

Appropriation of soil as a natural capital – 3th Fact Finding Session (v2)

The 3rd session of the Flemish Academy’s Thinkers' Programme on “Soil as a Natural Capital” focuses on “The appropriation of soils as a natural capital”. A fact finding week will take place during 7th to 9th of October 2020 on the premises of the Flemish Academy in Brussels. Two external experts, Joke van Wensem (NL) and Richard Bardgett (UK), will be invited to discuss the topic in depth with a group of carefully selected stakeholders.

Context and Scope

Soils are a key element of the natural capital that underpins society and the economy, and healthy soil is a basic condition for the successful implementation and realization of the UN Sustainable Development Goals (SDG’s) (Fig. 1a; Visser et al. 2019¹). Therefore, a transition to a sustainable soil management is urgently needed (Fig. 1b). A holistic approach and a land management focused on sustainable use and restoration of natural systems and their services is needed to achieve this transition.

To turn these ambitions into practice, a portfolio of mutually reinforcing and future-oriented instruments is needed. When environmental policies were first developed, instruments focused on specific environmental problems (e.g. soil pollution). Since no single policy instrument can provide solutions to all problems, the spectrum of policies has broadened to address the increasingly complex and interrelated environmental problems. Today, many environmental policy interventions rely on a combination of:

- **Legal and Regulatory Instruments** (e.g. of toxic substances, the Flemish Manure Action Plan, the Soil Decree and land planning instruments);
- **Rights-Based Instruments and Customary Norms** (e.g. strengthening local stakeholders);
- **Economic and Financial Instruments** (e.g. greenhouse gas emission trading; subsidies; payment for ecosystem services);
- **Social and Cultural Instruments** (e.g. education and awareness raising; voluntary agreements).

Ideally, this policy mix is supplemented with **monitoring systems** to document the effectiveness and efficiency of policies.

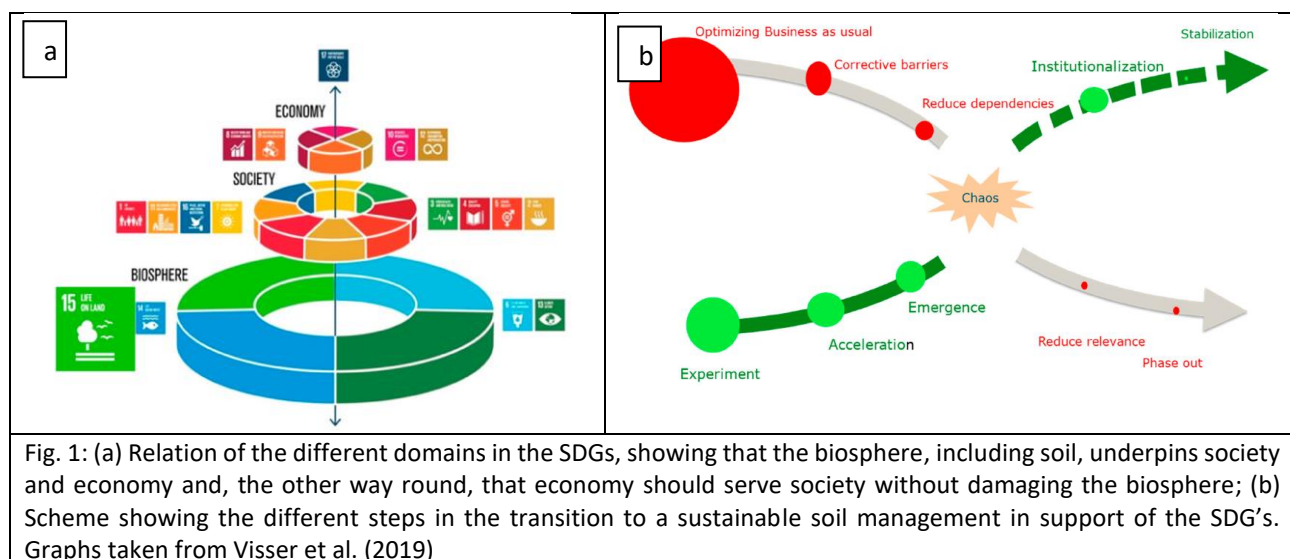


Fig. 1: (a) Relation of the different domains in the SDGs, showing that the biosphere, including soil, underpins society and economy and, the other way round, that economy should serve society without damaging the biosphere; (b) Scheme showing the different steps in the transition to a sustainable soil management in support of the SDG’s. Graphs taken from Visser et al. (2019)

¹ Visser et al. (2019) Soil as a Basis to Create Enabling Conditions for Transitions Towards Sustainable Land Management as a Key to Achieve the SDGs by 2030. Sustainability, 11, 6792.

In Flanders – and abroad – soil is currently nowhere and everywhere in environmental policy. An overarching soil policy framework is lacking or not well elaborated and most instruments are focused on specific sectors and/or environmental issues, rather than explicitly on the sustainable management and restoration of soil. Further, an overarching monitoring of the status and trends of our soil natural capital is lacking.

Given the many socio-ecological challenges that lie ahead, it is high time for an integrative soil policy framework and accompanying mix of instruments that cuts boundaries between sectors and disciplines, and recognizes the full breadth of ecosystem services that soil delivers to society.

To inspire future policy with the ambition to raise Flanders to a top region in Europe regarding environmental policy, we will bring together a series of **lighthouse examples** of future-oriented soil policy instruments in this 3rd Fact Finding session. **The session will cross two soil themes that are of particular importance in Flanders, namely halting soil sealing and sustainable soil management practices, with the four aforementioned instrument types to ensure an integrated examination of the appropriation of soil as a natural capital.**

Outline of the Programme

The 3rd Fact Finding will be organized with a combination of keynote talks and short pitches, ensuring that every participant will get on the stage (Table 1).

Each talk should focus on solutions, but should also address barriers and potential trade-offs with other policies. Monitoring of policy success (and its feasibility) should also be considered in talks. Finally, we will ensure that policies acting at different scales (international – national – regional – local) are well represented. Inspiring examples of policies implemented in areas other than the soil domain can also be considered.

Table 1: Overview of the tentative programme for the 3th Fact Finding session

Instrument type	Keynote (15' each)	Pitch talks (5' each) presenting lighthouse examples of policy instruments	
		<i>Halting soil sealing</i>	<i>Sustainable soil management practices</i>
<i>Legal and Regulatory Instruments</i>	Soil in EU Policy	Soil instruments in urban planning	Soil pollution & waste management laws
<i>Rights-Based Instruments and Customary Norms</i>	Soil as a 'common good'	Soil as 'coalition maker' between land uses and users ?	Heritage value of soils Programmes for sustainable urban soil management: Project 'Gezonde grond'
<i>Social and Cultural Instruments</i>	Soil@School	Soil footprints	Soil passport Databank Ondergrond Vlaanderen

<p><i>Economic and Financial Instruments</i></p>	<p>Soils in natural capital accounting</p>	<p>Soil offsetting policies (cf. biodiversity and carbon offsets)</p> <p>Project 'Ontharding'</p> <p>'Boer ruimt veld'</p>	<p>Reviving the 'Prijzij' (land tenure – past and present) as an instrument to promote sustainable soil management practices</p> <p>Payment for Ecosystem service-schemes (Natural Capital Accounting project – INBO, ANB, ...)</p>
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