

P6_TA(2007)0509

Protection of soil *I**

European Parliament legislative resolution of 14 November 2007 on the proposal for a directive of the European Parliament and of the Council establishing a framework for the protection of soil and amending Directive 2004/35/EC (COM(2006)0232 – C6-0307/2006 – 2006/0086(COD))

(Codecision procedure: first reading)

The European Parliament,

- having regard to the Commission proposal to the European Parliament and the Council (COM(2006)0232),
 - having regard to Article 251(2) and Article 175(1) of the EC Treaty, pursuant to which the Commission submitted the proposal to Parliament (C6-0307/2006),
 - having regard to Rule 51 of its Rules of Procedure,
 - having regard to the report of the Committee on the Environment, Public Health and Food Safety and the opinions of the Committee on Industry, Research and Energy, the Committee on Agriculture and Rural Development and the Committee on Legal Affairs (A6-0410/2007),
1. Approves the Commission proposal as amended;
 2. Calls on the Commission to refer the matter to Parliament again if it intends to amend the proposal substantially or replace it with another text;
 3. Instructs its President to forward its position to the Council and Commission.

P6_TC1-COD(2006)0086

**Position of the European Parliament adopted at first reading on 14 November 2007
with a view to the adoption of Directive 2008/.../EC 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 Commission¹,

Having regard to the opinion of the European Economic and Social Committee¹,

Having regard to the opinion of the Committee of the Regions²,

Acting in accordance with the procedure laid down in Article 251 of the Treaty³,

Whereas:

¹ *OJ C 168, 20.7.2007, p. 29.*

² *OJ C 146, 30.6.2007, p. 34.*

³ *Position of the European Parliament of 14 November 2007.*

- (1) Soil is essentially a non-renewable resource in that the degradation rates can be rapid whereas the formation and regeneration processes are extremely slow. It is a very dynamic system which performs many functions and delivers services vital to human activities and to the survival of ecosystems. These functions are biomass production, storing, filtering and transforming nutrients and water, hosting the biodiversity pool, acting as a platform for most human activities, providing raw materials, acting as a carbon pool and storing the geological and archeological heritage.
- (2) Soil degradation or soil improvements have a major impact on other areas of Community interest, such as surface water and groundwater **quality**, human health **and life**, climate change, **degradation or** protection of nature and biodiversity, and food safety.
- (3) Soil is a natural resource of common interest which is under increasing environmental pressure and is to be protected from degradation in its own right. Decision No 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 laying down the Sixth Community Environment Action Programme¹ includes the objective of protecting natural resources and promoting a sustainable use of soil.
- (4) The Communication of the Commission to the European Parliament and the Council “Towards a Thematic Strategy on Soil Protection”² identifies the main **ten** soil degradation processes to which soils in the EU are *exposed*. These are erosion, organic matter decline, contamination, salinisation, compaction, soil biodiversity loss, sealing, **desertification**, landslides and flooding. ■

¹ OJ L 242, 10.9.2002, p. 1.

² COM(2002)0179.

- (5) 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. These diverse conditions and needs in the Community should be taken into account as they require different specific solutions for ***addressing soil degradation***.
- (6) Community legislation, for instance in the fields of waste, chemicals, industrial pollution prevention and control, climate change, water, and agriculture and rural development, ***is already contributing to soil protection and can complement this framework***, providing for common principles and objectives aiming at protection and sustainable use of soil in the Community.

I

- (7) The aim of this Directive is to ensure the protection of soil, based on ***common objectives and respecting the existing national and Community legislation, in order to use the soil in a sustainable manner so that both current and future generations can satisfy their ecological, economic and social needs***.
- (8) A common framework ***will enable*** Member States ***and the regional and local authorities to protect their soils without*** distortion of competition between economic operators. ***At the same time, it will deliver guarantees and transparency within the internal soil market in the Member States. Such a framework should be adopted on the basis of a comprehensive survey of soil status and of the measures already taken in Member States.***

- (9) Since *soil degradation can have severe impacts* on nature, water, food safety, climate change, agriculture and human health, *and since, despite existing Community legislation, soil degradation is likely to increase, there is a need for a directive that enables the protection of soil in all Member States, albeit only* in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary in order to achieve that objective.
- (10) As some sectoral policies may either exacerbate or mitigate soil degradation processes, further integration of soil protection aspects into such policies is necessary. This Directive should make provision for Member States to identify and assess the impact of these policies on the prevention of soil degradation processes and the protection of soil functions.
- (11) *Agriculture has always contributed positively to maintaining the structure of soil and its characteristics, and is an indispensable mechanism for conserving the organic quality of the soil and for helping to preserve the vegetal layer and avoid desertification.*
- (12) *The mid-term review of the common agricultural policy should establish target measures for maintaining and improving soil fertility, organic matter content and carbon sequestration capacity.*
- (13) *In order to avoid any overlap with existing agricultural and environmental legislation, and given the subsidiarity principle related to the implementation of ecoconditionality, each Member State should be able to decide to implement ecoconditionality taking into account its own climate, agriculture and soil characteristics.*

