



Agroecological Transitions and Resilience

(Warm-up 2013 workshop)

This workshop is one of a series in preparation for the 2014 Resilience Conference to be held in Montpellier, France¹. The objective of the workshop series is to bring together French and international scientific communities for an in-depth exploration of the multiple dimensions of resilience according to the theme of the 2014 Resilience Conference: "Adaptation, Transformation and Development".

We propose to discuss the interlinking of agroecological transitions at the farm to food system levels, with the transformations of socio-ecological systems at local to regional scales, from the perspective of resilience. The aim is to initiate discussions about the role of socio-ecological systems in transforming agriculture on sound agroecological principles agroecology and, conversely, the role of social and technical innovations in agriculture in promoting resilience of rural socio-ecological systems. Until now, we have primarily used socio-technical approaches to analyze transition processes underlying the transformation of agricultures. Agroecological transformation, viewed as a re-incorporation or improvement of the ecological functions in agriculture, reveals the necessity to explore the role of the ecological component within this socio-technical transition process. The diversity of agroecological objectives (conserving genetic diversity, promoting an ecological basis for production, accounting for environmental amenities, protecting food quality) reveals different types and levels of incorporation of ecological processes from production to food systems. This singles out a set of interactions between socio-technical and socio-ecological systems such as the impact of farmers' decisions and practices on landscape and biodiversity, the concerted management of ecosystem services such as pollination or biological control, or the reorganization of local supply chains. This could lead to the design of different patterns and pathways for agricultural transformations that are likely to develop differently depending on the characteristics and dynamics of the socio-ecological systems they are involved in.

In addition, socio-ecological approaches to natural resource management integrate positive and negative effects of agriculture, generally through its land use and management at the landscape level. It more rarely considers agricultural systems through their productive processes at the farm level or food systems and their socio-technical organizations. Nevertheless, socio-technical reorganization, redesign and innovation play a key role in the

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 $^{^{\}rm 1}$ See the attached description of the conference and the conference website:

transition from conventional agricultural systems to agroecological ones. Therefore, sociotechnical approach of agricultural transition could be an important lever in natural resource management as well as for the resilience of rural socio-ecological systems. Combining sociotechnical and socio-ecological approaches could provide not only a way to better adapt to changes but also to anticipate unforeseen events and foster changes while avoiding breaking points.

Main questions will structure the debate:

- How the transition theories and perspectives can highlight the agroecological issues? To what extent socio-technical approach allows a better understanding of the evolution of agrofood systems in an agroecological perspective?
- How the socio-ecological systems approach contributes to the agroecological transitions of productive systems? How it can facilitate agroecological transitions in a resilient pathway?
- At whate scale it is relevant to understand the socio-technical and socio-ecological interactions in agroecological transitions? To what extent do socio-technical approaches to agroecological transitions make it possible to better understand the adaptation or the transformation of socio-ecological systems to a given change or regime shift?

Objectives:

- To explore scientific goals concerning agroecological transitions and resilience in order to: (i) identify themes and priorities for sessions of the 2014 Resilience Conference; (ii) provide topics and experiences data for one or two papers to be proposed for the special issue of *Ecology and Society on Adaptation, Transformation and Development*; and (iii) initiate networking interrelationships between researchers working on transition and innovations in agricultural domains and the scientific community specialized in resilience.

Meeting framework (see program in annex): We propose a one-day meeting centered on discussions and the exchange of ideas about the chosen themes. The two half-day sessions open to the public, is devoted to four keynote speakers invested respectively in global land change/land use-land cover changes, transition studies, agroecology and resilience in agroecosystems, followed by a structured discussion. A last 1 hour session will be devoted to a sum-up discussion and proposals from all participants for further issues, as well as key questions to address for the 2014-Resilience Congress on this topic.

Date and site: The workshop will take place on 24th of October, 2013 in Montpellier (**Agropolis Center, salle Badiane**)

Workshop organizers:

This proposal is the outcome of a multi-disciplinary group of researchers from the INRA-SAD Research Department (Sciences for Action and Development).

The seminar is free but participants should register **before October 7**th sending a mail to Danièle Magda (<u>magda@toulouse.inra.fr</u>)

Program

9:00-9:30 Welcome and Introduction

9:30-10:15 – **Per Olson** (Stockholm Resilience Centre, Sweden)

"Socio-ecological Resilience and Agricultures"

10:15 – 11:00 *Discussant Michel Etienne(INRA-SAD, France)* - Questions and discussion with all WS participants

11:00 -11:15 Coffee break

11:15-12:00 - Andrew Stirling (University of Sussex, United-Kingdom),

"socio-technical transitions" point of view.

12:00- 12h45 – *Discussant Claire Lamine (INRA-SAD, France)* – Question and discussion with all WS participants

12:45-14:15 Lunch

14: 15 -15:00 – Marc Deconchat (INRA -SAD UMR Dynafor, Toulouse, F) "landscape agroecology" point of view.

15:00-16:45 - *Discussant Chaarles Staver (Bioversity-International, France)* - Questions and discussion with all WS participants

16:45-17:00 Coffee break

17:00-18:00 General discussion – syntheses and proposals