ICLEI EUROPE'S POSITION ON THE EU SOIL POLICY

Cities for an Integrated Landscape Approach - Curbing Land Degradation and Restoring Europe's Soil Ecosystems

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With its EU Soil Strategy for 2030 published in November 2021, the European Commission aimed to provide a policy framework that addresses the devastating state of Europe's soils and the interlinkages of land and soil management with the trilemma of the climate, biodiversity and food security crises (WBGU, 2021). The strategy acknowledges the indispensable role of land and soil for our life support systems and sets a vision as well as objectives and actions of great ambition to preserve and restore land and soils. However, pathways for urban-rural partnerships are missing in the strategy altogether. Similarly, local and subnational governments receive little attention as key actors and nature-based solutions, a central tool with potentially high impact, are downplayed. Forthcoming key regulations such as the EU Soil Health Law or the Nature Restoration Law present an opportunity to fill such gaps. Reaching the EU's goals on land and soils - or for that matter the global SDG 15.3 - will not be achievable without the strong involvement and support of local and regional governments.

Key recommendations

- → Apply a **whole-of-government** approach by including local and subnational governments in relevant policies and programmes and by operationalizing SMART goals, targets and indicators for the implementation on the ground that are integrated across governance levels, sectors and land-use types.
- → Foster the **utilisation of policy levers** such as collaboration platforms, financing support schemes or public procurement **and planning strategies** such as compact city planning, sustainable land management, landscape-level approaches, and rural-urban partnerships.
- → Use **nature-based solutions** and a **circular economy approach** to tackle multiple urban issues simultaneously such as biodiversity loss, urban soil quality, organic waste management, flooding, and the land degradation neutrality goal by 2030.
- → **Mobilise adequate technical and financial resources** for local governments to unleash their full potential in the preservation and restoration of soils including clear and easy to access funding streams dedicated to the protection and restoration of soils in urban areas.
- → **Eliminate perverse incentives** by decoupling revenue generation from soil sealing and land degradation through national or regional schemes of soil budgeting, compensation and payment for ecosystem services.
- → Establish **effective incentive programmes for the densification of existing urban areas** without the net-loss of urban green and blue infrastructure to reconcile trade-offs between soil preservation and the provision of affordable housing.

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Why are urban soils important?

Soil ecosystems including top-soil, sub-soil and groundwater are literally the foundation of human civilization. Soils provide a plethora of crucial ecosystem services such as food, energy and raw materials, carbon removal and storage, water purification and infiltration, nutrient regulation, pest control and recreation that underpin our economic, social and cultural activities (**EC, 2021**). In its horizontal dimension, soil makes up one of the most contested resources of our times: land.

The success in reaching international climate change mitigation targets, in bending the curve of biodiversity loss and in transforming food value chains sustainably from farm to fork will depend on how land and soil are managed.

The development of urban areas is part of both the causes and the effects of land degradation. From a global perspective, already 95% of the Earth's surface shows some form of human modification (**WEF, 2020**). Looking at our region, Europe has the highest proportion (around 80%) of land used for settlement, infrastructure and production systems, namely agriculture and forestry (**EEA, 2020**).

While the general linkages between land degradation and cities has been elaborated in **ICLEI's Briefing Sheet 2017, No. 3**, this position paper takes a closer look at the main drivers of soil and land degradation connected to urban activities in Europe and proposes a set of policy recommendations to achieve the goals of the EU Soil Strategy. We follow the definition of land degradation as a complex socio-environmental phenomenon wherein a land area loses a combination of biological productivity, economic productivity, and/or ecosystem functions and services. (**ICLEI, 2017**).

What is the urgency?

Considering the significant global and local risks, tackling land and soil degradation should be one of the main policy priorities worldwide until 2030 as suggested by the EU Soil Strategy. If not addressed, communities will face increasing vulnerability to natural hazards and pollution, biodiversity and ecosystem loss, as well as decreasing food and water security, and geopolitical instability.

A quarter of Earth's ice-free land surface suffers from human-caused degradation, which affects the well-being of at least 3.2 billion people (**IPCC, 2019**). The state of Europe's soils and land is similarly precarious. The European Environment Agency (EEA) states that around 13% of European soils suffer from moderate to high erosion while 25% of Southern, Central and Eastern European soils are at risk of desertification. Salinisation affects 38,000 km2 of European soil, half of the European peatlands have been drained and two thirds of European wetlands have been lost since the beginning of the 20th century (**EEA, 2019**).