- (14) In contrast to air and water, soil is mainly privately owned in the Community. Nevertheless it is a natural resource of common interest that has to be protected for future generations. In the public interest, therefore, land users should be *encouraged* to take precautionary measures *to prevent soil degradation*.
- (15) *Fertility of the soil is the basis of life. The aim of all agricultural activity must be to maintain and improve that fertility.*
- (16) Sealing is *increasingly of concern because it can inhibit those soil functions that deliver services vital to human activities and to the survival of ecosystems without contributing to sustainable development in accordance with the Renewed EU Sustainable Development Strategy as adopted by the European Council of 15/16 June 2006. This calls for a more sustainable use of soil.* Appropriate measures are *therefore* needed to limit soil sealing *arising from development projects which are likely to significantly impede soil functions and which do not contribute to the achievement of sustainable development. Member States should establish incentives for industrial and urban spatial development to occur on sites already used for industrial and urban purposes, and should limit the use of greenfield sites. Member States should also ensure that regulatory frameworks for land use planning are favourable to rehabilitation and should consider establishing fast-track planning authorisation procedures for remediation.* Where sealing is to occur *in such circumstances*, Member States should *ensure its effects are mitigated, for example by providing* for construction and drainage techniques that would allow as many soil functions as possible to be preserved, *and that it does not cause adverse environmental effects that would outweigh the benefits.*

- (17) *Soil acidification is an important problem in certain parts of the Community, which needs to be addressed. It is therefore necessary for Member States to take appropriate measures to ensure that inappropriate land use practices do not cause soil pH to decrease. At the same time, the characteristics of soils that are naturally acidic (e.g. peatlands) or constitute specific natural habitats should not be altered.*
- (18) *A targeted and efficient soil protection policy requires common soil protection objectives. At the same time, however, Member States and regional and local authorities need to be able to take measures at the appropriate level and scale, and to identify priority areas based on scientific knowledge about the local soil characteristics, soil degradation processes and the environmental, economic and social circumstances. There is a need for an effective exchange of information on the state of the art science in the Member States, the best practices for the identification of the priority areas and the codes of good practice.*

■

- (19) ■ Programmes of measures *and codes of good practice* 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 already set up under Community legislation *and funding* or international agreements.

- (20) This Directive should contribute to halting desertification *and the decline of biodiversity and to mitigating and adapting to climate change, which are international environmental problems, with severe local and regional impacts, where soil degradation plays a significant role; it should also* enhance cooperation in the implementation of the United Nations Convention to Combat Desertification, the Convention on Biological Diversity, *the Framework Convention on Climate Change and the Kyoto Protocol* to which the Community is a party, and will enhance the implementation of these international environmental agreements.
- (21) 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.
- (22) Earlier industrialisation and poor or inappropriate management practices have left a legacy of hundreds of thousands of contaminated sites in the Community which call for a common strategy to manage historical contamination of soil in order to prevent and mitigate harmful effects on human health and the environment.

- (23) In order to successfully prevent and limit risk to human health and the environment stemming from soil contamination, ***priority needs to be given to the identification and remediation of the sites*** which according to *Member States'* assessment are posing a significant risk in this regard. ***The Member States should establish a process, including a timetable, for the assessment of the risks, the identification of the sites, the information of the public, the information of potential buyers in the case of land transactions, the order of priority and the funding of remediation. This process should prevent any overlap with existing national and Community legislation and should only add additional requirements if the current legislation is insufficient according to the assessment of the Member State. A thorough exchange of information is needed to promote the best practices for risk assessment, identification, information of the public and remediation.***

- (24) This Directive respects the fundamental rights and observes the principles recognised in particular by the Charter of Fundamental Rights of the European Union. In particular, this seeks to promote the integration into Community policies of a high level of environmental protection in accordance with the principle of sustainable development as laid down in Article 37 of the Charter of Fundamental Rights of the European Union.
- (25) The measures necessary for the implementation of this Directive should be adopted in accordance with Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission¹,

HAVE ADOPTED THIS DIRECTIVE:

¹ OJ L 184, 17.7.1999, p. 23. Decision as amended by Decision 2006/512/EC (OJ L 200, 22.7.2006, p. 11).

Chapter I

General provisions

Article 1

Subject-matter and scope

1. ***The objective of this Directive is to establish a framework for the protection and sustainable use of soil, based on the need to prevent soil degradation, in particular due to climate change, to mitigate its consequences and to restore or remediate degraded soils, taking into account the location specific conditions, and recognising that the soil is, like water, a shared resource for mankind, an ecosystem, a non-renewable resource and a platform for*** the following environmental, economic, social and cultural functions:
 - (a) ***a basis for life and biodiversity;***
 - (b) storing, ***buffering***, filtering, and transforming nutrients, substances and water, ***and preserving ground- and surface water resources;***
 - (c) ***basis for biomass production in agriculture and forestry;***
 - (d) physical and cultural environment for humans and human activities, ***including for towns and cities, infrastructure, recreation and other forms of public and economic use;***
 - (e) ***repository*** of raw materials;
 - (f) acting as carbon pool;
 - (g) archive of geological, ***cultural, geomorphological*** and archeological heritage.

To that end, it lays down measures for the prevention *and control* of *avoidable serious* soil degradation[■], caused by a wide range of human activities, *with due account also being taken of natural causes*, which undermine the capacity of a soil to perform those functions. *It lays down measures that improve the soil characteristics and functions, where appropriate. The* measures include the mitigation of the effects of those processes, and the restoration and remediation of degraded soils to a level of functionality consistent at least with the current and approved future *sustainable* use.

