by the Commission

2. The power to adopt delegated acts referred to in **Articles 8, 10, 15 and 16** shall be conferred on the Commission for an indeterminate period of time from the date of entry into force of this Directive.

Amendment 118 Proposal for a directive Article 20 – paragraph 3

Text proposed by the Commission

3. The delegation of power referred to in **Articles 8, 10, 15 and 16** may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the

Amendment

3. Member States shall ensure that the **relevant** information referred to in Article 18 of this Directive is available and accessible to the public **only with the express permission of the landowner and land manager, in an aggregated and anonymized form**, in accordance with Directive 2003/4/EC, Directive 2007/2/EC and Directive (EU) 2019/1024 of the Parliament and of the Council⁸³.

⁸³ Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on open data and the re-use of public sector information (OJ L 172, 26.6.2019, p. 56).

Amendment

2. The power to adopt delegated acts referred to in **Article 16** shall be conferred on the Commission for an indeterminate period of time from the date of entry into force of this Directive.

Amendment

3. The delegation of power referred to in **Article 16** may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of

publication of the decision in the Official Journal of the European Union or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.

the decision in the Official Journal of the European Union or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.

Amendment 119
Proposal for a directive
Article 20 – paragraph 4

Text proposed by the Commission

4. Before adopting a delegated act, the Commission shall consult experts designated by each Member State in accordance with the principles laid down in the Interinstitutional Agreement of 13 April 2016 on Better Law-Making.

Amendment

4. Before adopting a delegated act, the Commission shall consult experts, ***with expertise in various land uses such as agriculture, forestry and urban soils*** designated by each Member State in accordance with the principles laid down in the Interinstitutional Agreement of 13 April 2016 on Better Law-Making.

Amendment 120
Proposal for a directive
Article 20 – paragraph 6

Text proposed by the Commission

6. A delegated act adopted pursuant to ***Articles 8, 10, 15 and 16*** shall enter into force only if no objection has been expressed either by the European Parliament or the Council within a period of two months of notification of that act to the European Parliament and the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by two months at the initiative of the European Parliament or of the Council.

Amendment

6. A delegated act adopted pursuant to ***Article 16*** shall enter into force only if no objection has been expressed either by the European Parliament or the Council within a period of two months of notification of that act to the European Parliament and the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by two months at the initiative of the European Parliament or of the Council.

Amendment 121
Proposal for a directive
Article 22

Article 22

deleted

Access to justice

Member States shall ensure that members of the public, in accordance with national law, that have a sufficient interest or that maintain the impairment of a right, have access to a review procedure before a court of law, or an independent and impartial body established by law, to challenge the substantive or procedural legality of the assessment of soil health, the measures taken pursuant to this Directive and any failures to act of the competent authorities.

Member States shall determine what constitutes a sufficient interest and impairment of a right, consistently with the objective of providing the public with wide access to justice. For the purposes of paragraph 1, any non-governmental organisation promoting environmental protection and meeting any requirements under national law shall be deemed to have rights capable of being impaired and their interest shall be deemed sufficient.

Review procedures referred to in paragraph 1 shall be fair, equitable, timely and free of charge or not prohibitively expensive, and shall provide adequate and effective remedies, including injunctive relief where necessary.

Member States shall ensure that practical information is made available to the public on access to the administrative and judicial review procedures referred to in this Article.

Amendment 122

Proposal for a directive

Article 23

Article 23

deleted

Penalties

1. Without prejudice to the obligations of Member States under Directive 2008/99/EC of the European Parliament and of the Council, Member States shall lay down the rules on penalties applicable to violations by natural and legal persons, of the national provisions adopted pursuant to this Directive and shall ensure that those rules are implemented. The penalties provided for shall be effective, proportionate and dissuasive.

2. The penalties referred to in paragraph 1 shall include fines proportionate to the turnover of the legal person or to the income of the natural person having committed the violation. The level of the fines shall be calculated in such a way as to make sure that they effectively deprive the person responsible for the violation of the economic benefits derived from that violation. In the case of a violation committed by a legal person, such fines shall be proportionate to the legal person's annual turnover in the Member State concerned, taking account, *inter alia*, the specificities of small and medium-sized enterprises (SMEs).

3. Member States shall ensure that the penalties established pursuant to this Article give due regard to the following, as applicable:

(a) the nature, gravity, and extent of the violation;

(b) the intentional or negligent character of the violation;

(c) the population or the environment affected by the violation, bearing in mind the impact of the infringement on the objective of achieving a high level of protection of human health and the environment.

4. Member States shall without undue delay notify the Commission of the rules and measures referred to in paragraph 1 and of any subsequent amendments affecting them.

Amendment 123

Proposal for a directive

Article 24 – paragraph 1 – introductory part

Text proposed by the Commission

1. By (OP :please insert the date = 6 years after the date of entry into force of the Directive), the Commission shall carry out an evaluation of this Directive to assess the progress towards its objectives **and the need to amend its provisions in order to set more specific requirements to ensure that unhealthy soils are regenerated and that all soils will be healthy by 2050**. This evaluation shall take into account, inter alia, the following elements:

Amendment

1. By (OP :please insert the date = **15** years after the date of entry into force of the Directive), the Commission shall carry out an evaluation of this Directive to assess the progress towards its objectives. This evaluation shall take into account, inter alia, the following elements:

Amendment 124

Proposal for a directive

Article 24 – paragraph 1 – point d

Text proposed by the Commission

(d) an analysis of the gap towards achieving healthy soils by 2050;

Amendment

deleted

Amendment 125

Proposal for a directive

Article 25 – paragraph 1 – subparagraph 1

Text proposed by the Commission

Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by ... [OP please insert date = 2 years after date of entry into force of the Directive]. They shall forthwith

Amendment

Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by ... [OP please insert date = 5 years after date of entry into force of the Directive]. They shall forthwith

communicate to the Commission the text of those provisions.

communicate to the Commission the text of those provisions.

