

IN THE YEAR OF COP30 BRAZIL, THE COUNTRY PROUDLY CELEBRATES ITS TRADITION AND PLANS ITS FUTURE IN BIOFUELS

Ethanol

50
years



The **Pro-Álcool** was created in 1975 with the purpose of reducing the energetic external dependence and developing the domestic technology. It is a pioneering program in the history of **renewable energy and sustainability** around the world. Brazilian ethanol represents resilience and innovation, contributing to energy security, renewability of the transportation and strengthening of national industry. For decades, it has faced energetic challenges like a typical **Generation X**.



Biofuels have been crucial in making Brazil's energy mix more renewable and sustainable, establishing the country as a global benchmark!

Created in 2004, the PNPB (**Brazilian Program for the Production and Use of Biodiesel**) aims to diversify raw material production, encourage regional development and promote the productive inclusion of family farming in biodiesel production, besides guaranteeing minimum prices, quality and supply security. The Law 11,097 enacted by President Lula on January 13, 2005, helped to create a market for biodiesel, strengthening **family farming and sustainability**. Biodiesel represents the **Generation Y** of our energy: sustainable, collaborative, and full of purpose.



Biodiesel

20
years



Equivalent to Brazil's total emissions in 2011 OR Japan's in 2023

Source: EPE, Balanço Energético Nacional CO₂ and Greenhouse Gas Emissions - Our World in Data

FUEL ETHANOL PRODUCTION



2nd largest in the world

37

billion of liters

31% of global production

366
plants



Approx.