2. This Directive shall apply to soil forming the top layer of the earth's crust, *including the liquid and gaseous components, provided that it performs the functions referred to in paragraph 1.*
3. *This Directive shall not apply to areas of land in respect of which, prior to ...*, by agreement with the competent authorities, remediation decisions have been taken or remediation has already been completed, so that the areas of land in question pose no significant danger to human health or the environment.*

Article 2 Definitions

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

- (1) 'sealing' means the permanent covering of the soil surface with an impermeable material;

* *Date of entry into force of this Directive.*

- (2) 'dangerous substances' means substances or preparations within the meaning of Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances¹ and Directive 1999/45/EC of the European Parliament and of the Council of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations², **including substances having persistent and bio-accumulative and toxic properties or very persistent and very bio-accumulative properties as well as radioactive substances, which may have a damaging impact on human health, the environment or the soil functions referred to in Article 1(1);**
- (3) **'acidification' means a lowering of the soil pH caused by human action;**
- (4) **'compaction' means a process of densification in which total and air-filled porosity and permeability are reduced, inducing severe and long term changes in soil structure;**
- (5) **'valuable soils' means soils meriting protection due to their specific characteristics, structures, outstanding ecological, cultural and/or historical value or due to their use;**
- (6) **'priority areas which would need special protection' means areas where, due to their vulnerability caused by the soil types, climatic conditions and land management practices, there is decisive evidence or legitimate grounds for suspicion that one of the degradation processes listed in Article 8 has occurred or is likely to occur;**

¹ OJ 196, 16.8.1967, p. 1. Directive as last amended by Directive 2006/121/EC of the European Parliament and of the Council (OJ L 396, 30.12.2006, p. 850).

² OJ L 200, 30.7.1999, p. 1. Directive as last amended by Regulation (EC) No 1907/2006 (OJ L 396, 30.12.2006, p. 1).

- (7) *'geogenically contaminated soil' means a soil where there is a confirmed presence, caused by geogenic sources such as parent material and volcanic activity, of substances of such a level that Member States consider they may pose a significant risk to human health or the environment, taking the current and approved future use of the soil into account;*
- (8) *'land users' means persons who perform actions which have a direct or indirect impact on the soil or who plan or commission actions which have an impact on the soil;*
- (9) *'geological heritage' includes soil, geomorphological and geological objects and processes;*
- (10) *'contaminated site' means a site where there is a confirmed presence on or in the soil, caused by human activities, of dangerous substances of such a level that Member States consider the soil poses a significant risk to human health or the environment, taking the current and approved future use of the site into account;*
- (11) *'remediation' means measures*
 - (a) *to eliminate or reduce contaminants (decontamination measures),*
 - (b) *to prevent or reduce the spread of contaminants for a protracted period without eliminating the contaminants (safeguard measures),*
 - (c) *to eliminate or reduce damaging changes in the physical, chemical or biological properties of the soil;*
- (12) *'protective and restrictive measures' means other measures which prevent or reduce a hazard to human health or the environment, particularly restrictions on use;*

(13) 'loss of organic substance' means a lasting reduction in the organic fraction of soil due to mineralisation into CO₂.

Article 3 Integration

In the development of sectoral policies likely to exacerbate or reduce soil degradation processes, Member States shall identify, describe and assess the impacts of such policies on these processes, in particular in the areas of 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.

Member States shall make public those findings.

Where appropriate, Member States shall endeavour to integrate measures or policies that preserve or improve the soil's function to act as a carbon pool in their future soil policies or strategies, based on the latest research results and technological improvements.

Article 4 Precautionary measures

- 1. Member States shall ensure that any land user whose actions could cause lasting and substantial damage of one or more of the soil functions referred to in Article 1(1) is obliged to take proportionate precautions to avoid, reduce or control such adverse effects, in so far as is reasonable in the light of the purpose for which the land is being used and of the approved future use.***

2. *For the purpose of paragraph 1, Member States shall, not later than ...*, develop voluntary codes of good practice as regards soil protection for those activities which may reasonably be expected to hamper significantly the soil functions referred to in Article 1(1). These codes of good practice may build on existing national or Community codes and may contain the elements provided for in Annex I.*

*Not later than ...**, the Commission shall facilitate the distribution and exchange of information on the legislation or codes of good practice already existing in the Member States as regards the protection of the soil functions referred to in Article 1(1), including the cultural heritage, natural parks and geologically valuable zones.*

Article 5

Promotion of certain products

The Commission shall promote the use of certain products that contribute most to maintaining and increasing the organic material of soils and to the prevention of desertification. Member States shall also promote the use of green fertilisers and compost that enhance the fertility and biological activity of soil.

Article 6

Sealing

1. *For the purposes of preserving the soil functions referred to in Article 1(1), Member States shall take **suitable** measures to limit sealing, **and to minimise its effects, to the extent which is necessary, in particular where a proposed development project involves soil sealing, and where:***

* *Seven years after the date of entry into force of this Directive.*

** *Five years after the date of entry into force of this Directive.*

- (a) *the project is of a type listed in either Annex I or Annex II of Council Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment¹ and requires an assessment under that Directive;*
- (b) *the assessment indicates that there are likely to be impacts arising from sealing that significantly impede one or more of the soil functions listed in Article 1(1).*

This will allow as many of those functions as possible to be maintained.

- 2. *Member States shall decide on the measures which are appropriate, in particular those mentioned in paragraph 3, taking into account the costs and benefits of such measures.*
- 3. *As sealing is an irreversible process, Member States shall develop codes of good practice on sealing that:*
 - *preserve river basins and the natural flow of water;*
 - *prevent increased flood risks, resulting from sealing;*
 - *promote proper access to green areas in expanding cities;*
 - *preserve valuable geomorphological soil structures, characteristic landscapes and coastal areas;*
 - *preserve archaeological sites, prehistoric caves and historical sites;*
 - *avoid the visual impacts of extractive industries;*

¹ *OJ L 175, 5.7.1985, p. 40. Directive as last amended by Directive 2003/35/EC of the European Parliament and of the Council (OJ L 156, 25.6.2003, p. 17).*

- *facilitate industrial and urban spatial planning on areas already affected by industrial and urban planning; and*
- *promote brownfield investments.*

