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Subject : Proposal for a Directive of the European Parliament and of the Council
establishing a framework for the **protection of soil**
- Presidency proposal

Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

establishing a framework for the protection of soil

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 175(1) thereof,

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Economic and Social Committee ^{*},

Having regard to the opinion of the Committee of the Regions ^{**},

Acting in accordance with the procedure laid down in Article 251 of the Treaty ^{***},

Whereas:

[*Recitals omitted.*]

* OJ C ...

** OJ C ...

*** Opinion of the European Parliament of ... (OJ C ...), Council common position of ... (OJ C ...) and position of the European Parliament of (not yet published in the Official Journal).
Legislative resolution of the European Parliament of ... (not yet published in the Official Journal) and Council decision of ...

HAVE ADOPTED THIS DIRECTIVE:

Chapter I

General provisions

Article 1

Subject-matter and scope

1. This Directive establishes a framework for the protection of soil, its sustainable use and the preservation and, where [feasible] [appropriate, sustainable] restoration of the capacity of soil to perform as many as possible of the following environmental, economic, social, scientific and cultural functions:
 - (a) food and other biomass production, including in agriculture and forestry;
 - (b) storing, filtering and transforming nutrients, substances and water, as well as replenishing bodies of groundwater;
 - (c) basis for life and biodiversity, such as habitats, species and genes;
 - (d) physical and cultural environment for humans and human activities;
 - (e) source of raw materials;
 - (f) acting as carbon reservoir;
 - (g) archive of geological, geomorphological and archaeological heritage.

To that end, it lays down measures for the prevention of soil degradation processes, caused by a wide range of human activities with due account also being taken of natural causes ¹, which significantly adversely affect the capacity of a soil to perform those functions while taking into account that some functions are mutually exclusive. ² To address such soil degradation processes, it also lays down provisions for establishing measures for the restoration and remediation, including mitigation, of degraded soils to a level of functionality consistent at least with its current and approved future use. ³

¹ The following recital will be added: "Soil degradation can have both natural origin and be caused by human activity. Some naturally occurring soil degradation processes cannot be avoided or mitigated and others can be acceptable to the extent that they do not exceed the level or risk acceptability established by Member States."

² The Presidency proposes amending recital (7) to read as follows: "Soil should be used in a sustainable manner which preserves its capacity to deliver ecological, economic and social services, while maintaining its functions so that future generations can meet their needs. While recognising that some soil functions may be mutually exclusive, as many as possible should be preserved."

³ The Presidency suggests amending recital (26) as follows: "Taking into account the polluter pays principle, Member States should ensure that action is taken to remediate the contaminated sites identified within their national territory. When carrying out the identification and remediation of contaminated sites, Member States have to take into account the current and approved future use of the land. If there is no approved future use of the land at the time of the assessment of the risk of the site, only the current use should be taken into account. If the Member State intends to change the approved use of the land to a less sensitive use, in order to reduce the risk to human health or the environment, it should do so to ensure that the approved use of the land is always compatible with a level of risk that is not significant for human health and the environment."

2. This Directive shall apply to soil as defined in Article 2(1), excluding
- (i) groundwater ⁴ as defined in Article 2(2) of Directive 2000/60/EC of the European Parliament and of the Council ^{*} and as covered by Directive 2006/118/EC of the European Parliament and of the Council ^{**},
 - (ii) the seabed, ⁵ and
 - (iii) soil that forms part of bodies of surface water under Article 2(10) of Directive 2000/60/EC.

Article 2
Definitions

For the purposes of this Directive, the following definitions shall apply:

- (1) "soil" means the top layer of the Earth's crust situated between the bedrock and the surface. The soil is composed of mineral particles, organic matter, water, air and living organisms ⁶;

⁴ The following new recital (8a) will be added: "Specific provisions concerning the protection of groundwater are laid down in Directive 2006/118/EC and Directive 2000/60/EC. In order to avoid legal uncertainty, it is therefore opportune to exclude groundwater from the definition of soil, while ensuring that groundwater is considered as a possible receptor of soil contamination in the context of the identification and remediation of contaminated sites and related provisions in this Directive."

^{*} OJ L 327, 22.12.2000, p. 1.

^{**} OJ L 372, 27.12.2006, p. 19.

⁵ The following new recital will be added: "With respect to the scope of this Directive and the exclusion of seabed, it is important to respect Member States' existing national provisions in relation to the interface of maritime and terrestrial jurisdiction."

⁶ The Presidency suggests amending recital (5) as follows: "Soil variability is very high in the Community and enormous differences exist in its structural, physical, chemical and biological state both within individual profiles and between soils, including factors such as the distance of the bedrock from the soil surface. These diverse conditions and needs in the Community should be taken into account as they require different specific solutions for the identification of priority areas [...], definition of targets and execution of appropriate and proportionate measures to ensure protection of soil."

