

## Technical Paper

### THE IMPORTANCE OF GEOPROCESSING IN THE SUSTAINABLE TERRITORIAL PLANNING OF VALE DO SERENO REGION, NOVA LIMA

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The Vale do Sereno Region, located in the municipality of Nova Lima has been the scene of considerable conflicts in terms of different land use interests. The landscape of the area in study and its surroundings, plentiful in vegetation cover, springs and rivers, was kept preserved until the arrival of the major mining companies in the city in the first half of the twentieth century.

After the depletion of the mineral resources, the land concentrated in the hands of mining companies were subdivided in residential areas and gated communities, making the real state activity a more profitable source of income for the companies. Such activities combined with the civil construction without proper urban planning, compromised the city's natural landscape.

The area is appealing for the real state market given its articulation with Belo Horizonte's southern growth axis. Vegetal cover and natural resources are also attractive instruments for the real state appreciation. These reasons, coupled with the permissiveness of the city's land zoning have been the main causes for the strong market pressure experienced by the region.

Furthermore, the goal of our work is to diagnose the main problems faced by the site and to create planning and management instruments that can be used as a model not just for Nova Lima's prefecture but also for the companies responsible for the establishment of major projects in the Vale do Sereno.

Fieldwork with geology and urban planning specialists, surveys with the local population and the application of GIS -Geographic Information System- tools were necessary to enable the analysis.

After concluding the diagnosis, it was possible to obtain the region's vocational mapping. With it we made a comparison between these tendencies, the city's Master Plan in force and the actual occupation in the site. Upon the project's conclusion we simulated the creation of a Master Plan that would befit the region's vocations without counteracting the municipality's legislation.

Therefore, it becomes possible to explore the region's potentiality in a more sustainable way, meeting the real state demands but without compromising the environment

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