

KIT Summer School 2025 – Land Use & Ecosystem Change

Garmisch-Partenkirchen, Germany | 4 – 13 August



Overview: Food and bioenergy demands of a growing global population and societies' changing lifestyles are increasing the pressures on land and ecosystems. Further pressures arise from the demands on land resources for other ecosystem services, and the variable (often negative) impacts of climate change on plant productivity. These multiple, often seemingly conflicting demands on land and ecosystems are a considerable stumbling-block for achieving sustainability goals. The Karlsruhe Institute of Technology (KIT) - Campus Alpin in Garmisch-Partenkirchen, offers a 7.5-day international Summer School (3-4 ECTS) on the topic of *land use and ecosystem change*. Participants will learn about a wide range of issues related to land use change, socio-ecological systems, ecosystem functioning, and modelling techniques. Lectures will cover the following topics:

1. Approaches to modelling future land use change
2. Land use change processes and drivers across time and space through observational data
3. Analysing management techniques, social networks, and historical context
4. Modelling ecosystem functioning and environmental change
5. The role of tipping points, risk management, and resilience in ecological systems
6. Climate and social change effects on biodiversity, habitats, and ecosystem services
7. How land use and ecosystem change fit into international assessment processes and policies

Teaching team: Prof. Dr. Almut Arneth, Prof. Dr. Mark Rounsevell, and other researchers. For more information on us see: <https://lemg.imk-ifu.kit.edu/> and <https://landchange.imk-ifu.kit.edu/>

Format: The summer school includes a mix of lectures, group and individual exercises, student presentations, and a 1-day field trip focussing on land use change in the Alps.

Costs: The KIT Summer School is free of charge, and it includes lunches, materials and the field excursion. Travel and accommodation need to be covered by the applicant.

Applications: We accept applications from MSc and PhD students in environmental sciences, geography, economics, geo-ecology, meteorology, and ecology. Limited to 35 spots for 2025.

Apply by April 18, 2025 through <https://indico.scc.kit.edu/e/campus-alpin-summer-school-2025>

This summer school contributes to the objectives of the Future Earth Global Land Programme (GLP) and the Analysis & Integrated Modelling of the Earth System (AIMES).