Amendment 126
Proposal for a directive
Annex I – paragraph 1 – point 2

Text proposed by the Commission

(2) ‘net land take’ means the result of land take minus reverse land take.

Amendment

(2) ‘net land take’ means the result of land take minus reverse land take.

Member States may exclude the soil descriptors relating to the nutrient content in soils from Part B and Part C from this annex, considering that Directive 2000/60/EC and Directive 91/676/EEC are already targeted at the sustainable management of nutrients.

Amendment 127

Proposal for a directive
Annex I – Part A

Text proposed by the Commission

Aspect of soil degradation	Soil descriptor	Criteria for healthy soil condition	Land areas that shall be excluded from achieving the related criterion
Part A: soil descriptors with criteria for healthy soil condition established at <i>Union level</i>			
Salinization	Electrical Conductivity (deci-Siemens per meter)	< 4 dS m ⁻¹ when using saturated soil paste extract (eEC) measurement method, or equivalent criterion if using another measurement method	Naturally saline land areas; Land areas directly affected by sea level rise
Soil erosion	Soil erosion rate (tonnes per hectare per year)	≤ 2 t ha ⁻¹ y ⁻¹	Badlands and other unmanaged natural land areas, except if they represent a significant disaster risk

<i>Loss of soil organic carbon</i>	<i>Soil Organic Carbon (SOC) concentration (g per kg)</i>	<ul style="list-style-type: none"> - <i>For organic soils: respect targets set for such soils at national level in accordance with Article 4.1, 4.2, 9.4 of Regulation (EU) .../...⁺</i> - <i>For mineral soils: SOC/Clay ratio > 1/13;</i> <p><i>Member States may apply a corrective factor where specific soil types or climatic conditions justify it, taking into account the actual SOC content in permanent grasslands.</i></p>	<p><i>No exclusion</i></p> <p><i>Non-managed soils in natural land areas</i></p>
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Subsoil compaction	Bulk density in subsoil (upper part of B or E horizon ¹); Member States may replace this descriptor with an equivalent parameter (g per cm ³)	Soil texture ²	range	Non-managed soils in natural land areas
		sand, loamy sand, sandy loam, loam	<1.80	
		Sandy clay loam, loam, clay loam, silt, silt loam	<1.75	
		silt loam, silty clay loam	<1.65	
		Sandy clay, silty clay, clay loam with 35-45% clay	<1.58	
		Clay	<1.47	

In case a Member State replaces the soil descriptor “bulk density in subsoil” with an equivalent parameter, it shall adopt a criterion for healthy soil condition for the chosen soil descriptor that is equivalent to the criterion set for “bulk density in subsoil”.

⁺ OP : please insert in the text the number of Regulation on nature restoration contained in document COM(2022) 304

¹ As defined in the FAO Guidelines for Soil Description, Chapter 5

(<https://www.fao.org/3/a0541e/a0541e.pdf>)

² As defined in Arshad, M.A., B. Lowery, and B. Grossman. 1996. Physical tests for monitoring soil quality. p.123- 142. In: J.W. Doran and A.J. Jones (eds.) Methods for assessing soil quality. Soil Sci. Soc. Am. Spec. Publ. 49. SSSA, Madison, WI.

Aspect of soil degradation	Soil descriptor	<i>Amendment</i>		
		Criteria for healthy soil condition	Land areas that shall be excluded from achieving the related criterion	
Part A: soil descriptors with criteria for healthy soil condition established at <i>Member State level</i>				
Salinization	Electrical Conductivity (deci-Siemens per meter)	< 4 dS m ⁻¹ when using saturated soil paste extract (eEC) measurement method, or equivalent criterion if using another measurement method	Naturally saline land areas; Land areas directly affected by sea level rise	
Soil erosion	Soil erosion rate (tonnes per hectare per year)	≤ 2 t ha ⁻¹ y ⁻¹	Badlands and other unmanaged natural land areas, except if they represent a significant disaster risk	
<i>deleted</i>	<i>deleted</i>	<i>deleted</i>	<i>deleted</i>	
		<i>deleted</i>	<i>deleted</i>	
		<i>deleted</i>	<i>deleted</i>	
Subsoil compaction	Bulk density in subsoil (upper part of B or E horizon ¹); Member States may replace this descriptor with an equivalent parameter (g per cm ³)	Soil texture ² sand, loamy sand, sandy loam, loam Sandy clay loam, loam, clay loam, silt, silt loam silt loam, silty	range <1.80 <1.75 <1.65	Non-managed soils in natural land areas

clay loam
 Sandy clay, silty clay, clay loam with 35-45% clay <1.58
 Clay <1.47

In case a Member State replaces the soil descriptor “bulk density in subsoil” with an equivalent parameter, it shall adopt a criterion for healthy soil condition for the chosen soil descriptor that is equivalent to the criterion set for “bulk density in subsoil”.

