

Soil Politics Workshop, Soil Summer School 2015

- What inequality of power creates and perpetuates this threat to soil?
- What community organising/collective action can respond to this threat to soil?
- What are your next steps as an individual?

Threats to Soils

Biodiversity Decline

Soil biodiversity reflects the enormous variety of organisms, from bacteria to mammals, which shape the metabolic capacity of terrestrial ecosystems and many soil functions. The threats and degradation processes listed here all contribute to the loss of soil biodiversity.

Contamination

Due to more than 200 years of industrialisation, soil contamination is a widespread problem. The most frequent contaminants are heavy metals and mineral oil. The number of sites where potentially polluting activities have taken place now stands at approximately 3 million.

Compaction

Compaction can be induced by the use of heavy machinery in agriculture. Compaction reduces the capacity of soil to store and conduct water, makes it less permeable for plant roots and increases the risk of soil loss by water erosion.

Erosion

105 million ha, or 16% of Europe's total land area (excluding Russia), were estimated to be affected by water erosion in the 1990s. Some 42 million ha are affected by wind erosion.

Organic matter decline

Organic matter is a key component of soil, controlling many vital functions. Some 45% of soils in Europe have a low or very low organic matter content (0–2% organic carbon). This is particularly evident in the soils of many southern European countries, but is also evident in parts of France, the United Kingdom, Germany, Norway and Belgium. A key driver is the conversion of woodland and grassland to arable crops. The soils of the EU-27 Member States are currently estimated to store between 73 and 79 billion tonnes of carbon.

Salinisation

Salinisation is the result of the accumulation of salts and other substances from irrigation water and synthetic fertilisers. High levels of salt will eventually make soils unsuitable for plant growth. It affects approximately 3.8 million ha in Europe. The main driver is the inappropriate management of irrigated agricultural land.

Sealing

Sealing occurs when agricultural or non-developed land is lost to urban sprawl, industrial development or transport infrastructure. It normally includes the removal of topsoil layers and leads to the loss of important soil functions, such as food production, water storage or temperature regulation. On average, built-up and other man-made areas account for around 4% of the total area in the countries of the European Economic Area. Between 1990 and 2000, at least 275 ha of soil were lost per day in the EU, amounting to 1 000 km²/yr.

Source: <http://www.summerofsoil.se/soil/threats-to-soil/>

Further Links & Resources

- Permaculture Association – www.permaculture.org.uk - including participatory soil research projects
- Summer of Soil – www.summerofsoil.se
- Global Soil Forum, IASS, Potsdam, Germany
- www.globalsoilweek.org
- Reclaim the Fields UK – www.reclaimthefields.org.uk
- Reclaim the Fields - www.reclaimthefields.org
- The Landworkers Alliance - <http://landworkersalliance.org.uk/>
- UK Food Sovereignty Gathering, October 2015 - <http://foodsovereignty.org.uk/>
- Regenerative Agriculture – www.regenerativeagriculture.co.uk
- Garden Organic – www.gardenorganic.org.uk
- Soil Association – www.soilassociation.org
- www.homecomposting.org.uk
- www.soilfoodwebcourse.com
- International Year of Soils 2015 - <http://www.fao.org/soils-2015/about/en/>
- www.bluefingeralliance.org.uk
- www.feedavalon.org.uk
- Soil Culture Event at Create, Bristol - <http://www.createbristol.org/>