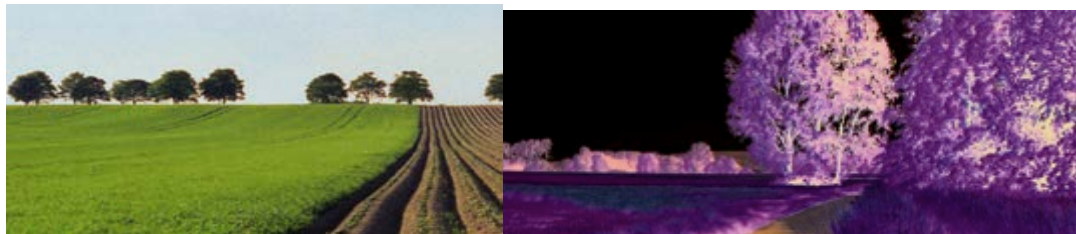


Joint Research Centre (JRC)

La Protezione del Suolo nell'Unione Europea: situazione attuale e prospettive future

*Luca Montanarella
European Commission
DG JRC.H.05*



www.jrc.ec.europa.eu
ies.jrc.ec.europa.eu



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*Better Regulation,
Interinstitutional Relations,
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Commissioner

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Christos Stylianides

*Humanitarian Aid
& Crisis Management*

**The HRVP may ask this
Commissioner (and other
Commissioners) to deputise
for her in areas related to
Commission competence.*

SFD withdrawal & 7EAP



❖ **REFIT Communication, COM(2013) 685, 2.10.2013:**

The Commission notes that the proposal [for a Soil Framework Directive] has been pending for 8 years during which time no effective action has resulted. It will therefore examine carefully whether the objective of the proposal, to which the Commission remains committed, is best served by maintaining the proposal or by withdrawing it, thus opening the way for an alternative initiative in the next mandate. This will be judged on the feasibility of reaching adoption before the European Parliament elections.

❖ **Withdrawal Decision (corrigendum), OJ C 163, 28.5.2014:**

The Commission remains committed to the objective of the protection of soil and will examine options on how to best achieve this. Any further initiative in this respect will however have to be considered by the next college.

❖ **7EAP, Decision 1386/2013/EU, OJ L 354, 28.12.2013:**

25. (...) The Union and its Member States should also reflect as soon as possible on how soil quality issues could be addressed using a targeted and proportionate risk-based approach within a binding legal framework. Targets should also be set for sustainable land use and soil.