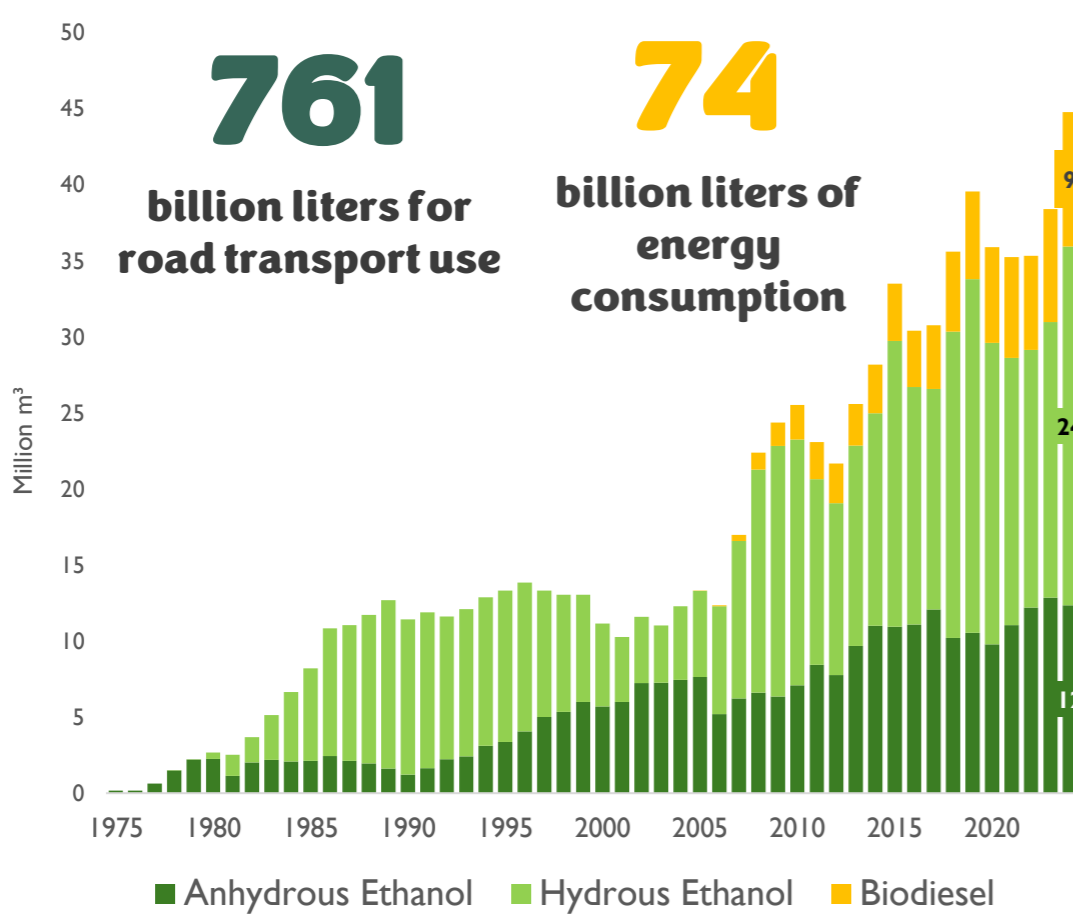
800

thousand people directly employed

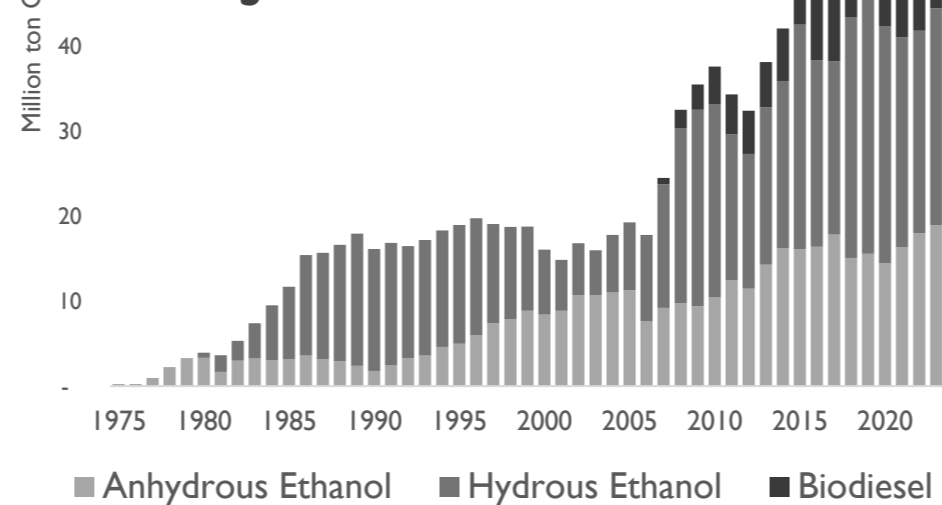


2024

Since 1975



more than **1.2** billion tons of CO₂ mitigated



1.2 billion tCO₂ is equivalent to



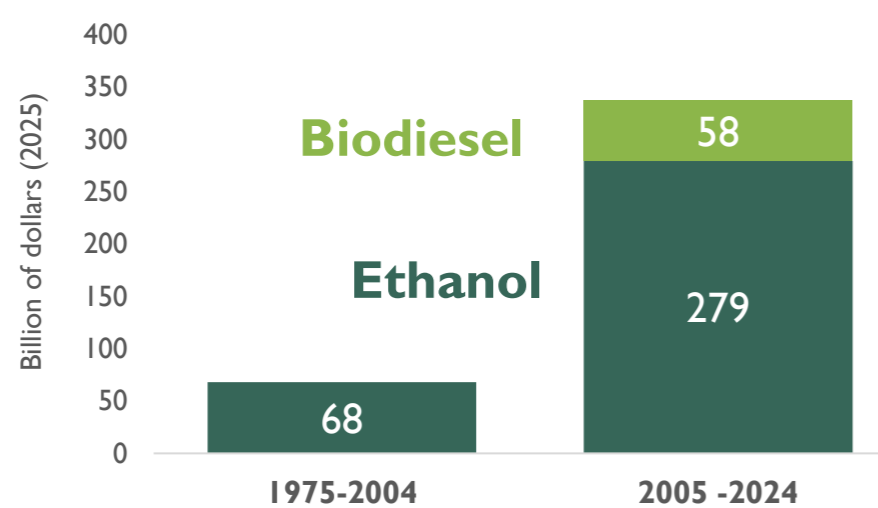
8.5 billion trees planted



7.2 million soccer fields



1.5 x the Netherlands area



Trade Balance

US\$ 405

billion of dollars shifted away from fossil fuel imports

New policies in recent years



Generation Alpha emerges on the horizon to join the veterans of energy. The RenovaBio, the Combustível do Futuro and the MOVER Program are key pillars of Brazilian energy transition.

The RenovaBio encourages the production and use of biofuels through emission mitigation targets and carbon credits (CBIO), enhancing sustainability and predictability for the sector. The Combustível do Futuro Law integrates policies to expand the use of low-carbon clean fuels and foster technologies such as the flex hybrid vehicle. Meanwhile, the MOVER Program encourages investments in new technological routes and raises decarbonization requirements for Brazil's automotive fleet.

Together, these policies position Brazil as a global benchmark in sustainable mobility and energy innovation.

