

A propose of GIS on environmental zoning and urban planing in the district of Serra Negra do Norte – RN - Brazil.

¹DA CUNHA, J. A.; PETTA, ¹R. A. - ¹Pósgraduação em Geociências - Universidade Federal do Rio Grande do Norte-Brazil

This work presents the procedures and the results obtained in the elaboration of a Geographical Information System applied to the district of Serra Negra do Norte–RN, with main focus to the ecological zoning of the Seridó Ecological Station, one of the few ecological parks of the Northeast of Brazil. Two general aspects were analyzed: (i) the urban perimeter and its related problems; (ii) regional classification of landscape, soil type and the uses of the land.

Initially, the topographical map of the area was digitalized, in scale of 1:100.000, and the map of the district in the scale of 1:50.000, and were associated with satellite images and aerial photos. The three representative thematic maps of soils, erosion vulnerability, and vegetation were superposed. The urban plan of the city was elaborated using the same process, in the scale of 1:2.000, with the location of the main features of the town. The control of the georeferenced data was made point to point by GPS, and the medium correction were obtained by interpolation, and analyzing the aspects of the applied statistical methods.

In conformity with the regiment that regulates the ecological park, a map of ecological zoning of the district was generated, especially of the area of the ecological station considering 4 principal zones: Permanent Preservation Area (PPA), Permanent Conservation Area (PCA), Restoration Area (RA) and Occupation Area and Use (OAU). The resulting map was generalized according to the approaches of erosion vulnerability, scenic attractiveness, access, fiscalization offices, slope, potential for research and environmental education.