



**2023/0232(COD)**

24.10.2023

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## **DRAFT 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 Hojsík

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 Committee<sup>1</sup>,
  - having regard to the opinion of the Committee of the Regions<sup>2</sup>,
  - 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 (A9-0000/2023),
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.

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<sup>1</sup> [OJ C 0, 0.0.0000, p. 0. / Not yet published in the Official Journal]

<sup>2</sup> [OJ C 0, 0.0.0000, p. 0. / Not yet published in the Official Journal]

## 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, non-renewable and irreplaceable resource that is crucial for the economy, the environment and the society. ***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.***

Or. en

## Amendment 2

### 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

*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.

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 public interest, there is a need to increase the mobilisation of resources to support the uptake of 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 create dedicated financial lines under the Multiannual Financial Framework and adopt additional measures to end the financing of practices that run counter to the objectives of this Directive.***

Or. en

### Amendment 3

#### Proposal for a directive Recital 12

##### *Text proposed by the Commission*

(12) The Soil Strategy for 2030 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 protection<sup>42</sup>, 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

##### *Amendment*

(12) The Soil Strategy for 2030 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 protection<sup>42</sup>, 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.

threats. *Importantly, the 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 of the legal framework to stimulate fair competition in the private sector, develop innovative solutions and know-how and strengthen the export of technologies outside the Union.*

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

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

Or. en

#### Amendment 4

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

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

Or. en

#### Amendment 5

##### 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 microorganisms, 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 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).

Or. en

**Amendment 6**

**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***

*Amendment*

(23) The long-term objective of the Directive is to achieve ***a target of*** 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. It also includes requirements to lay down measures to manage soils sustainably and regenerate soils, ***where appropriate***, to

*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.

achieve 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, *including the setting of intermediate targets for 2040* if necessary, to accelerate progress towards 2050.

Or. en

## Amendment 7

### 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 Council<sup>48</sup>*. There should be a minimum number of soil districts in each Member State taking into account the size of the Member State. This

#### *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, *which 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

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 Council<sup>49</sup>.

territorial units established in Regulation (EC) No 1059/2003 of the European Parliament and of the Council<sup>49</sup>. ***Soil districts in which soil is classified as critically degraded, degraded or in moderate ecological status are best placed to set up programmes of measures, 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 concrete management and mitigation plans might be subject to a different timeline.***

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<sup>48</sup> ***+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.***

<sup>49</sup> 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).

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<sup>49</sup> 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).

Or. en

### *Justification*

*Deletion of reference to the EC proposal, as the reference to the additional Regulation that is still under negotiations does not seem to provide added value to this Directive.*

## **Amendment 8**

### **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 each soil district. Member States should be allowed to appoint any additional competent authority at appropriate level including at national or regional level. ***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.***

Or. en

**Amendment 9**

**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*

(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. ***The overall assessment of soil should be based on its ecological status, which should 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.*

Or. en

## **Amendment 10**

### **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 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 Council<sup>50</sup>**. 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.

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<sup>50</sup> **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*

(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. The Commission should facilitate soil health certification by inter alia **setting a harmonised format and minimum quality standards for such soil health certification, common principles to ensure there is a level playing field as well as** exchanging information and promoting best practices, raising awareness and assessing **the use and** 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.

Or. en

#### *Justification*

*The intention of this addition in the recital is unclear and provides little value for this*

*Directive. The certification foreseen for healthy soils should not substitute obligations under the Directive (EU) 2018/2001. Furthermore, for the certification system for healthy soils to have real added value and not to lead to market segmentation, there is a need for setting at least harmonised governance and minimum quality criteria and rules for the use of soil health certification at EU level.*

## **Amendment 11**

### **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 JRC, together with the Member States and the European Soil Observatory, ensures that the samples, DNA extract and raw data taken for the compliance with Union and national environmental law are preserved in physical archives and its samples and raw data remain open for further research and innovation.***

Or. en

## **Amendment 12**

### **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) 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 take into account the soil health data surveyed under the enhanced LUCAS soil. **LUCAS soil will sample and analysis at least 20 % of the size of national samples, thereby contributing to the monitoring carried out by Member States.** 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.

Or. en

**Amendment 13**

**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

*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 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 on soil health and to reduce the costs of soil measurements and monitoring.***

Or. en

#### *Justification*

*The Commission and Member States should make the most of the existing technologies and methods that can improve soil monitoring, without doing any harm to either environmental or climate objectives, and therefore help implement this Directive.*

## **Amendment 14**

### **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 Strategy<sup>51</sup> 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 Strategy and the EU data spaces and which should be a hub providing access to soil data coming from various sources. ***Those data should be made publicly available in a format that can be used by the research community and the public.*** That portal should primarily include all the data collected by the Member States and the Commission as required by this Directive



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.

*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.

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<sup>51</sup> 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.

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<sup>51</sup> 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.

Or. en

### *Justification*

*To implement Art.10, an up-to-date toolbox with information about the effects of the practices on various ecosystem services and soil threats, their context specific applicability (based on soil type, land use and climatic conditions) is proposed. The database should be supplemented with new information from research, such as from the Soil Mission EU and the EJP on Agricultural Soil Management projects. The data should be publicly available, so that farmers, land managers, private and public entities, and others can use those to improve soil health.*

## **Amendment 15**

### **Proposal for a directive Recital 35**

*Text proposed by the Commission*

(35) It is also necessary to improve the

*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 in order to have more comparable data across the Union.

harmonization of soil monitoring systems used in the Member States, 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.**

Or. en

## Amendment 16

### 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*

(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, **advisors working within the farm advisory system** and local authorities.

Or. en

## Amendment 17

### 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

#### *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 sustainable soil management principles to guide soil management practices.

***climate change mitigation and adaptation, pollution prevention and control*** and food security. It is therefore appropriate to lay down sustainable soil management principles to guide soil management practices.

Or. en

## Amendment 18

### Proposal for a directive Recital 39

#### *Text proposed by the Commission*

(39) Pursuant to Regulation (EU) 2021/2115 of the European Parliament and of the Council<sup>52</sup>, 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.

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<sup>52</sup> 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*

(39) Pursuant to Regulation (EU) 2021/2115 of the European Parliament and of the Council<sup>52</sup>, 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. ***This Directive should be added to that list of legislative acts when, in accordance with Article 159 of Regulation (EU) 2021/2115, the Commission reviews it by 31 December 2025.***

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<sup>52</sup> 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).

Or. en

## Amendment 19

### 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 Council<sup>53</sup> +; 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/EEC<sup>54</sup>, the conservation measures and prioritized action framework established for Natura 2000 sites in accordance with Council Directive 92/43/EEC<sup>55</sup>, 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 Council<sup>56</sup>, the flood risk management measures established in accordance with Directive 2007/60/EC of the European Parliament and of the Council<sup>57</sup>, the drought management plans promoted in the Union Strategy on Adaptation to Climate Change<sup>58</sup>, 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

#### *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 Council<sup>53</sup> +, ***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/EEC<sup>54</sup>, the conservation measures and prioritized action framework established for Natura 2000 sites in accordance with Council Directive 92/43/EEC<sup>55</sup>, 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 Council<sup>56</sup>, the flood risk management measures established in accordance with Directive 2007/60/EC of the European Parliament and of the Council<sup>57</sup>, the drought management plans promoted in the Union Strategy on Adaptation to Climate Change<sup>58</sup>, the national action programmes established in

Parliament and of the Council<sup>59</sup> and Regulation (EU) 2018/842 of the European Parliament and of the Council<sup>60</sup>, the integrated national energy and climate plans established in accordance with Regulation (EU) 2018/1999 of the European Parliament and of the Council<sup>61</sup>, the national air pollution control programmes prepared under Directive (EU) 2016/2284 of the European Parliament and of the Council<sup>62</sup>, risk assessments and disaster risk management planning established in accordance with Decision No 1313/2013/EU of the European Parliament and of the Council<sup>63</sup>, and national action plans established in accordance with Regulation (UE) .../... of the European Parliament and of the Council<sup>64</sup> +. 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 Council<sup>65</sup>, 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.

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<sup>53</sup> 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

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 Council<sup>59</sup> and Regulation (EU) 2018/842 of the European Parliament and of the Council<sup>60</sup>, the integrated national energy and climate plans established in accordance with Regulation (EU) 2018/1999 of the European Parliament and of the Council<sup>61</sup>, the national air pollution control programmes prepared under Directive (EU) 2016/2284 of the European Parliament and of the Council<sup>62</sup>, risk assessments and disaster risk management planning established in accordance with Decision No 1313/2013/EU of the European Parliament and of the Council<sup>63</sup>, and national action plans established in accordance with Regulation (UE) .../... of the European Parliament and of the Council<sup>64</sup> +. 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 Council<sup>65</sup>, 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.

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<sup>53</sup> 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

<sup>54</sup> 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).

<sup>55</sup> 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).

<sup>56</sup> 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).

<sup>57</sup> 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).

<sup>58</sup> 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.

<sup>59</sup> 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).