+ OP : please insert in the text the number of Regulation on nature restoration contained in document COM(2022) 304

¹ As defined in the FAO Guidelines for Soil Description, Chapter 5 (<https://www.fao.org/3/a0541e/a0541e.pdf>)

² As defined in Arshad, M.A., B. Lowery, and B. Grossman. 1996. Physical tests for monitoring soil quality. p.123- 142. In: J.W. Doran and A.J. Jones (eds.) Methods for assessing soil quality. Soil Sci. Soc. Am. Spec. Publ. 49. SSSA, Madison, WI.

Justification

In many contexts, a SOC/clay ratio does not sufficiently give info on the carbon content in all soils. This linear relationship is not true for all soils. Over a certain clay content, the carbon content can be on a good level even though the SOC/clay ration is not fulfilled.

Amendment 128 Proposal for a directive Annex I – Part B

Text proposed by the Commission

Part B: soil descriptors with criteria for healthy soil condition established at Member States level

<i>Excess nutrient content in soil</i>	<i>Extractable phosphorus (mg per kg)</i>	<i>< “maximum value”;The “maximum value” shall be laid down by the Member State within the range 30-50 mg kg⁻¹</i>	<i>No exclusion</i>
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Soil contamination	<ul style="list-style-type: none"> - concentration of heavy metals in soil: As, Sb, Cd, Co, Cr (total), Cr (VI), Cu, Hg, Pb, Ni, Tl, V, Zn (μg per kg) - concentration of a selection of organic contaminants established by Member States and taking into account existing concentration limits e.g. for water quality and air emissions in Union legislation 	<p>Reasonable assurance, obtained from soil point sampling, identification and investigation of contaminated sites and any other relevant information, that no unacceptable risk for human health and the environment from soil contamination exists. Habitats with naturally high concentration of heavy metals that are included in Annex I of Council Directive 92/43/EEC¹ shall remain protected.</p>	No exclusion
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Reduction of soil capacity to retain water	Soil water holding capacity of the soil sample (% of volume of water / volume of saturated soil)	The estimated value for the total water holding capacity of a soil district by river basin or subbasin is above the minimal threshold. The minimal threshold shall be set (in tonnes) by the Member State at soil district and river basin or subbasin level at such a value that the impacts of floodings following intense rain events or of periods of low soil moisture due to drought events are mitigated.	No exclusion
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¹ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (OJ L 206, 22.7.1992, p. 7).

Amendment

Part B: soil descriptors with criteria for healthy soil condition established at Member States level

deleted

deleted

deleted

deleted

Soil
contamination

- concentration of heavy metals in soil: As, Sb, Cd, Co, Cr (total), Cr (VI), Cu, Hg, Pb, Ni, Tl, V, Zn (μg per kg)

Reasonable assurance, obtained from soil point sampling, identification and investigation of contaminated sites and any other relevant information, that no unacceptable risk for human health and the environment from soil contamination exists. Habitats with naturally high concentration of heavy metals that are included in Annex I of Council Directive 92/43/EEC¹ shall remain protected.

No exclusion

- concentration of a selection of organic contaminants established by Member States and taking into account existing concentration limits e.g. for water quality and air emissions in Union legislation

Reduction of soil capacity to retain water	Soil water holding capacity of the soil sample (% of volume of water / volume of saturated soil)	The estimated value for the total water holding capacity of a soil district by river basin or subbasin is above the minimal threshold. The minimal threshold shall be set (in tonnes) by the Member State at soil district and river basin or subbasin level at such a value that the impacts of floodings following intense rain events or of periods of low soil moisture due to drought events are mitigated.	No exclusion
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¹ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (OJ L 206, 22.7.1992, p. 7).

Amendment 129

Proposal for a directive Annex I – Part C

Text proposed by the Commission

Part C: soil descriptors without criteria

Aspect of soil degradation	Soil descriptor
<i>Excess nutrient content in soil</i>	<i>Nitrogen in soil (mg g⁻¹)</i>
Acidification	Soil acidity (pH)
Topsoil compaction	Bulk density in topsoil (A-horizon ¹) (g cm ⁻³)
Loss of soil biodiversity	Soil basal respiration (mm ³ O ₂ g ⁻¹ hr ⁻¹) in dry soil

Member States may also select other optional soil descriptors for biodiversity such as:

- metabarcoding of bacteria, fungi, protists and animals;
- abundance and diversity of nematodes;
- microbial biomass;

- abundance and diversity of earthworms (in cropland);
- invasive alien species and plant pests

¹ As defined in the FAO Guidelines for Soil Description, Chapter 5
(<https://www.fao.org/3/a0541e/a0541e.pdf>)

Amendment

Part C: soil descriptors without criteria

Aspect of soil degradation	Soil descriptor
<i>deleted</i>	<i>deleted</i>
Acidification	Soil acidity (pH)
Topsoil compaction	Bulk density in topsoil (A-horizon ¹) (g cm ⁻³)
Loss of soil biodiversity	Soil basal respiration (mm ³ O ₂ g ⁻¹ hr ⁻¹) in dry soil

Member States may also select other optional soil descriptors for biodiversity such as:

- metabarcoding of bacteria, fungi, protists and animals;
- abundance and diversity of nematodes;
- microbial biomass;
- abundance and diversity of earthworms (in cropland);
- invasive alien species and plant pests

¹ As defined in the FAO Guidelines for Soil Description, Chapter 5
(<https://www.fao.org/3/a0541e/a0541e.pdf>)

Amendment 130

**Proposal for a directive
Annex II – Part A**

Text proposed by the Commission

Part A: Methodology for determining sampling points

Activity	Minimum criteria for methodology
Determination of soil sampling	The sample survey shall be designed from a complete sample frame containing the best available information on the soil

points (sample survey)

properties distribution, including but not limited to information resulting from previous national measurements and measurements under the LUCAS programme.

