

I am an assistant professor at Stockholm University based at the Stockholm Resilience Centre and Department of Systems Ecology. I lead the Stockholm Resilience Centre research theme on *Governing freshwater for food and other ecosystem services* together with Professor Johan Rockström. My research interests centers around interactions among freshwater resources, ecosystem services and food production, with a focus on how resilience thinking can enable better management of these resources. My work ranges from the global to local (mainly sub-Saharan Africa) scale. I have published my work in a range of journals, including Ecology and Society, Global environmental Change, PNAS and Trends in Ecology and Evolution.

I did my post doc at International Water Management Institute, Colombo, Sri Lanka within the Comprehensive Assessment of Water Management in Agriculture and served for example as a coordinating lead-author for the Ecosystem Chapter. I am an associate member of the Resilience Alliance, a subject editor of the journal Ecology and Society and on the editorial board of Water International. I serve on the Scientific Program Committee of the World Water Week. I am also on the board of Albaeco, an Institute devoted to communicate sustainability science to the general public. I am truly interested in transdisciplinary research as well as in the interface of science and society.

The title of my presentation is *Resilience of smallholder farmers in semi-arid regions*.

I am currently involved in three main research areas.

1. Resilience of smallholder agriculture in dryland sub-Saharan Africa. Dryland sub-Saharan Africa is challenged by an extreme inter- and intra-annual rainfall variability. Improving water management in rainfed agriculture seems to be a key feature of building resilience in these landscapes. This work involves fieldwork in southern Niger, in Kwa-Zulu Natal (South Africa), and the Pangani River (Tanzania).

2. Assessments of bundles of ecosystem services in agricultural landscapes.

Agriculture increases food production, but often on the expense of other ecosystem services. In this research field I aim to increase our empirical and conceptual knowledge of how ecosystem services interact with each other in order to improve management that can take advantage of synergies among ecosystem services and minimize trade-offs. The relation between regulating ecosystem services and ecosystem resilience is also analyzed. Fieldwork in Kwa-Zulu Natal, South Africa.

3. Agriculture, climate change, hydrology and regime shifts. Agriculture and climate change alters terrestrial and aquatic hydrology with effects on ecosystem resilience. I am particularly interested in mapping regions at the global scale that are vulnerable to agriculture and water-driven ecosystem regime shifts. I am currently involved in one project on Climate change, hydrology and socio-ecological resilience in the Arctic where we want to understand how vulnerable various regions in the Arctic are to hydrologically driven regime shifts.