<sup>60</sup> 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

Regulation in the footnote Regulation (UE) .../... of the European Parliament and of the Council on nature restoration

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and amending Regulation (EU) No 525/2013 (OJ L 156, 19.6.2018, p. 26).

<sup>61</sup> 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).

<sup>62</sup> 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).

<sup>63</sup> 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).

<sup>64</sup> + 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

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

and amending Regulation (EU) No 525/2013 (OJ L 156, 19.6.2018, p. 26).

<sup>61</sup> 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).

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

Or. en

### *Justification*

*Reflects addition to Annex IV on Programmes, plans, targets and measures referred to in Article 10.*

## Amendment 20

### 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 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

#### *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 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, ***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 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 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***



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.

**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 health and the environment, Member States should take adequate risk reduction measures, **while prioritising in- or ex-situ** 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.

Or. en

## Amendment 21

### 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 EU policy objectives, such as the objectives pursued by [Regulation (EU) xxxx/xxxx<sup>67</sup> +] that aim at ensuring secure and sustainable supply of critical raw materials for Europe's industry.**

**deleted**

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<sup>67</sup> + 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.

Or. en

### *Justification*

*The reference has no value in the legislation as there is no link to the legislation or paragraph related to it in the operational part of the Directive.*

### **Amendment 22**

#### **Proposal for a directive Recital 48 a (new)**

*Text proposed by the Commission*

*Amendment*

***(48a) In order to ensure the protection of soils from pollution by emerging chemicals that have the potential to cause significant risks to human 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.***

Or. en

### **Amendment 23**

#### **Proposal for a directive Recital 48 b (new)**

***(48b) Substances such as persistent organic pollutants, materials and particles, including microplastics or nanoplastics, pose a clear risk to soil health, but also to basic 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 provides 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 set of measures to prevent and remediate soil contamination from known and emerging threats.***

Or. en

## Amendment 24

### Proposal for a directive Recital 53

(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

(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 ***and intermediate targets for 2040*** to make sure unhealthy soils are regenerated and the objective to achieve healthy soils by 2050 is ***met***. 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

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.

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.

Or. en

### *Justification*

*Intermediate targets should be considered to facilitate reaching the overall objective of healthy soils by 2050.*

## **Amendment 25**

### **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 solid and coherent soil monitoring framework for all soils across the EU and to continuously improve soil health in the Union 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.

***This Directive therefore establishes a framework within which Member States are required to put in place measures to ensure that by 2050 all soils are in a***

*healthy condition.*

Or. en

## **Amendment 26**

### **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 commitments, including:***

***(a) to combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world by 2030;***

***(b) to achieve the ‘no net land take by 2050’ target and reduce erosion, increase soil organic carbon, and progress with remedial work;***

***(c) to manage land sustainably in the Union, protect soils adequately, and make sure that the remediation of contaminated sites is well underway;***

Or. en

#### *Justification*

*Commitments stemming from the United Nations 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs), and in particular SDG 15, the EU’s biodiversity strategy for 2030, Decision No 1386/2013/EU of the European Parliament and of the Council of 20 November 2013 on a General Union Environment Action Programme to 2020 ‘Living well, within the limits of our planet’.*

## **Amendment 27**

### **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 and assessment of soil health, ***based on its ecological status***;

Or. en

*Justification*

*Specification following the newly introduced soil ecological classes.*

## **Amendment 28**

### **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’ for soils with high biological and functional activity and structure;***

***(b) ‘good soil ecological status’ for soils in an overall good ecological status but that show evidence of slight adverse impacts from one or multiple degradation factor;***

***(c) ‘moderate soil ecological status’ for soils with evidence of slight adverse impacts from one or multiple degradation factors;***

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

***(e) ‘critically degraded soils’ for soils with clear evidence of adverse impacts from more than one degradation factor.***

*Justification*

*The definition of "ecological status", ranging from "critically degraded soils" to "high soil ecological status" is linked to the proposed modification of the binary approach proposed by the Commission in Article 9 (Assessment of the soil health) to a more gradual and nuanced assessment of the state of the soil, as applied also in the Water Framework Directive.*

## Amendment 29

### 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.***

Or. en

## Amendment 30

### Proposal for a directive

#### Article 3 – paragraph 1 – point 3

*Text proposed by the Commission*

*Amendment*

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

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

## Amendment 31

### 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 from soil micro-habitats to landscapes.***

Or. en

*Justification*

*The Directive lays down measures on monitoring soil biodiversity. Therefore, a definition of "soil biodiversity" according to the FAO and following the definition of the Convention on Biological Diversity (CBD) is inserted.*

## Amendment 32

### Proposal for a directive

#### Article 3 – paragraph 1 – point 4

*Text proposed by the Commission*

*Amendment*

(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;

(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;

Or. en

## Amendment 33

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

*Amendment*

(5) ‘sustainable soil management’ means soil **and land** management practices that maintain or enhance **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;

Or. en

*Justification*

*A highly performant ecosystem service system does not necessarily imply an optimal biodiversity pool, e.g. positive effect of Acacia dealbata sp. on the retention of dunes with negative consequences for local biodiversity and fire risk (a complete degradation of biodiversity and a dramatic increase of fire risk). The addition of soil biodiversity in the definition is thus necessary to meet the overall goal of this Directive: achieve healthy soils.*

**Amendment 34**

**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 **citizens**, land owners, land users, as well as non-governmental organisations promoting the protection of human health or the environment and meeting any requirements under national law.

Or. en

## Amendment 35

### 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;**

Or. en

#### *Justification*

*Both definitions for ‘public’ and ‘public concerned’ should be included, as public participation provisions refer to ‘public concerned’ and access to justice provisions refer to the ‘public’. The definition of ‘public’ is according to Directive 2003/35/EC providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment and amending with regard to public participation and access to justice Council Directives 85/337/EEC and 96/61/EC.*

## Amendment 36

### Proposal for a directive

#### Article 3 – paragraph 1 – point 20

*Text proposed by the Commission*

*Amendment*

(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;

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

Or. en

#### *Justification*

*The definition reflects that not all soil contaminants are substances or chemicals (e.g plastics). The new definition therefore better reflects the nature of soil contamination and is more forward looking, allowing for the incorporation of other contaminants by the Member States.*

## Amendment 37

### 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 and shall *prioritise* homogeneity within each soil district regarding the following parameters:

Or. en

## Amendment 38

### Proposal for a directive

#### Article 4 – paragraph 2 a (new)

*Text proposed by the Commission*

*Amendment*

***2a. Member States shall ensure that soil districts of neighbouring Member States where there are similar values for the parameters referred to paragraph 2, points (a) to (d), cooperate, where appropriate, with each other to exchange best practices and to ensure that a coherent approach is taken across borders.***

Or. en

## Amendment 39

### Proposal for a directive

#### Article 4 – paragraph 2 b (new)

*Text proposed by the Commission*

*Amendment*

***2b. The Commission shall, by setting up a dedicated working group, actively support Member States in complying with***

*their obligation to ensure cross-border cooperation of their soil districts 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.*

Or. en

*Justification*

*The Commission should create synergies and actively facilitate cooperation and smooth implementation of the Directive and its monitoring framework in soil districts across neighboring countries, specifically because of the special situation of these districts.*

**Amendment 40**

**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*

**1.** Member States shall *by ... [OP: please insert the date = 12 months from the date of entry into force of this Directive]* designate the competent authorities responsible at an appropriate level for carrying out the duties laid down in this Directive.

Or. en

*Justification*

*The Directive is to be transposed by 24 months after the date of entry into force of this Directive. Nevertheless, to ensure that the soil districts, together with their respective competent authorities, are going to be established in an inclusive process, there is a need to designate a competent authority responsible for the internal process and coordination, prior to their establishment.*

**Amendment 41**

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

*Text proposed by the Commission*

*Amendment*

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

Or. en

## **Amendment 42**

### **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.

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 authorisation and support to the Commission in order to** ensure that the Commission can carry out such in-situ soil sampling.

