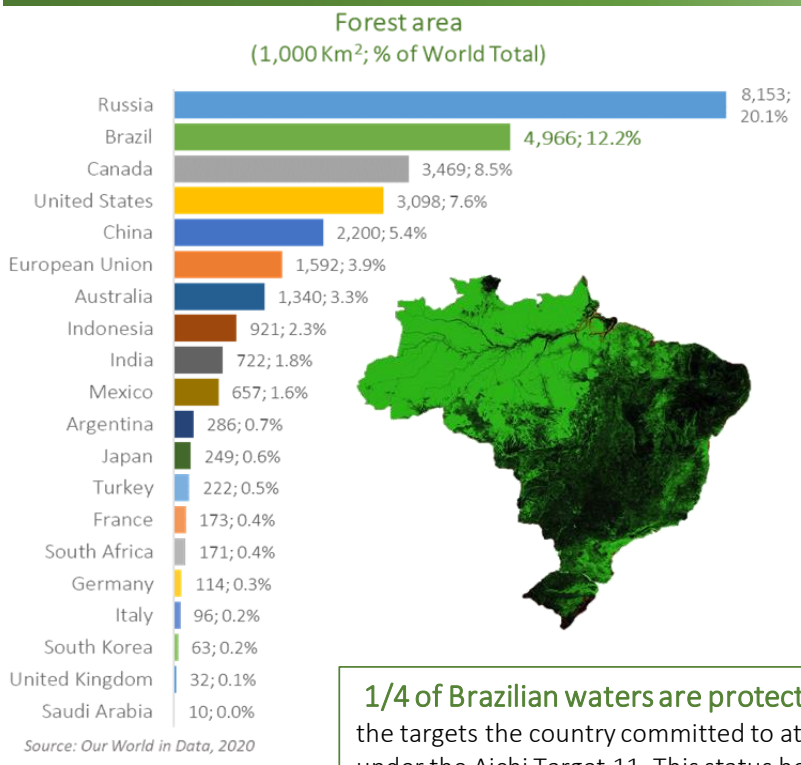
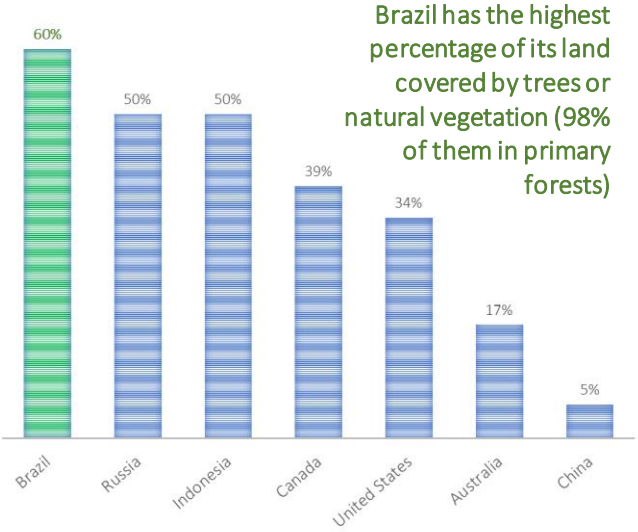
BRAZIL'S GREEN MONITOR

