

Lijbert Brussaard: Trade-offs and synergies among (agro)biodiversity, food production and ecosystem services in the search for food and nutrition security. Joint workshop JPI-FACCE and ERANET Biodiversa, Paris, 5 March 2013.

Lijbert Brussaard : Biodiversity and ecosystem services in agricultural landscapes: what role for soils? Workshop on Soil Systems and Critical Zone Processes, Monte Verita (Ascona- Switzerland), 14-18 April 2013.

Ecosystem services are the benefits people derive from nature, one of which is the production of agricultural goods. Without neglecting *tradeoffs* between agricultural production on the one hand and biodiversity and associated ecosystem services on the other, the challenge we face is to explore and enhance the *synergies* between the two in agricultural landscapes, so as to maintain the living soil as natural capital from which ecosystem services flow as interest. This challenge is huge because soils and soil biodiversity are rarely explicitly incorporated in this search, neither by sister disciplines, nor by stakeholders in land management decision-making, partly because soil (biodiversity) is literally and figuratively invisible to them.

Zooming in from global to local scales, I will link up with recent developments in trait-based ecology that show promise for reduction of external inputs in intensive agriculture (such as fertilizers for nutrient supply, pesticides for pest and disease control, and tillage for soil structure maintenance) by enhancing the soil-based ecosystem services they were designed to bypass for higher productivity, along with restoration of other ecosystem services that were affected in the process (such as regulation of water quality and quantity and greenhouse gas control).

I will draw some conclusions on the agenda soil scientists should set to make their knowledge more relevant in scientific developments and debates in the natural and social sciences at large, as well as in societal debates on the grand challenges of our time.