Or. en

### *Justification*

*Engagement between the Commission (JRC and LUCAS soil) and the Member States to the take samples in different countries would promote training and capacity building when needed in each country. Member States will by involving relevant authorities and research institutions take full advantage of existing programs and local knowledge and improve the link between national and EU monitoring projects.*

## Amendment 43

### 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 10(a).**

Or. en

#### *Justification*

*To implement Art.10, an up-to-date toolbox with information about the effects of the practices on various ecosystem services and soil threats, their context specific applicability (based on soil type, land use and climatic conditions) is proposed. The database should be supplemented with new information from research, such as from the Soil Mission EU and the EJP on Agricultural Soil Management projects. The data should be publicly available, so that farmers, land managers, private and public entities, and others can use those to improve soil health.*

## Amendment 44

### 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. The Commission shall set up a permanent governance mechanism to that end, which shall build on, inter alia, the Soil BON initiative.**

Or. en

### *Justification*

*Necessary support should be provided to Member States to put in place the first defined EU-wide soil monitoring framework. A permanent governance mechanism should be considered, in order to facilitate sharing expertise, closing gaps, etc. Soil BON partnership is an existing example of such multidisciplinary cooperation addressing capacity building needs from observations to informatics, helping to integrate existing and new field data following agreed international standards: <https://geobon.org/bons/thematic-bon/soil-bon/>*

### **Amendment 45**

#### **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 implement measures to ensure that the physical archives of soils, DNA extracts and the digital archive of raw data, at both Union and Member State 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.***

Or. en

### *Justification*

*The soil archives of the Commission and Member States have untapped potential that can be used among others for: 1) technological progress, such as new analytical methods that allow additional information to be generated from samples, 2) savings: sample collection is often one of the most expensive components of projects, thus archiving samples can be a cost-*

*effective approach to facilitate scientific progress, 3) as a reference-point for to track progress.*

## **Amendment 46**

### **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

Or. en

##### *Justification*

*Change reflects newly proposed approach: 5 soil ecological classes.*

## **Amendment 47**

### **Proposal for a directive**

#### **Article 7 – paragraph 1 – subparagraph 1**

##### *Text proposed by the Commission*

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

##### *Amendment*

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.***

Or. en

##### *Justification*

*Following the proposed change to assess ecological status of soil, Member States may benefit from autonomy when selecting the most appropriate Tier for their soil monitoring design and assessment, provided that the conditions laid down in Annex I for the Tier that a Member State applies are met. Tiers I, II and III encompass a balanced and gradual range of soil descriptors (their thresholds to be differentiated for all 5 soil ecological status groups, considering local conditions).*



## Amendment 48

### 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 follow at least all the criteria for soil monitoring design and* soil descriptors in Part A of Annex I.

Or. en

*Justification*

*Amendment reflects the adapted soil monitoring framework in Annex I.*

## Amendment 49

### 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*

Or. en

*Justification*

*Deletion reflects the newly introduced approach in Annex I.*

## Amendment 50

### 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 **B**, C and D of Annex I, for monitoring purposes.

Or. en

*Justification*

*Change reflects the newly introduced approach in Annex I.*

**Amendment 51**

**Proposal for a directive  
Article 7 – paragraph 6**

*Text proposed by the Commission*

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.

*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 *and with Article 9*.

Or. en

**Amendment 52**

**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*.

*Justification*

*Change of Annex number and Tier selection is needed due to the change of approach in Annexes.*

**Amendment 53**

**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;

Or. en

**Amendment 54**

**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;

Or. en

**Amendment 55**

**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

*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.

are available *or may be estimated by comparing data taken at Member State level with in-situ monitoring coordinated by the Commission*, as required in Annex II, part B, fourth column.

Or. en

*Justification*

*Addition related to LUCAS survey.*

**Amendment 56**

**Proposal for a directive**

**Article 8 – paragraph 5 – subparagraph 1**

*Text proposed by the Commission*

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

*Amendment*

Member States shall ensure that new soil measurements are performed at least every 5 years. ***Member States shall also facilitate soil monitoring being carried out at shorter intervals to facilitate in-situ soil monitoring coordinated by the Commission.***

Or. en

*Justification*

*LUCAS survey to be running at least each 3 years, as amended in Art. 6.4.*

**Amendment 57**

**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***

*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***

and B of Annex I.

*monitoring design.*

Or. en

*Justification*

*Amendment reflects the proposed change to assess ecological status of soil. Member States may benefit from autonomy when selecting the most appropriate Tier for the soil monitoring design and the respective assessment on their territory, provided that the conditions laid down in Annex I for the Tier that a Member State applies are met. 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.*

**Amendment 58**

**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.

Or. en

*Justification*

*Amendment reflects the proposed change to assess ecological status of soil.*

**Amendment 59**

**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 5 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).

## Amendment 60

### Proposal for a directive

#### Article 9 – paragraph 2 – subparagraph 1 – introductory part

##### *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.***

Or. en

##### *Justification*

*The rapporteur proposes to work with a more nuanced approach for the assessment of soil health. Instead of the proposed strictly binary approach (healthy versus unhealthy soil), ecological status of soil would be assessed, resulting into 5 different categories, taking into account local conditions.*

## Amendment 61

### 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***

##### *Amendment*

***deleted***

*column for that land area.*

Or. en

*Justification*

*The rapporteur proposes to work with a more nuanced approach for the assessment of soil health. Instead of the proposed strictly binary approach (healthy versus unhealthy soil), ecological status of soil would be assessed, resulting into 5 different categories, taking into account local conditions.*

**Amendment 62**

**Proposal for a directive**

**Article 9 – paragraph 2 – subparagraph 3**

*Text proposed by the Commission*

*Amendment*

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

Or. en

*Justification*

*The rapporteur proposes to work with a more nuanced approach for the assessment of soil health. Instead of the proposed strictly binary approach (healthy versus unhealthy soil), ecological status of soil would be assessed, resulting into 5 different categories, taking into account local conditions.*

**Amendment 63**

**Proposal for a directive**

**Article 9 – paragraph 3 – subparagraph 1**

*Text proposed by the Commission*

*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, taking into account the relevant data and available scientific knowledge.

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.

Or. en

#### *Justification*

*Following the proposed change to assess ecological status of soil, Member States may benefit from autonomy when selecting the most appropriate Tier for soil assessment and sampling on their territory. Tiers 1, 2 and 3 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.*

### **Amendment 64**

#### **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 in high soil ecological status or good ecological status*** and inform the public in accordance with Article 19.

Or. en

### **Amendment 65**

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

##### *Text proposed by the Commission*

##### *Amendment*

***4a. Soil districts shall consider establishing their soil district plans, including measures and targets to achieve measurable improvement of soil health conditions, taking into account the ecological status classification and obligations referred to in Article 7. The***



*establishment of the soil district plans shall be the result of an inclusive process with local stakeholders. The soil district plans shall be made available online by the respective Member State.*

Or. en

*Justification*

*Soil districts should be empowered to adopt own plans, according to their needs to ensure and enable proper bottom-up functioning when implementing this Directive.*

**Amendment 66**

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

*Text proposed by the Commission*

*Amendment*

***4b. Member States shall ensure that the ecological status classification of soils in the respective soil districts is improved within the following periods:***

***(a) 10 years for critically degraded soils;***

***(b) 6 years for degraded or moderate ecological status soils.***

***By way of derogation from the first subparagraph, Member States may apply different periods for soils registered as contaminated on condition that concrete management and mitigation plans with predefined timelines and concrete targets are in place.***

Or. en

**Amendment 67**

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

*Text proposed by the Commission*

*Amendment*

**4c. The Commission shall establish, at the Union level, threshold values for all soil descriptors in Tiers 1 and 2 for soil monitoring design regarding the five-level classification of soil ecological status. When applying a Tier 2 for soil monitoring design, Member States may establish their own threshold values up to a variation of 20% in comparison to the threshold values established by the Commission, in order to refine the classification and mapping of soil ecological status within their territory.**

Or. en

*Justification*

*The amendment follows the change in the overall assessment of soil health, for which different values for descriptors in Annex I for each of the 5 "classes/ecological status/" are needed. This will help to move from a binary (healthy vs. unhealthy) approach to more nuanced classification. Member States that will decide to opt for Tier II instead of Tier I, may refine the EU-set thresholds values up to 20 %.*

## **Amendment 68**

### **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**

Or. en

*Justification*

*The Rapporteur proposes to reverse the logics of the proposed actions: the Commission should propose a harmonized format of soil health certification in the first stage. The agreed minimum quality standards will, during the second stage, facilitate the implementation in the*

*Member States and prevent incompatibility across 27 Member States.*

## **Amendment 69**

### **Proposal for a directive**

#### **Article 9 – paragraph 5 – subparagraph 2**

##### *Text proposed by the Commission*

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*

The Commission **shall** adopt implementing acts to **establish a harmonised** format **for** soil health certification **and common principles for its minimum quality standards and for the governance of such certification**. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 21.

Or. en

##### *Justification*

*The Rapporteur proposes to reverse the logics of the proposed actions: the Commission should propose a harmonized format of soil health certification in the first stage. The agreed minimum quality standards will, during the second stage, facilitate the implementation in the Member States and prevent incompatibility across 27 Member States.*

## **Amendment 70**

### **Proposal for a directive**

#### **Article 9 – paragraph 5 – subparagraph 2 a (new)**

##### *Text proposed by the Commission*

##### *Amendment*

***Following the adoption of the implementing acts, Member States shall set up a mechanism for voluntary soil health certification for landowners and land managers within the meaning of paragraph 2 of this Article.***

Or. en

## *Justification*

*The Rapporteur proposes to reverse the logic of the proposed actions: the Commission should propose a harmonized format of soil health certification in the first stage. The agreed minimum quality standards will, during the second stage, facilitate the implementation in the Member States and prevent incompatibility across 27 Member States.*

### **Amendment 71**

#### **Proposal for a directive**

#### **Article 9 – paragraph 6**

##### *Text proposed by the Commission*

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).

##### *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, in particular to support the development of the advice referred to in Article 10(3).