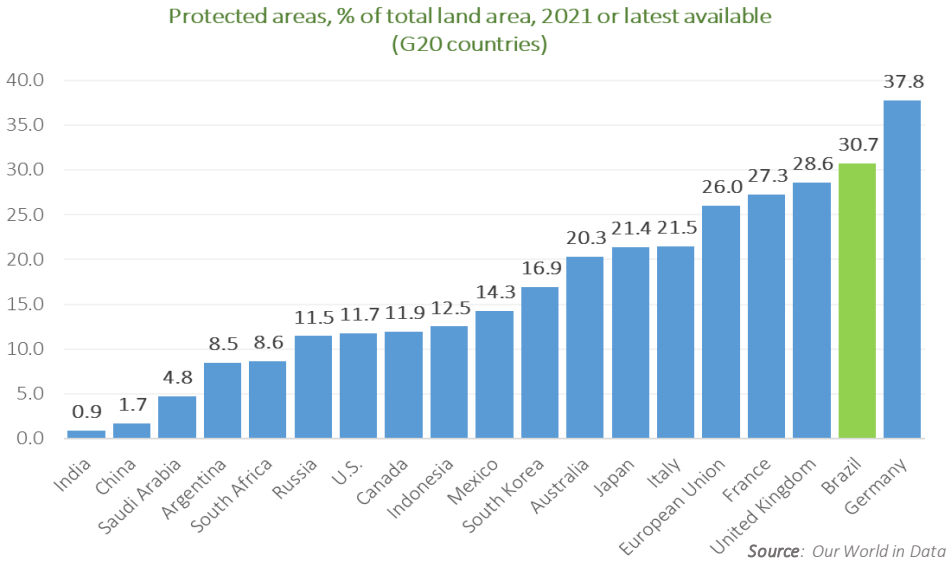
A GREEN GIANT





1/4 of Brazilian waters are protected, far exceeding the targets the country committed to at the United Nations, under the Aichi Target 11. This status helps the country to safeguard its rich biodiversity.

1/3 of Brazil`s Terrestrial area is protected by law. These areas integrate the SNUC (National System of Nature Conservation Units) or belong to one of the 724 Indiginous Territories. The protected area in Brazil is larger than the territory of France, Spain, Portugal, Italy, Germany, Switzerland, Belgium, Netherlands, Poland, UK and Ireland together.



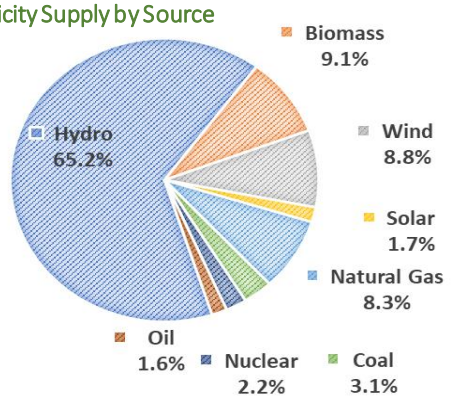
Biodiversity

Brazil is the most biologically diverse country in the world. It is classified at the top among the world's 17 megadiverse countries, and second only to Indonesia in terms of species endemism. It contains two biodiversity hotspots (the Atlantic Forest and the Cerrado), six terrestrial biomes and three large marine ecosystems. At least 103,870 animal species and 43,020 plant species are currently known, comprising 70% of the world's catalogued animal and plant species. It is estimated that Brazil hosts between 15-20% of the world's biological diversity, with the greatest number of endemic species on a global scale. Brazil's biodiversity is ever-expanding, with an average of 700 new animal species discovered each year.

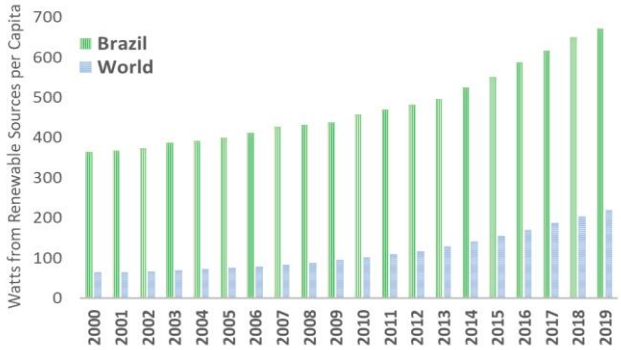
(*Source: Convention on Biological Diversity*)