The sampling scheme shall be a stratified random sampling optimized on the soil health descriptors.

The size of the national sample shall meet the requirement of a maximum percent error (or Coefficient of Variation) of 5% for the estimation of the area having healthy soils.

The Commission sample for the survey set under Art 6(4) may contribute to a maximum of 20 % of the size of national samples.

The allocation and size of the sample shall be determined by applying the Bethel algorithm (Bethel, 1989)⁵ accounting for the required maximum estimation error.

⁵ Bethel, J. 1989. "Sample Allocation in Multivariate Surveys." Survey Methodology 15: 47–57.

Amendment

Part A: Methodology for determining sampling points

Activity

Minimum criteria for methodology

Determination of soil sampling points **and layers** (sample survey)

The sample survey shall be designed from a complete sample frame containing the best available information on the soil properties distribution, including but not limited to information resulting from previous national measurements and measurements under the LUCAS programme.

The sampling scheme shall be **designed with an unbiased and probabilistic manner and** a stratified random sampling optimized on the soil health descriptors.

The size of the national sample shall meet the requirement of a maximum percent error (or Coefficient of Variation) of 5% for the estimation of the area having healthy soils.

The Commission sample for the survey set under Art 6(4) may contribute to a maximum of 20 % of the size of national samples.

The allocation and size of the sample shall be determined by applying the Bethel algorithm (Bethel, 1989)⁵ accounting for the required maximum estimation error.

⁵ Bethel, J. 1989. "Sample Allocation in Multivariate Surveys." Survey Methodology 15: 47–57.

Amendment 131

Proposal for a directive Annex II – Part B

Text proposed by the Commission

Part B: Methodology for determining or estimating the values of soil descriptors

Soil descriptor	Reference methodology	Minimum methodological criteria	Validated transfer function required (if using a methodology different from the reference methodology ⁶)?
Soil texture (clay, silt and sand content – needed for the determination of other descriptors and related ranges)	Preferred method: ISO 11277:1998 Determination of particle size distribution in mineral soil material – Method by sieving and sedimentation Alternative method: ISO13320:2009 Particle size analysis – Laser diffraction methods		YES
Electrical Conductivity	Option 1: saturated soil paste extract (eEC) measurement method (FAO SOP: GLOSOLAN-SOP-08 ⁷) Option 2: ISO 11265:1994 Determination of The Specific Electrical Conductivity;		YES
Soil erosion rate		Soil erosion rate estimation	N/A

shall take into account all actions taken to mitigate or compensate the erosion risk, including post-fire mitigation measures.

Soil erosion rate estimation shall include all relevant erosion processes such as erosion by water, wind, harvest and tillage.

Soil erosion by water shall be assessed by considering the following factors:

- soil characteristics (e.g. erodibility, soil crusting, soil roughness),
- climate (e.g. rainfall erosivity – intensity and duration, considering relevant climate change projections for a given area),
- topography (e.g. slope steepness and length),
- vegetation cover, crop type, land use and management practices to control or reduce erosion,
- management practices (e.g. cover crops, reduced tillage, mulching, etc.),
- burned areas.

Soil erosion by wind shall be assessed by considering the following factors:

- soil characteristics (e.g. erodibility),
- climate (e.g. soil moisture, wind speed,

		evaporation),	
		- vegetation (e.g. crop type),	
		- management practices to control or reduce erosion (e.g. wind breaks).	
Soil Organic Carbon (SOC)	ISO 10694:1995 Determination of organic and total carbon after dry combustion		YES
Bulk density in subsoil (B horizon ⁸) or equivalent ⁹ parameter chosen by Member States	ISO 11272:2017 for determination of dry bulk density In case an equivalent parameter is chosen, the methodology shall be either a European or International standard when available; if such standard is not available, the methodology chosen shall either be available in the scientific literature or publicly available.		YES
Extractable phosphorus	ISO 11263:1994 for spectrometric determination of phosphorus soluble in sodium hydrogen carbonate solution (P-Olsen)		YES
- Concentration of heavy metals in soil: As, Sb, Cd, Co, Cr (total), Cr (VI), Cu, Hg, Pb, Ni, Tl, V, Zn	Potential environmental available content of heavy metals in soils based on ISO 17586:2016 using dilute nitric acid.		YES