Or. en

### **Amendment 72**

#### **Proposal for a directive**

#### **Article 10 – paragraph 1 – subparagraph 1 – introductory part**

##### *Text proposed by the Commission*

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*

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

Or. en

### **Amendment 73**

#### **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 respecting the sustainable soil management principles listed in Annex III to be gradually implemented on all managed soils, ***taking into consideration local conditions in the soil districts***, 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 soils ***that are not considered healthy in the soil districts*** in the Member States;

Or. en

**Amendment 74**

**Proposal for a directive**

**Article 10 – paragraph 1 – subparagraph 1 – point a a (new)**

*Text proposed by the Commission*

*Amendment*

***(aa) use the Good Agricultural and Environmental Conditions (GAEC) on sustainable soil management practices (GAEC 5, 6 & 7), on climate change (GAEC 1, 2 & 3), on water (GAEC 4) and on biodiversity (GAEC 8 & 9) as a basis for the definition of sustainable soil management practices by each Member State in accordance with this paragraph.***

Or. en

*Justification*

*This amendment provides for better link to the CAP legislation.*

**Amendment 75**

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

*Amendment*

Member States shall ensure that the process of elaboration **and review** of the practices referred to in the first subparagraph is open, inclusive and effective and that the public concerned, in particular **experts**, landowners, **land** managers **and civil society**, are involved and are given early and effective opportunities to participate in their elaboration, **when all options are still open**.

Or. en

*Justification*

*All relevant stakeholders should be involved throughout the whole drafting process, not only at its end after the decision was made.*

**Amendment 76**

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

Or. en

*Justification*

*The intention of this addition is to ensure that all Soil Districts, including remote ones, will have an access to the advice (i.e. that the advisory service is not going to be centralized in the capitals of the Member States or that stakeholders will be prevented to access it due to long distance).*

## Amendment 77

### Proposal for a directive

#### Article 10 – paragraph 2 – subparagraph 2 – point a

*Text proposed by the Commission*

(a) promoting awareness on the medium- and long-term multiple benefits of sustainable soil management and the need to manage soils in a sustainable manner;

*Amendment*

(a) promoting awareness on the medium- and long-term multiple benefits of sustainable soil management and the need to manage soils in a sustainable manner, ***including by making available a list of the soil management and regeneration practices defined in accordance with paragraph 1;***

Or. en

## Amendment 78

### 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, ***citizen science*** and implementation of holistic soil management concepts;

Or. en

### *Justification*

*Citizens can actively contribute to achievement of this Directive. E.g. under the Horizon research project ECHO citizens help with data collection and promotion of soil stewardship. One of its results will also be an open access repository, including available citizen science data to be used by farmers, land users, researchers, etc. The citizen science provides valuable information about the state of soil health in various regions, helping them to make informed decisions about land use and conservation.*

## Amendment 79

### 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.***

Or. en

*Justification*

*Citizens can actively contribute to achievement of this Directive. E.g. under the Horizon research project ECHO citizens help with data collection and promotion of soil stewardship. One of its results will also be an open access repository, including available citizen science data to be used by farmers, land users, researchers, etc. The citizen science provides valuable information about the state of soil health in various regions, helping them to make informed decisions about land use and conservation.*

**Amendment 80**

**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*

3. Member States shall ***at least every three years*** 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.

Or. en

**Amendment 81**

**Proposal for a directive  
Article 10 – paragraph 3 a (new)**



*Text proposed by the Commission*

*Amendment*

**3a. The Commission shall assist and provide guidance to Member States regarding the development of specific measures linked to the sustainable soil management practices listed in Annex III.**

Or. en

## **Amendment 82**

### **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.**

**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, 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.*

Or. en

#### *Justification*

*To implement Art.10, an up-to-date toolbox with information about the effects of the practices on various ecosystem services and soil threats, their context specific applicability (based on soil type, land use and climatic conditions) is proposed. The database should be supplemented with new information from research, such as from the Soil Mission EU and the EJP on Agricultural Soil Management projects. The data should be publicly available, so that farmers, land managers, private and public entities, and others can use those to improve soil health.*

#### **Amendment 83**

##### **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 shall ***aim to reduce land take in order to achieve the objective of zero net land take by 2050 and*** ensure that the following principles are respected in case of land take:

Or. en

#### **Amendment 84**

##### **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

###### *Amendment*

(a) avoid the loss of the capacity of the soil to provide multiple ecosystem

loss of the capacity of the soil to provide multiple ecosystem services, including food production, by:

services, including food production, by:

Or. en

## Amendment 85

### Proposal for a directive

#### Article 11 – paragraph 1 – point b a (new)

*Text proposed by the Commission*

*Amendment*

***(ba) put in place measures, including incentives to restore and reuse abandoned areas with sealed soils, to prevent or limit land take.***

Or. en

## Amendment 86

### Proposal for a directive

#### Article 12 – paragraph 4 – point a

*Text proposed by the Commission*

*Amendment*

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

(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;***

Or. en

## Amendment 87

### Proposal for a directive

#### Article 12 – paragraph 4 – point b

*Text proposed by the Commission*

(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*;

*Amendment*

(b) to provide information relevant for the *activities referred to in point (a)*;

Or. en

*Justification*

*The amendment copies changes to point a) in Article 12(4).*

## Amendment 88

### 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.*

Or. en

*Justification*

*According to the WHO, numerous local studies have found increased risks for various adverse health outcomes linked to contaminated sites, including mortality, cancer, respiratory disease and congenital anomalies, among others. Therefore, this addition reflects that the occurrence of diseases in particular areas, may help the Member States with the identification of potentially contaminated sites.*

## Amendment 89

### 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 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 and current and future land use.

Or. en

#### *Justification*

*The addition of health professionals and authorities reflects their indispensable role in assessing what constitutes an unacceptable risk for human health and in ensuring protection. The WHO's review of European redevelopment case studies found that health authorities were only involved in less than half of all remediation and redevelopment projects and health impact assessments were applied less often during redevelopment projects than environmental ones, leading to inadequate health protection (WHO Regional Office for Europe, 2021).*

## Amendment 90

### 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 **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 at soil decontamination.**

*Justification*

*Decontamination should be considered as first, being the safest option in long term. Other options should be assessed only afterwards.*

**Amendment 91****Proposal for a directive****Article 15 – paragraph 6 a (new)**

*Text proposed by the Commission*

*Amendment*

**6a. For each contaminated site identified by the competent authority in accordance with Article 14 or by any other means, the competent authority shall identify the legal person responsible for the contamination. That legal person shall bear the cost of the implementation of the risk reduction measures, regardless of whether the contamination occurred in the framework of a legally valid permit.**

Or. en

*Justification*

*The "polluter pays" principle, as enshrined in Article 191(2) of the Treaty on the Functioning of the European Union, should be observed. The principle implies that polluters should pay for the pollution they cause, creating an incentive to avoid damaging the environment at its source and holding polluters accountable.*

**Amendment 92****Proposal for a directive****Article 15 a (new)**

*Text proposed by the Commission*

*Amendment*

**Article 15a**

**Right to submit substantiated request for an action from competent authorities**

**1. Any natural or legal person,**

*individually or jointly, shall be entitled to submit to the competent authorities referred to in Article 5 at any time any evidence, such as human biomonitoring or environmental monitoring data, that indicates soil pollution. Member States shall take into consideration that evidence when implementing the provisions of this Chapter and in relation to the soil descriptors for soil contamination listed in Annex I.*

*2. The competent authority concerned shall assess the information submitted in accordance with paragraph 1 and add the submitted evidence to all other available evidence.*

*3. Where the assessment has shown a wide dispersive soil pollution or exposure to the substance or mixture concerned via soil, the competent authority shall initiate a risk management process to manage the risks. Where the assessment has shown a lack of information on the risk to health or the environment posed by a hazardous substance or mixture present in soil, the competent authority shall investigate further with a view to taking risk management measures in line with the precautionary principle, where necessary.*

*4. The competent authority shall, within three months of receipt of the evidence, inform the natural or legal persons referred to in paragraph 1, of its opinion on the submitted evidence and concerns, and of any steps it plans to take to address those concerns, and shall provide the reasons for both the opinion reached and the steps proposed.*

Or. en

#### *Justification*

*Data generated by health practitioners, scientists, citizens or other stakeholders has the potential to inform the process and improve knowledge gaps on potential contamination and its respective risks (in view of its reduction and management). Therefore, authorities of*

*Member States shall consider evidence submitted to them such as human bio-monitoring or environmental monitoring data, in any time.*

## **Amendment 93**

### **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 Council<sup>79</sup> are fulfilled.

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<sup>79</sup> 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*

Member States shall make public ***and accessible 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 Council<sup>79</sup> are fulfilled.

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<sup>79</sup> 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).

