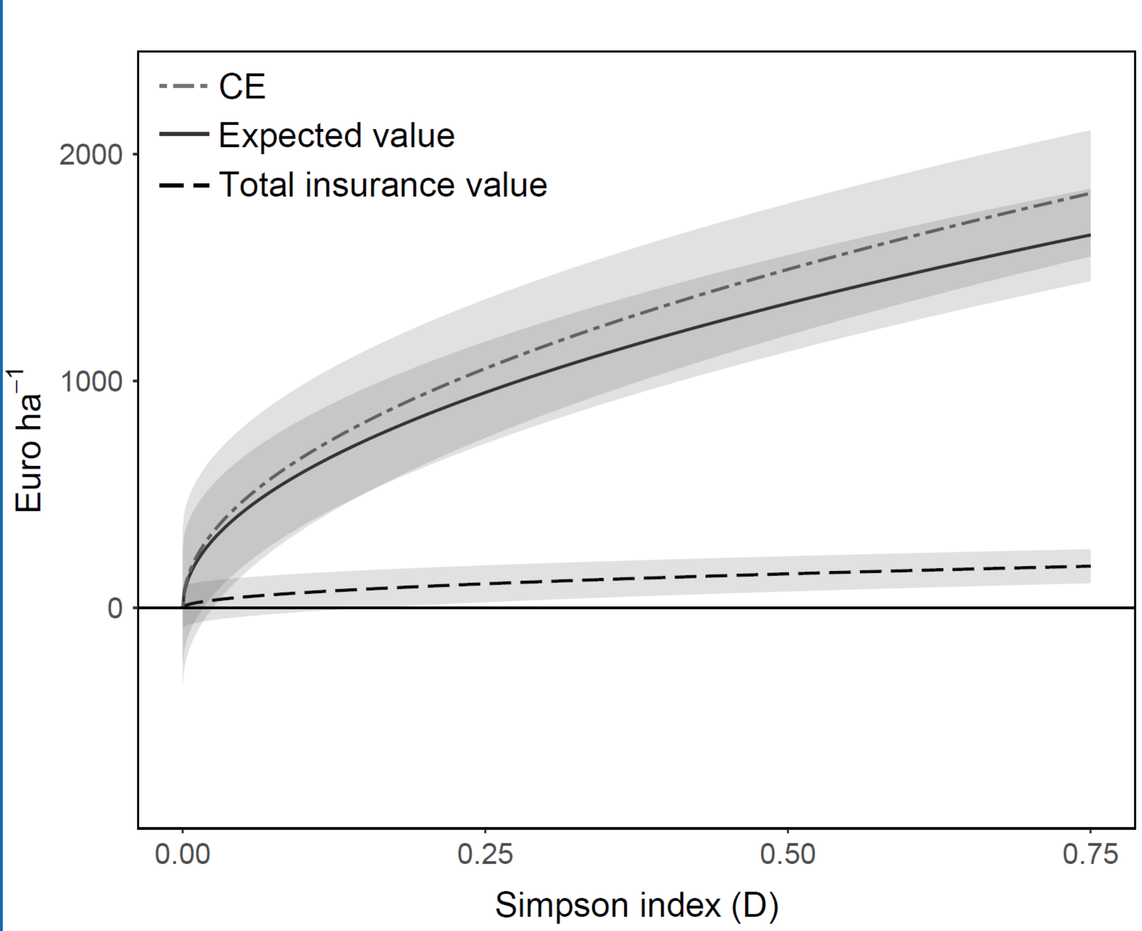
Values of species diversity in grassland production – An ecological economic assessment (DIVERSGRASS)

