## Soil Erosion Assessment for a Mountainous Ecosystem in the High Atlas Region, Morocco. (S06-klik074535-Poster)

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## Abstract:

Objective of this 3-year study was to assess the long-term average soil loss in the Ouneine watershed in the High Atlas Mountains in Morocco using the RUSLE model. The investigation area is a remote valley of ca. 200 km2 located 100 km south of Marrakech. The altitude ranges from 832 to 2746 m. Average annual rainfall amounts 300 mm. A soil map was developed based on field survey, lab analyses and geology. Additionally detailed investigations have been carried out in the field related to soil surface cover (rocks and plant residues). This information was used to derive a soil erodibility map. Precipitation was measured at nine sites in different altitudes and rainfall erosivity was calculated. The topography factor (LS) was obtained from an existing digital elevation model. A vegetation map was created from satellite images based on ground truth data. In the watershed average yearly soil loss ranges between 0 and 7000 t ha-1 depending on land use and condition, topography and rainfall with an average soil loss in the whole watershed of 33.7 t ha-1 yr-1. Soil conservation strategies are recommended to improve the conditions in the watershed.

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