- (2) "sealing" means the permanent covering of the soil surface with an impermeable material;
- (3) "dangerous substances" means substances or preparations within the meaning of Council Directive 67/548/EC * and Directive 1999/45/EC of the European Parliament and of the Council **;
- (4) "potentially soil-contaminating activities" means human activities which can damage significantly the soil due to the use or the presence of dangerous substances;
- (5) "contaminated sites" means sites where there is a confirmed presence, caused by human activities, of dangerous substances at such a [level] [extent] that Member States consider that they pose a significant risk to human health or the environment, including groundwater. Such risk is to be assessed taking account of the current and approved future use of the land;
- (6) ["inventory of sites linked to a potentially soil-contaminating activity" means the inventory of sites where a potentially soil contaminating activity included in the list defined in Article 11(1) are taking place or have taken place in the past;]
- (7) ["inventory" means the inventory of contaminated sites in a Member State;] ["inventory of contaminated sites" means the inventory of sites as defined in (4) and identified according to Article 10;]
- (8) "priority areas" means areas where there is decisive evidence, or legitimate grounds for suspicion, that one or more soil degradation processes exceeding the level of risk acceptability referred to in Article 6(2)(b) is occurring or is likely to occur in the near future;

* OJ L 196, 16.8.1967, p. 1.

** OJ L 200, 30.7.1999, p. 1.

- (9) "soil degradation processes" means:
- (i) erosion by water or wind;
 - (ii) organic matter decline brought about by a steady downward trend in the organic fraction of the soil including peat, but excluding undecayed plant and animal residues;⁷
 - (iii) compaction through an increase in bulk density and a decrease in soil porosity;⁸
 - (iv) salinisation through the accumulation in soil of soluble salts;
 - (v) landslides brought about by the down-slope, moderately rapid to rapid movement of masses of earth above the bedrock;
 - (vi) acidification by significantly decreasing the soil pH value.⁹

⁷ The following new recital will be added: "Soil organic matter comprises, where it occurs, peat. The continued extraction of peat, which is permissible in principle as a source of raw material, may cause a decline in soil organic matter and therefore would have to be assessed against the levels of risk acceptability established by Member States pursuant to this Directive."

⁸ The Presidency suggests the following new recital: "Soil compaction refers to the increase of bulk density and a decrease in soil porosity brought about by inappropriate land management practices and inappropriate use of heavy machinery. Soil compaction resulting from static pressure of buildings, or from preparatory or accompanying works for the construction of buildings and structures is inevitable in principle and would have to be assessed against the levels of risk acceptability established by Member States pursuant to this Directive."

⁹ The following new recital on acidification will be added: "Acidification is a soil degradation process, particularly of concern in relation to productive soils. However, it is recognised that certain naturally occurring acid soils would need to be maintained in this state in order to perform their soil functions."

Article 3
Integration

In the development of sectoral policies which can significantly exacerbate or reduce soil degradation processes, Member States shall take into account the impacts of such policies on these processes, in particular in areas such as regional and urban spatial planning, transport, energy, agriculture, rural development, forestry, raw material extraction, trade and industry, product policy, tourism, climate change, environment, nature and landscape.

Article 4
Precautionary and preventive measures

For the purpose of preserving the soil functions and the sustainable use of soil referred to in Article 1(1), Member States shall ensure that [appropriate and proportionate measures are taken] [measures they consider to be appropriate and proportionate are taken]:

- (a) to prevent or minimise adverse effects from actions that Member States consider are likely to [affect the soil in a way that can reasonably be expected to significantly hamper] [hamper significantly] any of the soil functions referred to in Article 1(1);
- (b) to limit the intentional or unintentional introduction in order to avoid accumulation of those dangerous substances on or in the soil that would significantly hamper soil functions or give rise to significant risks to human health or the environment, excluding those due to air deposition ¹⁰ and those due to a natural phenomenon of exceptional, inevitable and irresistible character;
- (c) to prevent the intentional and unintentional introduction of relevant dangerous substances on or in the soil by dumping, leaking or spilling.

¹⁰ The Presidency suggests the following new recital: "Soil functions may be hampered by air deposition. However, measures at source to prevent air pollution are dealt with in other EC legislation."

For the purpose of this Article, Member States may build upon existing national, regional and local measures and programmes already set up under national or Community legislation (such as Directive 2008/01/EC concerning Integrated Pollution Prevention and Control, Directive 2000/60/EC establishing a framework for Community action in the field of water policy and its daughter directives, Directive 2004/35/3C concerning Environmental Liability) or international agreements as well as voluntary measures.

Article 5

Sealing

For the purpose of preserving the soil functions and the sustainable use of soil referred to in Article 1(1), Member States shall, taking into account relevant environmental, social and economic benefits from sealing, take appropriate and proportionate measures to, where necessary, limit sealing or, where sealing is to be carried out, to mitigate its effects for example by the use of construction techniques and products which will allow as many of those functions as possible to be maintained.¹¹

¹¹ The Presidency suggests to amend recital (13) as follows: "Sealing is becoming significantly more intense in the Community as a result of urban sprawl and increasing demand for land from many sectors of the economy, and this calls for a more sustainable use of soil. Recognising that agriculture, forestry and nature conservation play a crucial role in maintaining soil quality and revitalising soil and that due consideration should be given to requirements of urban development, the construction of buildings and structures and to all necessary preparatory and accompanying measures, particular attention should be paid to the overall effects of sealing. For the purpose of limiting sealing and reducing the depletion of greenfield sites, the rehabilitation of brownfield sites could be considered one of the appropriate options. Where sealing does occur, Member States should provide for construction and drainage techniques that would allow as many soil functions as possible to be preserved." Furthermore the Presidency suggests amending recital (20) as follows: "In compliance with the prevention principle as laid down in Article 174 of the EC Treaty, this Directive should contribute to the prevention and reduction of the introduction of dangerous substances into soil to avoid soil contamination and to preserve soil functions. However, certain practices for overriding safety reasons such as sustainable use of de-icing salt may be continued."

