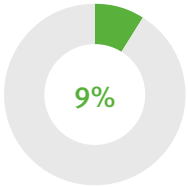
Brazil

Federative Republic of Brazil

28%

237 mio ha
used for agriculture
Total area: 839 mio ha



10 mio
employed in agriculture
Total labour force 107 million

Main agricultural products

Soybean Beef Maize

Key facts: Agriculture in Brazil

Brazil alone accounts for 7.8% of current agricultural land, 13.5% of the world's potential arable land, and 15.2% of global renewable water resources. Brazil is also the most biologically diverse country in the world, and is estimated to host between 15-20% of the world's species.

Ethanol derived from sugarcane by-products contributes to 17.5% of the country's national energy supply.

Small family farms represent around 85% of farmers.

Although Brazil's agricultural production is enough to meet both domestic and export demands, nearly a third of Brazil's population remains food insecure.

Agricultural expansion and cattle ranching are the most prominent historical drivers of deforestation in Brazil, primarily due to soy production displacing pastures and shifting livestock expansion further into the Amazon.

Key areas with high mitigation potential

Three mitigation options are highlighted here that are important in the national context due to the share of emissions produced from the activity, the magnitude of possible emissions savings, and feasibility of implementation. These 3 measures form part of a broader set of measures that would be needed to address agricultural emissions in the country, especially those that address deforestation and its drivers.

CO_2 Preventing deforestation due to agricultural expansion

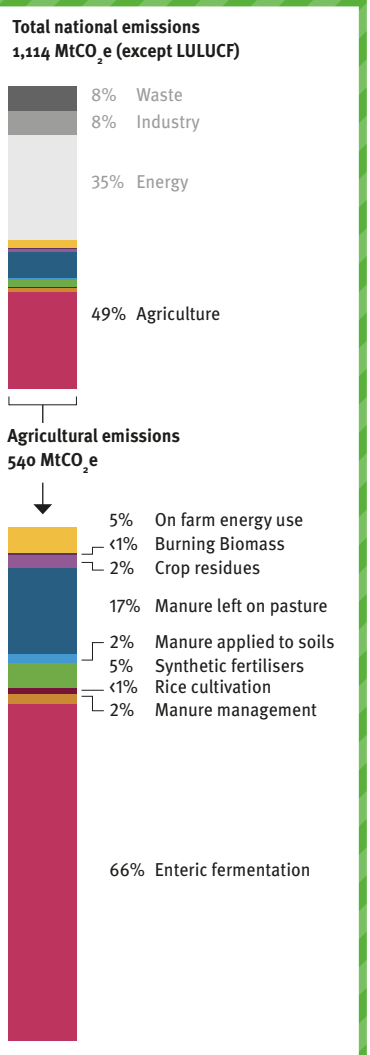
Improve productivity of existing agricultural land to decrease drivers of deforestation.

CO_2 Restoration of degraded pastures

Increase carbon sequestration and improve forage on existing pastures.

N_2O Improved nutrient management

Improve precision of fertilizer application and grow legumes in grasslands and pastures.



Key challenges for implementing mitigation measures

The **lack of access to technical assistance and financial credits** complicates the implementation of low-carbon agriculture for small farmers.

The competition of large-scale commercial agriculture versus the rights of indigenous people and the protection of the environment is strong.

International demand for agricultural products is one driver of expansion. Researchers express concern that the trade agreement between the EU and the Mercosur (Brazil, Argentina, Paraguay and Uruguay) may threaten sustainability and increase deforestation.

Recommendations for enhancing mitigation in the agricultural sector

Enhance the national climate mitigation framework for agriculture, e.g. by **clarifying the role of agriculture in achieving climate targets.**

Align overall agricultural policy framework with climate mitigation objectives.

Support research, development and spreading knowledge on **crop intensification and improved nutrient management.**

Work together with industry partners and other governments on **sustainable supply chains.**

Sources for data on emissions: FAO (2022): Emissions Totals [Dataset]. https://www.fao.org/faostat/en/#data/GT; Gütschow, J., Günther, A., & Pflüger, M. (2021). The PRIMAP-hist national historical emissions time series v2.3 (1750-2019). https://doi.org/10.5281/zenodo.517515.

Umwelt Bundesamt

This graphic has been developed by Öko-Institut and NewClimate Institute on behalf of the German Environment Agency. It is based on a report on status, potential and challenges for mitigating agricultural GHG emissions for the respective country, available at https://www.umweltbundesamt.de/publikationen/mitigating-agricultural-greenhouse-gas-emissions-in-brazil. Design: Erik Tuckow, sichtagitation.de