PEDOGENESIS APPLIED TO SOIL DEGRADATION ASSESMENT IN SOUTH PATAGONIA (ARGENTINA)

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Soil degradation resulted of combination of time-space changing natural processes and antrhopogenic factors. Particularly, physical soil degradation assesment is related to soil forming factors and pedogenetic processes, thus study of soil distribution and theirs main features are a prerequisite for better understanding, evaluation, quantification and zonification of soil degradation. Studied area is located in Southern Patagonia (Santa Cruz Province, Argentina) embracing more than 270000 sq. Kilometers. Region studied has a great morphogenetic, climatic and ecological west-east variation trend. The present contribution deals with parent material and relief features, geographic distibution and dynamics and their influence on soil genesis. Eastern region is dominated by large structural plains and structural and alluvial terraces and in western region, glacial landforms are widely distributed. Coarse alluvial gravels area main parent material, with aeolian and fluvial sands, silt-clay saline materials and ashes as important but subordinated parent material. Entisols and Aridisols dominates in northern and eastern zones, while Mollisols, Andisols and Inceptisols predominates in western and southern zones of studied area. Main physical degradation processes are wind deflation and fluvial erosion-deposition. Misleading land-use over all this territory, mainly due to overgrazing in XX century first half, lead to generalized loss of soil. Nevertheless, differences in soil properties resulted in a heterogeneous distribution of desertification.