

Comparison between supervised classification techniques using LANDSAT-TM images and traditional methods in the field for the elaboration of the Land Use and Land Cover Map of Porto Seguro Project in the scale 1:100.000

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This work shows the comparison between supervised classification techniques using LANDSAT-TM images and traditional methods for the elaboration of the land use and land cover map of Porto Seguro Project in the scale 1:100.000.

The traditional method was executed in the field during two weeks, with the help of a LANDSAT-TM satellite image printed in the scale 1:100.000, with the colored composition R-7/G-3/B-2. The resulting map of this method was digitized and it will be used as the ground truth.

The automatic techniques of remote sensing is based on the supervised classification, using the maximum likelihood method in the bands one, two, three, four, five and seven. It was elaborated in two different softwares.

The total number of classes for all the maps is 25. These classes vary in several types of forests, pastures, agricultures, mangrove, water bodies, urban use, bare soil and bare rock.

The accuracy of the automatic classifications maps is shown in a matrix used to compare the classification results with the ground map.