

PA205**Land Use Mapping and Identification of Conflicts in Municipalities Producers of Coffee in the Serra da Mantiqueira, Minas Gerais, Brazil.**

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Coffee makes up one of the most important sources of income for the Brazilian economy as it is a product with great emphasis on exports. The state of Minas Gerais highlights in the Brazilian market as the largest coffee producer. Because of it is one of the main crops of Minas Gerais, coffee exerts historically great influence on the use and occupation of state land. The Brazilian coffee passes currently for a favorable time on the national and international scene, which has led the segment to seek the improvement of production systems. This enhancement goes unquestionably over the environmental issues, sustainability and competitiveness. The survey of these areas and the establishment of methodologies, enabling the monitoring of this crop, with periodic updating of this information, become important for the management of this agribusiness.

Geographic Information Systems and Remote Sensing enables us to analyze the physical structure of different landscapes, and helps in deciding strategies for production and conservation. In this study, geotechnologies were used for mapping the use and land cover in the municipalities of Heliadora, Jesuânia and Lambari located in the Serra da Mantiqueira, Minas Gerais, in order to map and identify the conflicts of the coffee growing use in Permanent Preservation Areas (PPA) taking into account the Brazilian environmental legislation. For mapping land use was used one RapidEye image with spatial resolution of 5 meters and the red spectral bands (630-690 nm), near-red (690-730 nm), and green (520-590 nm). In this image were analyzed color, texture, and shape of objects. The analysis and the processing were generated by using ArcGIS 9.3 program. The database was generated in digital format. The delimitation of Permanent Preservation Areas (PPA) of the study was made based on the criteria established by the Law No. 12.651/2012. Geotechnologies allowed the characterization of the coffee plantations of the micro-region, quantifying the occupation of coffee in environmental units of altitude, relief, and soil, showing that are important and efficient tools for saving time and resources. The environmental characterization can be considered essential to begin drawing up a sustainable management plan for coffee growing.

References

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