BIODIESEL PRODUCTION



3rd largest in the world*

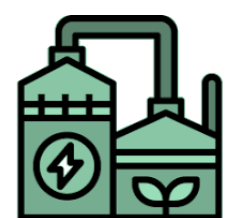
9

billion of liters

18% of global production

59

plants



20

thousand people directly employed

* FAME and green diesel

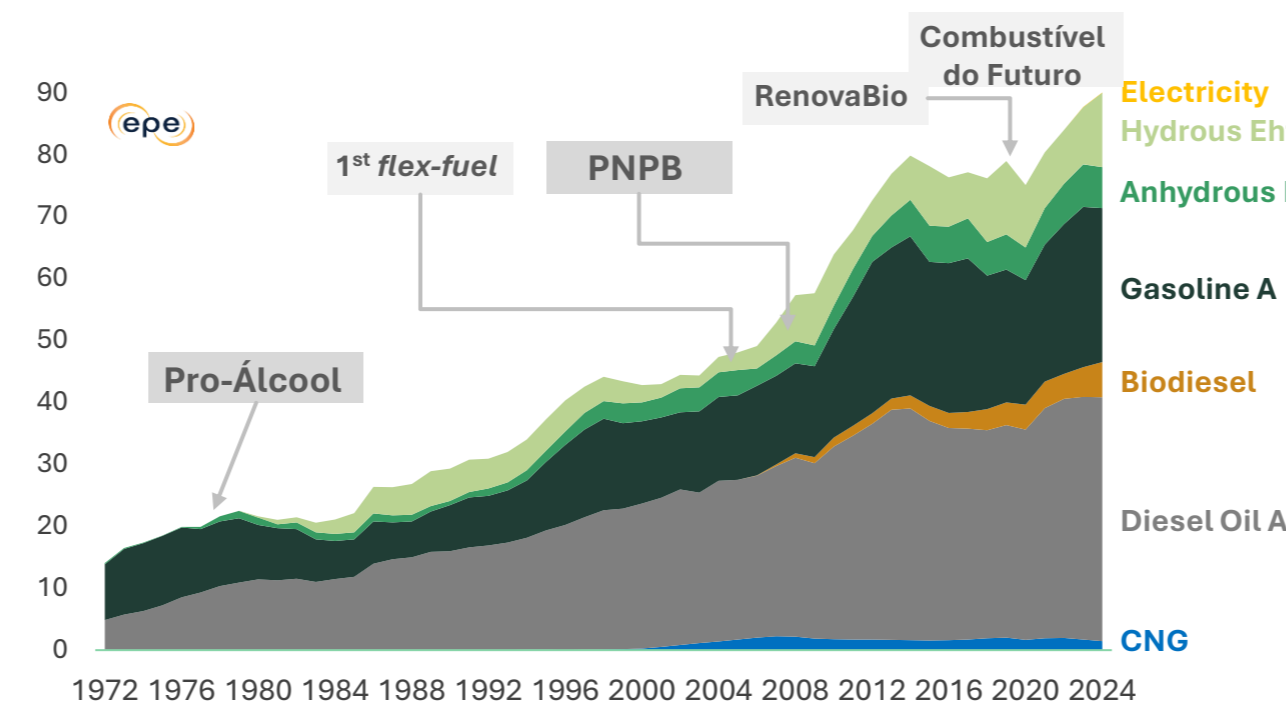




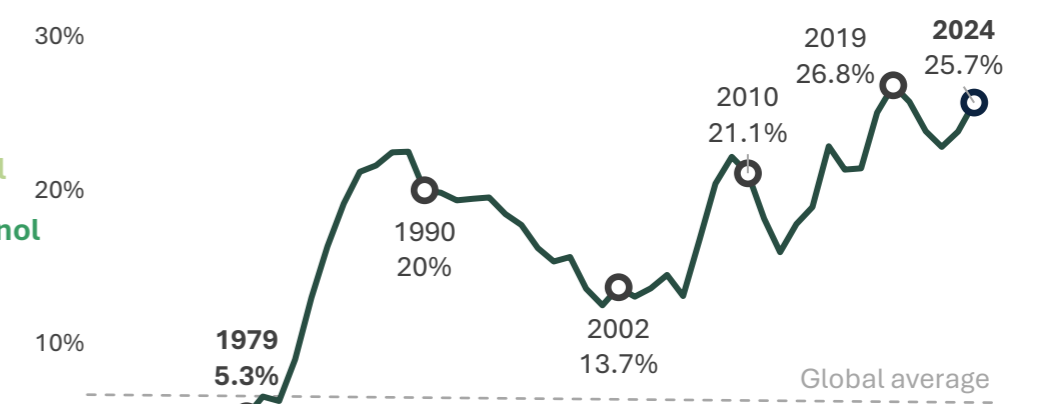
In a simplified analysis, in 2024, the ethanol consumption in Brazil is equivalent to the required energy to power a hypothetical fleet of **20 million electric vehicles** – a number higher than global sales in the same year (**17 million**) – also assuming a predominantly renewable power mix like Brazil's.

Source: IEA

Energy consumption of road transport (million toe)



