

GEOLOGIC AND GEOMORPHOLOGIC DIGITAL CHARTS APPLIED TO SOIL MAPPING OF UFRRJ CAMPUS, RIO DE JANEIRO (BR)

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Geology and relief are soil forming factors, and usually they are presented as associated information in soil survey reports. However, the limits of soil mapping unities usually do not integrate the data from geology or geomorphology charts. This project is part of the Digital Atlas of UFRRJ Campus (LGA - Laboratório de Geoprocessamento Aplicado, UFRRJ/IA), and SAGA-UFRJ procedures were applied to environmental planning. Migmatitic and gneissic rocks in the structural hills had dominantly Yellow-Red Podzolic (ARGISSOLOS). Plained hills with thick weathered mantles, and colluvial deposits at the base of the slopes ('rampas de colúvio') were associated to Yellow Podzolic (ARGISSOLOS) and Yellow Latossol (LATOSSOLOS). The Quaternary sediments, sandy-clayey facies, distributed along depressions and plains filled up by colluvial and alluvial deposits, resulted in Planosols of low fertility (PLANOSSOLOS). The clayey facies of the Quaternary sediments, located in plains of fluvial sediments susceptible to flooding, developed Humic and Low Humic Gley soils (GLEISSOLOS) and moderately to somewhat poorly drained Cambisols (CAMBISSOLOS).