Because the top 30 cm of all soils contain nearly twice as much carbon as the entire atmosphere, having healthier soils and sustainable land and soil management is a crucial piece in addressing the climate crisis. In fact, soils are the second greatest natural carbon sink after oceans, surpassing forests and other vegetation formations in their ability to absorb CO2 (**FAO, 2017**).

The European sustainable development goals progress report of 2021 points to Europe's main challenge areas: sustainable diets and agriculture as well as climate and biodiversity (SDGs 2, 12 and 15). This highlights the alarming fact that most of the progress achieved so far is insufficient to reach the SDGs by 2030 or the Paris Agreement by 2050 (**IEEP, 2021**).

What are the drivers of soil and land degradation?

Among the main anthropogenic drivers for soil and land degradation are population growth resulting in mounting pressure on land resources for food production; unsustainable land use (e.g., mining, deforestation, use of agrochemicals etc.); and soil sealing (e.g., covering land surface for housing, roads or other construction) - the latter being directly linked to unplanned urbanisation (**ICLEI, 2017**).

The **World Economic Forum's 2022** report indicates that around 20,000 km² of arable land could be lost to urbanisation per year globally by 2030. In the case of Europe, the estimated annual net land take for the period of 2012-2018 was 440 km²/ year, 80% taken at the expense of arable land, representing an area bigger than the city of Cologne in Germany (**EEA, 2019**).

European cities, despite being already in one of the most urbanised continents on the planet, are projected to grow by 3% by 2030, amounting to 7% of the EU's territory (**JRC, 2019**). While already 72% of Europe's population lives in urban areas, this number is projected to be 80% by 2050. Hence, urban sprawl could be a dominant issue throughout the next decades, resulting in an increase of land take and fragmentation (**EEA, 2021**).

Another important urban driver for land degradation is soil pollution. The EEA estimates that there are 2.8 million contaminated soil sites in the EU; among those 390,000 are expected to require remediation. Municipal and industrial waste sites (37%) together with industrial emissions and leakages (33%) are the main contributors to soil pollution at a local level (**EEA, 2019**). The role of local and regional governments is crucial to identify polluted sites and foster remediation.

An underlying explanation for these bleak trends in soil and land degradation might be that the incentives for sustainable land-use planning are insufficient in many European regions. For example, municipalities find themselves having to compete for tax revenues generated through industrial land use to relieve strained public coffers and to provide jobs for their constituents. At the same time, many cities are scrambling to provide sufficient residential areas in the face of glaring housing deficits. This coupled with the fact that urban sprawl over green fields is still more attractive than recycling brownfields in many jurisdictions, municipalities are being driven to engage in development schemes using natural areas.

But the impact of cities goes even further than the direct conversion and degradation of land and soil. Current consumption patterns of the vast urban populations in Europe rely heavily on cheap food from unsustainable, large-scale agricultural practices, which are substantially subsidised by the EU's Common Agricultural Policy (CAP) or which are imported from countries with weak regulatory systems or low environmental standards. This undermines the transition of local and regional agriculture towards sustainable production practices and further worsens the overall impact of cities on soils in Europe and beyond. The vast majority of EU Member States' strategic plans for the CAP currently submitted to the European Commission fail to effectively align with the European Green Deal targets and the environmental and climate commitments, leaving little hope for improvement any time soon (**Bird Life International, 2022**).

What are the policy implications?

The EU Soil Strategy mandates Member States to adopt "their own ambitious national, regional and local targets to reduce land take by 2030". To ensure policy coherence and integration, such regional and local targets need to be developed in a vertically integrated manner by collaborating with subnational and local governments to ensure their operationality. ICLEI Europe supports the integration of the **land-take hierarchy** and Urban Greening Plans, which are referenced in the EU Biodiversity Strategy 2030, in national targets and calls for the Soil Health Law to consider regional differences. For example, by allowing for local and regional target setting, as long as they meet or go beyond EU level objectives and targets.

