

[P04-en] To think beyond the horizon - The soil, organic carbon & humus challenge in the context of soil protection, climate change and carbon trading schemes

L. Marmo, EC DG Agriculture, Forests and Soil, B. Zambrzycki - EC, DG Environment, BE



The soil, organic carbon & humus challenge in the context of soil protection, climate change and carbon trading schemes

ISWA/ECN Seminar
Sofia, 17 April 2013

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Setting the context

- ❖ Soil is a **non-renewable** natural resource
- ❖ It performs **crucial** ecological, social and economic functions
- ❖ Soils are being **increasingly degraded or irreversibly lost** across the EU
- ❖ Estimated costs of soil degradation reach up to **€38 billions per year**
- ❖ Soil degradation reaches **across borders**
- ❖ There is a need for a **comprehensive** protective approach



The Soil Thematic Strategy

Communication
COM(2006)231, 22.9.2006

Proposal for a Soil Framework Directive
COM(2006)232, 22.9.2006

Impact Assessment
SEC(2006)1165 & SEC(2006)620, 22.9.2006




Objective of the Soil Thematic Strategy

The overall objective is **protection** and **sustainable use** of soil, based on the following guiding principles:

- ❖ **Preventing** further soil degradation and preserving **soil functions**:
 - When soil is used and its functions are exploited, action has to be taken on soil use and management patterns, and
 - When soil acts as a sink/receptor of the effects of human activities or environmental phenomena, action has to be taken at source.
- ❖ **Restoring degraded soils** to a level of functionality consistent at least with current and intended use, thus also considering the cost implications of the restoration of soil.



Soil functions

The Directive establishes a framework for the protection of soil, its sustainable use and the preservation of soil functions:

- (a) Biomass production, including in agriculture and forestry;
- (b) Storing, filtering and transforming nutrients, substances and water;
- (c) Biodiversity pool, 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 pool;
- (g) Archive of geological and archaeological heritage.



Soil threats considered

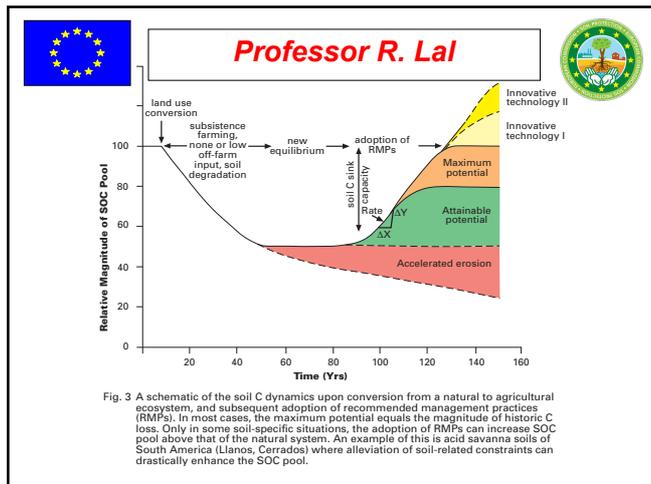
	Sealing		Erosion
	Organic matter decline		Compaction
	Salinisation+Acidification		Landslides
	Contamination		

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Soil Thematic Strategy and climate change

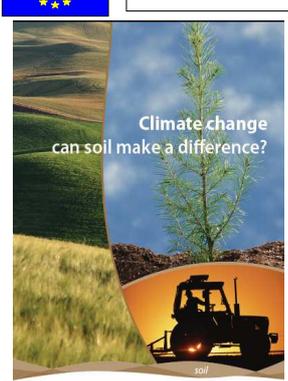



Key messages from the June 2008 Conference

- ❖ Soil is both part of the problem and of the solution for climate change
- ❖ Preserving and restoring existing carbon stocks (e.g. in grassland and peatland) might be more effective than trying to create new ones
- ❖ The quantification of where and how much European soils are losing organic matter must be a priority for EU action.
- ❖ Soil degradation, particularly SOM loss, has transboundary effects, thus need for common EU legislative framework
- ❖ It is clear that the EU (and the world) has to adapt to climate change
- ❖ Soil has a crucial role to play to secure food and other social, economic and environmental services



More info...



Full report (in English) and executive summaries (in all EU languages) available at

http://ec.europa.eu/environment/soil/conf_en.htm



Recent developments



Common Agricultural Policy CAP reform proposals: First pillar

Direct Payment Regulation, COM(2011) 625, 12.10.2011

- ❖ Ecological focus area of 7%, applied at farm level
- ❖ Crop diversification: minimum three crops; no crop over 70%; smallest crop at least 5%
- ❖ Protection of permanent pasture at farm level (with a 5% allowance per farm)

The greening involves **30%** of the direct payment budget

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CAP reform proposals: Standards of Good Agricultural and Environmental Condition GAEC

**Financing, Management and Monitoring Regulation,
COM(2011) 628, 12.10.2011**

GAEC 4	Minimum soil cover
GAEC 5	Minimum land management reflecting site specific conditions to limit erosion
GAEC 6	Maintenance of soil organic matter level including ban on burning arable stubble
GAEC 7	Protection of wetland and carbon rich soils including a ban of first ploughing


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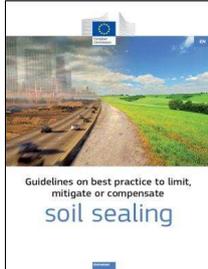
Guidelines on best practice to limit, mitigate or compensate soil sealing

SWD(2012) 101 final/2, 15 May 2012
http://ec.europa.eu/environment/soil/sealing_guidelines.htm



Available in all EU official languages

←



Available in selected EU official languages

→


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Living well, within the limits of our planet

COM(2012) 710, 29.11.2012

Proposal for a general Union Environment Action Programme

Priority objective 1: To protect, conserve and enhance the EU's natural capital:

- (23) To reduce the most significant man-made pressures on land, soil and other ecosystems in Europe, action will be taken to ensure that decisions relating to land use at all relevant levels give proper consideration to environmental as well as social and economic impacts. The Rio+20 Summit outcome called for a 'land degradation neutral world'. The EU and Member States should reflect on how best to make such a commitment operational within their respective competencies as well as to address soil quality issues within a **binding legal framework** (COM(2006) 232). Targets will also be set for sustainable land use and soil.
- (26) In order to protect, conserve and enhance the EU's natural capital, the programme shall ensure that by 2020: (e) Land is managed sustainably in the EU, soil is adequately protected and the remediation of contaminated sites is well underway.
- This requires, in particular: (e) **Increasing efforts to reduce soil erosion and increase soil organic matter, to remediate contaminated sites and to enhance the integration of land use aspects into coordinated decision-making involving all relevant levels of government, supported by the adoption of targets on soil and on land as a resource, and land planning objectives.**


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Rio+20: 'The future we want'

205. We [the Heads of State and Government and high-level representatives] recognize **the economic and social significance of good land management, including soil**, particularly its contribution to economic growth, biodiversity, sustainable agriculture and food security, eradicating poverty, the empowerment of women, addressing climate change and improving water availability. (...)

206. We recognize the need for urgent action to reverse land degradation. In view of this, **we will strive to achieve a land-degradation neutral world in the context of sustainable development**. This should act to catalyse financial resources from a range of public and private sources.


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Thank you for your attention!



<http://ec.europa.eu/environment/soil/index.htm>