Article 7 *Methodology*

1. *The state of the soil shall be monitored taking into account available information and, when necessary, generating new information using new technologies, such as GMES (Global Monitoring for Environment and Security) and INSPIRE¹. In particular, Member States shall encourage the use of digital technologies and digital mapping.*
2. *For the identification of priority areas pursuant to Article 8, Member States may rely on existing empirical evidence or on modelling. If modelling is used, efforts shall be made to validate the models by comparing their results with measured data, which have not been used for the development of the model itself. Member States shall be allowed to use the information gathered with the new technologies mentioned in paragraph 1 for the identification of priority areas.*
3. *The monitoring scale shall be determined at the discretion of the Member States.*

¹ *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 (OJ L 108, 25.4.2007, p. 1).*

Chapter II

Risk prevention, mitigation and restoration

SECTION ONE

IDENTIFICATION OF *PRIORITY* AREAS

Article 8

Identification of *priority* areas ***which need special protection against*** erosion, organic matter decline, *soil biodiversity loss*, compaction, salinisation, landslides, *desertification or acidification*

1. *Not later than ...**, Member States shall identify the areas in their territory, ***the priority areas as defined in Article 2(6), which in their estimation require special protection against*** one or more of the following soil degradation processes :
 - (a) erosion ;
 - (b) organic matter decline ;
 - (c) an increase in bulk density and a decrease in soil porosity (*compaction*);
 - (d) salinisation ;
 - (e) landslides ;

* *Seven years after the date of entry into force of this Directive.*

- (f) *subsidence;*
- (g) *desertification;*
- (h) *adverse effects of climate change on the soil;*
- (i) *soil biodiversity loss;*
- (j) *acidification.*

For *this purpose*, Member States shall *determine the appropriate administrative level and geographical size unit, perform assessments using, where relevant according to their assessment, the criteria in Annex II and supply information about the assessment methods used by means of a procedure pursuant to Article 19.*

In identifying the areas, Member States shall take into account the effects of those soil degradation processes in exacerbating greenhouse gas emissions and desertification, the loss of human life and well-being and the damage to cultural heritage. Member States shall take into account present land use practices which aim already at combating these degradation processes.

2. The ■ areas identified pursuant to paragraph 1 shall be made public and reviewed at least every ten years.
3. *Not later than ...*, the Commission shall, in accordance with the regulatory procedure with scrutiny referred to in Article 22(3), produce guidelines, based on best practice, for the definition and identification of priority areas.*

■

* *Four years after the date of entry into force of this Directive.*

SECTION TWO
ESTABLISHMENT OF TARGETS AND PROGRAMMES OF MEASURES

Article 9

Programmes of measures to combat erosion, organic matter decline, compaction,
salinisation and landslides

1. For the purposes of preserving the soil functions referred to in Article 1(1), Member States shall, in respect of the ***priority*** areas identified in accordance with Article 8, ***ensure that, at what they deem the most appropriate geographical and administrative level, risk reduction targets are formulated to combat the degradation processes and that the necessary measures are taken, including integrated territorial care strategies or programmes of measures, and where possible restoration targets, where there are legitimate grounds for suspicion that one or more of the soil degradation processes has occurred or is likely to occur in the near future,*** a timetable for the implementation of those measures and an estimate of the allocation of private or public means for the funding of those measures.
2. ***With a view to preventing any duplication of efforts, the programmes of measures pursuant to paragraph 1 may build on obligations, plans and programmes already set up under national or Community legislation, such as those set up pursuant to the Common Agricultural Policy, including Annex IV to Council Regulation (EC) No 1782/2003 of 29 September 2003 establishing common rules for direct support schemes under the common agricultural policy and establishing certain support schemes for farmers¹, and in Council Regulation (EC) No 1698/2005 of 20 September 2005 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD)², or international agreements, and may take into account the measures listed in Annex III to this Directive.***

¹ OJ L 270, 21.10.2003, p. 1. Regulation as last amended by Commission Regulation (EC) No 1276/2007 (OJ L 284, 30.10.2007, p. 11).

² OJ L 277, 21.10.2005, p. 1. Regulation as last amended by Regulation (EC) No 2012/2006 (OJ L 384, 29.12.2006, p. 8).

3. ***For the*** drawing up and ***implementation of*** the *programmes* of measures pursuant to paragraph 1, Member States ***may establish a prioritisation of action according to the magnitude of the degradation process in their national territory and the effects of such degradation on climate change and desertification.***

Member States shall ensure that measures are cost-effective, technically feasible and shall carry out impact assessments, including cost-benefit analyses, prior to the introduction of the programmes of measures.

Member States shall provide information, pursuant to Article 19, concerning the objectives for preservation of the soil functions referred to in Article 1(1) and the measures taken.

The choice of the measures shall be left to the Member States.

4. ***Member States shall give due consideration to the social and economic impacts of any measures pursuant to paragraph 1.***
5. Where ***areas would need special protection against*** different concurrent soil degradation processes, Member States may ***set*** appropriate risk reduction targets **■** for all the risks identified together with the appropriate measures for reaching those targets.
6. The *programmes* of measures ***should*** be drawn up *by ...**, and **■** be in application no later *than ...***.

The *programmes* of measures ***should*** be made public and shall be reviewed at least every five years.

