



AGRICULTURAL POTENTIAL IN LATIN AMERICA AND CARIBBEAN FOR BIOFUELS FOR TRANSPORT

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ABSTRACT

The present study presents a general assessment of the productive capacity of Latin American countries for producing biomass¹. Biomass can be transformed in secondary liquid energy carriers like biodiesel and bioethanol, fossil fuels substitutes. The document begins with the description of the characteristics of currently used energy crops² world wide. A specific analysis of Latin American productive conditions was then carried out to determine if the region has the potential to reach, at least, 5% blend levels³. The land availability and energy crop yields for biomass production were also projected for the year 2025, together with two alternative raw materials i.e. waste crops and field residues. Finally, the effects of a demand increase; producer subsidy and price support on energy crop markets were assessed. It was determined that most of Latin American countries could produce sufficient biomass to reach 5% blends. There is land availability for biomass production in 2025 mostly in South American countries. Potentially attainable blends of most Latin American countries for the year 2025, using biomass from agricultural energy crops, are between 30% and 91% for biodiesel, and between 20% and 206% for bioethanol. Blend estimates from forestry biomass are even higher and from residues are much lower. The “price support” measure causes the highest net welfare gain in Latin America countries (1.844 Mill. US\$) as well as in the Rest of the World (1.623 Mill. US\$) , whereas the demand shift provokes in the Rest of the World a net welfare loss of 761 Mill. US\$. Key words: Biodiesel, bioethanol, biomass, blend, energy crop, partial equilibrium model, demand shift, price support, producer subsidy.