

APPLICATION OF GIS TO PREPARE A MAP WITH THE POSSIBLE AREAS FOR URBAN EXPANSION IN THE DISTRICT OF CACHOEIRA DO CAMPO, OURO PRETO - MG.

1OLIVEIRA, M.V. DE, 1CUNHA, E.R.S.P. DA and 2SOBREIRA, F.G. 1INPE, São José dos Campos, Brazil; 2Universidade Federal de Ouro Preto, Ouro Preto, Brazil.

This paper reports the experience of the GIS implementation in the district of Cachoeira do Campo (city of Ouro Preto, Minas Gerais, Brazil) with the aim to enhance the occurrence of the geotechnic problems (erosion). The chosen area, in spite of being affected strongly by erosive processes, has peculiar characteristics, such as the fact that the district's urban center has a certain infrastructure of services that is capable to support an urban expansion of the historical center of Ouro Preto and its consequences. Crossing thematic maps (environmental protection area, urban area and regions with erosion forms), and also a topographic map sheet and the drainage pattern, using Boolean operator, a map containing appropriate areas to the urban expansion (scale 1:25.000) was obtained. The use of GIS for the data analysis, previously collected, was of extreme importance because became the base for a space vision of the problem. The processing and analysis was made using GIS SPRING 3.3.