* *Nine years after the date of entry into force of this Directive.*

** *10 years after the date of entry into force of this Directive.*

7. *Member States which already have specific national legislation in place to protect their soils shall be exempted from the obligations under this Article, on the condition that their legislation secures at least an equivalent level of protection.*

Article 10

Agricultural use of soil

1. *Each Member State, in accordance with its climate, soil characteristics and agriculture, as well as its best agricultural practices, may decide upon its own agricultural policy in relation to the soil.*
2. *As regards the agricultural use of soil, Member States shall encourage the choice of crops and afforestation methods or programmes which have a beneficial effect on soil organic matter and soil fertility and which can prevent landslides and desertification.*
3. *Member States shall also support agricultural practices which favour the filtering and water retention capacity of the soil, with a view to preventing compaction and erosion.*
4. *The Commission and the Member States shall promote and exploit research in particular as regards the functions of the different crops in relation to climate change and carbon capture with the aim of integrating this scientifically-based knowledge in the development of soil policy.*

5. *The use of compost shall be encouraged with the aim of maintaining soil fertility, enhancing soil organic matter levels and fighting erosion. For that purpose Member States shall adopt compost quality standards.*
6. *Not later than ...*, the Commission shall present a proposal for a biowaste directive setting quality standards for the use of biowaste as a soil improver.*
7. *The development of the standards under cross compliance and the agri-environment measures under rural development aimed at protecting soil in the areas identified pursuant to Article 8 shall take into consideration the possible efforts and burden they may entail.*

Chapter III

Soil contamination

SECTION ONE

PREVENTION AND INVENTORY

Article 11

Prevention of soil contamination

1. For the purposes of preserving the soil functions referred to in Article 1(1), Member States shall ***ensure that*** appropriate and proportionate measures ***are taken at the appropriate administrative level that:***

* *Two years after the date of entry into force of this Directive.*

- (a) *prevent the intentional or unintentional introduction of dangerous substances on or in the soil by illegal dumping, seepage or leakage. Measures shall be based on an assessment of the likelihood of whether activities involving hazardous substances on or in the soil might lead to soil contamination;*
 - (b) *limit the intentional or unintentional introduction of dangerous substances on or in the soil, excluding those due to air deposition, those due to a natural phenomenon of exceptional, inevitable and irresistible character **or those which participate in the treatment or the improvement of the soil**, in order to avoid accumulation **to an extent at which** soil functions **are hampered** or **significant risks arise** to human health or the environment.*
- 2. *In order to comply with this Article, Member States shall take steps to limit the deposition of dangerous substances onto land through water used for irrigation, use of fertilisers, and waste spread on land in accordance with the existing relevant Community legislation in these fields.*
- 3. *Measures to prevent soil contamination adopted by Community or national approval procedures aiming at protection of soil, are considered to be precautionary measures pursuant to paragraph 1.*
- 4. *Member States shall ensure that contaminated soil is remediated taking account of the precautionary principle, the sustainability principle, the polluter-pays principle and the proportionality principle.*

5. *For the purpose of preserving the soil functions and conditions required to ensure the protection of the environment and human health, sustainable economic activities, food safety, high quality standards and/or certified agricultural products and production systems, Member States shall take adequate measures in order to:*
- (a) promote suitable and sustainable land management practices;*
 - (b) reduce contamination hazards in agricultural and forest soils;*
 - (c) integrate and update legislation and policies;*
 - (d) promote specific monitoring campaigns within pilot areas representing specific soil and production systems.*
6. *Member States shall take appropriate steps to establish a hierarchy of measures to protect soil from pollution, with priority being given to prevention.*

Not later than ..., the Commission shall, in accordance with the regulatory procedure with scrutiny referred to in Article 22(3), adopt a priority list of dangerous substances on or in the soil which are liable to have persistent and bio-accumulative and toxic properties or very persistent and very bio-accumulative properties, have irreversible or long-term negative impacts or disrupt endocrine functions. European reference values based on risk assessment for these substances shall be established.*

* *Three years after the date of entry into force of this Directive.*

Article 12
***Procedure for the identification, investigation and assessment of potentially
contaminated sites***

1. Member States shall ***ensure that the contaminated sites*** in their █ territory ***are identified.***
2. ***For the purpose of paragraph 1,*** Member States shall:
█
 - (a) ***designate one or more competent authorities to be responsible for the identification of both potentially contaminated sites and contaminated sites and for the management of the related inventory;***
 - (b) ***by ...*,*** █ have identified the location of at least the sites where the ***following soil affecting*** activities are taking place or have taken place in the past:
 - ***establishments where 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 of 9 December 1996 on the control of major-accident hazards involving dangerous substances*** ¹(Seveso),

* ***Eight years from the date of entry into force of this Directive.***

¹ ***OJ L 10, 14.1.1997, p. 13. Directive as last amended by Regulation (EC) No 1882/2003 of the European Parliament and of the Council (OJ L 284, 31.10.2003, p. 1).***

- *activities listed in Annex I to Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control*¹. *These activities* shall be considered *as* specified in Annex I to Directive 96/61/EC, except for the activities carried out by micro-enterprises, as defined in *paragraph 3* of Article 2 in the Annex to Commission Recommendation 2003/361/EC², and those relative to the rearing of livestock,
- *mining installations, including extractive waste facilities as covered by Directive 2006/21/EC of the European Parliament and of the Council*³,
- *landfills of waste as defined in Council Directive 1999/31/EC*⁴.

In performing the investigations, Member States may exempt from the identification procedures 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. Information on these exemptions should be made available to the competent authorities.

For the identification Member States may furthermore use the list of activities in Annex IV.

¹ OJ L 257, 10.10.1996, p. 26. Directive as last amended by Regulation (EC) No 166/2006 of the European Parliament and of the Council (OJ L 33, 4.2.2006, p. 1).

² OJ L 124, 20.5.2003, p. 36.

³ OJ L 102, 11.4.2006, p. 15.

⁴ OJ L 182, 16.7.1999, p. 1. Directive as amended by Regulation (EC) No 1882/2003.