Or. en

## **Amendment 94**

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

##### *Amendment*

5. The Commission shall ***by ... [OP : please insert date 1 year from entry into force of the Directive]*** adopt implementing 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 95**

### **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 funds, to finance actions with a focus on soil protection, sustainable management and regeneration.***

Or. en

## **Amendment 96**

### **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.***

Or. en

## **Amendment 97**

### **Proposal for a directive**

#### **Article 17 – paragraph 1 c (new)**

*Text proposed by the Commission*

*Amendment*

**1c. By ... [OP : please insert date = 24 months from the entry into force of the Directive], the Commission shall assess any gap between funding needs and the available Union funding necessary for supporting Member States in the implementation of this Directive, paying specific attention to environmental monitoring needs, including LUCAS soil.**

**The Commission shall identify potential solutions to bridge this gap in the Union general budget, where appropriate through the establishment of a permanent dedicated budget line within the ceilings of the Multiannual Financial Framework.**

Or. en

#### **Amendment 98**

##### **Proposal for a directive**

##### **Article 17 – paragraph 1 d (new)**

*Text proposed by the Commission*

*Amendment*

**1d. 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.**

Or. en

#### **Amendment 99**

##### **Proposal for a directive**

##### **Article 17 – paragraph 1 e (new)**

*Text proposed by the Commission*

*Amendment*

**1e. 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.**

Or. en

## **Amendment 100**

### **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 5 years:

Or. en

*Justification*

*Reporting of data should follow the monitoring frequency.*

## **Amendment 101**

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

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

Or. en

## **Amendment 102**

### **Proposal for a directive**

#### **Article 18 – paragraph 3 – point a**

*Text proposed by the Commission*

(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);

*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 = **12 months** after date of entry into force of the Directive) **and, where available, their respective soil district plans;**

Or. en

#### *Justification*

*To allow for a better overview of the management actions across the EU to facilitate exchange of information on best practices and transparency of the regulatory actions.*

## **Amendment 103**

### **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*

(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);

Or. en

## Amendment 104

### Proposal for a directive

#### Article 18 – paragraph 3 – point c a (new)

*Text proposed by the Commission*

*Amendment*

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

Or. en

## Amendment 105

### 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 Council<sup>80</sup> for geographically explicit data and Article 5 of Directive (EU) 2019/1024 for other data.

1. Member States shall make public 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 Council<sup>80</sup> for geographically explicit data and Article 5 of Directive (EU) 2019/1024 for other data.

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<sup>80</sup> 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).

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<sup>80</sup> 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).

Or. en

### *Justification*

*Inclusion of the assessment within Art. 10 on Sustainable soil management.*

## Amendment 106

### Proposal for a directive Article 19 – paragraph 4

*Text proposed by the Commission*

4. Disclosure of any information required under this Directive may be refused or restricted where the conditions laid down in Article 4 of Directive 2003/4/EC are fulfilled.

*Amendment*

4. Disclosure of any information required under this Directive may be refused or restricted where the conditions laid down in Article 4 of Directive 2003/4/EC are fulfilled. ***Any reason for refusal shall be stated and substantiated in writing.***

Or. en

## Amendment 107

### 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*

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

Or. en

*Justification*

*Article 16 does not require delegated acts.*

## Amendment 108

### 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

*Amendment*

3. The delegation of power referred to in Articles 8, 10, ***and*** 15 may be revoked at any time by the European Parliament or by

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.

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.

Or. en

### *Justification*

*Article 16 does not require delegated acts.*

## **Amendment 109**

### **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, 10, **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.

Or. en

### *Justification*

*Article 16 does not require delegated acts.*

## Amendment 110

### 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*

2. 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 protection **of human health or the environment** and meeting any requirements under national law shall be deemed to have rights capable of being impaired and their interest shall be deemed sufficient.

***Having standing shall not be made conditional on the role the public may or may not have played during a participatory phase of the decision-making procedures under this Directive.***

Or. en

*Justification*

*This addition aims at ensuring that rights of a member of the public are not limited in cases when it does not participate in the consultation procedures as it would equal to obstruction of access to justice that would not be in line with the Aarhus Convention.*

## Amendment 111

### Proposal for a directive Article 23 – paragraph 3 – point b a (new)

*Text proposed by the Commission*

*Amendment*

***(b a) previous infringements of this Directive by the natural or legal person;***

Or. en



## Amendment 112

### 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 the ‘polluter pays’ principle.***

Or. en

## Amendment 113

### Proposal for a directive

#### Article 23 – paragraph 4 a (new)

*Text proposed by the Commission*

*Amendment*

***4 a. In addition, Member States shall, in accordance with their respective rules on penalties, require the submission of soil remediation plans, conduct checks of their feasibility and continuously monitor their implementation.***

Or. en

*Justification*

*Effective solutions leading towards regeneration of soil should be implemented, in addition to financial penalties.*

## Amendment 114

### Proposal for a directive

#### Article 24 – paragraph 1 – introductory part

*Text proposed by the Commission*

*Amendment*

1. By (OP :please insert the date = 6

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:

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, **including setting 2040 intermediate targets where appropriate**, 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:

Or. en

### *Justification*

*The Commission should consider setting interim target(s), which would help reaching the objectives of this Directive.*

## **Amendment 115**

### **Proposal for a directive**

#### **Article 24 – paragraph 1 – point c**

##### *Text proposed by the Commission*

(c) relevant scientific and analytical data, including results from research projects funded by the Union;

##### *Amendment*

(c) relevant scientific and analytical data, including results from research projects funded by the Union **and by Member States**;

Or. en

## **Amendment 116**

### **Proposal for a directive**

#### **Article 24 – paragraph 1 – point d a (new)**

##### *Text proposed by the Commission*

##### *Amendment*

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

*Justification*

*The rapporteur proposes to provide Member States with bigger flexibility and autonomy with regards to the implementation of Union's soil monitoring framework. Therefore, it is important that the Commission evaluates the level of harmonisation within Annexes I and II, and specifically if Tier 1 is not applied.*

**Amendment 117****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 annex I;

Or. en

*Justification*

*Amendment reflects the changed approach in Annex I (Tiers 1, 2, 3), as proposed by the rapporteur.*

**Amendment 118****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.***

Or. en

**Amendment 119****Proposal for a directive****Article 24 – paragraph 2**

*Text proposed by the Commission*

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.

*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, ***accompanied by a legislative proposal, where appropriate.***

Or. en

**Amendment 120**

**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 after the date of entry into force of the Directive],the Commission shall, report to the European Parliament and to the Council every three years 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.***

Or. en

**Amendment 121**

**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 after the date of entry into force of the Directive], as part of the assessment***

*referred to in paragraph 1, the Commission shall assess the information collected on soil contamination 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.*

Or. en

#### *Justification*

*Similarly as in the Water Framework Directive, a list of priority substances that are of concern at EU level shall be considered to be included in the Soil Directive following the first assessment of soil health, together with a monitoring mechanism to improve the available information on identifying the substances of greatest concern and emerging treats, to prevent aggravation of contamination.*

#### **Amendment 122**

##### **Proposal for a directive Annex I – subheading 1**

*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

Or. en

#### **Amendment 123**

##### **Proposal for a directive Annex I**

*Text proposed by the Commission*

<b>Part A: soil descriptors with criteria for healthy soil condition established at Union level</b>			
<b>Salinization</b>	<b>Electrical Conductivity (deci-Siemens per meter)</b>	<b>&lt; 4 dS m<sup>-1</sup> when using saturated soil paste extract (eEC) measurement method, or equivalent criterion if using another measurement method</b>	<b>Naturally saline land areas; Land areas directly affected by sea level rise</b>
<b>Soil erosion</b>	<b>Soil erosion rate (tonnes per hectare per year)</b>	<b>≤ 2 t ha<sup>-1</sup> y<sup>-1</sup></b>	<b>Badlands and other unmanaged natural land areas, except if they represent a significant disaster risk</b>
<b>Loss of soil organic carbon</b>	<b>Soil Organic Carbon (SOC) concentration (g per kg)</b>	<b>- 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) .../...<sup>+</sup></b>	<b>No exclusion</b>
		<b>- For mineral soils: SOC/Clay ratio &gt; 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.</b>	<b>Non- managed soils in natural land areas</b>
<b>Subsoil compaction</b>	<b>Bulk density in subsoil (upper part of B or E horizon<sup>3</sup>); Member States may replace this descriptor with an equivalent parameter (g per cm<sup>3</sup>)</b>	<b>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”.</b>	<b>Non-managed soils in natural land areas</b>
<b>Part B: soil descriptors with criteria for healthy soil condition established at Member States level</b>			

<sup>+</sup> OP : please insert in the text the number of Regulation on nature restoration contained in document COM(2022) 304

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

<i>Excess nutrient content in soil</i>	<i>Extractable phosphorus (mg per kg)</i>	<i>&lt; “maximum value”; The “maximum value” shall be laid down by the Member State within the range 30-50 mg kg<sup>-1</sup></i>	<i>No exclusion</i>
<i>Soil contamination</i>	<ul style="list-style-type: none"> <li>- <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></li> <li>- <i>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</i></li> </ul>	<i>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/EEC<sup>4</sup> shall remain protected.</i>	<i>No exclusion</i>

<sup>4</sup> 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).

