

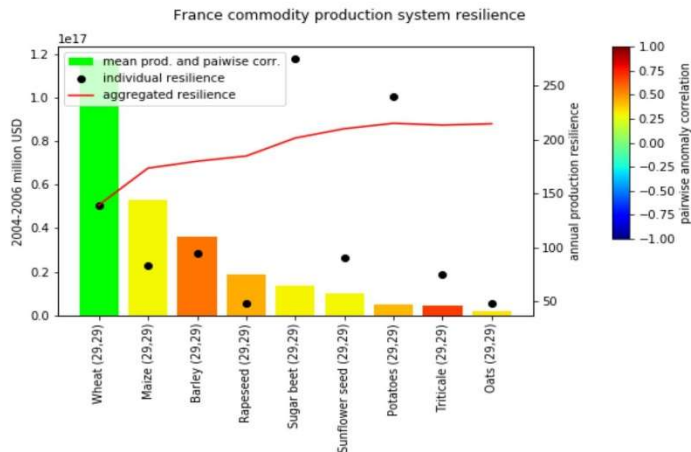
Emerging climate services tools for sustainable resilient agricultural systems

Convenors:

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ResiPy

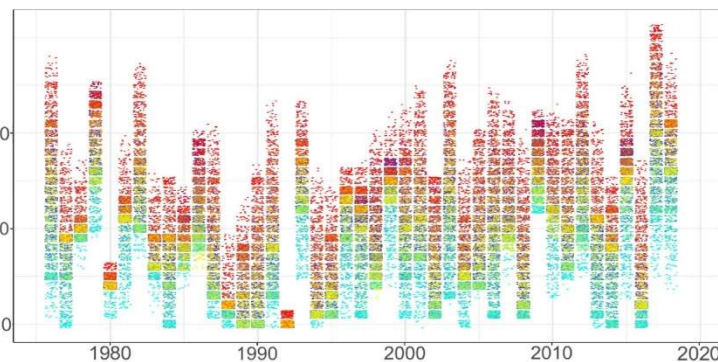
Estimating the effects of crop diversity on the resilience of agricultural production system

Identifying resilience

Variety-dependent number of hot days between flowering and maturity of winter wheat

Clisagri

Optimization of agricultural management decisions using climate predictions on seasonal-to-decadal time scales



Increasing resilience

This masterclass aims at providing an overview of recent methods and tools developed to enhance resilience of agricultural systems at different spatial scales, from farm scale to national. These tools are essential to assess, evaluate and monitor agricultural systems, their resilience, and more specifically the role of diversity and crop diversification. Furthermore, it explores and gives participants the possibility to effectively learn two recently released tools: ResiPy and Clisagri.

ResiPy is an open-source python tool to assess the resilience of agricultural production systems in terms of stability and diversity of the production time-series. It can be applied at all scales and offers a simplified, yet powerful, tool evaluate development options to enhance resilience through input intensification, crop selection and diversification in the present climate and future climate change scenarios.

Landscape 2021 – Masterclass 12

Cross scale systems



Clisagri is a complex co-design risk assessment tool implemented as an open-source R package. Clisagri quantifies the occurrence of different weather and climate events (including extremes) during sensitive crop growth stages. These sensitive stages generally occur in different periods every year as a consequence of inter-annual climate variability, and Clisagri offers an effective way to dynamically take this variability into account. Furthermore, risk assessment can be performed on a range of spatial scales, going from local to global. Combined with seasonal-to-decadal climate predictions and climate projections, Clisagri provides an effective tool to make informed decisions for a range of end-users (farmers, breeders, as well as regional stakeholders and food companies).

Session format:

Presentations, discussions, and interactive exercises

Maximum number of participants: 40