

GIS-based assessment of land use change over 200 years in Eastern Bavarian study areas

study project (could be extended to BSc thesis)

Supervisor A. Schneider Co-Supervisor T. Raab

Question:

How did land use patterns in the study areas change from the early 19th century until today? How is land use change related to environmental background conditions (geomorphology, soil landscape)?

Methods:

GIS

1. Mapping past land use distribution from historic maps (georeferencing, digitizing, editing attributes).
2. Processing datasets on recent land use distribution (land cover data, soil maps, digital elevation models).
3. Mapping land use change using spatial analysis tools (intersect, extract, overlay) and basic descriptive statistics.
4. Analysing past and recent land use distribution and land use change in relation to geomorphology and soils using spatial analysis tools and basic descriptive statistics.

Requirements and special knowledge

student needs to work with GIS software of choice on own computer

knowledge of GIS basics (digitizing, editing, analysis tools)

basic German language skills (to read legends of historic maps etc.)