

WHY ARE WE PART OF THE SOLUTION?

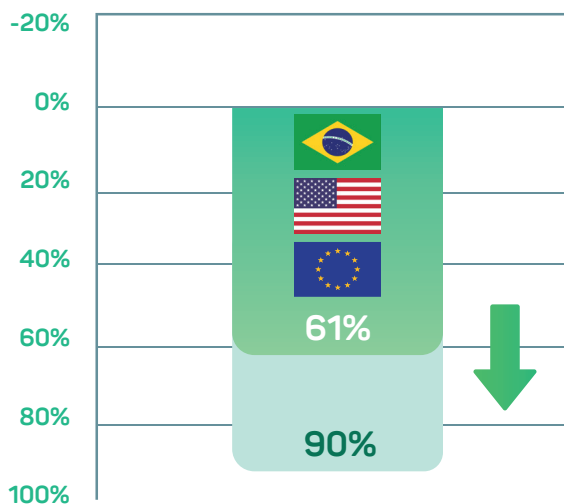
SUSTAINABLE PRODUCTION

The Brazilian Sugarcane Industry Association (UNICA) is Brazil's leading association for the sugarcane industry, representing 60% of the country's sugarcane production and processing.

UNICA's priorities include serving as a source of reliable information and analysis on the efficiency and sustainability of sugarcane products, particularly ethanol, sugar and bioelectricity. The association works to both encourage the continuous improvement of sustainable practices throughout the sugarcane industry, and to promote low-carbon energy solutions.

ETHANOL AS A SOLUTION FOR SUSTAINABLE MOBILITY

EMISSIONS SAVINGS OF SUGARCANE ETHANOL
COMPARED TO PETROL/GASOLINE



A clean, affordable and low-carbon biofuel that can be blended with gasoline/petrol and provides a significant reduction in Greenhouse Gas (GHG) emissions to fight global warming, one of the most serious challenges of this century.

SOURCE: ISAIAS MACEDO AND JOAQUIM SEABRA (2008); MEIRA & MACEDO (2010); RENEWABLE FUELS STANDARD (RFS); EUROPEAN RENEWABLE ENERGY DIRECTIVE (EU RED) AND RENOVABIO (ANP, 2021).



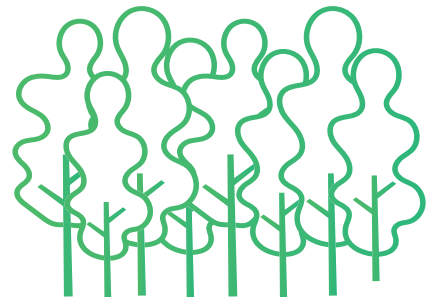
Since 2003 ethanol has prevented the emission about