Chapter II

Soil Degradation Processes

SECTION ONE

IDENTIFICATION OF PRIORITY AREAS

Article 6

Identification of priority areas requiring special protection from erosion, organic matter decline, compaction, salinisation, landslides or acidification

1. Member States shall identify priority areas, as defined in Article 2(8), on their national territory requiring special protection against soil degradation processes defined in Article 2(9).
2. By ...^{*}, and for the soil degradation processes erosion, organic matter decline, compaction, salinisation, landslides and acidification, Member States shall identify, having regard to paragraph 6, the soil degradation processes [which] [of a level they consider to be significant in their territory and which] [are] [therefore] of relevance for their territory or part of their territory. For such degradation processes, Member States shall:
 - (a) evaluate, based on but not restricted to the relevant elements listed in Annex I, the extent to which their national territory is subject [or likely to be subject in the near future to] [to and at risk of] such degradation processes;
 - (b) establish the levels of risk acceptability of the soil degradation processes, having regard to the objective of preserving soil functions pursuant to Article 1(1) and the sustainable use of soil for the purpose of identifying priority areas;
 - (c) identify priority areas on their national territory, at the administrative level and geographical scale that Member States consider appropriate, that exceed the levels of acceptability established in point (b).

^{*} 7 years after entry into force.

3. For the purpose of the evaluation carried out under paragraph 2(a), Member States may base the identification of areas on empirical evidence or validated models. Where appropriate existing data, including maps and research, may be used.
4. For the purpose of paragraphs 2(b) and 2(c) Member States shall take into account, as far as relevant and scientifically feasible, the sustainable use of soils, effects of those processes on greenhouse gas emissions, desertification and soil biodiversity loss.
5. The priority areas identified pursuant to paragraph 2(c) shall be made public and updated at least every ten years.
6. Where, on the basis of the physical and climate characteristics of its territory, a Member State considers that one or more of the soil degradation processes referred to in paragraph 2 are not occurring or will not be likely to occur in the near future in their territory or part of their territory at a level considered relevant with regard to the preservation of the soil functions pursuant to Article 1(1) and the sustainable use of soil, it shall notify the Commission thereof within four years after entry into force of this Directive.
7. Member States shall designate the competent authorities to be responsible for the identification of priority areas.

(Article 7: deleted)

SECTION TWO
ESTABLISHMENT OF TARGETS AND ACTION PROGRAMMES

Article 8

*Action Programmes to combat erosion, organic matter decline, compaction, salinisation,
landslides and acidification*

1. For the purpose of preserving or, where [feasible] [a Member State considers appropriate], restoring the soil functions and ensuring the sustainable use of soil referred to in Article 1(1), Member States shall, in respect of the priority areas identified in accordance with Article 6, draw up, at the administrative level and geographical scale that they consider appropriate, an action programme including at least risk reduction targets, measures to reach those targets, a timetable for the implementation of those measures and an estimate of the allocation of financial resources for their implementation. Member States shall therefore decide on the risk [reduction targets] [management approach] that they consider to be adequate and establish appropriate measures to reach [those] [the relevant] targets. Such programmes may build upon existing national, regional and local measures and programmes already set up under national or Community legislation or international agreements. The action programmes may include statutory, administrative or contractual measures¹² (such as inter alia CAP cross-compliance and rural development measures, voluntary agreements, voluntary codes of practice and covenants).

¹² The Presidency suggest amending recital (18) as follows: "Such action programmes [...] should take into account the social and economic impact of the measures envisaged; they should be reviewed periodically and may build on obligations, plans and programmes, including voluntary agreements, already set up under national or Community legislation or international agreements. Existing voluntary agreements, voluntary Codes of Practice, covenants and other administrative and contractual measures may be included within the measures under the action programmes pursuant to this Directive insofar as they are appropriate to achieve the risk reduction targets set up by Member States therein."

2. When drawing up and revising the various elements of the action programmes pursuant to paragraph 1, Member States shall give due consideration to the social and economic impacts, cost-effectiveness and technical feasibility of the measures envisaged as well as enhance coherence with existing national, regional and local measures and programmes, in particular those taken in the context of cross-compliance and rural development within the CAP.

Member States shall indicate in their action programmes how the measures are to be implemented and how they will contribute to the achievement of the environmental targets established in application of Article 8(1).