Evidence of soil degradation in Europe



Erosion



Organic Matter decline



Compaction

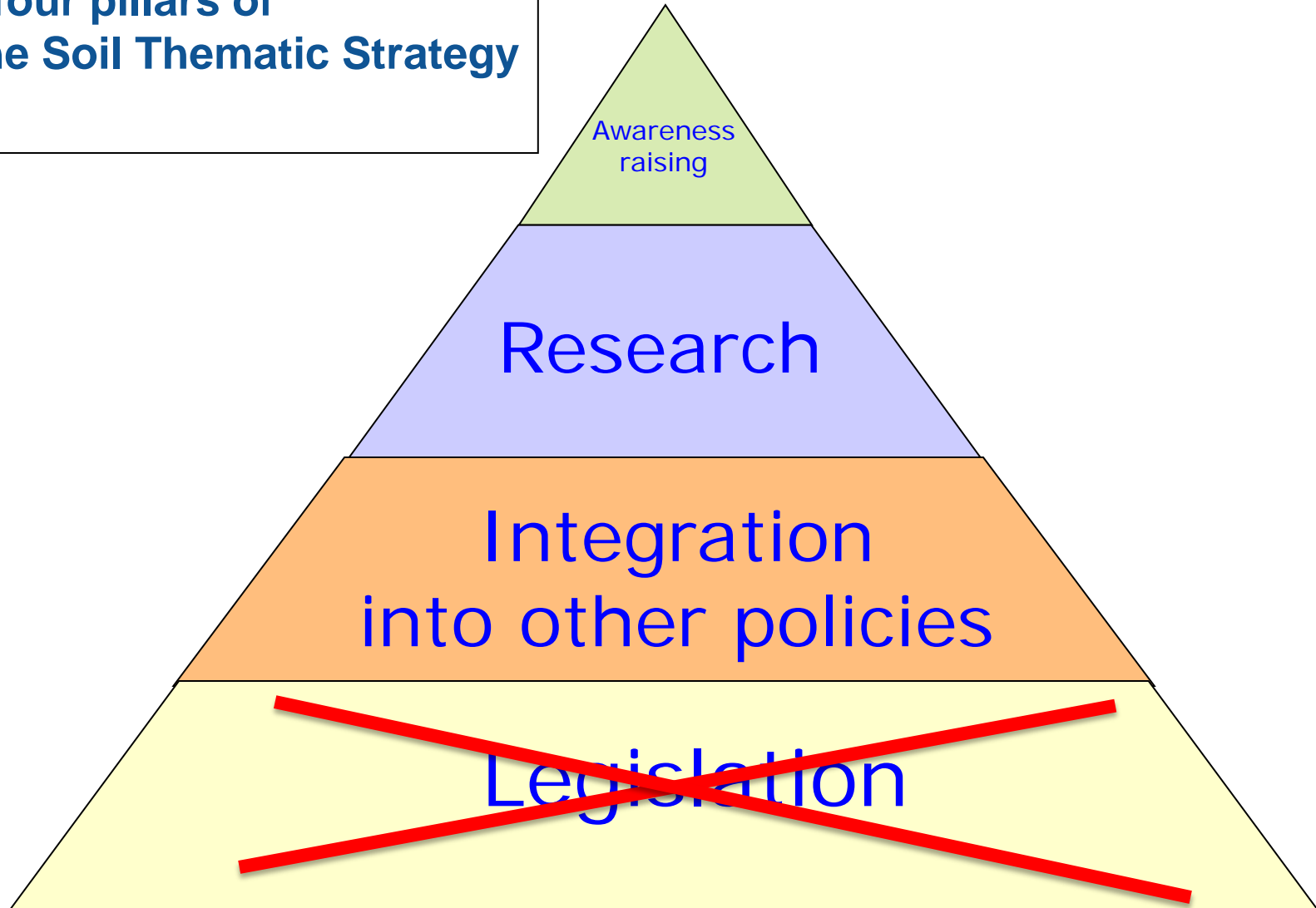


Salinisation



Landslides

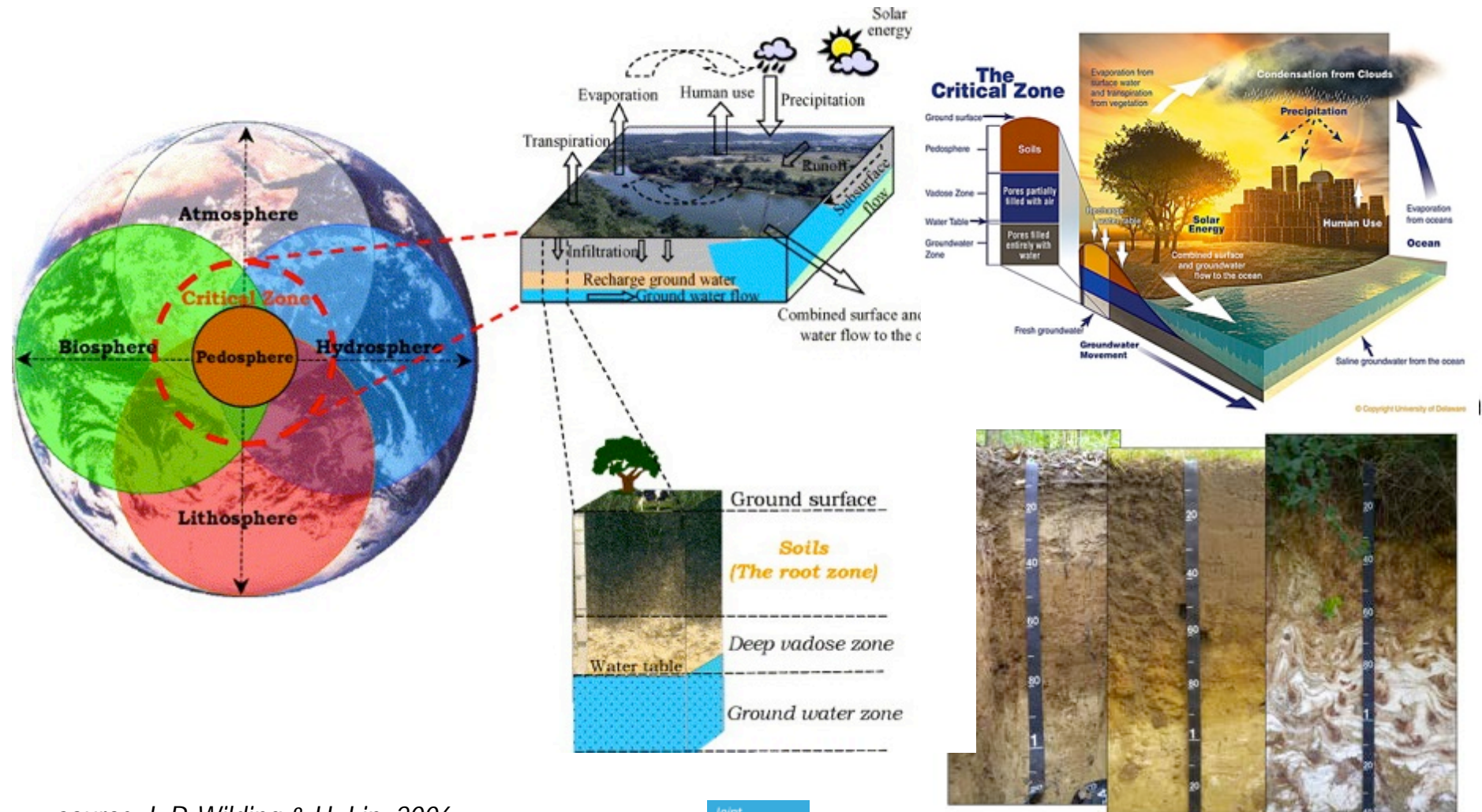
**The four pillars of
the Soil Thematic Strategy**



Main Soil Related EU Policy Areas:

- EU Soil Thematic Strategy
- Common Agricultural Policy (CAP)
- Climate Change Policy (Post-Kyoto debate, LULUCF)
- Energy Policy (Renewable Energies Directive)
- Industrial policy (Fertilizers Regulation)
- Biodiversity (Nature) Protection Policy (EU Biodiversity Strategy)
- Water Protection Policy (WFD, Groundwater Directive)
- Forest Protection Policy (Forest FOCUS, ICP Forest)
- Regional Policies (INTERREG)
- Food Safety (PPR Registration, EFSA)
- Food Security (FAO)
- Development Policy (ACP-Observatory)
- Waste Policy (Biowaste Directive, Sewage Sludge Directive)
-etc.