The identification shall be ***updated*** at regular intervals;

- (c) *for sites identified in accordance with point (b), measure the concentration levels of dangerous substances, which shall be restricted to substances handled in the sites identified in accordance with point (b);*
- (d) *carry out an on-site risk assessment on the sites where the levels of dangerous substances may pose a significant risk to human health or the environment taking into account the current and approved future use of the site.*

For this purpose, Member States shall base the assessment of the risks that substances on or in the soil pose to human health or the environment on methodologies which take into account:

- the concentration of the dangerous substance,*
 - the confirmed presence of a route or pathway by which the dangerous substance can reach somebody or something it can harm,*
 - the confirmed presence of a receptor, which could be harmed;*
- (e) *report on the investigation and assessment methods used by them for risk assessment in accordance with the procedure referred to in Article 18.*

3. *The identification steps provided for in paragraph 2 shall be performed, if they have not yet been so, according to the following time-table*■ :

(a) *by ...**, for at least 10% of the sites;

(b) *by ...***, for at least 60% of the sites;

(c) *by ...****, for the remaining sites.

4. *Member States shall establish national or regional inventories of contaminated sites. The inventory shall be made public and updated at least every seven years on the basis of information delivered to them or generated on their behalf, in particular to include new contaminated sites that have been identified and to exclude sites which have undergone remediation and no longer pose a significant risk to human health or the environment.*

In compiling the inventory Member States may use the data and information already available at national level.

5. *Member States shall, where appropriate, give special attention to the distinction between anthropogenic pollution and geogenic contamination. Geogenically contaminated soils as defined in Article 2(7) shall be evaluated in terms of their risks to human health and the environment.*

* *Nine years after the date of entry into force of this Directive.*

** *17 years after the date of entry into force of this Directive.*

*** *27 years after the date of entry into force of this Directive.*

6. *Where a site is to be sold and where changes occur in the land use of a site on which an activity referred to in paragraph 2(b) is taking place or for which the official records, such as registers, show that it has taken place, Member States shall ensure that:*

(a) the owner or the prospective buyer inform the competent authority as referred to in paragraph 2(a) and the other party in the transaction on the present and past activities on the site and provide any information at their disposal on the concentration levels of the dangerous substances in the soil. Member States may require a chemical analysis determining these concentration levels;

(b) the investigation and assessment necessary to decide whether a site is a risk to human health or the environment is always completed before construction of any new development begins.

Competent authorities shall use the information resulting from paragraphs 4 and 5 for the purpose of identifying contaminated sites.

Where requested, competent authorities shall make available to the owner of the site or to the prospective buyer the already existing information on the sites referred to in paragraph 1.

7. *The reports of investigations according to paragraphs 3 and 6(a) shall be made available to the competent authority.*

Article 13
Soil status report

1. Where a site is to be sold on which a potentially polluting activity listed in *Annex IV* is taking place, or for which the official records, such as national registers, show that it has taken place, Member States shall ensure that the owner of that site or the prospective buyer makes a soil status report available to the competent authority referred to in *Article 12* and to the other party in the transaction.
2. The soil status report shall be issued by an authorised body or person appointed by the Member State. It shall include at least the following details:
 - (a) the background history of the site, as available from official records;
 - (b) a chemical analysis determining the concentration levels of the dangerous substances in the soil, limited to those substances that are linked to the potentially polluting activity on the site;
 - (c) the concentration levels at which there are sufficient reasons to believe that the dangerous substances concerned pose a significant risk to human health or to the environment.
3. Member States shall establish the methodology necessary for determining the concentration levels referred to in paragraph 2(b).
4. The information contained in the soil status report shall be used by the competent authorities for the purposes of identifying contaminated sites in accordance with *Article 12(1)*.

SECTION TWO
REMEDATION

Article 14
Remediation

1. *Member States shall, not later than ...*, ensure that a remediation strategy or strategies are drawn up and made public at the administrative level they consider appropriate, including at least general remediation targets, a prioritisation, a timetable for implementation of remediation measures for the contaminated sites and the funding mechanism pursuant to paragraph 6.*

Member States shall notify the Commission in accordance with the procedure in Article 18 of the remediation strategy or strategies.

2. Member States shall ensure that the contaminated sites ■ in their *territory* are remediated, *in accordance with priorities to be set, or already set, by the Member States themselves.*

Member States shall also ensure that temporary and urgent safety measures are adopted where there is a serious risk of contamination spreading, threatening both human health and the environment.

3. Remediation shall consist of actions on the soil aimed at the removal, control, containment or reduction of contaminants so that the contaminated site, taking account of its current use and approved future use, no longer poses any significant risk to human health or the environment.

Member States shall encourage the use of best available techniques for remedial action.

* *Nine years after the date of entry into force of this Directive.*

4. *Member States shall determine the appropriate measure taking into account, inter alia, the costs and benefits of that measure.*
5. *If the means required 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 the environment or human health, including by restricting access to them or allowing natural recovery. If Member States choose either of these options, they shall monitor the risk to human health and the environment.*
6. *Member States shall set up appropriate mechanisms at national level (including for instance funds, investment aids, tax exemptions or reductions, tax refunds, or direct price support schemes) to fund the remediation, or provide for the remediation, of those contaminated areas for which, subject to the polluter pays principle, the person responsible for the pollution cannot be identified or cannot be held liable under Community or national legislation or may not be made to bear the costs of remediation. With a view to fostering remediation, Member States shall guarantee the proper functioning of these mechanisms in order to maintain investor confidence and achieve the aims of this Directive.*

Member States shall establish processes for managing cases where liability for funding remediation (or a portion of the remediation) should be transferred from one potentially responsible person to another. Existing financing mechanisms in Member States should be maintained if they have proved effective.

