

Enhancing Resilience in Food Systems: Project Newsletter

This initiative is a flagship project of the ETH Zurich World Food System Center. Collaborators include the Sustainable Agroecosystems Group (SAE) and Climate Policy Group at ETH Zurich and the Agricultural Sustainability Institute at UC Davis.

'Making Food Systems Resilient' workshop at the World Food System Conference 2015 at Monte Verità

At this exciting conference, which was held from 21-26 June 2015 at Monte Verità in Ascona, Switzerland, we discussed with conference participants about resilience in food systems. Divided into three sessions, the goal was to first understand resilience from a general perspective and then measure and build resilience by using tef as a specific case study. The workshop was viewed very positive by the participants as a means to gain increased knowledge on how to understand the linkages between different activities of a value chain in case a shock occurs.

Previously known aspects of food security such as access and availability were highlighted to be important, but also soft factors were mentioned to be important, such as trust and institutional characteristics. Hence, the workshop participants found it crucial to better prepare food systems against any types of shocks which could potentially harm their functioning. It became also clear at this workshop that more research is needed to better understand how the concept of resilience can be applied among different activities within a value chain. And also, what indicators are suitable to measure and build resilience in food systems against shocks.

Resilience of the tef value chain in Ethiopia

Following extensive field research by one of our master students (Samuel Hauenstein) on the resilience of the tef value chain, a workshop was held on 2nd August 2015 in Debre Zeit in Ethiopia. Together with our partners, the Ethiopian Institute of Agricultural Research and NutrAfrica (agro-industry company), the goal of this workshop was to bring together some of the key actors of the tef value chain, ranging from input suppliers, farmers, cooperative



Workshop participants discuss indicators of food system resilience at World Food System conference in Monte Verità

unions, injera producers, traders, consumer cooperatives and experts. The workshop allowed participants to first think about what the major shocks are that could harm their respective activities and then, formulate an impact scenario for each shock. In the second workshop session, the participants discussed about what could be effective measures to prepare their activity against drought, which is perceived as the most likely shock that may occur in Ethiopia.

The participants of this workshop showed great interest to learn from each other on how to strengthen the tef value chain. Interestingly, participants revealed that diversity and connectedness are crucial aspects that allow a proper functioning of their respective activities before and during the occurrence of a drought. Other aspects, such as the lack of capital, was also mentioned to be limiting their ability to develop greater strength against droughts.

The workshop was well received by the participants as an opportunity to link together and exchange ideas on how

to build resilience against future shocks. Considering the immense potential of the tef value chain, where the value of the production alone is worth USD 1.6 billion, greater intensification and industrialisation of the tef value chain is needed to make it prepared against any unforeseen disruptions. This would also help to make the tef value chain more competitive in order to make sure that potential added value remains within Ethiopia. Across the tef value chain more research is needed to address specific challenges.

Resilience of the cocoa value chain in Ghana

After being granted a kick-start project from the University Basel, we attempt to assess the resilience of the cocoa value chain from the perspective of Ghana. Together with our research partner, the Kwame Nkrumah University of Science and Technology, we aim to analyse the resilience of this complex commodity. Cocoa as a major ingredient in chocolate has great importance for Switzerland, but also for Ghana as it is the second biggest producer of this commodity worldwide. Unlike tef, discussed above, cocoa is considered to be a cash crop and is largely exported to western countries. Hence, the objective is to understand to what extent the cocoa value chain can sustain major potential shocks in Ghana and what kind of measures are needed to strengthen the Ghanaian part of the cocoa value chain.

The field research of this project will start in early October 2015. The initial outcomes include a qualitative assessment of resilience and new findings on what kind of indicators are suitable in determining the resilience of the cocoa value chain in Ghana. We are hoping to obtain additional funding to do a more quantitative assessment of the resilience in the cocoa value chain in Ghana.



Participants at stakeholder workshop on resilience of the tef value chain in August in Debre Zeit, Ethiopia.

Other news and outlook

Our group got the first scientific article accepted in August 2015 in the journal Global Food Security. The title of the article is: "Food system resilience: defining the concept". We are also in the process of submitting a second article on how to build resilience through a strategic framework for intervention, design and assessment. Apart from the ongoing case study projects in Ethiopia and Ghana, we are also planning to secure more funding to increase our activities in the field (we plan for another resilience case study in the field of aquaculture) as well as to improve our work on how to conceptualise resilience in food systems. This shall support our efforts on reaching the ultimate goal to build a tool that allows to quantitatively assess resilience of food systems.

Learn more about the food systems resilience project at
www.worldfoodsystem.ethz.ch/research/flagship-projects/resilience.html

If you have any questions or would like to contact us, please send an email to Jonas Joerin: jonas.joerin@usys.ethz.ch or Johan Six: jsix@ethz.ch

PROJECT ADVISORY BOARD

Regina Ammann (Syngenta)
Conradin Bolliger (Swiss Federal Office for Agriculture)
Manfred Bötsch (Migros)
Frank Eyhorn (Helvetas)
Michelle Grant (WFSC)
Ian Johnson (Independent Consultant, UN)
Bernard Lehmann (Swiss Federal Office for Agriculture)
Ian Roberts (Bühler Group)
Luca Russo (FAO)
Urs Schenker (Nestlé)
Adrian Schlageter (Coop)
Jenny Weilenmann (Migros)
Michael Winzeler (Agroscope)