Soils at the interface between Atmosphere, Hydrosphere, Lithosphere and Biosphere



source: L.P. Wilding & H. Lin, 2006

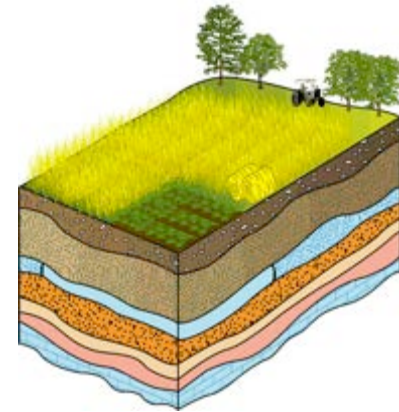
Joint Research Centre

source: E. Micheli

Soils deliver multiple services relevant to all of us:

- 1. Biomass production, including in agriculture and forestry;*
- 2. Storing, filtering and transforming nutrients, substances and water;*
- 3. Biodiversity pool, such as habitats, species and genes;*
- 4. Physical and cultural environment for humans and human activities;*
- 5. Source of raw materials;*
- 6. Acting as carbon pool;*
- 7. Archive of geological and archeological heritage.*

Basis for biomass production



Habitat and gene reservoir



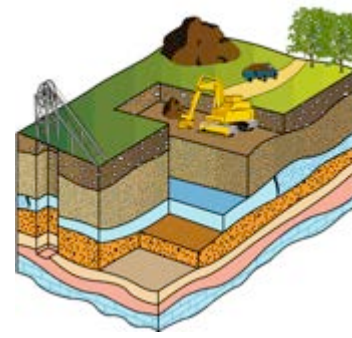
Filtering, buffering and transformation



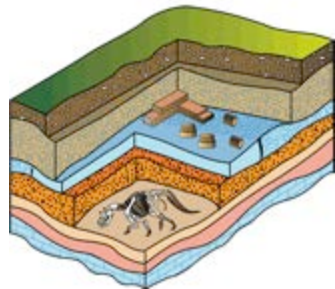
Foundation for Buildings



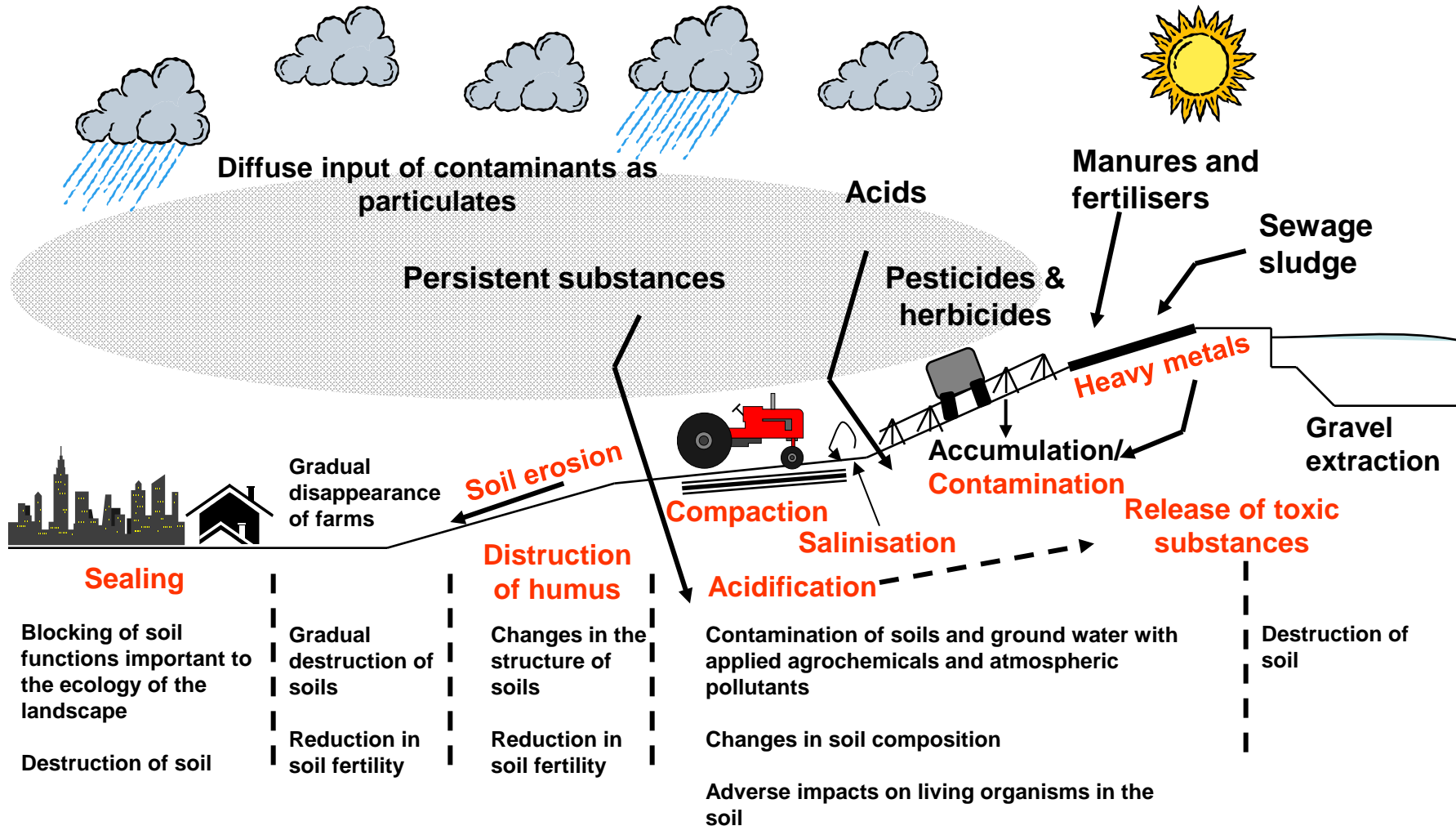
Source of raw materials



Historical medium



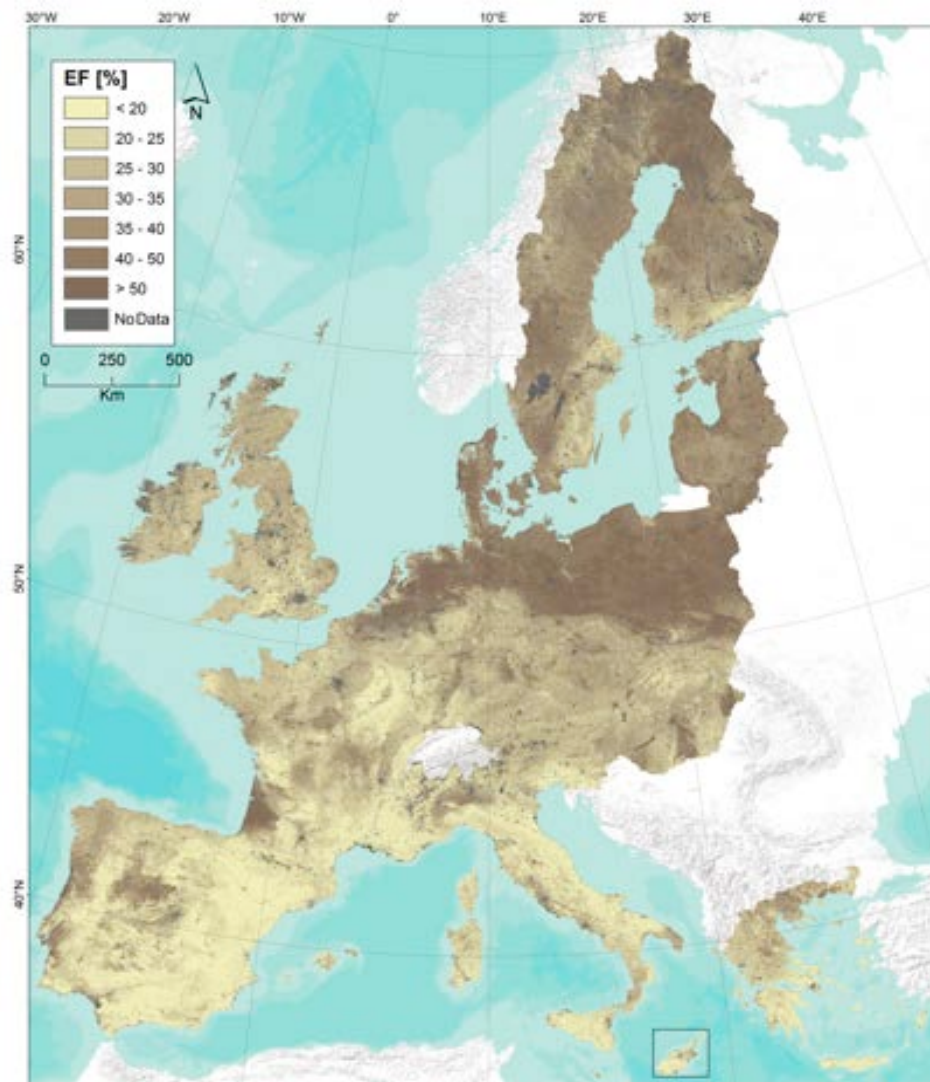
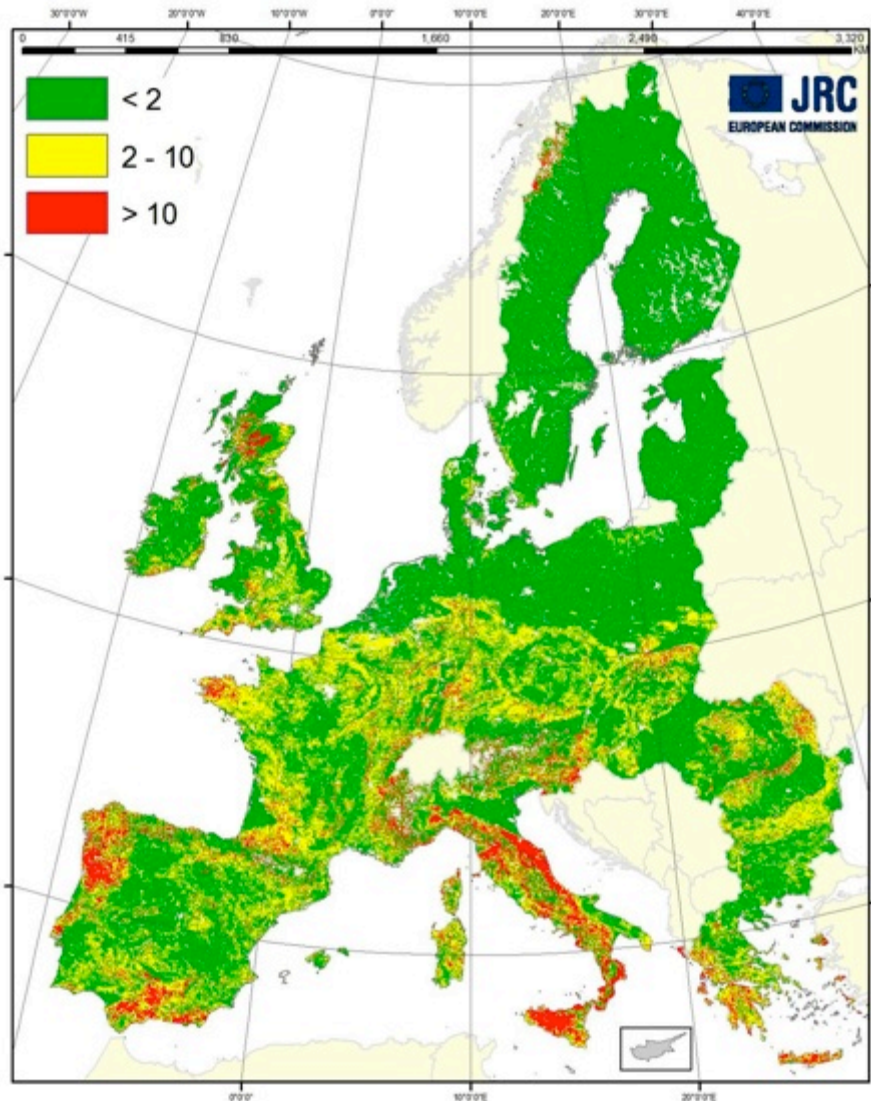
Soil degradation processes limit the soil functions