- Concentration of a selection of organic contaminants defined by Member States and taking into account existing EU legislation (e.g. on water quality or pesticides)		Use European or International standards when available; if such standard is not available, the methodology chosen shall either be available in the scientific literature or publicly available	N/A
Soil water holding capacity	Methodology to determine the value for one sample point: Option 1: LABORATORY: ISO 11274:2019 for determination of the water-retention characteristic. Option 2: ESTIMATION: apply methodology described in the scientific article “New generation of hydraulic pedotransfer functions for Europe” ¹⁰ based on texture (or particle size distribution) and soil organic carbon.	Minimum criteria for estimating the total soil water holding capacity of a soil district on a river basin or sub-basin scale: - for the area of land not taken estimate the total value of soil water holding capacity - for the area of land taken, consider setting the water holding capacity of impervious areas to zero, attributing proportionately intermediate values to semi-impervious and other artificial areas.	YES (for point value)
Nitrogen in soil	ISO 11261:1995 for determination of total soil nitrogen using a modified Kjeldahl method		YES
Soil acidity	ISO 10390:2005 for determination of pH in H ₂ O and CaCl ₂ extract (pH-H ₂ O and pH-CaCl ₂)		YES
Bulk density in “topsoil” (A-horizon ¹¹)	ISO 11272:2017 for determination of dry bulk density		YES
Soil basal respiration	Follow indications described in the scientific article		YES

“Microbial biomass and activities in soil as affected by frozen and cold storage”¹³

Member States may also select optional soil biodiversity descriptors such as:

- Metabarcoding¹² of bacteria, fungi, protists and animals;
- Abundance and diversity of nematodes;

- Microbial biomass;
- Abundance and diversity of earthworms (in cropland)

For other soil biodiversity descriptors:
N/A

Use European or international standards when available; if such standard is not available, the methodology chosen shall either be available in the scientific literature or publicly available.

⁵ Bethel, J. 1989. “Sample Allocation in Multivariate Surveys.” *Survey Methodology* 15: 47–57.

⁶ The methodologies different from the reference methodology shall either be available in the scientific literature or publicly available.

⁷ <https://www.fao.org/3/cb3355en/cb3355en.pdf>

⁸ As defined in the FAO Guidelines for Soil Description, Chapter 5 (<https://www.fao.org/3/a0541e/a0541e.pdf>)

⁹ Equivalent according to the EEA report: [Soil monitoring in Europe – Indicators and thresholds for soil health assessments — European Environment Agency \(europa.eu\)](http://www.eea.europa.eu/soil-monitoring)

¹⁰

¹¹ As defined in the FAO Guidelines for Soil Description, Chapter 5 (<https://www.fao.org/3/a0541e/a0541e.pdf>)

¹² Sequencing of DNA barcodes for measuring taxonomical and functional diversity of archaea, bacteria, fungi and other eukaryotes as was done for LUCAS Soil Biodiversity based on <https://doi.org/10.1111/ejss.13299>

¹³ <https://www.sciencedirect.com/science/article/abs/pii/S0038071797001259>

Amendment

Part B: Methodology for determining or estimating the values of soil descriptors

Soil descriptor	Reference methodology	Minimum methodological criteria	Validated transfer function required (if using a methodology different from the reference methodology ⁶)?
Soil texture (clay, silt and sand content – needed for the determination of other descriptors and related ranges)	Preferred method: ISO 11277:1998 Determination of particle size distribution in mineral soil material – Method by sieving and sedimentation Alternative method: ISO13320:2009 Particle size analysis – Laser diffraction methods		YES
Electrical Conductivity	Option 1: saturated soil paste extract (eEC) measurement method (FAO SOP: GLOSOLAN-SOP-08 ⁷) Option 2: ISO 11265:1994 Determination of The Specific Electrical Conductivity;		YES
Soil erosion rate		Soil erosion rate estimation shall take into account all actions taken to mitigate or compensate the erosion risk, including post-fire mitigation measures.	N/A

Soil erosion rate estimation shall include all relevant erosion processes such as erosion by water, wind, harvest and tillage. ***For example RUSLE soil erosion model can be used.***

Soil erosion by water shall be assessed by considering the following factors:

- soil characteristics (e.g. erodibility, soil crusting, soil roughness),
- climate (e.g. rainfall erosivity – intensity and duration, considering relevant climate change projections for a given area),
- topography (e.g. slope steepness and length),
- vegetation cover, crop type, land use and management practices to control or reduce erosion,
- management practices (e.g. cover crops, reduced tillage, mulching, etc.),
- burned areas.

Soil erosion by wind shall be assessed by considering the following factors:

- soil characteristics (e.g. erodibility),
- climate (e.g. soil moisture, wind speed, evaporation),
- vegetation (e.g. crop type),

		- management practices to control or reduce erosion (e.g. wind breaks).	
Soil Organic Carbon (SOC)	ISO 10694:1995 Determination of organic and total carbon after dry combustion		YES
Bulk density in subsoil (B horizon ⁸) or equivalent ⁹ parameter chosen by Member States	ISO 11272:2017 for determination of dry bulk density In case an equivalent parameter is chosen, the methodology shall be either a European or International standard when available; if such standard is not available, the methodology chosen shall either be available in the scientific literature or publicly available.		YES
Extractable phosphorus	ISO 11263:1994 for spectrometric determination of phosphorus soluble in sodium hydrogen carbonate solution (P-Olsen) or using acidic ammonium acetate solution		YES
- Concentration of heavy metals in soil: As, Sb, Cd, Co, Cr (total), Cr (VI), Cu, Hg, Pb, Ni, Tl, V, Zn	Potential environmental available content of heavy metals in soils based on ISO 17586:2016 using dilute nitric acid.		YES
- Concentration of a selection of organic		Use European or International standards when available; if such	N/A