3. Where an area is identified as requiring special protection from different concurrent soil degradation processes, Member States may adopt a single programme in which appropriate risk reduction targets are to be set for all the degradation processes identified together with the appropriate measures for reaching those targets.
4. The action programme shall be drawn up by ...^{*} and shall be in application no later than by ...^{**}.

The action programme shall be made public and shall be updated at least every five years and reviewed at least every ten years.

(Article 9: deleted)

* 9 years after entry into force.
** 10 years after entry into force.

Chapter III

Soil contamination

SECTION ONE

IDENTIFICATION AND INVENTORY

Article 10

Identification and inventory of contaminated sites

1. **In order to ensure that soil contamination is tackled systematically, it is necessary for Member States to define and apply a general management of contaminated sites, which shall rely on the obligations to identify sites linked to potentially soil-contaminating activities, to identify the contaminated sites as defined in Article 2(4) on their national territory, as well as to remediate contaminated sites.**

2. For the purpose of paragraph 1, Member States shall:

OPTION A

- (a) **within seven years from [transposition date], have identified, if they have not yet done so, the location of at least the sites where the activities referred to in Annex II A and, where considered relevant by the Member State, Annex II B are taking place or have taken place in the past.**

OPTION B

- (a) **within one year from [transposition date], adopt and make public, based on but not restricted to the activities listed in Annex II, a national list of the activities which due to their handling storage and use of dangerous substances have a significant potential to cause soil contamination;**

within five years from [transposition date], have identified, if they have not yet done so, from existing information available to public authorities (for example data bases, inventories of sites, Land Quality Records) the location of at least the sites where the potentially soil-contaminating activities as indicated in the list defined in paragraph 2(a), are taking place or have taken place in the past.

The results of this identification shall be taken into account for land use planning and development and shall be compiled in an inventory of sites linked to potentially soil-contaminating activities as defined in Article 2(6) which shall be updated at least every 5 years.

OPTION A

- (b) for sites identified in accordance with point (a), ensure that the competent authorities designated in paragraph 6, apply a specific procedure to determine whether the site is a contaminated site.

OPTION B

- (b) for sites identified in accordance with point (a), and at least when these sites are subject to change of use, or development **ensure that the competent authorities designated in paragraph 6, apply a specific procedure to determine whether the site is a contaminated site.**

This specific procedure shall include at least the following steps:

- (i) **an analysis of the** existing information on present and past activities on the site, which in particular as regards the handling, the use and storage of relevant dangerous substances over time, and any evidence of accidents involving the emission of relevant dangerous substances;
- (ii) an analysis of the presence of human or environmental receptors that could suffer from any contamination taking into account all possible contaminants' pathways;
- (iii) if the analysis carried out under points (i) or (ii) indicate the possibility of a site being a contaminated site, Member States shall either

- **ensure that the concentration levels of relevant dangerous substances linked to the activities carried out on the site are measured, and for that purpose, Member States shall establish the methodology necessary for determining those concentration levels. Only for those sites where the concentration levels of relevant dangerous substances are such that there are sufficient reasons to believe that they may pose a significant risk to human health or the environment, Member States shall ensure that a site-specific risk assessment is carried out, which takes into account the risk to groundwater;**

or

- **ensure that a risk assessment is carried out which takes into account the risk to groundwater.**

(iv) if the assessments carried out pursuant to points (i), (ii) and (iii) have concluded that there is no significant possibility that a site is contaminated, Member States are not required to investigate further that site if there has not been additional information which could change the assessments carried out and if there have not been changes which could influence the state of soil.

Within this specific procedure, Member States may determine that a site is a contaminated site on the basis of the outcomes of either point (i), (ii) or (iii). Moreover, in the course of the identification process, Member States may proceed directly to the identification steps set out in point (iii) to determine whether a site is contaminated.

3. Member States may exempt from the investigation procedures set out in paragraph 2(b):
 - operating installations which have been granted a permit to operate that includes obligations to prevent soil contamination and to periodically monitor the state of the soil. The outcome of the monitoring shall be made available to the competent authorities for the purpose of Article 10(2)(b);
 - sites which they have already identified as contaminated sites prior to [transposition date];
 - sites which they have already identified as non contaminated sites prior to [transposition date], if the information on which the identification was based provided the same level of certainty as the provisions in paragraph 2(b) and if there have not been other changes which could influence the state of the soil.
4. Member States shall, in accordance with the procedure laid down in paragraph 2, identify contaminated sites, as defined in Article 2(4), on their national territory. Member States shall establish a national inventory of contaminated sites within 25 years of [transposition date]. The inventory shall be made public and updated at least every five years in particular to include new contaminated sites that have been identified. When updating the inventory, Member States may exclude the sites which have undergone complete remediation.
5. In order to have proactive and prevention actions and to maximise efficiency of the identification and remediation of contaminated sites, the identification procedure provided for in paragraph 2 shall be performed, if not already performed,

OPTION A

according to the following time table:

- (i) within seven years from [transposition date], for at least 10% of the sites identified in accordance with paragraph 2(a);
- (ii) within 15 years from [transposition date], for at least 60% of the sites identified in accordance with paragraph 2(a);
- (iii) within 25 years from [transposition date], for the remaining sites identified in accordance with paragraph 2(a), having regard to the update requirements in paragraph 4.