<b><i>Reduction of soil capacity to retain water</i></b>	<b><i>Soil water holding capacity of the soil sample (% of volume of water / volume of saturated soil)</i></b>	<b><i>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.</i></b>	<b><i>No exclusion</i></b>
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<b><i>Part C: soil descriptors without criteria</i></b>	
<b><i>Aspect of soil degradation</i></b>	<b><i>Soil descriptor</i></b>
<b><i>Excess nutrient content in soil</i></b>	<b><i>Nitrogen in soil (mg g<sup>-1</sup>)</i></b>
<b><i>Acidification</i></b>	<b><i>Soil acidity (pH)</i></b>
<b><i>Topsoil compaction</i></b>	<b><i>Bulk density in topsoil (A-horizon<sup>5</sup>) (g cm<sup>-3</sup>)</i></b>
<b><i>Loss of soil biodiversity</i></b>	<b><i>Soil basal respiration ((mm<sup>3</sup> O<sub>2</sub> g<sup>-1</sup> hr<sup>-1</sup>) in dry soil</i></b> <b><i>Member States may also select other optional soil descriptors for biodiversity such as:</i></b> <ul style="list-style-type: none"> <li><b><i>- metabarcoding of bacteria, fungi, protists and animals;</i></b></li> <li><b><i>- abundance and diversity of nematodes;</i></b></li> <li><b><i>- microbial biomass;</i></b></li> <li><b><i>- abundance and diversity of earthworms (in cropland);</i></b></li> <li><b><i>- invasive alien species and plant pests</i></b></li> </ul>

<b><i>Part D: land take and soil sealing indicators</i></b>	
<b><i>Aspect of soil degradation</i></b>	<b><i>Land take and soil sealing indicators</i></b>
<b><i>Land take and soil sealing</i></b>	<b><i>Total artificial land (km<sup>2</sup> and % of Member State surface)</i></b> <b><i>Land take, Reverse land take Net land take (average per year–</i></b> <b><i>- in km<sup>2</sup> and % of Member State surface)</i></b> <b><i>Soil sealing (total km<sup>2</sup> and % of Member State surface)</i></b> <b><i>Member States may also measure other related optional indicators such as:</i></b> <ul style="list-style-type: none"> <li><b><i>- land fragmentation</i></b></li> <li><b><i>- land recycling rate</i></b></li> <li><b><i>- land taken for commercial activities, logistic hubs, renewable energies, surfaces such as airports, roads, mines</i></b></li> <li><b><i>- consequences of land take such as quantification of loss of</i></b></li> </ul>

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



## Amendment

**Part A: Tier 1 for soil monitoring design**

*A Member State qualifies for a Tier 1 for soil monitoring design if it meets all the criteria defined in the second column and includes all soil descriptors.*

**Sampling design**

<b>Reference methodology</b>	<b>Criteria to meet</b>	<b>Exceptions</b>
<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. The sampling scheme shall be a stratified random sampling. 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 Article 6(4) shall contribute to a minimum 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) accounting for the required maximum estimation error.</i>	<i>a) Stratified random sampling based on land use type; b) 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>	<i>Where there is a sampling design that meets the criteria established for Tier 1 for soil monitoring design at the Member State level, the reference methodology may be adapted or other design approaches may be proposed to the Commission, provided that the implemented monitoring 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 shall nevertheless comply with the in-situ design of the Commission.</i>
<b>Degradation factors</b>		
<b>Degradation factor</b>	<b>Soil descriptor</b>	<b>Exceptions</b>
<b>Salinization</b>	<ul style="list-style-type: none"> <li>Electrical conductivity (deci-Siemens per meter)</li> </ul>	-
<b>Soil erosion</b>	<ul style="list-style-type: none"> <li>Soil erosion rate (tonnes per hectare per year)</li> </ul>	-

<i>Loss of soil organic carbon</i>	<ul style="list-style-type: none"> <li>• <i>Soil Organic Carbon (SOC) concentration (g per kg)</i></li> </ul>	-
<i>Soil compaction</i>	<ul style="list-style-type: none"> <li>• <i>Bulk density in topsoil (g cm<sup>-3</sup>)</i></li> </ul>	<i>Non-managed soils in natural land areas</i>
<i>Excess nutrient content in soil</i>	<ul style="list-style-type: none"> <li>• <i>Available phosphorus (mg per kg)</i></li> <li>• <i>Total Nitrogen in soil (mg g<sup>-1</sup>)</i></li> </ul>	-
<i>Soil contamination</i>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <i>Concentration of a selection of organic contaminants established by Member States taking into account existing concentration limits e.g. for water quality and air emissions in Union law especially priority substances under Directive 2000/60/EC of the European Parliament and of the Council<sup>6</sup></i></li> <li>• <i>Pesticide and biocides residues, veterinary products PFAS</i></li> </ul>	-
<i>Reduction of soil capacity to retain water</i>	<ul style="list-style-type: none"> <li>• <i>Soil water holding capacity of the soil sample (% of volume of water)</i></li> <li>• <i>Volume of saturated soil</i></li> </ul>	-
<i>Acidification</i>	<ul style="list-style-type: none"> <li>• <i>Soil acidity (pH)</i></li> </ul>	-

<sup>6</sup> *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, p. 1, ELI: <http://data.europa.eu/eli/dir/2000/60/oj>)*

<b><i>Soil ecological functions</i></b>		
<b><i>Ecological function</i></b>	<b><i>Soil descriptor</i></b>	<b><i>Exceptions</i></b>
<b><i>Nutrient cycling</i></b>	<b><i>Total nitrogen (mg g<sup>-1</sup>) Total carbon (g per kg) Available phosphorus (mg per kg)</i></b>	-
<b><i>Soil aggregation</i></b>	-	
<b><i>Enzymatic activity</i></b>	-	
<b><i>Soil respiration</i></b>	<b><i>Soil microbial basal respiration (μl O<sub>2</sub> h<sup>-1</sup> g<sup>-1</sup> soil dry weight)</i></b>	
<b><i>Litter decomposition</i></b>	-	
<b><i>Soil biomass</i></b>	<b><i>Soil microbial biomass (μg C g<sup>-1</sup> soil dry weight)</i></b>	
<b><i>Community traits of roots</i></b>	-	
<b><i>Soil biodiversity</i></b>		
<b><i>Soil biodiversity feature</i></b>	<b><i>Soil descriptor</i></b>	<b><i>Exceptions</i></b>
<b><i>Taxonomic diversity</i></b>	<b><i>Diversity of soil organisms through (presence counts per taxonomic group) based on metabarcoding with 16S and 18S markers</i></b>	
<b><i>Population abundance</i></b>	<b><i>Total abundances of bacteria (using 16S) Total abundances of fungi (using 18S) Proportion of pathogenic fungi Total nematode abundance per functional group (bacterial feeders, fungal feeders, root feeders, omnivores, predators)</i></b>	
<b><i>Intraspecific genetic diversity</i></b>	-	
<b><i>Soil habitat</i></b>		
<b><i>Soil habitat feature</i></b>	<b><i>Soil descriptor</i></b>	<b><i>Exceptions</i></b>
<b><i>Soil structure</i></b>	<b><i>Size class proportions (sand, silt, clay) Proportion of coarse materials (&gt;2mm)</i></b>	-

***Part B: Tier 2 for soil monitoring design***

<p><i>A Member State qualifies for a Tier 2 for soil monitoring design if:</i></p> <ul style="list-style-type: none"> <li><i>- it cumulatively includes all the soil descriptors for Tier 1 for soil monitoring design 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</i></li> <li><i>- cumulatively meets the criteria for soil sampling design of Tier 1 for soil monitoring design and includes all the soil descriptors in Part A and B.</i></li> </ul>		
<b>Sampling design</b>		
<b>Reference methodology</b>	<b>Criteria to meet</b>	<b>Exceptions</b>
<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 may also be used to further refine the sampling design. When available, Member States shall coordinate the 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. 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><i>a) Implementation of a systematic stratifier to achieve an homogeneous coverage of the Member State territory for all land types</i></p>	-
<b>Degradation factors</b>		
<b>Degradation factor</b>	<b>Soil descriptor</b>	<b>Exceptions</b>
<i>Salinization</i>	-	
<i>Soil erosion</i>	-	
<i>Loss of soil organic carbon</i>	-	
<i>Soil compaction</i>	<ul style="list-style-type: none"> <li><i>Bulk density in subsoil; Member States may replace this descriptor with an equivalent parameter (g per cm<sup>3</sup>)</i></li> </ul>	
<i>Excess nutrient content in soil</i>	-	

