ANÁLISE ESPAÇO-TEMPORAL DO DESASTRE AMBIENTAL EM MARIANA-MG A PARTIR DAS GEOTECNOLOGIAS

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ABSTRACT

Remote Sensing is an important technological tool for professionals and students in the area of geosciences because through it we can analyze the geographic space in different cartographic / geographic scales, study various subjects (environment, urban expansion, etc.), elaborate diagnoses and even prognostics. Currently there is a considerable variety of space agency sites that offer free access and download to their historical collections of satellite imagery. This is very important because it assigns a historical character to the studies, thus allowing the investigation of changes in the terrestrial surface. On November 5, 2015, 34 million cubic meters of iron ore tailings flowed from the Samarco-operated mining complex and flowed into the Rio Doce Basin. Thus, the objective of this work was to evaluate the extent of the disaster that occurred in the city of Mariana (MG) through techniques of digital processing of Remote Sensing images. As a result, there was an area of 8.25 km2 related to the change in the surface of the earth caused by the devastation and the maps obtained good precision, Kappa Index of 0.791 (before disaster) and 0.801 (after disaster).

Key-words: Sensoriamento Remoto, Desastre, Mariana (MG), Processamento Digital de Imagens, Remote Sensing, Disaster, Mariana (MG), Image Digital Processing.