

CANASAT PROJECT: MONITORING OF THE SUGARCANE CULTIVATION AREA IN SOUTH CENTRAL BRAZIL

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ABSTRACT:

Brazil is the world's largest producer of sugarcane and ethanol derived from this crop, which is grown in several Brazilian states. The Canasat project monitors the area under sugarcane cultivation using remote sensing satellite images. The project has collected data since 2003 for the state of São Paulo, which is the largest producer in the country, and since 2005 for five other states that altogether are responsible for 87% of the Brazilian sugarcane production. The data are available on the Canasat project website and are used by several public and private institutions connected to the sugar, ethanol and environmental sectors. The objective of this paper is to present the methodology of the Canasat project and to analyze the changes in the areas of sugarcane cultivation in south central Brazil from the 2005/06 crop year to the 2009/10 crop year. The total area available for harvest grew by 76.2% between 2005/06 and 2009/10, reaching 7.43 million ha in the most recent season. All six states showed growth in the area available for harvest each season. The state of Goiás had the highest total growth rate, while the state of Mato Grosso do Sul was the only state where the annual growth rate increased each season. The state of Mato Grosso possesses the smallest area available for annual harvest. The state of São Paulo showed the largest expansion in sugarcane cultivation area; the western portion of the state was responsible for 47% of this expansion.

TOPIC: Operational remote sensing programs

ALTERNATIVE TOPIC: Operational remote sensing programs