	contaminants defined by Member States and taking into account existing EU legislation (e.g. on water quality or pesticides)		standard is not available, the methodology chosen shall either be available in the scientific literature or publicly available
Soil water holding capacity	Methodology to determine the value for one sample point: Option 1: LABORATORY: ISO 11274:2019 for determination of the water-retention characteristic. Option 2: ESTIMATION: apply methodology described in the scientific article “New generation of hydraulic pedotransfer functions for Europe” ¹⁰ based on texture (or particle size distribution) and soil organic carbon.	Minimum criteria for estimating the total soil water holding capacity of a soil district on a river basin or sub-basin scale: - for the area of land not taken estimate the total value of soil water holding capacity - for the area of land taken, consider setting the water holding capacity of impervious areas to zero, attributing proportionately intermediate values to semi-impervious and other artificial areas.	YES (for point value)
Nitrogen in soil	ISO 11261:1995 for determination of total soil nitrogen using a modified Kjeldahl method		YES
Soil acidity	ISO 10390:2005 for determination of pH in H ₂ O and CaCl ₂ extract (pH-H ₂ O and pH-CaCl ₂)		YES
Bulk density in “topsoil” (A-horizon ¹¹)	ISO 11272:2017 for determination of dry bulk density		YES
Soil basal respiration	Follow indications described in the		YES

scientific article
“Microbial biomass
and activities in soil as
affected by frozen and
cold storage”¹³

Member States may
also select optional
soil biodiversity
descriptors such as:

- Metabarcoding¹² of
bacteria, fungi,
protists and
animals;
- Abundance and
diversity of
nematodes;

For other soil
biodiversity
descriptors:
N/A

Use European or
international standards
when available; if such
standard is not available,
the methodology chosen
shall either be available in
the scientific literature or
publicly available.

- Microbial biomass;
- Abundance and
diversity of
earthworms (in
cropland)

⁵ Bethel, J. 1989. “Sample Allocation in Multivariate Surveys.” *Survey Methodology* 15: 47–57.

⁶ The methodologies different from the reference methodology shall either be available in the scientific literature or publicly available.

⁷ <https://www.fao.org/3/cb3355en/cb3355en.pdf>

⁸ As defined in the FAO Guidelines for Soil Description, Chapter 5
(<https://www.fao.org/3/a0541e/a0541e.pdf>)

⁹ Equivalent according to the EEA report: [Soil monitoring in Europe – Indicators and thresholds for soil health assessments — European Environment Agency \(europa.eu\)](https://www.eea.europa.eu/soil-monitoring-in-europe)

¹⁰

¹¹ As defined in the FAO Guidelines for Soil Description, Chapter 5
(<https://www.fao.org/3/a0541e/a0541e.pdf>)

¹² Sequencing of DNA barcodes for measuring taxonomical and functional diversity of archaea, bacteria, fungi and other eukaryotes as was done for LUCAS Soil Biodiversity based on <https://doi.org/10.1111/ejss.13299>

¹³ <https://www.sciencedirect.com/science/article/abs/pii/S0038071797001259>

Justification

Already existing and used method should be recognize. In the Member States, where soils is naturally more acidic, acidic ammonium acetate gives more accurate results.

Amendment 132 Proposal for a directive Annex III

Text proposed by the Commission

Amendment

SUSTAINABLE SOIL MANAGEMENT PRINCIPLES *deleted*

The following principles shall apply:

(a) avoid leaving soil bare by establishing and maintaining vegetative soil cover, especially during environmentally sensitive periods;

(b) minimise physical soil disturbance;

(c) avoid inputs or release of substances into soil that may harm human health or the environment, or degrade soil health;

(d) ensure that machinery use is adapted to the strength of the soil, and that the number and frequency of operations on soils are limited so that they do not compromise soil health;

(e) when fertilization is applied, ensure adaptation to the needs of the plant and trees at the given location and in the given period, and to the condition of soil and prioritize circular solutions that enrich the organic content;

(f) in case of irrigation, maximise efficiency of irrigation systems and irrigation management and ensure that when recycled wastewater is used, the water quality meets the requirements set out in Annex I of Regulation (EU) 2020/741 of the European Parliament and of the Council¹⁰⁸ and when water from other sources is used, it does not degrade soil health;

(g) ensure soil protection by the creation and maintenance of adequate landscape features at the landscape level;¹⁰⁹

(h) use site-adapted species in the cultivation of crops, plants or trees where this can prevent soil degradation or contribute to improving soil health, also taking into consideration the adaptation to climate change;

(i) ensure optimised water levels in organic soils so that the structure and composition of such soils are not negatively affected;¹¹⁰

(j) in the case of crop cultivation, ensure crop rotation and crop diversity, taking into consideration different crop families, root systems, water and nutrient needs, and integrated pest management;

(k) adapt livestock movement and grazing time, taking into consideration animal types and stocking density, so that soil health is not compromised and the soil's capacity to provide forage is not reduced;

(l) in case of known disproportionate loss of one or several functions that substantially reduce the soils capacity to provide ecosystem services, apply targeted measures to regenerate those soil functions.

¹⁰⁸ Regulation (EU) 2020/741 of the European Parliament and of the Council of 25 May 2020 on minimum requirements for water reuse (OJ L 177, 5.6.2020, p. 32).