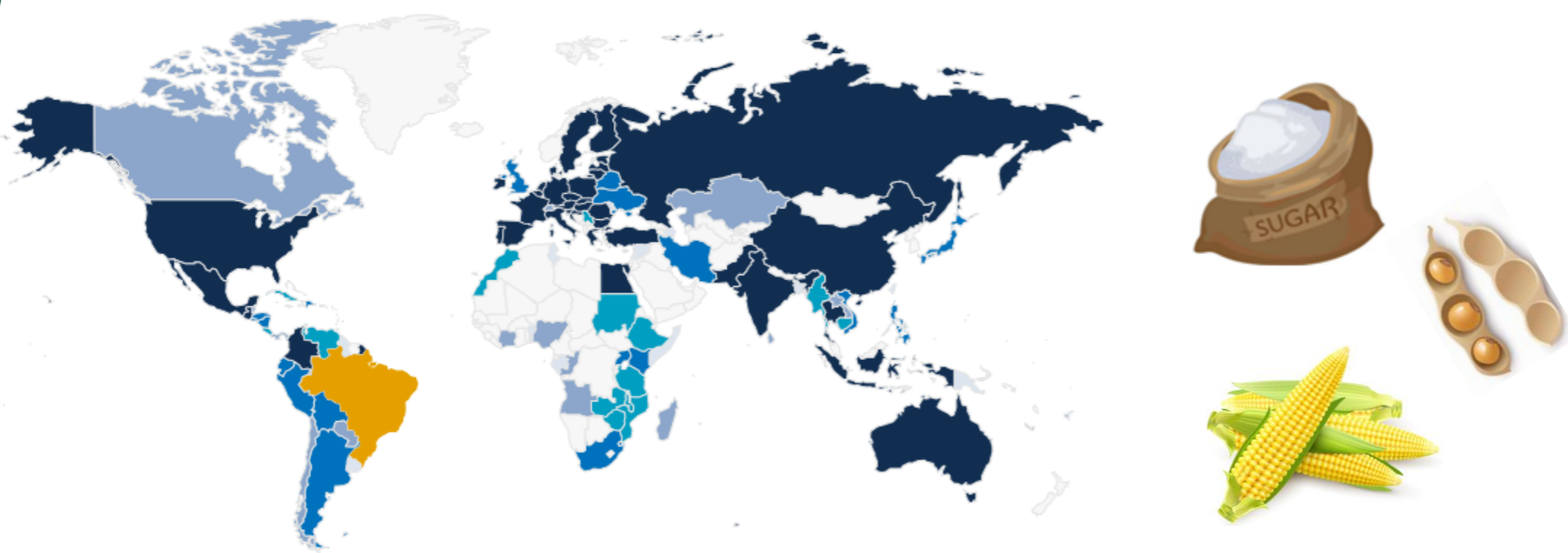
Source: EPE, Balanço Energético Nacional



In 2024, the share of renewables in Brazilian transport matrix was 25.7%, well above the global average of 6%, with the possibility of reaching 8.5% by 2030.

Source: BEN and IEA

Brazil's share in the global market of major agricultural and livestock products



Sugar Production in Metric Tons Source: USDA



Product	Production			Exports		
	Volume [Mt]	Rank	%	Volume [Mt]	Rank	%
Sugarcane	45 [Mt]	1 st	25%	36 [Mt]	1 st	57%
Soybean	153 [Mt]	1 st	39%	104 [Mt]	1 st	59%
Corn	122 [Mt]	3 rd	10%	46 [Mt]	2 nd	23%

Source: USDA

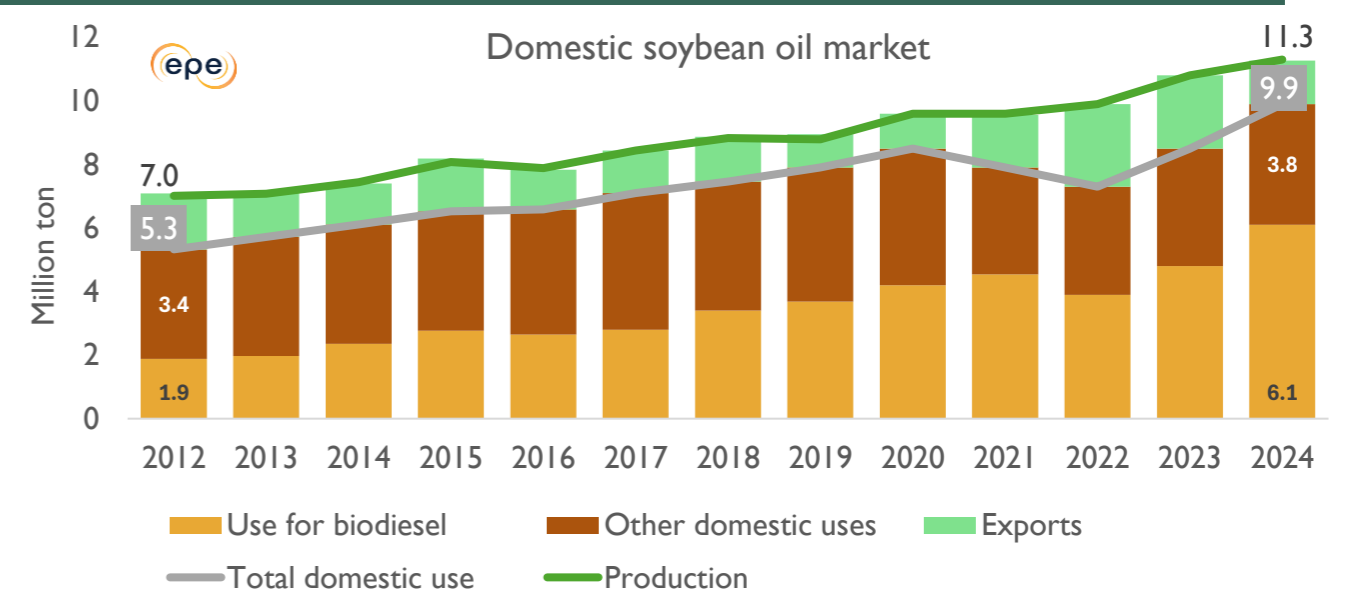
Brazilian sugar production fully meets domestic market demand. **Brazil is the largest producer and the leading exporter** of this commodity, accounting for 57% in 2024.

