

Swedish R&D Days ‘Organic farming – sustainable for tomorrow, viable for today’.

Session: Organic farming – sustainable for tomorrow *Moderator: Maria Tunberg, Epok*

A safe and just operating space: the role of organic farming. *Gianluca Brunori, University of Pisa, Italy, Chair of the 5th SCAR Foresight*

Agroecology – the fundament for the development of organic farming? *Lise Andreasen, ICROFS*

Opportunities and limitations of organic farming in contributing to more sustainability in agriculture. *Verena Seufert, Vrije University Amsterdam*

Agroecology – the fundament for the development of organic farming?

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Several global reports and policy documents are calling for fundamental transformation of food and farming systems in order to meet sustainability challenges and prevent the depletion of natural resources including ecosystem services. The IAASTD³ report from 2009, *Agriculture at a Crossroads*, refers to ‘ecological agricultural systems’, organic farming, conventional Low External Input Sustainable Agriculture (LEISA), and multifunctional agroecosystems as holding potential for sustainable development. In a report from 2014, the then UN special rapporteur on the Right to food, Olivier De Schutter, strongly argue in favor of agroecology for moving towards sustainable modes of agricultural production.

Agroecology has gradually become part of the discussion of solutions for sustainable food production and sustainable food systems, although there seems to be no clear, undisputed agreement regarding the definition of the term ‘agroecology’. It is referred to both as a scientific discipline and a movement as well as a practice. However, the use in this presentation will mainly be agroecology as a scientific discipline.

Agroecology has now been incorporated into EU policies and action plans as a means of sustainable development. In the presentation, we will briefly review definitions of agroecology and relate it to definitions and principles of organic farming. The organic sector is the most well-developed example of an agroecological system with a defined approach, a legislation, a system to connect the producer with the market and a well-established research and innovation environment. Challenges and needs for research and development of organic farming and the organic sector will be discussed, using examples from the official Danish research strategy, experiences from the Danish research programs, and the EU research network CORE Organic. The potential and limitations of agroecology as the fundament for the development of organic farming will be addressed, and the need for research initiatives that specifically address the development of the organic sector will be discussed.

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