<i>Soil contamination</i>	<ul style="list-style-type: none"> <li>• <i>Concentration of microplastics and nanoplastics</i></li> </ul>	
<i>Reduction of soil capacity to retain water</i>	-	
<i>Acidification</i>	-	
<i>Soil ecological functions</i>		
<i>Ecological function</i>	<i>Soil descriptor</i>	<i>Exceptions</i>
<i>Nutrient cycling</i>	<i>nitrogen mineralization, nitrogen availability total nitrogen total carbon total organic carbon available phosphorus</i>	
<i>Soil aggregation</i>	<i>water-stable aggregates water stable fraction-coarse matter</i>	
<i>Enzymatic activity</i>	<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 <math>\beta</math>-glucosidase (EC 3.2.1.21)</i>	
<i>Soil respiration</i>	-	
<i>Litter decomposition</i>	-	
<i>Soil biomass</i>	<i>Microbial biomass as indicated by marker fatty acids (biomass per microbial functional group; ng FAME g<sup>-1</sup> soil dry weight)</i>	
<i>Community traits of roots</i>	-	
<i>Soil biodiversity</i>		

<i>Soil biodiversity feature</i>	<i>Soil descriptor</i>	<i>Exceptions</i>
<i>Taxonomic diversity</i>	<i>Diversity of soil animals per group (Nematodes and Earthworms)</i> <i>Metagenome-based soil biodiversity taxonomic counts per taxonomic group</i>	
<i>Population abundance</i>	<i>Total abundances of fungi (using the Internal transcribed spacer region (ITS))</i>	
<i>Intraspecific genetic diversity</i>	-	
<i>Soil habitat</i>		
<i>Soil habitat feature</i>	<i>Soil descriptor</i>	<i>Exceptions</i>
<i>Soil structure</i>	-	

<b><i>Part C: Tier 3 for soil monitoring design</i></b> <b><i>A Member State qualifies for a Tier 3 for soil monitoring design if it meets Tier 2 for soil monitoring design conditions and includes at least 50% of the soil descriptors in Part C.</i></b>		
<i>Soil ecological functions</i>		
<i>Ecological function</i>	<i>Soil descriptor</i>	<i>Exceptions</i>
<i>Nutrient cycling</i>	-	
<i>Soil aggregation</i>	<i>Water-stable aggregates</i> <i>Water stable fraction-coarse matter</i>	
<i>Enzymatic activity</i>	-	
<i>Soil respiration</i>	-	
<i>Litter decomposition</i>	<i>Litter decomposition rate</i>	
<i>Soil biomass</i>	<i>Soil animal biomass (per taxonomic group; mg dry weight)</i> <i>Root biomass (mg dry weight)</i>	
<i>Community traits of roots</i>	<i>Total nitrogen present in roots</i> <i>Root length density</i> <i>Mean root diameter</i> <i>Variation in root diameter</i> <i>Root dry matter content</i>	
<b><i>Soil biodiversity</i></b>		

<i>Soil biodiversity feature</i>	<i>Soil descriptor</i>	<i>Exceptions</i>
<i>Taxonomic diversity</i>	<i>Diversity of soil animals per group (Collembola and Mites)</i> <i>Presence of invasive alien species</i> <i>Diversity of viruses using metabarcoding</i>	
<i>Population abundance</i>	<i>Total abundance of soil animals per taxonomic group</i>	
<i>Intraspecific genetic diversity</i>	<i>Intraspecific genetic diversity using metagenomic technics</i>	
<i>Soil habitat</i>		
<i>Soil habitat feature</i>	<i>Soil descriptor</i>	<i>Exceptions</i>
<i>Soil structure</i>	-	

<i>Part D: land take and soil sealing indicators</i>	
<i>Aspect of soil degradation</i>	<i>Land take and soil sealing indicators</i>
<i>Land take and soil sealing</i>	<i>Total artificial land (km<sup>2</sup> and % of Member State surface)</i> <i>Land take, Reverse land take Net land take (average per year— in km<sup>2</sup> and % of Member State surface)</i> <i>Soil sealing (total km<sup>2</sup> and % of Member State surface)</i> <i>Member States may also measure other related optional indicators such as:</i> <ul style="list-style-type: none"> <li>- <i>land fragmentation</i></li> <li>- <i>land recycling rate</i></li> <li>- <i>land taken for commercial activities, logistic hubs, renewable energies, surfaces such as airports, roads, mines</i></li> <li>- <i>consequences of land take such as quantification of loss of ecosystem services, change in floods intensity</i></li> </ul>

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## Amendment 124

### Proposal for a directive Annex II

**Part A: Methodology for determining sampling points**

<b>Activity</b>	<b>Minimum criteria for methodology</b>
<b>Determination of soil sampling points (sample survey)</b>	<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 optimized 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)<sup>7</sup> accounting for the required maximum estimation error.</i></p>

**Part B: Methodology for determining or estimating the values of soil descriptors**

*When a reference methodology is set, either the reference methodology is used or another methodology, provided that it is available in the scientific literature or publicly available and a validated transfer function is available.*

<b>Soil descriptor</b>	<b>Reference methodology</b>	<b>Minimum methodological criteria</b>	<b>Validated transfer function required (if using a methodology different from the reference methodology<sup>8</sup>)?</b>
<b>Soil texture (clay, silt and sand content – needed for the determination of other descriptors and related ranges)</b>	<b>Preferred method: ISO 11277:1998 Determination of particle size distribution in mineral soil material – Method by sieving and sedimentation</b>		<b>YES</b>

<sup>7</sup> Bethel, J. 1989. "Sample Allocation in Multivariate Surveys." Survey Methodology 15: 47–57.

<sup>8</sup> The methodologies different from the reference methodology shall either be available in the scientific literature or publicly available.



	<i>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- 08<sup>9</sup>) Option 2: ISO 11265:1994 Determination of The Specific Electrical Conductivity;</i>		<i>YES</i>
<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 length),</i>	<i>N/A</i>

<sup>9</sup> <https://www.fao.org/3/cb3355en/cb3355en.pdf>

		<ul style="list-style-type: none"> <li>- <i>vegetation cover, crop type, land use and management practices to control or reduce erosion,</i></li> <li>- <i>management practices (e.g. cover crops, reduced tillage, mulching, etc.),</i></li> <li>- <i>burned areas.</i></li> </ul> <p><i>Soil erosion by wind shall be assessed by considering the following factors:</i></p> <ul style="list-style-type: none"> <li>- <i>soil characteristics (e.g. erodibility),</i></li> <li>- <i>climate (e.g. soil moisture, wind speed, evaporation),</i></li> <li>- <i>vegetation (e.g. crop type),</i></li> <li>- <i>management practices to control or reduce erosion (e.g. wind breaks).</i></li> </ul>	
<b><i>Soil Organic Carbon (SOC)</i></b>	<b><i>ISO 10694:1995 Determination of organic and total carbon after dry combustion</i></b>		<b><i>YES</i></b>
<b><i>Bulk density in subsoil (B horizon<sup>10</sup>) or equivalent<sup>11</sup> parameter chosen by Member States</i></b>	<b><i>ISO 11272:2017 for determination of dry bulk density</i></b>  <b><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</i></b>		<b><i>YES</i></b>

<sup>10</sup> As defined in the FAO Guidelines for Soil Description, Chapter 5 (<https://www.fao.org/3/a0541e/a0541e.pdf>)

<sup>11</sup> Equivalent according to the EEA report: [Soil monitoring in Europe – Indicators and thresholds for soil health assessments — European Environment Agency \(europa.eu\)](#)

	<i>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><b>- Concentration of heavy metals in soil: As, Sb, Cd, Co, Cr (total), Cr (VI), Cu, Hg, Pb, Ni, Tl, V, Zn</b></p> <p><b>- 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)</b></p>	<p><b>Potential environmental available content of heavy metals in soils based on ISO 17586:2016 using dilute nitric acid.</b></p>	<p><b>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</b></p>	<p><b>YES</b> <b>N/A</b></p>
<p><b>Soil water holding capacity</b></p>	<p><b>Methodology to determine the value for one sample point:</b>  <b>Option 1:</b>  <b>LABORATORY:</b>  <b>ISO 11274:2019 for determination of the water-retention characteristic.</b>  <b>Option 2:</b>  <b>ESTIMATION:</b>  <b>apply methodology described in the scientific article “New generation of hydraulic pedotransfer functions for Europe”<sup>12</sup> based on texture (or particle size distribution) and soil organic carbon.</b></p>	<p><b>Minimum criteria for estimating the total soil water holding capacity of a soil district on a river basin or sub-basin scale:</b></p> <ul style="list-style-type: none"> <li>- <b>for the area of land not taken estimate the total value of soil water holding capacity</b></li> <li>- <b>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.</b></li> </ul>	<p><b>YES (for point value)</b></p>
<p><b>Nitrogen in soil</b></p>	<p><b>ISO 11261:1995 for determination of total soil nitrogen using a modified Kjeldahl method</b></p>		<p><b>YES</b></p>
<p><b>Soil acidity</b></p>	<p><b>ISO 10390:2005 for</b></p>		<p><b>YES</b></p>

	<i>determination of pH in H<sub>2</sub>O and CaCl<sub>2</sub> extract (pH-H<sub>2</sub>O and pH-CaCl<sub>2</sub>)</i>		
<i>Bulk density in “topsoil” (A-horizon<sup>13</sup>)</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>-Metabarcoding<sup>14</sup> 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”<sup>15</sup></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>