OPTION B

on the basis of a Priority Identification Programme to be established by the Member State within one year from [transposition date], at the administrative level and geographical scale that Member States consider appropriate. Priority Identification Programmes shall be reviewed within a timetable defined by the Member State. These Programmes shall focus on sites likely to represent a serious risk for human health and environment due to the use of some dangerous substances, or to sensitive uses on sites according to the receptors, or to any other criteria that a Member State considers relevant on its territory.

6. Member States shall designate the competent authorities to be responsible for the identification of sites linked to potentially soil-contaminating activities and contaminated sites.

(Article 11: deleted)

Article 12
Soil status report

1. On a site on which [the official records show that] an activity [listed in Annex II A and, where considered relevant by the Member State, in Annex II B] [in the list defined in Article 11(2)] [is taking place, or for which the official records, such as registers, show that it] has taken place, Member States shall ensure that a soil status report is made available to a competent authority as referred to in Article 10(6) and to the competent authority in charge of land use planning:
 - by the owner of that site or the prospective buyer when the site is sold, making it also available to the other party in the transaction, and
 - by the owner of that site or a relevant third party, when there are land use changes, including development which the Member State considers relevant.
2. Without prejudice to Community and national liability regimes, the soil status report shall be issued by a body or person authorised by the Member State.

OPTION A

It shall include at least information on the present and past activities on the site, the handling, the use and storage of relevant dangerous substances over time, any evidence of accidents involving the emission of relevant dangerous substances as well as the presence of human and environmental receptors that could suffer from any contamination.

As part of the soil status report, Member States may systematically require a chemical analysis for all the sites referred to in paragraph 1, determining the concentration levels of the relevant dangerous substances in the soil, limited to those substances that are linked to the activities carried out on the site. For that purpose, Member States shall establish the methodology necessary for determining those concentration levels.

OPTION B

Member States shall decide the information that must be included in the soil status report which may vary according to the use of the land, the size of a proposed development or any other relevant factors.

3. Competent authorities shall use the information contained in soil status reports for the purpose of identifying contaminated sites in accordance with Article 10 and for the remediation eventually carried out on that site.
4. Already existing and readily available information, such as official records, on the sites referred to in paragraph 1 shall be made available upon request to the owner of the site or to the prospective buyer for the purpose of producing the soil status report.
5. Member States may establish a period of validity for the soil status report that they consider appropriate, but not longer than 10 years. During such period, the same report can be made available for successive transactions, provided that there have not been other changes which could influence the state of the soil, taking into account the intended land use.

SECTION TWO
REMEDIATION

Article 13

Remediation

1. Member States shall ensure that the contaminated sites listed in their inventories, pursuant to Article 10(4), are remediated according to paragraph 2. For that purpose, Member States shall have regard to the strategy drawn up pursuant to Article 14.

Without prejudice to the strategy drawn up pursuant to Article 14, Member States may require immediate remediation for any contaminated site and shall also ensure that, where imminent threats to human health or the environment exist on contaminated sites identified in Article 10(4), temporary and urgent measures are taken to limit or to prevent further adverse effects.

2. Remediation shall consist of actions on the soil aimed at the removal, control, containment or reduction of contaminants [, natural recovery,] so that the contaminated site, taking account of its current use or approved future use, no longer poses any significant risk to human health or the environment. [Remediation action may consist of natural recovery.] When deciding on the appropriate remediation actions, Member States shall give due consideration to social, economic and environmental impacts, cost-effectiveness and technical feasibility of the actions envisaged. In case of proven risks on water resources, remediation objectives shall be established taking into consideration relevant Community water legislation.

If the means [required] [that would ordinarily be used for remediation ~~are not technically available, or~~] represent a disproportionate cost with respect to expected environmental benefits, sites may be conditioned in such a way that they do not pose any significant risk to human health or the environment, including by restricting [access] [use] to them.

3. As an element of remediation processes for a contaminated site, Member States may change the approved land use of a site to a less sensitive use, provided it will not pose any significant risk to human health or the environment.

4. Where containment, natural recovery, restriction of access or land use change are applied, the evolution of the risk to human health or the environment shall be monitored.
5. If not already established, and having regard to paragraph 2, Member States shall set up appropriate mechanisms to fund the investigation and remediation of the contaminated sites for which, subject to the polluter pays principle,
 - the person responsible for the contamination cannot be identified or cannot be held liable under Community or national legislation or may not be made to bear the costs of the investigation and remediation.
 - any other mechanisms to encourage investigation and remediation of contaminated sites are unlikely to be effective;
 - no other person can reasonably be held responsible for investigation and remediation under national law.
6. Where, in the cases referred to above, Member States fund the investigation and remediation, they shall, where Member States consider appropriate, endeavour to recover the costs they have incurred in relation to remedial measures taken pursuant to this Directive.

