

The impact of climate change on soil hydrology and degradation: an assessment of vulnerabilities on Irish Agriculture



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Work in Progress

- Increasing population and changing land use - pressure on land
- Existing research on soils hasn't encompassed consideration of climate change
- Substantial changes in soil moisture and temperature will have implications for many aspects of Irish soils

Objectives

- Understanding and quantification of the resistance and resilience of Irish soils
- Soil functional parameters over a range of spatial and temporal scales
- Erosion risks to changing precipitation regimes
- Organic and nutrient content of Irish soils – sustainability.

Methodology

- Downscaling of GCMS and evaluating the regional climatic models.
- RUSLE and PESESRA for initial soil erosion risk assessment
- Resolution of soil hydrology maps and crop moisture regimes at Mini-catchments level
- Peat Erosion – Remote sensing