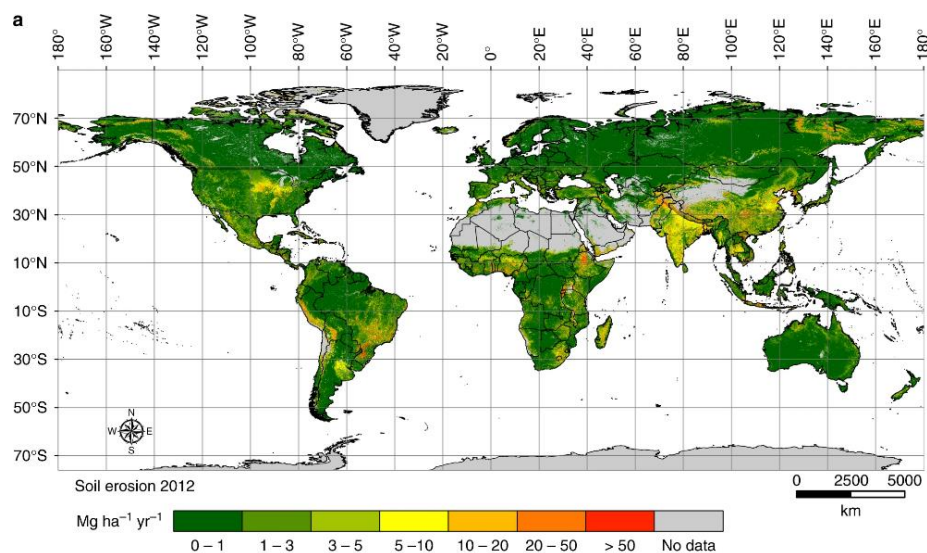


Bachelor's/Master's thesis at the Chair of Soil Science and Geomorphology

Title: Assessing the Spatial Variability of Soil Erosion at a Global Scale Using (R)USLE

Background

There are several empirically based methods for estimating erosion risk at the landscape scale. Such empirical models predict soil loss by incorporating a predetermined series of variables, measured using common methods. The most commonly used empirical model for estimating sheet and rill soil erosion by rain is the Universal Soil Loss Equation (USLE) and its revised version, the Revised Universal Soil Loss Equation (RUSLE). Both the USLE and RUSLE calculate the average yearly soil loss anticipated on a hillside using six factors. These include rainfall (R), soil erodibility (K), slope length (L), slope steepness (S), crop management (C), and erosion control practices (P).



Objectives

- Determine the spatial distribution of soil erosion via Google Earth Engine
- Monitoring the temporal variability of soil erosion due to land use changes

Interest

If you are interested in using innovative methods for soil science, geospatial data analysis, and machine learning, and have programming experience, please contact Dr. Ruhollah Taghizadeh (ruhollah.taghizadeh-mehrjardi@mnf.uni-tuebingen.de). The student will collaborate with **Dr. Ruhollah Taghizadeh**, **Dr. Steffen Seitz**, and **Dr. Nafiseh Kakhani**.

References

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