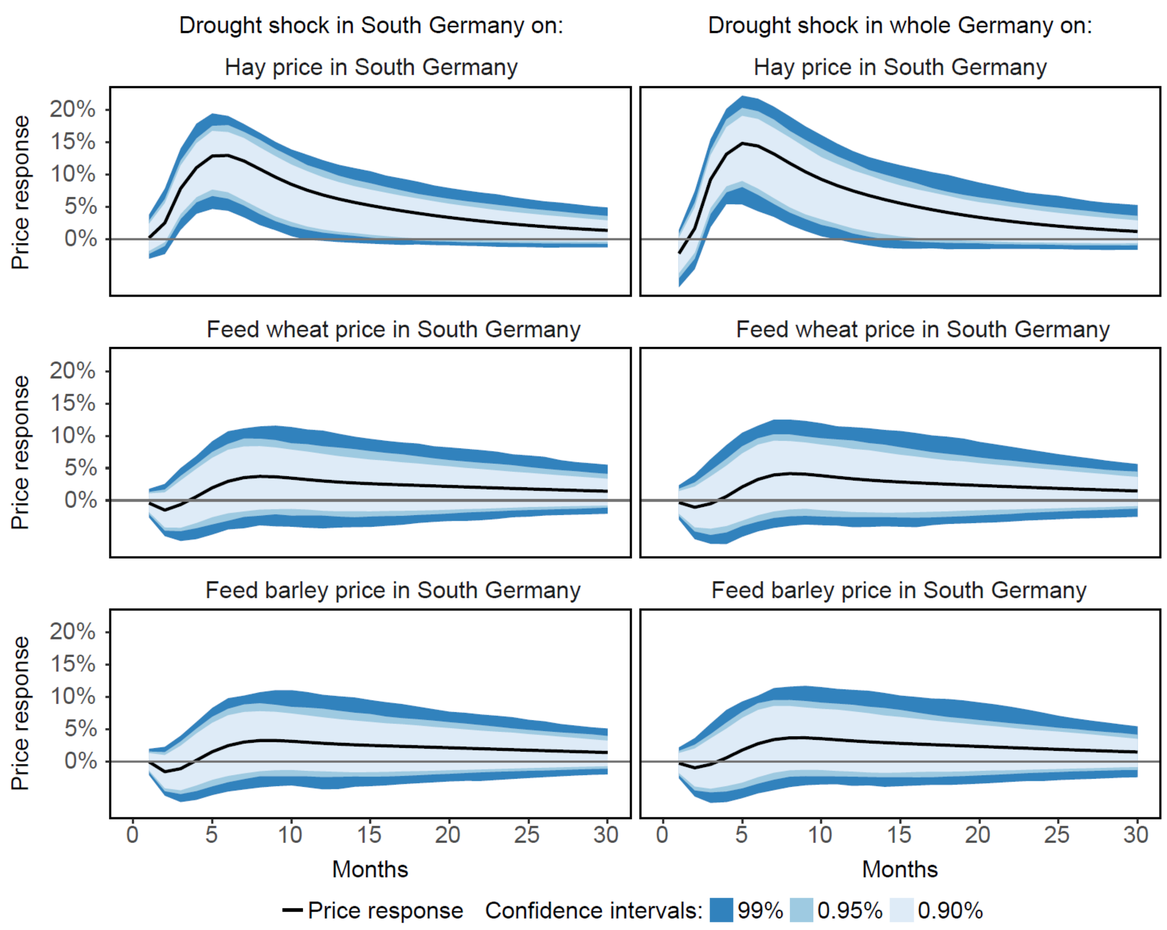
Sergei Schaub, Nina Buchmann (IAS), Andreas Lüscher (Agroscope), Robert Finger

Goals

In this project, we develop a novel, interdisciplinary ecological-economic framework to investigate these effects. This framework is used to i) investigate and economically assess SD effects on quantity (total biomass) but also on quality (fodder values) components of grassland yields, ii) focus on the interdependencies between the intensity of grassland use, SD, climatic risks (focus on drought) and the special role of climatic extremes, and iii) to assess interdependencies between insurance mechanisms and agricultural policies and SD. Three different rich experimental datasets (covering intensive and extensive grassland systems; long-term drought experiment) are used for econometric analyses, which are inputs for economic assessments based on the here developed ecological-economic framework. Our project is characterized by a strong interdisciplinary set-up, and is directly linked to current discussion and projects in practice and policy. A strong emphasis on stakeholder interaction and dissemination of results thus creates immediate value added for farmers, agricultural schools, extension services and policy makers.

Research





Publications

Schaub, S., Buchmann, N., Lüscher, A., & Finger, R. (2020). Economic benefits from plant species diversity in intensively managed grasslands. Ecological Economics, 168, 106488.

Schaub, S., & Finger, R. (2020). Drought effects on hay and feed grain prices. Environmental Research Letters.

Schaub, S., et al. (2020). Plant diversity effects on forage quality, yield and revenues of semi-natural grasslands. Nat. Comm. (accepted)