614

million tonnes of CO₂eq

4,4 BILLION TREES

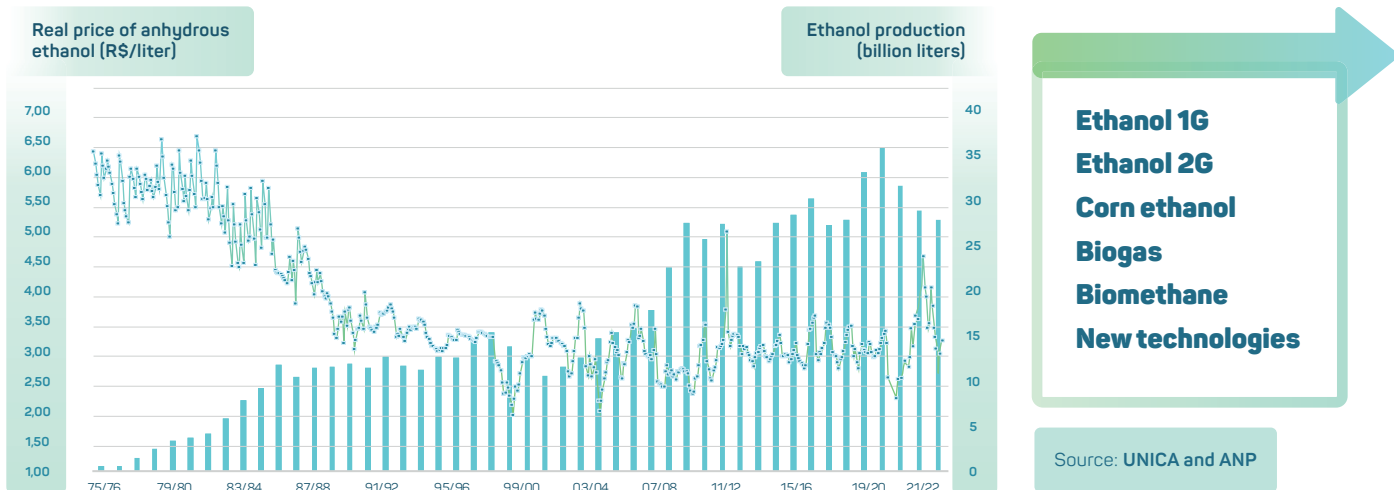
To achieve the same reduction



In 2021, ethanol replaced **44%** of gasoline/petrol in the Brazilian transport matrix

Around **93%** of production certified with identification of the carbon intensity of the ethanol produced and traded

ETHANOL EXPANDS EFFICIENTLY: REAL PRODUCER PRICES OVER TIME

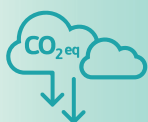
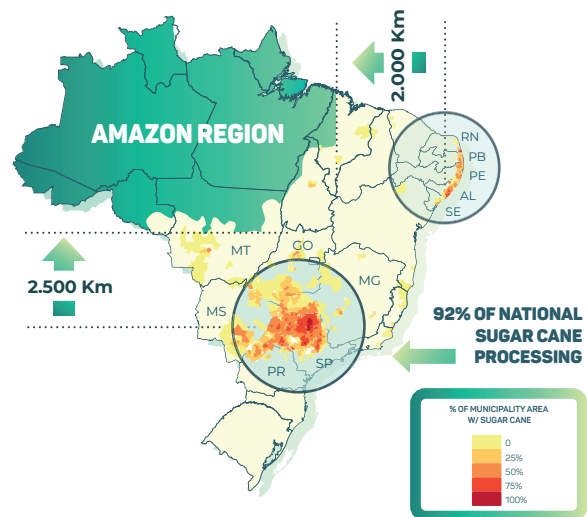


Sugarcane area represents **1.2%** of Brazil's territory. The crop area for ethanol production accounts for only **0.9%** of Brazil's territory, including corn area which represents **2 million hectares** of second-crop.

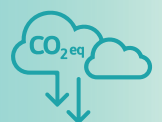
Sugarcane production taking place more than **2,000** kilometers from the Amazon region.

We preserve native forests within rural properties, upholding and going beyond the premises of the Brazilian Forestry Code.

The Brazilian Biofuels Policy (RenovaBio) excludes production areas located on rural properties where native vegetation has been suppressed after November 2018 → zero deforestation



São Paulo managed to significantly reduce the amount of particulate matter in the air by increasing the use of ethanol. According to IQ Air, in 2021, the world's fourth largest populated megapolis ranked 1779th in air pollution with 15.3 $\mu\text{g} / \text{m}^3$ yearly average.



ENVIRONMENTAL PROTECTION PROVIDED BY PRODUCERS

- **49,5 Million** planted seedlings
- **7,315** water springs preserved and recovered
- No burning as a pre-harvest method
- **200,00 +** hectares of land alongside streams and riverbanks protected and recovered

SOCIAL-ECONOMIC DEVELOPMENT FOSTERED BY SUGARCANE

Impact of an ethanol plant on the region's Gross Domestic Product (GDP)

GDP per capita by US\$ 1,098 in the municipality

GDP per capita by US\$ 475 in the 15 nearest cities