

**KNOWLEDGE, SUSTAINABILITY
AND BIORESOURCES
IN THE FURTHER DEVELOPMENT
OF THE AGRI-FOOD SYSTEM**

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Biofuels and sustainable development of natural systems in Goiás

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Abstract: Brazil has the largest sugar cane crop, with 52% of world ethanol production. High government taxes on gasoline and subsidies for ethanol, have motivated a profitable national ethanol industry. Goiás State ranks third in ethanol production, with 17 ethanol-sugar plants in operation and others being installed. A 800 km pipeline, with a capacity to supply six million cubic meters of ethanol per year is underway. In this paper we study sustainability of sugar cane production in the Cerrado, fragile and diverse but with high yield potentials, argued for the need for a small family farm set up and for alternative energy, including crop diversification, farm processing and social inclusion. Self sufficiency points out integration with ethanol industry, substitution of degraded pasture, soybean new varieties for more oil content for biodiesel. The inexorable expansion of the ethanol sector, with economic gains, make questionable aspects of managing natural systems, without devastation of biodiversity, need for research investments, social implications of mechanization, problems of public health from burning cane for manual harvest, associated to inhuman labor. Such a context requires a Monitoring System, of the sugar cane production, connected to Certification, as a state government policy for sustainability and increasing market shares.

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