Fuelling Development: Sugarcane Expansion Impacts in Brazil

Juliano Assunção ∗ Breno Pietracci † Priscila Souza‡

August, 2015
This paper will be available soon.

Abstract
With the growing effort to decrease greenhouse gas emissions and the inevitable shift towards renewable energy, sugarcane and ethanol production are forecast to expand worldwide. This paper studies the multiple local impacts of the sugar, ethanol and bioelectricity producing mills in the Brazilian state of Mato Grosso do Sul, an industry that grew almost threefold in an eight-year interval. We find a myriad of positive impacts related to the entry of sugarcane mills with investments accounting for 130% of the average municipal GDP. Three years after a mill is built, a typical municipality has a 30% increase in GDP; population increases 10%; employment bumps 40%; wages go up 44%; and tax revenues jump 31%. Land use shifts primarily from pastures to sugarcane and there are positive spillovers on agriculture, leading to an increase in the productivity of other crops. Channels contributing to these spillovers include a larger and more educated labor force combined with better financial services, transportation, agricultural equipment and support activities. These results are important to the contentious debate on how different energy sources affect the producing areas.

Key-words: Local economic development, spillovers, biofuels, land use.

JEL-Codes: R11, R14, Q16

∗ Email: juliano@econ.puc-rio.br. Department of Economics, PUC-Rio, and Climate Policy Initiative.
† Email: bpietracci@cpirio.org. Department of Economics, PUC-Rio.
‡ Email: priscila.souza@cpirio.org. Department of Economics, PUC-Rio, and Climate Policy Initiative.