

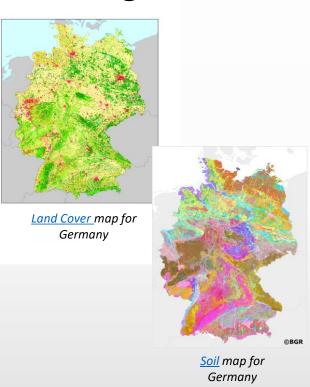
Use of Soil Maps for Vegetation Classification and Management

Soil mapping enhances the assessment of spatial variation in soil development and properties as a function of geology, climate, topography, and vegetation. This is because soils are not independent of bio geophysical settings and climate, but rather result from these variables. The key to enabling the use of soil maps for vegetation mapping and defining management alternatives lies in the explicit connection between soils and land types. Soil maps, in other words, can be used to identify vegetation types and understand the relationship between soil and vegetation growth and mortality.

This project aims to evaluate the use of soil maps for mapping vegetation in Germany. Specifically, we will produce a vegetation map by integrating soil, climate, and land type information. Our findings will then be compared with existing vegetation maps.

To achieve this goal, we are looking for a motivated master's student who has experience in Remote Sensing concepts, digital soil mapping as well as some coding skills (Python, MATLAB or Google Earth Engine) for this project. It would be ideal if the final thesis could be written in English as well.

Reference: Pouyat, Richard V., et al. Forest and rangeland soils of the United States under changing conditions: a comprehensive science synthesis. Springer Nature, 2020.



Contact:

Dr. Nafiseh Kakhani, <u>nafiseh.kakhani@uni-tuebingen.de</u>
Dr. Ndiye M. Kebonye, <u>ndiye.kebonye@uni-tuebingen.de</u>
Dr. Ruhollah Taghizadeh,

ruhollah.taghizadeh-mehrjardi@mnf.uni-tuebingen.de

Institute of Geography