Integrated approaches to regional and local planning and action such as sustainable land management (SLM), compact city planning, landscape approach and rural-urban partnerships can be a game changer in the effort of curbing urban sprawl, soil sealing and land take. The **Local Green Deal initiative** is an example and a framework for how such policy integration and partnerships could be formalised. However, to unleash the significant potential for transformational soil action, regional and local governments need adequate resources including financial and technical capacity.

Nature-based solutions (NBS) have proven to be a powerful tool for the restoration and maintenance of soil ecosystems and their ecosystem services also in urban areas. NBS include soil solutions, such as intercropping and mulching on the agricultural fields, enhancing soil health and functions, and landscape solutions which put the focus on ecosystem connectivity (**Keesstra, S. et al, 2017**). NBS can cost up to 50% less

than grey infrastructure alternatives and deliver 28% in added value in terms of infrastructure productivity (**IISD, 2021**). However, despite the benefits, cities invest less than 0.3% of their infrastructure spending on NBS, representing a missed opportunity on the long road towards land degradation neutrality goals (**UNEP, 2021**).

Confidence in and significant uptake of NBS for soil action comes from a sound performance track record. Standardised, accessible data and impact assessment that ensures comparability and quality assurance of soil actions is the foundation of solid planning. That is why a coherent and integrated **monitoring and reporting process** for all European Member States is needed. The integration of local and regional governments in such processes is pivotal, as they are very often the ones implementing and monitoring soil action on the ground.

In the wake of the Russian war on Ukraine, lobby organisations are ramping up their push for further intensification of European agriculture in the name of the independence of the EU's food supply. Food security is not really secure as long as it undermines soil biodiversity and soil health in the medium to long term. Unsustainable soil management stands to threaten food security and aggravate the biodiversity and climate crises even more. This dilemma shows that sustainable soil health should have been addressed a long time ago.

Approaches such as innovations in sustainable food production, robust sustainability standards for food imports, or the transformation towards resource efficient consumption patterns such as reducing food and agricultural waste need to be driven forward. Additionally, tactics such as (peri-)urban agriculture, i.e. the combination of urban gardening, high-tech urban farming and near-city agriculture, can be powerful catalysers of food system transformation by creating awareness of and connection with sustainable food production systems within and beyond the city boundaries. (Peri-)urban agriculture in combination with other approaches for sustainability such as sustainable timber-based construction could be components of overarching **'bio-principled' city planning models which combine the circular economy approach with biotechnologies** for improved emission reduction, increased recycling, energy- efficient buildings and resilient green spaces (**WBGU, 2021**).

Lastly, a transformation towards sustainability that stands a chance to halt the multiple crises humanity is facing requires ambitious and powerful policy shifts. Transforming the EU's Common Agriculture Policy into a **Common Ecosystem Policy** could be such a needed shift that creates a funding and policy landscape driving necessary changes also in urbanisation. An additional component of **resource mobilisation** for urban soil restoration should be the stronger integration of cities in the EU initiative for a regulatory framework for the certification of carbon removal.

Conclusions

ICLEI Europe welcomes the efforts and initiative of the European Commission in developing an EU Soil Strategy as a much needed policy framework that safeguards land and soil. However, if we are serious about the vision of all of the EU's soil ecosystems being healthy, biodiversity-positive, pollution free and resilient by 2030, local and regional governments need to play an integral and integrated role in the policies and actions on soil in the EU. We need to move away from considering soil as private or public property in legal and planning terms and see soil (health) as a common good, which needs to be protected and cared for sustainably. In this paper we outlined some key measures to fill the current gaps in empowering cities to act as catalysts for a transformation toward soil sustainability.

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ICLEI – Local Governments for Sustainability is a global network of more than 1,750 local and regional governments committed to sustainable urban development. Active in 100+ countries, we influence sustainability policy and drive local action for low emission, nature-based, equitable, resilient and circular development.

ICLEI Europe provides its 160+ members in Europe, North Africa, the Middle East and West Asia with a voice on the European and international stage, a platform to connect with peers and tools to drive positive environmental, economic and social change. ICLEI Europe works closely with an extended network of local and regional governments and national and international partners on a broad range of topics.

This paper reflects the position of the ICLEI Europe network of Local and Regional governments as a whole, and may not reflect the position of every Member individually.