Article 15
National Remediation Strategy

1. Member States shall, on the basis of the inventory *referred to in Article 12(4) and not later than ...**, draw up a National Remediation Strategy, including at least remediation targets, a prioritisation, starting with those sites which pose a significant risk to human health, a timetable for implementation, and the funds allocated by the authorities responsible for budgetary decisions in the Member States in accordance with their national procedures.

Where containment or natural recovery are applied, the evolution of the risk to human health or the environment shall be monitored.

2. The National Remediation Strategy shall be in application and be made public *by ...***. It shall be reviewed at least every five years.

Chapter IV
Awareness raising, reporting and exchange of information

Article 16
Awareness raising and public participation

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

* *Nine years after the date of entry into force of this Directive.*

** *10 years after the date of entry into force of this Directive.*

2. Article 2(1), (2), (3) and (5) of Directive 2003/35/EC of the European Parliament and of the Council of 26 May 2003 providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment¹ shall apply to the preparation, modification and review of the programmes of measures on **priority** areas referred to in Article 9 and the ■ Remediation Strategies referred to in Article 14.

Article 17 *Cooperation between Member States*

Where a Member State is aware that any of its priority areas or contaminated sites are likely to have significant negative effects on human health or the environment in another Member State, or where a Member State likely to be significantly affected so requests, the Member State in whose territory the priority areas or the contaminated sites are located shall inform the other Member State and consult it on the measures to be taken to prevent or reduce such negative effects.

Article 18 *Reporting*

1. Member States shall, *by means of a procedure in accordance with Article 19, enable the Commission to have access to data which contains information in accordance with Articles 6, 8, 12 and 14, and to a summary of the awareness-raising initiatives taken on the basis of Article 16.*

¹ OJ L 156, 25.6.2003, p. 17.

2. The *Member States* may also use their own systems for gathering information, in accordance with paragraph 1.
3. *Successful measures and programmes of measures evaluated and made available pursuant to this Article may be included in Annex I.*

Article 19

Exchange of information

1. *Not later than ...**, the Commission shall set up a platform for the exchange of information **and coordination** between Member States, **regional and local authorities** and stakeholders on:
 - (a) *best practices in preserving and improving the soil's function to act as a carbon pool, pursuant to Article 3;*
 - (b) *the identification of valuable soils and best practices to protect, preserve and improve their characteristics and functions;*
 - (c) *codes of good practice pursuant to Article 4(2), including best practices for preventing and combating erosion, organic matter decline, compaction, salinisation, landslides, adverse effects from climate change, desertification, and biodiversity decline resulting from soil degradation processes;*
 - (d) *the codes of good practice for sealing pursuant to Article 6(3);*

* One year after the date of entry into force of this Directive.

- (e) the *priority* area identification pursuant to *Article 8*;
 - (f) risk assessment methodologies for *polluted* sites currently in use or under development;
 - (g) *scientific information on soil protection from inter alia the Seventh Framework Programme and subsequent programmes, and on the experience of preventing soil degradation and dealing with soil contamination. The Commission shall develop, in accordance with the regulatory procedure with scrutiny referred to in Article 22(3), guidelines for risk assessment methodologies for contaminated sites.*
2. *In setting up the platform, the Commission shall take into consideration the existing systems in Member States and compatibility with national information systems. The rules of Directive 2007/2/EC shall remain unchanged. Member States shall support the Commission with regard to the quality of data and metadata and to the use of data from the past.*
 3. *If it becomes clear, on the basis of the exchange of the information referred to in paragraph 1, that the methods used for assessing the threat of soil contamination in accordance with Article 12 must be harmonised or that the Directive needs to be adapted in line with technical and scientific advances, the Commission shall, pursuant to Article 251 of the Treaty, propose common criteria for assessing the risk of soil contamination or implementing the requisite adjustments.*

Article 20

Financing

Measures that, according to this Directive, have to be taken by the Member States, shall be financed by the Member States. Co-financing by the Community shall only be possible when permitted by existing conditions of current programmes.

Chapter V Final provisions

Article 21

Implementation and adaptation to technical progress

1. The Commission may, in accordance with the regulatory procedure with scrutiny referred to in *Article 22(3)*, adapt *Annex II* to technical and scientific progress.
2. Where, on the basis of the exchange of information referred to in *Article 19*, a need to harmonise the risk assessment methodologies for soil contamination is identified, the Commission shall adopt common criteria for soil contamination risk assessment in accordance with the regulatory procedure with scrutiny referred to in *Article 22(3)*.
3. *Not later than ...**, the Commission shall adopt, in accordance with the regulatory procedure referred to in *Article 22(2)*, 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 18*.

* *Four years after the date of entry into force of this Directive.*

Article 22
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*.
4. The Committee shall adopt its rules of procedure. ***These rules shall allow stakeholders’ representatives to participate in the Committee’s deliberations.***
5. ***The Committee shall consult the affected economic stakeholders and environmental associations before taking its decisions.***

Article 23
Commission report

1. The Commission shall publish a first evaluation report on the implementation of this Directive within two years of receiving the programmes of measures and National 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* made by the Commission pursuant to *Article 18*.

Article 24
Review

The Commission shall review this Directive *not later than ...** and shall, where appropriate, propose any necessary amendments.

* *15 years after the date of entry into force of this Directive.*

Article 25
Penalties

The 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. The Member States shall notify those provisions to the Commission by the date specified in *Article 26* at the latest and shall notify it without delay of any subsequent amendment affecting them.



Article 26
Transposition

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive *by**. They shall forthwith communicate to the Commission the text of those provisions and a correlation table between those provisions and this Directive.

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.

Where existing national provisions remain in force unamended, a notice of compliance shall suffice.

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.

* *Two years after the date of entry into force of this Directive.*

Article 27
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 28

Addressees

This Directive is addressed to the Member States.

