

Discussion: Food security and sustainable food systems: The role of soil ☆

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Editorial notes

This discussion is edited from a dialogue session of '3rd Global Soil Week 2015' (globalsoilweek.org). The 'Global Soil Week' (GSW) is a multi-stakeholder platform of high-level policy-makers, scientists, NGOs, CSOs, farmers, artists, international organizations, and the private sector. One of the main purposes of the GSW is to raise public awareness of the issues of soil and land. The 'Global Soil Week' advocates soil management in the context of sustainable development and promote equitable access to land. The '3rd Global Soil Week 2015' was held from 19 to 23 April 2014 in Berlin. The session, on April 20 2015, discussed the topic of 'Food Security and Sustainable Food System: the Role of Soil'.

The discussion was organized by the Centre for Sustainable Development, CENESTA (Iran), the World Centre for Sustainable Development, RIO+ Centre (Brazil), Bread for the World Germany, Brot für die Welt (Germany), the Participatory Ecological Land Use Management Association, PELUM (Zambia), the European Society for Soil Conservation, ESSC (Spain), the World Association of Soil and Water Conservation WASWAC (China), the Centre for Development and Environment CDE (Switzerland), Soil Fertility Consortium for Southern Africa, SOFECSA (Zimbabwe), and the Institute for Advanced Sustainability Studies, IASS (Germany).

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Abstract

There is a general consensus that healthy soils are pivotal for food security. Food production is one of the main ecosystem services provided by and thus dependent on well-functioning soils. There are also intrinsic connections between the four pillars of food security: food availability, access, utilization, and stability; with how soils are managed, accessed and secured, in particular by food insecure and vulnerable populations. On the other hand, socio-political and economic processes that precipitate inequalities and heighten vulnerabilities among poor populations often increase pressure on soils due to unsustainable forms of land use and poor agricultural practises. This has often led to scenarios that can be described as: ‘poor soils, empty stomachs (hungry people) and poor livelihoods.’ In 2015, in particular, as we head towards approval of the ‘Sustainable Development Goals’ (SDGs), the role of Financing for Development is debated and agreed upon and a new climate pact is signed – these three political dimensions define how a new post-2015 agenda needs to be people-smart as well as resource-smart. For proposed SDG 2 (Food Security and Hunger), there can be no resolution without addressing people, policies and institutions.

Understanding the connections between soils and food security

Not all connections between soils and food security are clearly articulated in food debates. Is food produced in healthier soils also more nutritious? Under which contexts are soils crucial for achieving food security and under which contexts there are more urgent issues to address? These and many other questions emerge, indicating there is potential to understand, in more precise terms, how improved governance and management of soils could lead to sustainable food security.

Additionally, the connections between soils and food security needs to be integrated within broader discussions around sustainable development, in particular, sustainable food systems and their influence on the three pillars of sustainability: economic, social and environmental. In other words, we first have to envision the role of soils and food security and then discuss strategies for transforming the reality towards this goal.

Imagining soils in a sustainable future and creating the strategies for achieving it

One promising way of addressing this is to integrate the discussion into the emerging concept of food sustainability, which considers, beyond environmental integrity and food security, the ideas of right to food, poverty and the reduction of disparities and deprivations, and the effects this has on social-ecological resilience of food systems.

Initially, the session discusses the links between soils and food security, touching on how they are articulated in different scales and contexts. Additionally, we also approach these issues on the strategic level, seeking to connect the discussion points with ongoing relevant political debates at the global level, in particular around: (i) food security and agroecology and (ii) food security and climate-smart agriculture (CSA).

Our expected outcomes:

- Build up further consensus on the links between soils and the four dimensions of food security.
- Articulate clearly the link between resource inequality, people-smart approaches and triple-wins in food security.
- Identify critical research and implementation gaps that could catalyse action on food security in the context of the SDGs.
- Identify potential new coalitions that could transform pathways to sustainable food security into 2030.

Summary of discussions

Part 1: Understanding the connections between soils and food security

With an audience of approximately 75 participants, the session was opened by Matheus A. Zanella (IASS), who introduced the two main objectives of the afternoon:

- (i) *To clarify the connections between soils and food security* in the context of its four dimensions (availability, access, utilization, and stability).

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