Soil erosion by water in the EU 27 (t/ha/y) based on the RUSLE



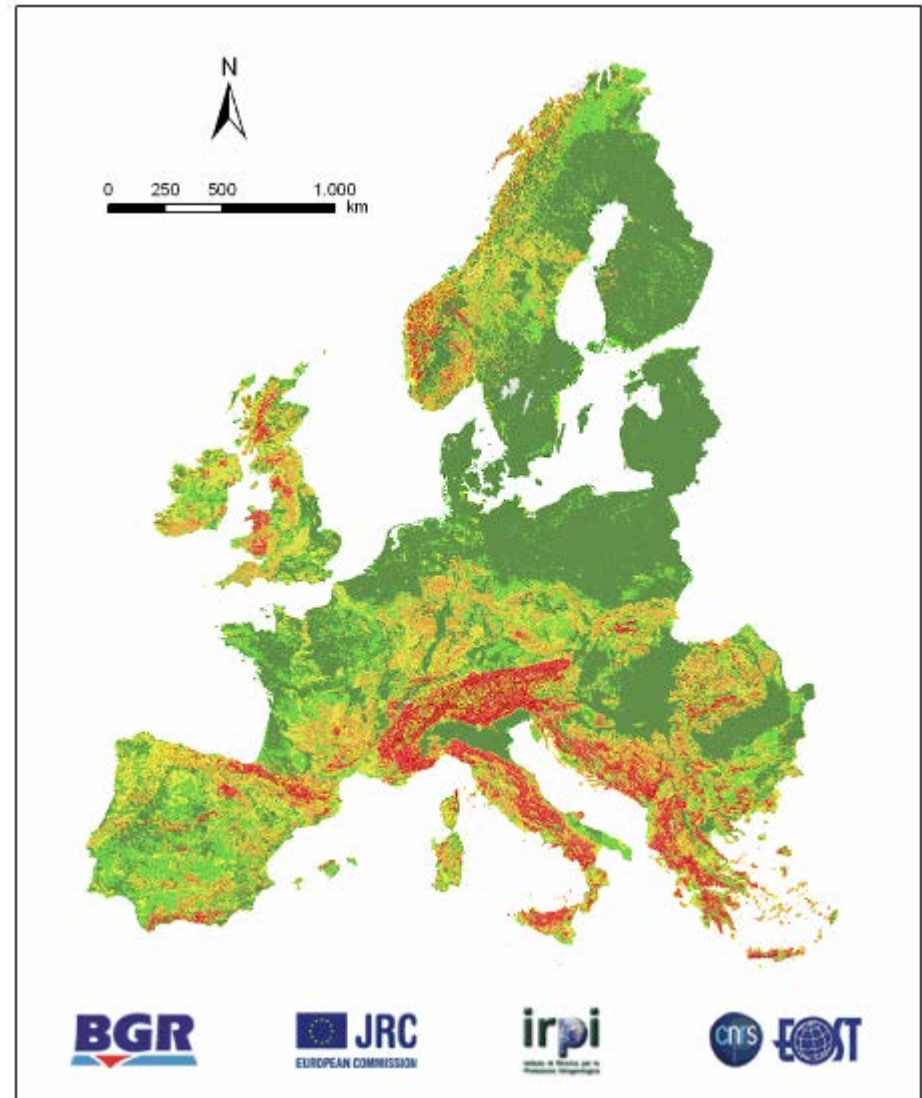
Wind erosion susceptibility of the European soil based on the estimation of the wind-erodible fraction of soil (EF)



Landslides



Landslides are a major threat in mountainous and hilly areas across Europe (land abandonment being an aggravating factor), often producing serious impacts on population, property and infrastructure. Over 630,000 landslides are currently registered in national databases.