¹⁰⁹ This principle does not apply to forest soils

¹¹⁰ This principle does not apply to urban soils

**PROGRAMMES, PLANS, TARGETS
AND MEASURES REFERRED TO IN
ARTICLE 10**

deleted

- (1) The national restoration plans prepared in accordance with Regulation .../...¹¹¹ +.*
- (2) The strategic plans to be drawn up by Member States under the Common Agricultural Policy in accordance with Regulation (EU) 2021/2115.*
- (3) The Code of Good Agricultural Practice and the action programmes for designated vulnerable zones adopted in accordance with Directive 91/676/EEC.*
- (4) The conservation measures and prioritized action framework established for Natura 2000 sites in accordance with Directive 92/43/EEC.*
- (5) The measures for achieving good ecological and chemical status of surface water bodies and good chemical and quantitative status of groundwater bodies included in river basin management plans prepared in accordance with Directive 2000/60/EC.*
- (6) The flood risk management measures included in the flood risk management plans prepared in accordance with Directive 2007/60/EC.*
- (7) The drought management plans referred to in the Union Strategy on Adaptation to Climate Change.*
- (8) The national action programmes established in accordance with the United Nations Convention to Combat Desertification.*
- (9) The targets set out under Regulation (EU) 2018/841.*
- (10) The targets set out under Regulation (EU) 2018/842.*
- (11) The national air pollution control*

programmes prepared under Directive (EU) 2016/2284 and the monitoring data about air pollution impacts on ecosystems reported under that Directive.

(12) The integrated national energy and climate plan established in accordance with Regulation (EU) 2018/1999.

(13) The risk assessments and disaster risk management planning in accordance with Decision No 1313/2013/EU.

(14) The national actions plans adopted in accordance with Article 8 of Regulation .../...¹¹² +.

¹¹¹ + OP : please insert in the text the number of Regulation on nature restoration contained in document COM(2022) 304

¹¹² + OP : please insert in the text the number of Regulation of the European Parliament and of the Council the sustainable use of plant protection products and amending Regulation (EU) 2021/2115 contained in document COM(2022)305

Amendment 134

Proposal for a directive Annex VII – paragraph 1 – introductory part

Text proposed by the Commission

The design and presentation of the data in the register shall enable the public to track progress in the management of potentially contaminated sites and contaminated sites. The register shall contain and present the following information at site level for the known potentially contaminated sites, contaminated sites, contaminated sites requiring further action, and contaminated sites where action was taken or is being taken:

Amendment

The design and presentation of the ***anonymized*** data in the register shall enable the public, ***when relevant***, to track progress in the management of potentially contaminated sites and contaminated sites, ***while respecting the property right***. The register shall contain and present the following information at site level for the known potentially contaminated sites, contaminated sites, contaminated sites requiring further action, and contaminated sites where action was taken or is being

taken:

PROCEDURE – COMMITTEE ASKED FOR OPINION

Title	Soil Monitoring and Resilience (Soil Monitoring Law)	
References	COM(2023)0416 – C9-0234/2023 – 2023/0232(COD)	
Committee responsible Date announced in plenary	ENVI 16.10.2023	
Opinion by Date announced in plenary	AGRI 16.10.2023	
Associated committees - date announced in plenary	16.10.2023	
Rapporteur for the opinion Date appointed	Maria Noichl 12.9.2023	
Discussed in committee	26.10.2023	28.11.2023
Date adopted	13.2.2024	
Result of final vote	+: 19	–: 16
	0: 4	
Members present for the final vote	Clara Aguilera, Atidzhe Alieva-Veli, Attila Ara-Kovács, Benoît Biteau, Franc Bogovič, Daniel Buda, Isabel Carvalhais, Ivan David, Paolo De Castro, Jérémy Decerle, Herbert Dorfmann, José Manuel Fernandes, Luke Ming Flanagan, Paola Ghidoni, Dino Giarrusso, Francisco Guerreiro, Martin Häusling, Krzysztof Jurgiel, Jarosław Kalinowski, Elsi Katainen, Norbert Lins, Maria Noichl, Juozas Olekas, Bronis Ropė, Katarína Roth Nevedálová, Bert-Jan Ruissen, Anne Sander, Veronika Vrecionová, Sarah Wiener, Juan Ignacio Zoido Álvarez	
Substitutes present for the final vote	Rosanna Conte, Jan Huitema, Peter Jahr, Benoît Lutgen, Cristina Maestre Martín De Almagro, Michaela Šojdrová, Achille Variati, Emma Wiesner	
Substitutes under Rule 209(7) present for the final vote	Stefania Zambelli	

FINAL VOTE BY ROLL CALL IN COMMITTEE ASKED FOR OPINION

19	+
ECR	Bert-Jan Ruissen, Veronika Vrecionová
NI	Katarína Roth Nevedálová
PPE	Franc Bogovič, Daniel Buda, Herbert Dorfmann, José Manuel Fernandes, Peter Jahr, Jarosław Kalinowski, Norbert Lins, Benoît Lutgen, Anne Sander, Michaela Šojdrová, Stefania Zambelli, Juan Ignacio Zoido Álvarez
Renew	Atidzhe Alieva-Veli, Jan Huitema, Elsi Katainen, Emma Wiesner

16	-
ID	Rosanna Conte, Ivan David, Paola Ghidoni
NI	Dino Giarrusso
S&D	Clara Aguilera, Attila Ara-Kovács, Isabel Carvalhais, Cristina Maestre Martín De Almagro, Maria Noichl, Juozas Olekas, Achille Variati
The Left	Luke Ming Flanagan
Verts/ALE	Benoît Biteau, Francisco Guerreiro, Martin Häusling, Sarah Wiener