Encouraging ethanol production has contribute to consolidate the country as a major producer of this commodity!

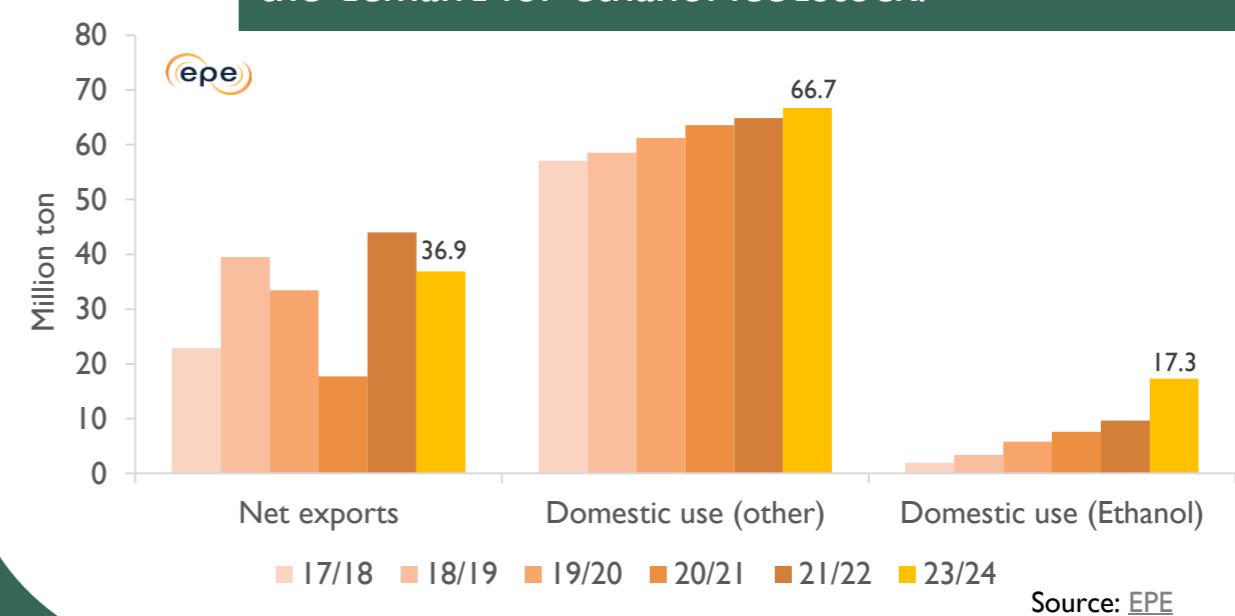


Soybean is the main raw material for Brazilian biodiesel production. Brazil is the world's largest producer and the leading exporter of this commodity, accounting for 59% in 2024.