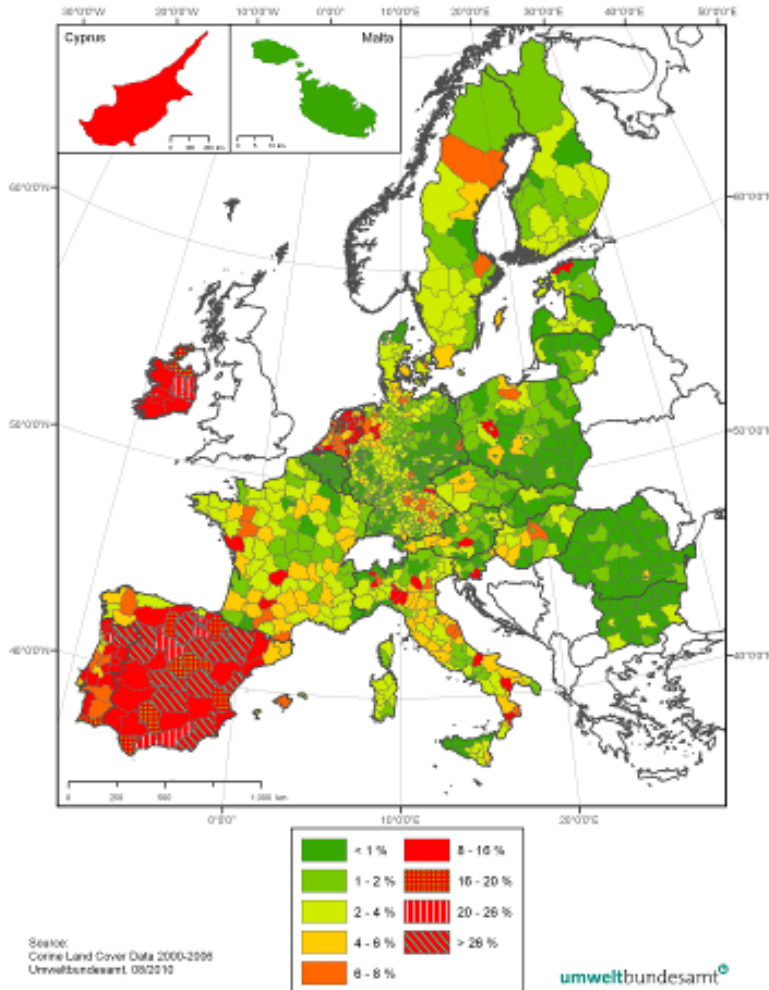


Soil sealing

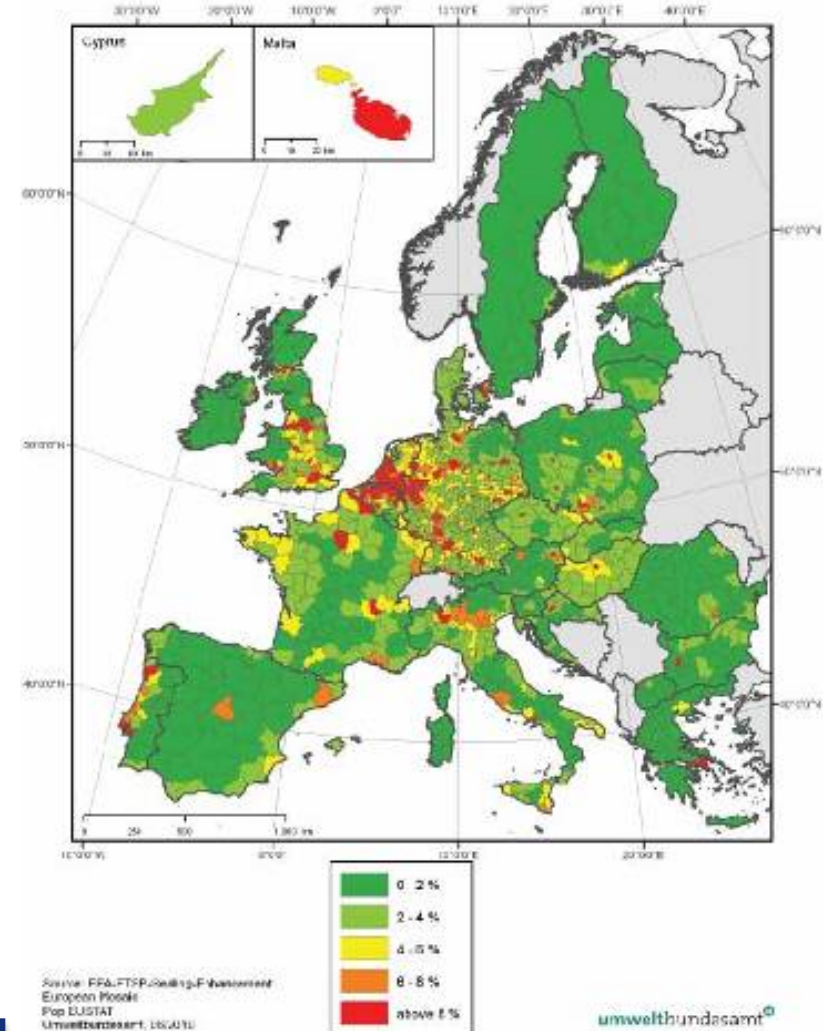


European
Commission

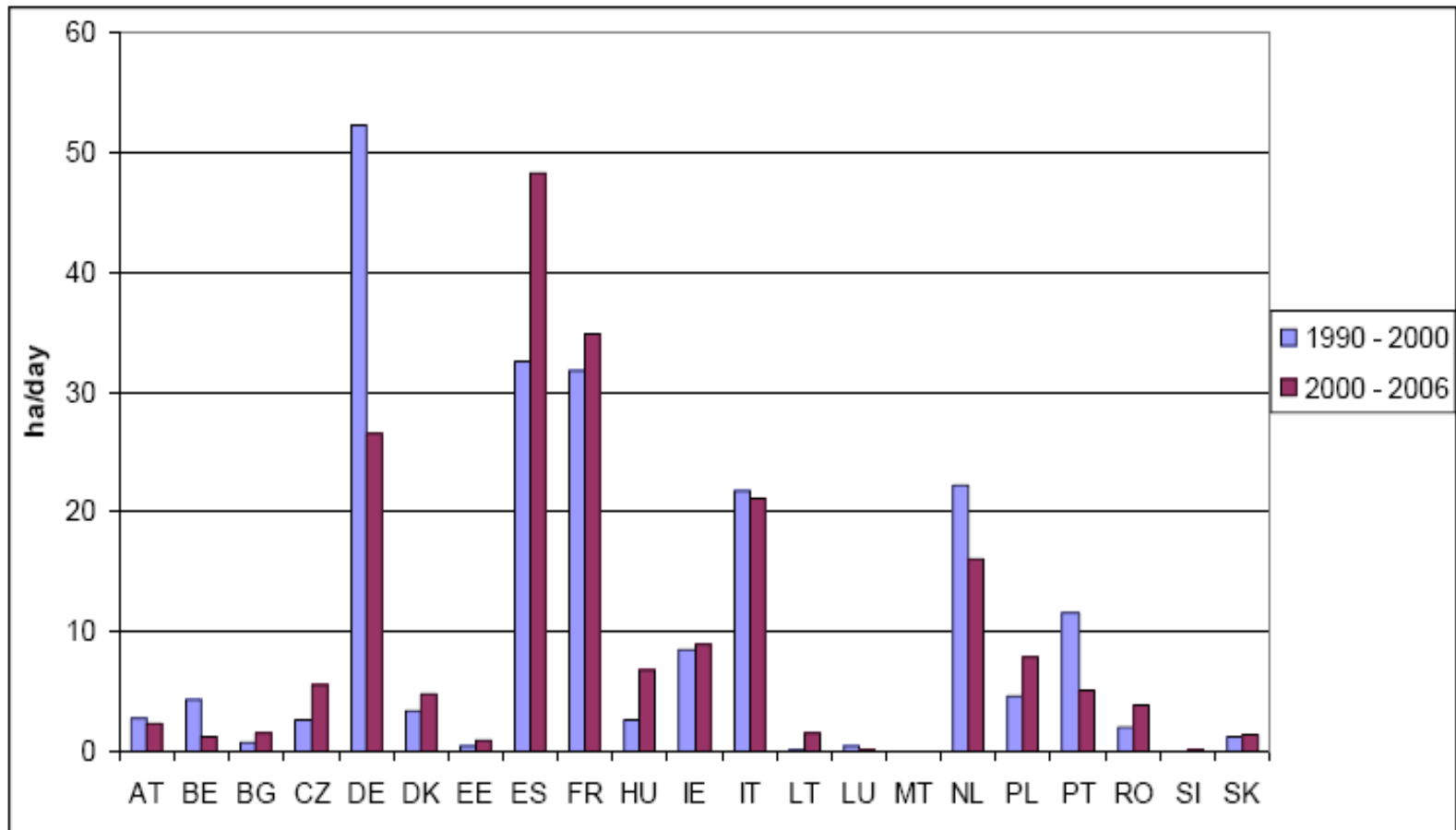
Land take per administrative unit in the period 2000-2006



Soil sealed surface in 2006



How much land we are loosing every day ?



Is the equivalent of the area of Berlin every year!



Resource Efficiency Roadmap, COM(2011) 571:

- *Milestone: By 2020, EU policies take into account their direct and indirect impact on land use in the EU and globally, and the rate of **land take** is on track with an aim to achieve no net land take by 2050; **soil erosion** is reduced and the **soil organic matter** increased, with remedial work on **contaminated sites** well underway.*



Proposal for a general Union Environment Action Programme to 2020: *Living well, within the limits of our planet*, COM(2011) 571

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.*



❖ **Resource Efficiency Road Map, COM(2011) 571, 20.9.2011:**

Milestone: By 2020, EU policies take into account their direct and indirect impact on land use in the EU and globally, and the rate of land take is on track with an aim to achieve no net land take by 2050; soil erosion is reduced and the soil organic matter increased, with remedial work on contaminated sites well underway.

The Commission will further develop the scientific knowledge-base on biotic material, land-use effects and trends, and spatial planning (...) leading to a Communication on land use (in 2014).

❖ **Communication on "Land as a resource":**

- ❖ IA ongoing (two external contracts + JRC-EEA support)
- ❖ ISG established (first meeting on 19 May 2014)
- ❖ Land Conference on 19 June 2014
- ❖ Public consultation in the autumn or with new Commission
- ❖ Adoption by the Commission in the course of 2015