Article 14

Remediation strategy

1. Member States shall, on the basis of the inventory and by ...^{*}, draw up a remediation strategy or strategies covering the whole of their national territory, including at least remediation targets, a prioritisation **based on the Priority Identification Programmes**, taking particular account of significant risks to human health or the environment, a timetable and financial resources for implementation.
2. The remediation strategy shall be in application and made public by ...^{**}. It shall be reviewed at least every five years.

* 9 years after entry into force.

** 10 years after entry into force.

Chapter IV

Awareness raising, reporting and exchange of information

Article 15

Awareness raising

Member States shall take appropriate measures to raise awareness about the importance of soil for human, biodiversity and ecosystem survival, of preventive measures for preserving soil functions, to promote the transfer of knowledge and experience for a sustainable use of soil.

Article 15a

Public participation

1. For the purposes of this Article, "the public" shall mean one or more natural or legal persons and, in accordance with national legislation or practice, their associations, organisations or groups.
2. Member States shall ensure that the public is given early and effective opportunities to participate in the preparation, modification and review of the action programmes referred to in Article 8, [of the national list of activities referred to in Article 10(2)(a), of the Priority Identification Programme referred to in Article 10(5)] and the remediation strategies referred to in Article 14.

To that end, Member States shall ensure that:

- (a) the public is informed, whether by public notices or other appropriate means such as electronic media where available, about any proposals for these action programmes and remediation strategies or for their modification or review and that relevant information about such proposals is made available to the public including inter alia information about the right to participate in decision-making and about the competent authority to which comments or questions may be submitted;

- (b) the public is entitled to express comments and opinions when all options are open before decisions on the action programmes and remediation strategies are made;
 - (c) in making those decisions, due account shall be taken of the results of public participation;
 - (d) having examined the comments and opinions expressed by the public, the competent authority makes reasonable efforts to inform the public about the decisions taken and the reasons and considerations upon which those decisions are based, including information about the public participation process.
3. Member States shall identify the public entitled to participate for the purposes of paragraph 2, including relevant non-governmental organisations meeting any requirements imposed under national law, such as those promoting environmental protection.

The detailed arrangements for public participation under this Article shall be determined by the Member States so as to enable the public to prepare and participate effectively.

Reasonable time-frames shall be provided allowing sufficient time for each of the different stages of public participation required by this Article.

4. This Article shall not apply to action programmes and remediation strategies for which a public participation procedure is carried out under Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment. *

* OJ L 197, 21.7.2001, p. 30.

Article 16
Reporting

1. Member States shall indicate to the Commission by ...^{*}, and every five years thereafter, how the following information to be made publicly available pursuant to this Directive can be accessed:
 - (a) the priority areas identified pursuant to Article 6(2)(c);
 - (b) the action programmes drawn up pursuant to Article 8(1);
 - [(c) a national list of activities which have a significant potential to cause soil contamination drawn up pursuant to Article 10(2);]
 - [(d) the inventory of sites linked to potentially soil contaminating activities established pursuant to Article 10(2);]
 - [(e) the Identification Priority Programme pursuant to Article 10(5)];
 - (f) the inventory of contaminated sites established pursuant to Article 10(6);
 - (g) the remediation strategy or strategies adopted pursuant to Article 14(1);

2. Furthermore, Member States shall make the following information available to the Commission in an electronic format by ...^{*}, and every five years thereafter:
 - (a) a summary of the measures taken pursuant to Article 5;
 - (b) the methodology used for identifying priority areas pursuant to Article 6(3);
 - (c) a summary containing the number of sites referred to in Article 10(2)(a) at the appropriate administrative level and specified by type of activity as well as the number of the sites fully investigated pursuant to Article 10(2) during the reporting period;

^{*} 10 years after entry into force.

- (d) metadata on priority areas identified pursuant to Article 6(2)(c) as documented digital georeferenced data in a format that can be read by a geographic information system (GIS) in accordance with 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) *;
- (e) a summary of the measures taken pursuant to Article 15.

Article 17

Exchange of information

By ... **, the Commission shall set up a platform for the exchange of information between Member States and with stakeholders on the implementation of this Directive, particularly best practice for soil protection and remediation, the priority area identification pursuant to Article 6, on risk assessment methodologies for contaminated sites currently in use or under development and on funding mechanisms.

* OJ L 108, 25.4.2007, p. 1.

** 1 year after entry into force

Chapter V

Final provisions

Article 18¹³

Implementation and adaptation to technical progress

1. Annex I may be adapted to technical and scientific progress. That measure, designed to amend non-essential elements of this Directive, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 19(3).
2. Where, on the basis of the exchange of information referred to in Article 17, a need to harmonise is identified, common technical elements for soil contamination risk assessment, not having any bearing on the risk acceptability and designed to amend non-essential elements of this Directive, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 19(3).
3. By ...^{*}, the necessary provisions on data and metadata quality, utilisation of historical data, methods, access, and data-exchange formats for the implementation of the provisions of Article 16 shall be adopted in accordance with the procedure referred to in Article 19(2);
4. By...^{**}, new amounts of relevant dangerous substances lower than those referred to in point 1 of Annex II A shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 19(3).