Done at ,

For the European Parliament
The President

For the Council
The President

ANNEX I

Possible elements in the codes of good practice for protection or improvement of the soil

Codes of good practice for the different land use activities referred to in Article 4(2) may contain the following elements:

- 1. a description of the impacts on soil functions that can be expected (only those soil functions likely to be significantly hampered would need to be considered);***
- 2. techniques, methods and land management practices that can minimise the disruption to soil functions, while at the same time allowing a sustainable use of the soil;***
- 3. a list of information sources and competent authorities that can advise the land user on how to use the soil with minimum soil disruption;***
- 4. a list of national and Community legislation relevant to soil protection and applicable to the specific activity;***
- 5. guidance for risk assessment methodologies.***

ANNEX II

SECTION 1	
COMMON ELEMENTS FOR THE IDENTIFICATION OF AREAS AT RISK OF EROSION	
Soil typological unit (STU) (soil type)	
Soil texture (STU level)	
Soil density, hydraulic properties (STU level)	
<i>Organic matter content</i>	
Topography, including slope gradient and slope length	
Land cover	
Land use (including land management, farming systems and forestry)	
Climate (including rainfall distribution and wind characteristics)	
Hydrological <i>and hydrogeological</i> conditions	
Agro-ecological zone	
<i>Anthropogenic factors (e.g. hydraulic works, etc.)</i>	
<i>pH</i>	

SECTION 2	
COMMON ELEMENTS FOR THE IDENTIFICATION OF AREAS AT RISK OF SOIL ORGANIC MATTER DECLINE	
Soil typological unit (STU) (soil type)	
Soil texture/clay content	
Soil organic carbon (total and humus concentration)	
Soil organic carbon (stock)	
Climate (including rainfall distribution and wind characteristics)	
Topography	
Land cover	
Land use (including land management, farming systems and forestry)	

SECTION 3	
COMMON ELEMENTS FOR THE IDENTIFICATION OF AREAS AT RISK OF COMPACTION	
Soil typological unit (STU) (soil type)	
Topsoil and subsoil texture (STU level)	
Topsoil and subsoil bulk density (STU level)	
Soil organic matter (STU level)	
Climate	
Land cover	
Land use (including land management, farming systems and forestry)	
Topography	

SECTION 4	
COMMON ELEMENTS FOR THE IDENTIFICATION OF AREAS AT RISK OF SALINISATION	
Soil typological unit (STU) (soil type)	
Soil texture (STU level)	
Soil hydraulic properties	
Irrigation areas, chemical properties of irrigated water and type of irrigation techniques	
<i>Proximity to roads</i>	
Groundwater information	
Climate	

SECTION 5	
COMMON ELEMENTS FOR THE IDENTIFICATION OF AREAS AT RISK OF LANDSLIDES	
Soil typological unit (STU) (soil type)	
Occurrence/density of existing landslides	
Bedrock	
Topography	
Land cover	
Land use (including land management, farming systems and forestry)	
Climate	
Seismic risk	

SECTION 6 COMMON ELEMENTS FOR THE IDENTIFICATION OF AREAS AT RISK OF ACIDIFICATION	
<i>pH</i>	
<i>Soil typological unit (STU) (soil type)</i>	
<i>Soil texture</i>	
<i>Climate</i>	
<i>Land use</i>	
<i>Soil organic matter</i>	
<i>Cation Exchange Capacity (CEC)</i>	

ANNEX III
Possible measures pursuant to Article 9

POSSIBLE MEASURES TO COMBAT EROSION

Change arable land to grassland

Planting of hedgerows, groups of trees and afforestation

Restriction of construction work in very vulnerable sites

Adequate crops/crop rotations and catch and interim crops

Application of compost

Reduced tillage

Mulching

Use of winter cover, buffer strips and hedgerows

Proper use of machinery

Construction and maintenance of terraces

Prevention of fires

Restriction of inappropriate practices on hill slopes

Coastal management techniques

POSSIBLE MEASURES TO COMBAT ORGANIC MATTER DECLINE

Change arable land to grassland

Planting of trees

Application of compost

Restriction of construction work in very vulnerable sites

Adequate crops/crop rotations and catch and interim crops

Reintroduction into the soil of crop residues

Reduced tillage

Mulching

Avoid drainage of wetlands to protect peat soil

POSSIBLE MEASURES TO COMBAT COMPACTION

Change arable land to grassland

Reduced tillage

Application of compost

Cultivation at optimal soil moisture

Restriction of excessive heavy machinery use

Use of low contact pressure and low pressure tyres

Appropriate drainage

Adequate stocking rates and duration of grazing

POSSIBLE MEASURES TO COMBAT SALINISATION

Change arable land to grassland

Adequate crops/crop rotations

Application of appropriate irrigation techniques and equipment

Use of water of appropriate quality

Appropriate drainage of irrigated land

Use of organic fertilisers (e.g. compost, manure)

Soil washing

POSSIBLE MEASURES TO COMBAT LANDSLIDES

Restrict constructions that increase landslide risks, especially on steep slopes

Avoid deforestation; planting of trees to retain the soil in place

Prevention of land abandonment

Establishment and maintenance of landscape elements such as terraces, hedgerows, groves

ANNEX IV
Activities referred to in Article 12

■

1. *Areas in* airports *where use, handling and storage of dangerous substances occurs or has occurred.*
2. *Land-based areas in* ports *where use, handling and storage of dangerous substances occurs or has occurred.*
3. *Areas in* former military sites *where use, handling and storage of dangerous substances has occurred.*
4. Petrol and filling stations.
5. *Industrial* dry cleaners.

■

6. Waste water treatment installations *above 2 000 population equivalents.*
7. Pipelines for the transport of dangerous substances.