

The Brazilian Sugarcane Agro-ecological Zoning System: Background, Details, and Evaluation

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Summary

Brazil is the world's largest sugar producer and exporter and also the largest bioethanol exporter. Brazilian sugar and bioethanol are produced from sugarcane. Brazilian sugar and bioethanol consumption and production have been increasing. The Brazilian federal government plans to increase sugarcane production in the future. However, sugarcane production has expanded not only in conventional crop areas but also in areas with environmental restrictions, such as the Amazon region, the Pantanal, and the Paraguay River basin. Environmental groups are concerned about negative impact on these areas. Knowing that it must establish rules and laws to promote sustainable sugarcane production, the federal government decided to set up a sugarcane agro-ecological zoning system based on administration rule No. 6961. In addition, Law No. 6077 was proposed to Congress in 2009. The sugarcane agro-ecological zoning system regulates land adaptation for sugarcane production in each region. It is expected that this system may lead to sustainable sugarcane production in Brazil. However, the zoning categories for adapted areas were very vague and no punishments were established. As for Law No. 6077, the setting of criteria for bio-diversity, land ownership, and food supply is essential. The federal government must establish a monitoring system for the zoning areas based on the sugarcane agro-ecological zoning system. International cooperation in monitoring these areas using satellite information is also needed.