¹³ Document 16783/1/08 REV 1 suggested to delete this Article.

^{*} 4 years after entry into force.

^{**} 3 years after entry into force.

Article 19¹⁴

Committee

1. The Commission shall be assisted by a committee, hereinafter “the Committee”.
2. Where reference is made to this paragraph, Articles 5 and 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.

The period laid down in Article 5(6) of Decision 1999/468/EC shall be set at three months.

3. Where reference is made to this paragraph, Article 5a(1) to (4), and Article 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.

Article 20

Commission report

1. The Commission shall publish a first evaluation report on the implementation of this Directive within two years of receiving the action programmes and remediation strategies.

The Commission shall publish further reports every five years thereafter.

It shall submit the reports to the European Parliament and to the Council.

2. The reports provided for in paragraph 1 shall include a review of progress in the implementation of this Directive based on an assessment by the Commission based on information provided in accordance with Article 16.

Article 21

Review

The Commission shall review this Directive at the latest by ...* and shall, where appropriate, propose any necessary amendments.

¹⁴ Document 16783/1/08 REV 1 suggested to delete this Article.

* 15 years after entry into force.

Article 22

Penalties

Member States shall lay down the rules on penalties applicable to infringements of the national provisions adopted pursuant to this Directive and shall take all measures necessary to ensure that they are implemented. The penalties provided for must be effective, proportionate and dissuasive. Member States shall notify those provisions to the Commission by the date specified in Article 24 at the latest and shall notify it without delay of any subsequent amendment affecting them.

[Article 23 : deleted] ¹⁵

Article 24

Transposition

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by ... * at the latest. **

When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

¹⁵ The Presidency suggests the following text for a recital: "Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage establishes that, for orphan sites, remedial action may be taken by the competent authority as a last resort. That provision is without prejudice to the general obligation laid down in this Directive to ensure that the contaminated sites identified are remediated."

* 24 months after entry into force of this Directive.

** Recital: "In accordance with paragraph 34 of the Interinstitutional agreement on better law-making, Member States are encouraged to draw up, for themselves and in the interests of the Community, their own tables, which will, as far as possible, illustrate the correlation between this Directive and the transposition measures and to make them public."

2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

Article 25

Entry into force

This Directive shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

Article 26

Addressees

This Directive is addressed to the Member States.

Done at Brussels,

For the European Parliament

The President

For the Council

The President

<p>SECTION 1</p> <p>ELEMENTS FOR THE IDENTIFICATION OF AREAS REQUIRING</p> <p>SPECIAL PROTECTION FROM EROSION</p>

Soil type (Soil Typological Unit (STU) level)
Soil texture (STU level): sand, silt and clay content
Topography: slope gradient and slope length
Land cover and land cover change (e.g. following Corine Land Cover nomenclature)
Climate: precipitation (amount, duration, frequency and wind characteristics)
Soil density properties (STU level): bulk density and packing density (can be measured or derived)
Soil hydraulic properties (STU level): infiltration rate, permeability and water retention capacity (can be measured or derived)
Total soil organic carbon (g C/kg dry matter) (STU level) (can be measured or derived)
Climate: precipitation (intensity)
Land use, including land management, farming systems and forestry
Hydrological conditions
Agro-ecological zone

¹⁶ Some of the elements contained in this Annex can be measured or derived, for instance through modelling or the use of pedo-transfer functions, on the basis of known information and measured data.

SECTION 2

ELEMENTS FOR THE IDENTIFICATION OF AREAS REQUIRING SPECIAL PROTECTION FROM SOIL ORGANIC MATTER DECLINE

Soil type (Soil Typological Unit (STU) level)
Total soil organic carbon (g C/kg dry matter) (STU level) (can be measured or derived)
Climate: temperature and precipitation (amount)
Land cover and land cover change (e.g. following Corine Land Cover nomenclature)
Soil texture (STU level): clay content
Stock of soil organic carbon (t C/ha) (STU level) (can be measured or derived)
Topography: slope, exposure and elevation
Land use, including land management, farming systems and forestry

SECTION 3

ELEMENTS FOR THE IDENTIFICATION OF AREAS REQUIRING SPECIAL PROTECTION FROM COMPACTION

Soil type (Soil Typological Unit (STU) level)
Topsoil (30 cm or plough layer in arable land) and subsoil texture (STU level)
Climate: temperature, precipitation (distribution) and evapotranspiration
Land cover and land cover change (e.g. following Corine Land Cover nomenclature)
Total soil organic carbon (STU level) (can be measured or derived)
Topsoil and subsoil bulk density (STU level) (can be measured or derived)
Topography: slope and land form
Land use, including land management, farming systems and forestry

SECTION 4

ELEMENTS FOR THE IDENTIFICATION OF AREAS REQUIRING
SPECIAL PROTECTION FROM SALINISATION

Soil type (Soil Typological Unit (STU) level)
Soil texture (STU level): sand, silt and clay content
Irrigation areas, chemical properties (pH, nature and content of salts) of irrigated water and type of irrigation techniques
Climate: temperature, precipitation (amount) and evaporation
Soil chemical properties (STU level): pH, electric conductivity and exchangeable sodium percentage
Soil hydraulic properties (STU level): infiltration rate, hydraulic conductivity, water retention and vertical and horizontal drainage characteristics (can be measured or derived)
Groundwater information: chemical properties (pH, nature and content of salts) and depth variation
Parent material: nature and chemical composition