#### *Amendment*

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

<i>Activity</i>	<i>Reference criteria for methodology</i>
<i>Soil ecological monitoring</i>	<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 for soil monitoring design 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,<sup>16</sup></i></p>

<sup>13</sup> As defined in the FAO Guidelines for Soil Description, Chapter 5 (<https://www.fao.org/3/a0541e/a0541e.pdf>)

<sup>14</sup> 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>

<sup>15</sup> <https://www.sciencedirect.com/science/article/abs/pii/S0038071797001259>

<sup>16</sup> <https://soil-organisms.org/index.php/SO/article/view/164>

	<p><i>considering a homogeneous square area of 30x30 meters, establish nine subsamples matching the corners of the squares, its center, and the intermediate points.</i></p> <p><i>Using a metal soil corer or similar, extract the soil with a volume of 5 cm diameter and 10 cm depth.</i></p> <p><i>Soil depth can be increase to 30 cm but the first (up to 10 cm) and second layer should be separated.</i></p>
<b>Soil fauna monitoring</b>	<p><i>For earthworms: hand sorting using protocols complaint with the sampling protocol laid out in Briones et al. 2020<sup>17</sup></i></p> <p><i>For nematodes: following the criteria established in the standard SoilBON sampling protocol.<sup>18</sup></i></p> <p><i>For collembola and mites: following the protocols established in Potapov et al. 2022<sup>19</sup></i></p>
<b>Other point based soil descriptors</b>	<i>Member States shall use the LUCAS Soil methodology<sup>20</sup> as a reference for soil sampling.</i>

**Part B: Methodology for determining or estimating the values of soil descriptors**

*When a reference methodology is set, either the reference methodology is used or another methodology, provided that it is available in the scientific literature or publicly available and a validated transfer function is available.*

<b>Soil descriptor</b>	<b>Reference methodology</b>	<b>Minimum methodological criteria</b>	<b>Valid ated transf er functi on requir ed (if using a metho dolog y differ ent from the refere nce metho</b>

<sup>17</sup> [http://soildiveragro.eu/wp-content/uploads/2022/05/wp5-handbook-09\\_05\\_2022.pdf](http://soildiveragro.eu/wp-content/uploads/2022/05/wp5-handbook-09_05_2022.pdf)

<sup>18</sup> <https://soil-organisms.org/index.php/SO/article/view/164>

<sup>19</sup> <https://soil-organisms.org/index.php/SO/article/view/178>

<sup>20</sup> [https://esdac.jrc.ec.europa.eu/ESDB\\_Archive/eusoi ls\\_docs/other/EUR26102EN.pdf](https://esdac.jrc.ec.europa.eu/ESDB_Archive/eusoi ls_docs/other/EUR26102EN.pdf)

			<i>dolog y<sup>21</sup>)?</i>
<i>Soil texture (clay, silt and sand content – needed for the determination of other descriptors and related ranges)</i>	<p><i>Preferred method: ISO 11277:1998</i>  <i>Determination of particle size distribution in mineral soil material – Method by sieving and sedimentation</i></p> <p><i>Alternative method: ISO13320:2009 Particle size analysis – Laser diffraction methods</i></p>		<b>YES</b>
<i>Electrical Conductivity</i>	<p><i>Option 1: saturated soil paste extract (eEC) measurement method (FAO SOP: GLOSOLAN-SOP-08<sup>22</sup>)</i></p> <p><i>Option 2: ISO 11265:1994 Determination of The Specific Electrical Conductivity;</i></p>		<b>YES</b>
<i>Soil erosion rate</i>		<p><i>Soil erosion rate estimation shall take into account all actions taken to mitigate or compensate the erosion risk, including post-fire mitigation measures.</i></p> <p><i>Soil erosion rate estimation shall include all relevant erosion processes such as erosion by water, wind, harvest and tillage.</i></p> <p><i>Soil erosion by water shall be assessed by considering the following factors:</i></p> <ul style="list-style-type: none"> <li>- <i>soil characteristics (e.g. erodibility, soil crusting, soil roughness),</i></li> <li>- <i>climate (e.g. rainfall erosivity – intensity and duration, considering</i></li> </ul>	<b>N/A</b>

<sup>21</sup> The methodologies different from the reference methodology shall either be available in the scientific literature or publicly available.

<sup>22</sup> <https://www.fao.org/3/cb3355en/cb3355en.pdf>

		<p><i>relevant climate change projections for a given area),</i></p> <ul style="list-style-type: none"> <li>- <i>topography (e.g. slope steepness and length),</i></li> <li>- <i>vegetation cover, crop type, land use and management practices to control or reduce erosion,</i></li> <li>- <i>management practices (e.g. cover crops, reduced tillage, mulching, etc.),</i></li> <li>- <i>burned areas.</i></li> </ul> <p><i>Soil erosion by wind shall be assessed by considering the following factors:</i></p> <ul style="list-style-type: none"> <li>- <i>soil characteristics (e.g. erodibility),</i></li> <li>- <i>climate (e.g. soil moisture, wind speed, evaporation),</i></li> <li>- <i>vegetation (e.g. crop type),</i></li> <li>- <i>management practices to control or reduce erosion (e.g. wind breaks).</i></li> </ul>	
<b><i>Soil Organic Carbon (SOC)</i></b>	<b><i>ISO 10694:1995 Determination of organic and total carbon after dry combustion</i></b>		<b><i>YES</i></b>
<b><i>Bulk density in subsoil or equivalent<sup>23</sup> parameter chosen by Member States</i></b>	<b><i>ISO 11272:2017 for determination of dry bulk density</i></b>  <b><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 shall either be available in</i></b>		<b><i>YES</i></b>

<sup>23</sup> Equivalent according to the EEA report: [Soil monitoring in Europe – Indicators and thresholds for soil health assessments — European Environment Agency \(europa.eu\)](#)





	<i>of hydraulic pedotransfer functions for Europe”<sup>24</sup> 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 H<sub>2</sub>O and CaCl<sub>2</sub> extract (pH-H<sub>2</sub>O and pH-CaCl<sub>2</sub>)</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>	<p><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.</i></p> <p><i>The potential net N mineralization rate is estimated as the difference between initial and final inorganic N.</i></p> <p><i>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></p>		<i>YES</i>
<i>Soil aggregation</i>	<i>These soil descriptors are reported as water-stable soil aggregates assessed by determining the resistance</i>		<i>YES</i>

	<p><i>of soil aggregates against water as a disintegrating force, by applying an approach modified from Kemper and Rosenau (1986).</i></p> <p><i>The resulting index represents the percentage of water-stable 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=(water stable fraction-coarse matter)/(4 g-coarse matter).</i></p>		
<i>Enzymatic activity</i>	<i>Follow the indications described in Zeiss et al., 2022<sup>25</sup></i>		<b>YES</b>
<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”<sup>26</sup></i>		<b>YES</b>
<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>	<b>N/A</b>
<i>Soil biomass</i>	<i>Follow the indications described in Guerra et al., 2021<sup>27</sup></i>		<b>YES</b>
<i>Community traits</i>	<i>Follow the indications</i>		<b>YES</b>

<sup>25</sup> <https://conbio.onlinelibrary.wiley.com/doi/pdf/10.1111/cobi.13930>

<sup>26</sup> <https://www.sciencedirect.com/science/article/abs/pii/S0038071797001259>

<sup>27</sup> <https://www.science.org/doi/10.1126/science.abd7926>

<i>of roots</i>	<i>described in Guerra et al., 2021</i>		
<i>Taxonomic diversity</i>	<i>Follow the indications described in Guerra et al., 2021</i>		<b>YES</b>
<i>Population abundance</i>	<i>Follow the indications described in Guerra et al., 2021</i>		<b>YES</b>
<i>Intraspecific genetic diversity</i>	<i>Follow the indications described in Guerra et al., 2021</i>		<b>YES</b>
<i>Soil structure</i>	<p><i>Granulometric analysis is performed on sieved soil (<math>\emptyset &lt; 2</math> mm), after the destruction of the organic matter with H<sub>2</sub>O<sub>2</sub>.</i></p> <p><i>The dispersion is carried out with a solution of hexametaphosphate/sodium carbonate and stirred for 16 hours.</i></p> <p><i>The granulometric fractions considered are those recommended by the International Union of Soil Science (Atterberg Scale), which are coarse sand (<math>2 &gt; \emptyset &gt; 0.2</math> mm), fine sand (<math>0.2 &gt; \emptyset &gt; 0.02</math> mm), silt (<math>0.02 &gt; \emptyset &gt; 0.002</math> mm) and clay (<math>\emptyset &lt; 0.002</math> mm).</i></p> <p><i>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>		<b>YES</b>

Or. en

## **Amendment 125**

### **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.***

Or. en

## 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 Parliament<sup>28</sup> 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:

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<sup>28</sup>European 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](https://www.europarl.europa.eu/doceo/document/TA-9-2021-0143_EN.pdf)

- 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.
- **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

The following list is drawn up on a purely voluntary basis under the exclusive responsibility of the rapporteur. The rapporteur has received input from the following entities or persons in the preparation of the draft report:

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