Food Security



IPTS

Climate Change



IPCC

IPBES



CBD

GLOBAL SOIL
PARTNERSHIP

SPI



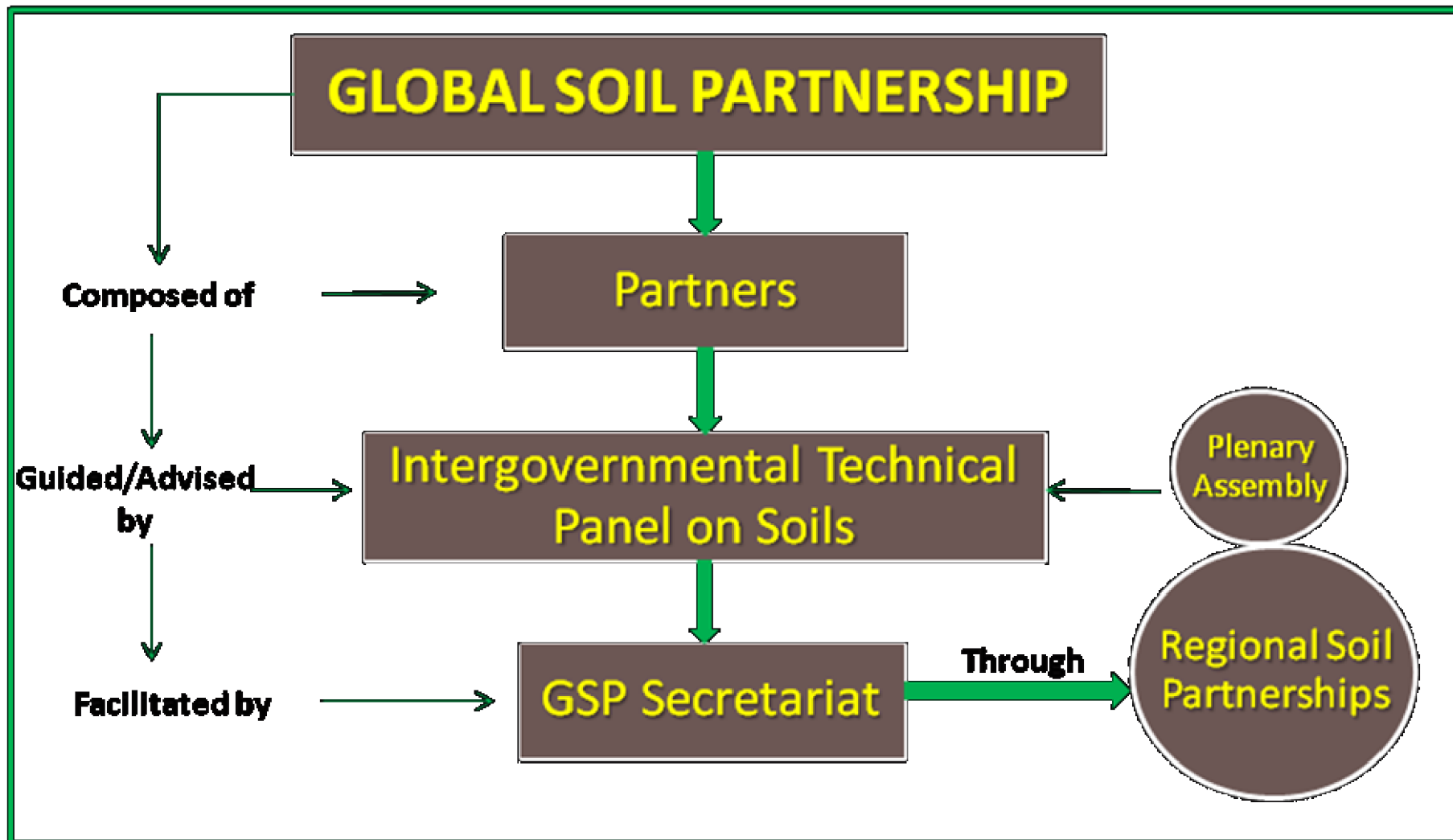
UNCCD

Biodiversity

Desertification



GLOBAL
SOIL BIODIVERSITY
INITIATIVE



Outcome Rio+20:

A Zero Net Land Degradation World

- What does it mean?
- At what scale (local, National, Regional, Global)?
- Who should implement it?
- How can it be measured?
- When should it be achieved?

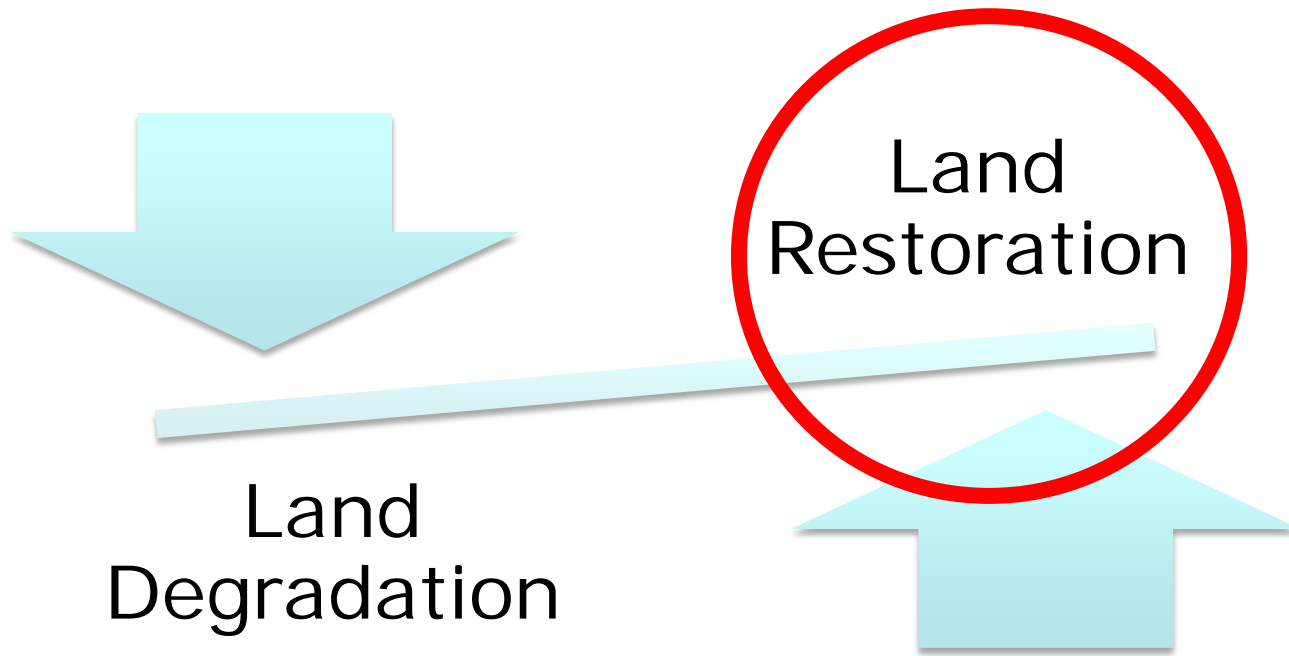


RIO 2012

United Nations
Conference on
Sustainable Development

The Future we want!

Towards Zero Net Land Degradation



RIO 2012

United Nations
Conference on
Sustainable Development

The Future we want!

SDGs relevant to soils

- Target 2.4** By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.
- Target 3.9** By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.
- Target 15.3** By 2020, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land-degradation-neutral world

The 68th UN General Assembly declared 2015 the International Year of Soils (IYS)

2015

International
Year of Soils



<http://www.fao.org/soils-2015/en/>

Grazie per l'attenzione!



itps
INTERGOVERNMENTAL TECHNICAL
PANEL ON SOILS

<http://eusoils.jrc.ec.europa.eu/>