A CLEAN ENERGY MATRIX

Total Electricity Supply by Source



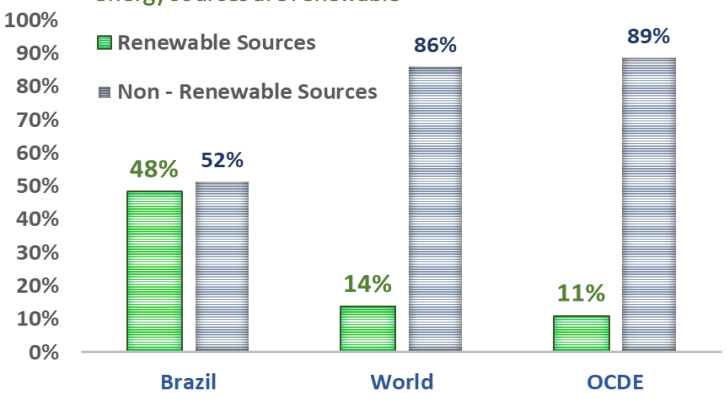
Source: EPE, Brazilian Energy Balance 2021



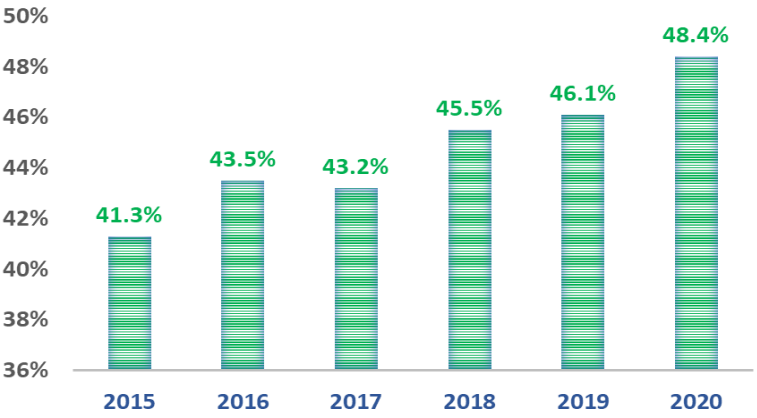
Note: SDG Indicator 7.b.
Source: UN. SDG Global Database

In average, Brazil's electrical supply from renewable sources per habitant is **3 times higher** than other countries' supply.

Brazil's Energy Supply: Almost half of our energy sources are renewable



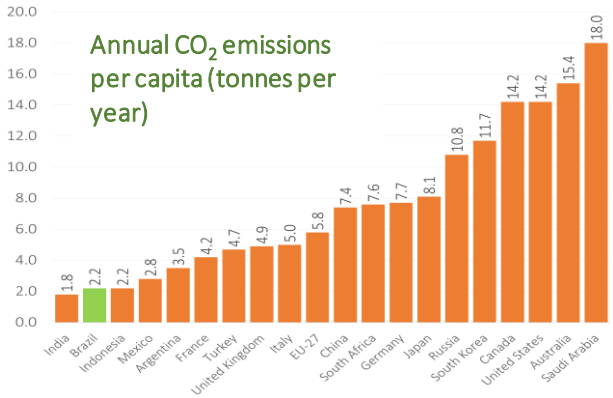
Source: EPE, Brazilian Energy Balance 2021; IEA, World Energy Balances 2020



Source: EPE, Brazilian Energy Balance 2021

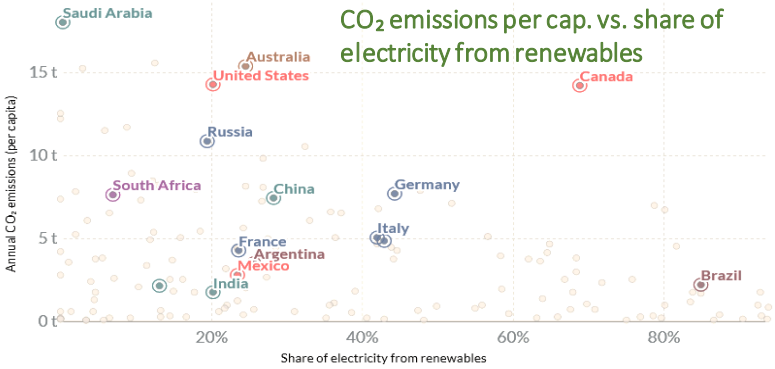
LOW CO_2e EMISSIONS

Annual CO_2 emissions per capita (tonnes per year)