Source: USDA



Second-crop corn production is growing and meeting the demand for ethanol feedstock.

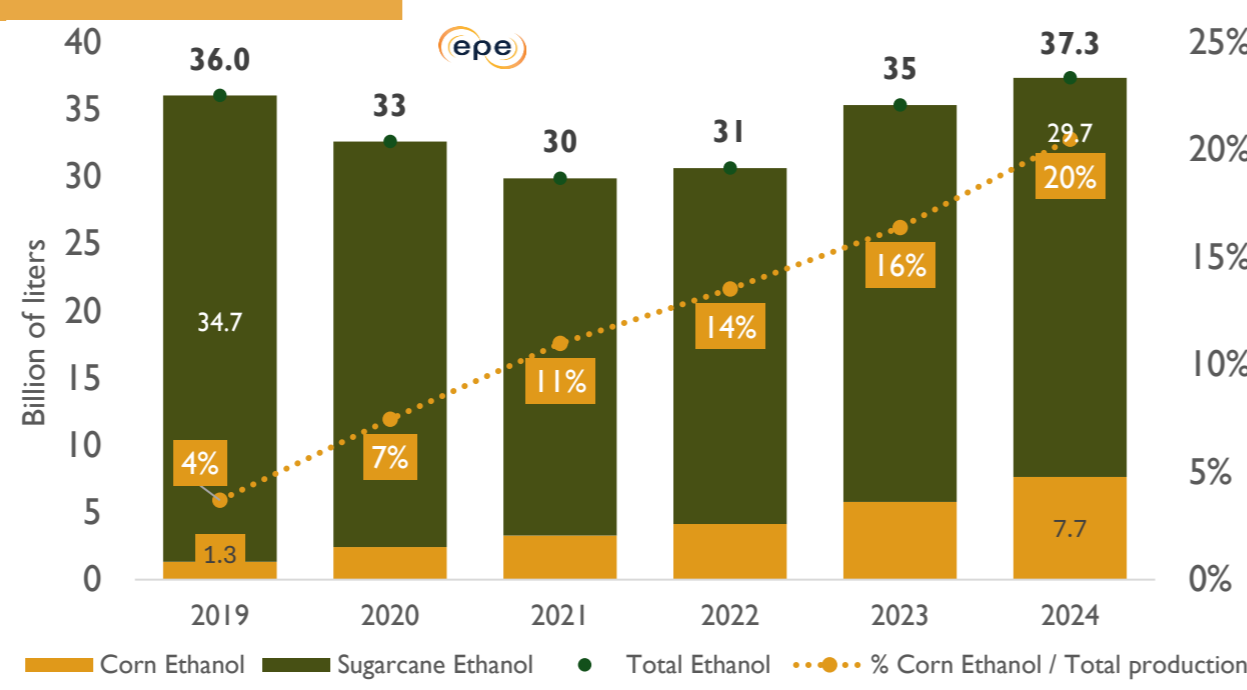


Source: EPE



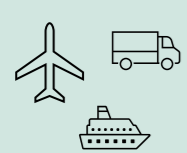
Corn Production

Brazil is a major global corn producer, and ethanol production from this cereal has grown in recent years, reaching 20.5% in 2024.



Source: EPE

Key Information



Emerging low-carbon emission fuels: SAF, green diesel, hydrogen

Brazil's commitment to a just and inclusive energy transition!

Public policies have the potential to **boost** several **setores** of the **economy**. In the case of **conventional biofuels**, ethanol and biodiesel, these **policies have helped** consolidate the **Country as a major producer without compromising food security**. The inclusion of **biofuels** in the national **transportation mix** contributes not only to environment and the mitigation of fossil CO₂ emission, but also to **job creation and the strengthening of domestic industry**. **Coproducts and residues** (DDGS, bagasse, vinasse, etc.) from this industry **generate energy and food** and also contribute to the **trade market**.



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