4	0
ECR	Krzysztof Jurgiel
Renew	Jérémy Decerle
S&D	Paolo De Castro
Verts/ALE	Bronis Ropé

Key to symbols:

+ : in favour

- : against

0 : abstention

PROCEDURE – COMMITTEE RESPONSIBLE

Title	Soil Monitoring and Resilience (Soil Monitoring Law)
References	COM(2023)0416 – C9-0234/2023 – 2023/0232(COD)
Date submitted to Parliament	5.7.2023
Committee responsible Date announced in plenary	ENVI 16.10.2023
Committees asked for opinions Date announced in plenary	AGRI 16.10.2023
Associated committees Date announced in plenary	AGRI 16.10.2023
Rapporteurs Date appointed	Martin Hojsik 12.9.2023
Discussed in committee	20.11.2023
Date adopted	11.3.2024
Result of final vote	+: 42 –: 26 0: 14
Members present for the final vote	Catherine Amalric, Mathilde Androuët, Maria Arena, Aurélia Beigneux, Hildegard Bentele, Sergio Berlato, Alexander Bernhuber, Malin Björk, Delara Burkhardt, Pascal Canfin, Sara Cerdas, Mohammed Chahim, Nathalie Colin-Oesterlé, Maria Angela Danzi, Christian Doleschal, Bas Eickhout, Cyrus Engerer, Pietro Fiocchi, Heléne Fritzon, Iratxe García Pérez, Catherine Griset, Teuvo Hakkarainen, Anja Hazekamp, Martin Hojsik, Jan Huitema, Karin Karlsbro, Peter Liese, Javi López, César Luena, Elżbieta Katarzyna Łukacijewska, Marian-Jean Marinescu, Lydie Massard, Liudas Mažylis, Tilly Metz, Silvia Modig, Dolores Montserrat, Ville Niinistö, Ljudmila Novak, Henk Jan Ormel, Grace O’Sullivan, Jutta Paulus, Francesca Peppucci, Stanislav Polčák, Jessica Polfjård, Erik Poulsen, Nicola Procaccini, María Soraya Rodríguez Ramos, Sándor Rónai, Maria Veronica Rossi, Laurence Sailliet, Silvia Sardone, Günther Sidl, Ivan Vilibor Sinčić, Maria Spyrali, Nils Torvalds, Edina Tóth, Achille Variati, Nikolaj Villumsen, Anders Vistisen, Alexandr Vondra, Mick Wallace, Pernille Weiss, Emma Wiesner, Michal Wiezik, Tiemo Wölken
Substitutes present for the final vote	João Albuquerque, Cristian-Silviu Buşoi, Christophe Clergeau, Beatrice Covassi, Ska Keller, Ondřej Knotek, Marlene Mortler, Manuela Ripa, Robert Roos, Róza Thun und Hohenstein, Grzegorz Tobiszowski, Idoia Villanueva Ruiz
Substitutes under Rule 209(7) present for the final vote	Alessandro Panza, Rob Rooker, Dorien Rookmaker, Bert-Jan Ruissen, Evžen Tošenovský
Date tabled	20.3.2024

FINAL VOTE BY ROLL CALL IN COMMITTEE RESPONSIBLE

42	+
NI	Maria Angela Danzi
PPE	Cristian-Silviu Buşoi, Ljudmila Novak, Stanislav Polčák, Pernille Weiss
Renew	Catherine Amalric, Pascal Canfin, Martin Hojsík, Karin Karlsbro, María Soraya Rodríguez Ramos, Róza Thun und Hohenstein, Nils Torvalds, Michal Wiezik
S&D	João Albuquerque, Maria Arena, Marek Paweł Balt, Milan Brglez, Delara Burkhardt, Sara Cerdas, Mohammed Chahim, Christophe Clergeau, Beatrice Covassi, Javi López, César Luena, Sándor Rónai, Günther Sidl, Tiemo Wölken
The Left	Malin Björk, Anja Hazekamp, Marina Mesure, Idoia Villanueva Ruiz, Nikolaj Villumsen
Verts/ALE	Margrete Auken, Bas Eickhout, Pär Holmgren, Ska Keller, Lydie Massard, Tilly Metz, Ville Niinistö, Grace O'Sullivan, Jutta Paulus, Manuela Ripa

26	-
ECR	Sergio Berlato, Pietro Fiocchi, Rob Rooken, Dorien Rookmaker, Robert Roos, Bert-Jan Ruissen, Grzegorz Tobiszowski, Evžen Tošenovský
ID	Mathilde Androuët, Aurélia Beigneux, Marie Dauchy, Catherine Griset, Alessandro Panza, Maria Veronica Rossi, Silvia Sardone, Anders Vistisen
NI	Edina Tóth
PPE	Traian Băsescu, Alexander Bernhuber, Christian Doleschal, Marlene Mortler, Francesca Peppucci, Jessica Polfjård
Renew	Andreas Glück, Jan Huitema, Emma Wiesner

14	0
NI	Ivan Vilibor Sinčić
PPE	Nathalie Colin-Oesterlé, Adam Jarubas, Ewa Kopacz, Peter Liese, Elżbieta Katarzyna Łukacijewska, Marian-Jean Marinescu, Liudas Mažylis, Dolors Montserrat, Henk Jan Ormel, Laurence Sailliet, Stefania Zambelli
Renew	Ondřej Knotek
S&D	Helène Fritzon

Key to symbols:

+ : in favour

- : against

0 : abstention

