

SOCIALLY RESPONSIBLE EXPANSION OF BRAZILIAN ETHANOL

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Because of increasing demand, Brazil is expected to expand its sugarcane-based ethanol production. Addressing concerns about social impacts of such an expansion requires careful consideration of the complexity of Brazilian agriculture. In a conventional expansion scenario, mills tend to cluster and sugarcane displaces most land-use types, thus dominating the landscape regionally. This pattern may impact expansion areas by relocating traditional small holders or withdrawing them from agricultural production, competing with food production, concentrating land property because of land market dynamization, reducing agro-ecosystem diversity, and displacing extensive beef cattle or milk production. This process will change social and economic structures dramatically, and probably will create negative externalities. Integration of sugarcane production with the prevailing land uses in expansion areas is key to reducing the impacts of displacement, and to preserving food production and the established social and economic environment. This paper examines integration pathways for livestock and food crop production, using both the potential of the industrial process for improving livestock production and the coexistence of food crops in sugarcane fields. Livestock production may be intensified and integrated using industrial residues for feed production, resulting in the maintenance of current production levels on a substantially smaller area. Food production also can be improved, to some extent, using areas where sugarcane will be renewed. As a result of these integration pathways, sugarcane production potential is not affected substantially, and social externalities are mitigated by allowing sugarcane production to coexist with livestock and food crop production.

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