Agriculture contributes significantly to the degradation of ecosystem services and the persistent loss of biodiversity in agricultural landscapes. Therefore, a social and political goal is the transformation of agriculture towards ecological sustainability. The junior research group “AgriScape: Trade-offs on the way towards multifunctional agricultural landscapes” will deal with trade-offs in the context of the transformation of agriculture (German “Agrarwende”) against the background of climate and structural change. For this purpose, conflicting goals will be identified and analysed on both a biophysical and a socio-economic level in order to determine relevant and socially acceptable transformation pathways for a successful agricultural turnaround. The junior group will be funded with 2.67 m. € by BMBF (call: inter- and transdisciplinary junior groups in socio-ecological research – SÖF). The project will run for five years starting in mid-2022. Andrea Kaim (CLE) and Bartosz Bartkowski (ÖKÖN) will lead the group which will further include three PhD students. Potential/planned cooperations include the third-party funded projects BonaRes, BESTMAP and OPTAIN, integrated platform projects "Land-based social-ecological solutions for multifunctional landscapes" (IP1) and “Sustainable Agrifood Systems” (IP6) as well as the graduate schools AGRI-TRANSFORM (RU6) and INTERCEDE (TB1).

**New CLE member**

**Dr. Tuanjit Sritongchuay**
Postdoc since Aug 2021

Tuanjit Sritongchuay completed her PhD at the Prince of Songkla University in Thailand studying landscape-level effects on pollination networks and fruit-set of crops in tropical small-holder agroecosystems. She is interested in looking at pollinator ecology from a conservation and agricultural sustainability perspective. In particular, how land use management can impact pollinator communities, plant-pollinator networks, and ecosystem services.

Contact at CLE: tuanjit.sritongchuay@ufz.de

**MigSoKo Workshop**

In October 2020, MigSoKo hosted an interactive online workshop titled “Place-based social-ecological research in times of covid-19”. Together with about 20 participants from a range of social-ecological research fields and various institutions we exchanged experiences and ideas about strategies to cope with the current challenges of the pandemic. Based on this, we published a paper in GAIA (30/2 2021) and a blog post (https://isoe.blog/) with concrete recommendations for dealing with future crisis-related disruptions in research.

**Department Offspring**

Auri Lotta *20 Jun (Julia Palliwoda)

**Dr. Kathleen Hermans** was awarded the UFZ Supervision Prize 2021 for excellent supervision of doctoral students. The award recognises her structured and reliable working methods, her high quality standards and her efforts to give doctoral students the freedom to develop their own ideas.

**Lukas Egli** finished his Ph.D. and graduated at University of Potsdam under the supervision of Volker Grimm and Ralf Seppelt in February 2021. He continues working in our Department as Postdoctoral Researcher.

Link to his website: UFZ/CLE

**Lisanne Höltig** finished her Ph.D. and graduated at TU Dresden in May 2021. She now works as Postdoctoral Researcher in the Dep. Computational Landscape Ecology in the project ECO$CAPE at the TU Dresden.

Link to her website: TU Dresden

Congratulations
Crop asynchrony can explain why a higher crop diversity supports the stability of national food production. Here we show that the asynchrony of the year-to-year production of different crops within a nation is an even better predictor of agricultural production stability. We suggest that asynchrony can explain why a higher crop diversity supports the stability of national food production, and that it should be considered in strategies to stabilize agricultural production.

By integrating preference information into the biophysical optimization this paper reduces the usually large set of Pareto-optimal solutions and thus facilitates further stakeholder-based analyses. The explorative study provides an example of how socioeconomic data and biophysical models can be combined to support decision making and the development of land-use policies.

Fieldwork in place-based research can be disrupted by various threats, such as natural and global health hazards as well as political conflicts. The current COVID-19 pandemic has shown how these threats can drastically affect social-ecological research activities such as those in our project in Ethiopia. In this paper, we discuss the need for adaptive research designs while also providing an opportunity for a structural shift towards a more sustainable and inclusive research landscape.

By integrating preference information into the biophysical optimization this paper reduces the usually large set of Pareto-optimal solutions and thus facilitates further stakeholder-based analyses. The explorative study provides an example of how socioeconomic data and biophysical models can be combined to support decision making and the development of land-use policies.