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Soil properties of selected marginal lands in Europe – hazard indicators

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Soils of marginal lands are characterized by a variety of different soil conditions depending on substrate properties, climate influences, the availability or even the excess of water. However, a number of soil properties can be found frequently at marginal sites which can be regarded as main restrictions of marginal lands and which clearly limit the potential of such sites with regard to land use potentials.

The Muencheberg Soil Quality Rating Index (SQR) considers the most important soil related factors responsible for these restrictions. Examples are acidification processes, soil compaction and water saturation or salinization. These soil properties are assessed as "soil hazard indicators" and have crucial impact on the overall soil score provided by the SQR concept for soils of marginal sites.

This paper gives an overview of the importance of different soil hazard indicators found at case study sites of the H2020 project SEEMLA. These sites are located in Greece, Ukraine and Germany and represent a large variety of different climatic and geological conditions within Europe. Even if the occurrence of the single site limitations depends on regional conditions some generalizations are possible. Based on the respective dominating soil related restrictions a classification of types of marginality and of marginal lands can be derived.