



Application of pesticides to develop dynamic plant uptake models for Life Cycle Assessment.

ECOLOGICAL SYSTEMS DESIGN

Modeling and analyzing food production systems to assess overall impacts of food products.



Research Areas

- Life Cycle Assessment method development;
- Environmental decision-support tools for industry and authorities;
- Combination of methodological work with actual case studies (agricultural production, wood, consumer products, waste management, energy supply and use).

Regions

Mainly global assessments (incl. Africa, the Americas, Asia, and Europe).

Partners

Coop; Syngenta; World Wide Fund for Nature (WWF); Research Institute of Organic Agriculture (FiBL); and the Joint Research Centre of the European Commission (JRC).

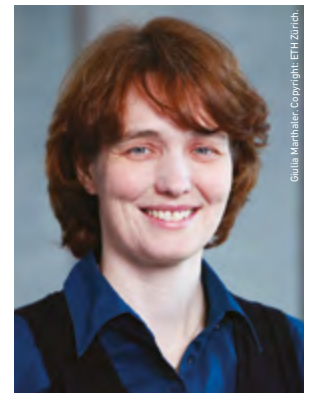
Contact

ETH Zurich
Institute of Environmental Engineering (IfU)
Ecological Systems Design
HPZ E 31.2
John-von-Neumann-Weg 9
8093 Zurich

www.esd.ifu.ethz.ch →

Contribution to the WFSC

We provide expertise in Life Cycle Analysis and other methods like Material Flow Analysis and Scenario Assessment, which allows for environmental evaluation of food production systems throughout their whole value and impact chain. These methods provide a comprehensive view of the environmental impacts associated with food, therefore providing the WFSC with methods for modeling, analyzing, evaluation and improving the resource efficiency and environmental impacts of food products. Our group works on food waste; nutritional aspects as well as global models for impacts regarding water consumption, land occupation and soil degradation and consequences on global species loss; as well as trade in the global food system. Assessing trade-offs in general and specifically of organic vs. conventional production is a core research interest.



Prof. Stefanie Hellweg