SECTION 5

ELEMENTS FOR THE IDENTIFICATION OF AREAS REQUIRING
SPECIAL PROTECTION FROM LANDSLIDES

Soil properties (STU level): texture and permeability (permeability can be measured or derived)
Occurrence/density of existing landslides
Topography: slope length, breaks of slope, nature of slope
Land cover and land cover change (e.g. following Corine Land Cover nomenclature)
Climate: precipitation (amount, duration, frequency and intensity)
Soil type (Soil Typological Unit (STU) level)
Bedrock and overlaying deposits (lithology, geotechnical and hydrogeological characteristics, nature of soil parent material) (STU level) (can be measured or derived)
Land use, including land management, farming systems and forestry
Seismic risk

SECTION 6

ELEMENTS FOR THE IDENTIFICATION OF AREAS REQUIRING
SPECIAL PROTECTION FROM ACIDIFICATION

Soil type (Soil Typological Unit (STU) level)
Soil texture (STU level): sand, silt and clay content
Parent material: nature and chemical composition
Soil chemical properties (STU level): pH and Base saturation (can be measured or derived)
Total soil organic carbon (STU level) (can be measured or derived)
Land cover and land cover change (e.g. following Corine Land Cover nomenclature)
Land use, including land management, farming systems and forestry
Climate: temperature, precipitation (amount) and evapotranspiration
Air deposition of acidifying substances

OPTION A

List of sites where activities referred to in Articles 10 and 12 take or have taken place

Annex II A

1. Establishments where relevant dangerous substances are or were present in quantities equal to or in excess of the amounts indicated in Parts 1 and 2, column 2 of Annex I to Council Directive 96/82/EC (Seveso) * until the new amounts referred to in Article 18(4) are adopted.
2. Sites where activities listed in Annex I to Council Directive 96/61/EC, except for the activities relative to the rearing of livestock, take or have taken place.
3. Areas in former military sites where use, handling and storage of significant amounts of relevant dangerous substances has occurred.
4. Mining installations, including extractive waste facilities as covered by Directive 2006/21/EC of the European Parliament and of the Council **, but excluding waste facilities for inert waste, peat and unpolluted soil.
5. Waste landfills as defined in Council Directive 1999/31/EC ***.

* OJ L 10, 14.1.1997, p. 13.

** OJ L 102, 11.4.2006, p. 15.

*** OJ L 182, 16.7.1999, p. 1.

Annex II B

1. Sites where activities listed in Annex I to Council Directive 96/61/EC independently of the thresholds specified take or have taken place, except for the activities carried out by micro-enterprises, as defined in point 3 of Article 2 in the Annex to Commission Recommendation 2003/361/EC *, and those relative to the rearing of livestock.
2. Areas in airports where use, handling and storage of significant amounts of relevant dangerous substances occurs or has occurred.
3. Land-based areas in ports where use, handling and storage of significant amounts of relevant dangerous substances occurs or has occurred.
4. Petrol and filling stations.
5. Dry cleaners.
6. Waste water treatment installations.
7. Pumping stations, transfer points, joints and areas where leaks have been reported of pipelines for the transport of dangerous substances.

* OJ L 124, 20.5.2003, p. 36.

OPTION B:

Indicative list of activities which have a significant potential to cause soil contamination referred to in Articles 11 and 13

1. Activities where relevant dangerous substances are or were present in quantities equal to or in excess of the amounts indicated in Parts 1 and 2, column 2 of Annex I to Council Directive 96/82/EC (Seveso) until the new amounts referred to in Article 18(4) are adopted.
2. Activities listed in Annex I to Council Directive 2008/01/EC take or have taken place and for which the Member States estimate there is a significant potential to cause soil contamination.
3. Areas in former military sites where use, handling and storage of significant amounts of relevant dangerous substances has occurred.
4. Mining installations, including extractive waste facilities as covered by Directive 2006/21/EC of the European Parliament and of the Council, but excluding waste facilities for inert waste, peat and unpolluted soil.
5. Waste landfills as defined in Council Directive 1999/31/EC.
6. Activities listed in Annex I to Council Directive 2008/01/EC independently of the thresholds specified take or have taken place, except for the activities carried out by micro-enterprises, as defined in point 3 of Article 2 in the Annex to Commission Recommendation 2003/361/EC, and those relative to the rearing of livestock.
7. Areas in airports where use, handling and storage of significant amounts of relevant dangerous substances occurs or has occurred.
8. Land-based areas in ports where use, handling and storage of significant amounts of relevant dangerous substances occurs or has occurred.
9. Petrol and filling stations.

10. Dry cleaners.
 11. Waste water treatment installations.
 12. Pumping stations, transfer points, joints and areas where leaks have been reported of pipelines for the transport of dangerous substances.
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