

**Human and Physical Dimensions of Land Use/Land Cover in Amazonian landscapes:  
a comparative approach**

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**ABSTRACT**

The analysis of human and physical dimensions of land use/land cover in Amazônia requires the use of a georeferenced and multi-scalar approach. Within the Large Scale Biosphere-Atmosphere Experiment in Amazônia (LBA), distinct landscape mosaics have been studied, from the Amazon estuary and the Bragantina region to northeastern Rondônia. To illustrate the potential of such studies, we present comparative results for Machadinho d'Oeste and Vale do Anari, State of Rondônia. The multitemporal analysis included Landsat images and fieldwork. Land owners and other local actors were interviewed about their production systems and land-use history. The calculation of spatial metrics supported our conclusions. The results indicate that settlement design and

institutional aspects play a central role in the process of landscape change. The combination of private lots with communal forest reserves, managed by local populations, produces positive outcomes in maintaining larger patches of forest. The methods used contribute to the analysis, integration, and monitoring of the variety of observed situations subsidizing public policies in the region.