

Assessment of soil physical properties? statuses under different land covers within a landscape dominated by exotic industrial tree plantations in south-central Chile

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Land use and land cover changes (LULCC) within a highly anthropized Mediterranean landscape dominated by industrial tree plantation leads to degradation of soil physical properties. This process has been more intense in the coastal range of south-central Chile due to its soils, which are highly susceptible to erosion, combined with a long history of intensive land use changes during the last century, transitioning from native forest (NF) to agriculture and the more recent establishment of *Pinus radiata* and *Eucalyptus* spp. exotic tree plantations. In this context, the aim of this study was to assess the statuses of soil physical properties over different land cover situations. Historical land cover maps were determined via supervised classifications using the maximum likelihood classifier applied to satellite imagery. Five land use and land cover categories (LULC) were defined according to main land cover transitions assoc