Building farm system resilience in Canton of Vaud (Switzerland) Canton de Vadude ETH

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Research questions

- How to assess resilience of farm systems in a European context on a regional scale?
- How to identify causes for low resilience and develop innovations to build resilience at a farm system level?

Conte

Diversity of farm systems

Potential hazards

Key points

Great diversity of situations and productions Good services and infrastructure available

in Canton of Vaud



- Climate change
- Market volatility
- Consumer demand and societal
- expectations change
- Pest pressure
- Strong agricultural policy and norms and large collective organisations have paradoxical effects on farm resilience
- Smaller institutions and networks would be more flexible and better connected to consumers

Next step: an innovation platform for farmers



1:Adaptation of the SHARP tool to a Swiss context



2: Sampling of farms based on their productions and location

3: Resilience assessments (SHARP CH) with 123 farmers



Results - Phase 3: Resilience assessments

Resilience score by indicator (error bars= confidence interval of 95%)

Builds human capital Coupled with local natural capital Spatial and temporal heterogeneity **Reflective and shared learning** Globally autonomous & locally interdependent **Optimally redundant Reasonably profitable** Socially self-organised Honours legacy Appropriately connected Functional and response diversity **Ecologically self-regulated** Exposed to disturbance



Results - Phase 4: Discussion workshops

A) Causes for low resilience

Few input sellers and output **Policies** Too strict, numerous and buyers

- Good access to infrastructure and services
- Extension services and education are wellfunctioning
- Crop rotations are well established, partly due to the agricultural policy
- Little reliance on **natural mitigation of pests**
- High reliance on external revenues and subsidies
- Many farmers depend to a large extent on a few large supply chains in which they do not have much market power

B) Innovations to build resilience

Develop innovative farmers exchange

Build **smaller** collective marketing organisations

Far from **EU prices**

- Lack of knowledge and • examples of agroecology
- Lack of knowledge and training in selling and marketing

fluctuating sets of norms

- Lack of support in the
- long term
- High dependence on subsidies



Connect with **consumers** through direct selling and agritourism



Develop synergies between different farming systems



Choptiany J., Phillips S., Gräub B., Colozza D., Settle W., Herren B., Batello C. (2016). SHARP: Integrating a traditional survey with participatory self-evaluation and learning for climate change resilience assessment. Climate and Development 9(1): 505–517.

Diserens F., Choptiany J., Barjolle D., Durand C., Gräub B., Six J. (to be published). Resilience assessment of Swiss farming systems – piloting the SHARP-tool in Vaud. Sustainability Photo credit: Ulysse Le Goff, Claire Durand

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