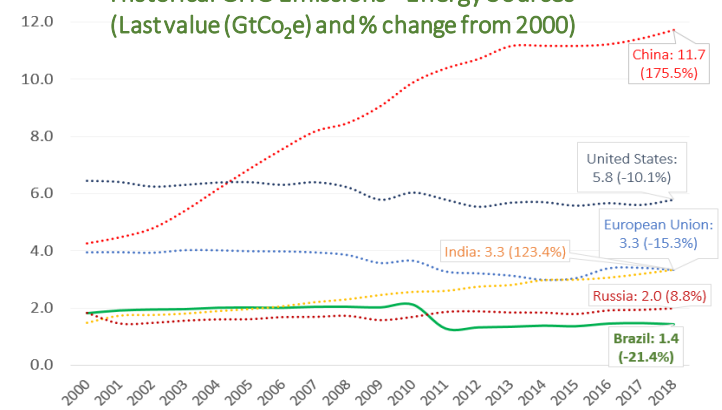
Source: Our World in Data

CO_2 emissions per cap. vs. share of electricity from renewables



Source: Our World in Data based on the Global Carbon Project, BP Statistical Review of World Energy and Ember (2021)

Historical GHG Emissions - Energy Sources (Last value ($GtCo_2e$) and % change from 2000)



Source: Climate Watch Data

Brazil's GHG emission per capita is very low in comparison with the emissions from world's main economies.

CO2 emissions result from activities mainly related to the energy use of fossil fuels and changes in land use and land cover. In Brazil, as of 2003, there was a significant reduction in emissions from the LULUCF (Land Use, Land-Use Change and Forestry), mainly related to the reduction in deforestation.

MAIN ENVIRONMENTAL LAWS

Law 6.938/1981	Law of the National Environmental Policy, establishing the National System of Nature Conservation Units.
Law 9.985/2000	Establishes the National System of Nature Conservation Units.
Law 6.766/1979	The Urban Land Subdivision Law establishes rules for urban demarcations, prohibited in ecological preservation areas, in those where pollution represents a danger to health and in swampy lands.
Law 9.605/1998	The Environmental Crimes Law has as its main objective the repair of environmental damage, including actions to prevent and combat this damage. The law provides for the application of the penalty and the types of environmental crimes.
Law 12.365/2010	The National Solid Waste Policy (PNRS) Law establishes instruments and guidelines for the public sectors and companies to deal with waste. Through the PNRS, organizations are required to be transparent with the management of their waste. The PNRS is a milestone to prevent environmental damage caused by incorrect waste disposal.
Law 9.433/1997	The Water Resources Law sets up the National Water Resources Policy and creates the National Water Resources System. The law defines water as a scarce natural resource, endowed with economic value, which can have multiple uses – human consumption, energy production, transport and sewage disposal.
Law 7.802/1989	The Pesticides Law regulates all stages of production and trade, packaging, storage, marketing, commercial advertising, waste destination, transport, technological and toxicological control of pesticides.
Law 12.651/2012	The New Brazilian Forest Code provides for the protection of native vegetation, Permanent Preservation areas and Legal Reserve areas; forestry exploitation, the supply of forestry raw material, control of the origin of forest products and the control and prevention of forest fires, and stipulates economic and financial instruments for achieving sustainable development.
Law 11.445/2007	The National Basic Sanitation Policy establishes guidelines for water supply; collection, treatment and final disposal of sewage and rainwater drainage. It also covers the collection, treatment and disposal of solid waste and industrial liquid effluents.
Law 14.119/2021	Establishes the general guidelines for payments for environmental services, and creates the Federal Payment Program for Environmental Services (PFPSA).
Sanitation Regulatory Framework	Taking care of basic sanitation is working to clean up rivers, protect biodiversity, ecosystem balance, reduce infant mortality and improve health for all Brazilians. The legal framework has as a goal the universalization of sanitation, providing for the collection of sewage for 90% of the population and the supply of drinking water for 99% of the population by 2033. Investments of more than R$ 700 billion and the creation of 700 thousand jobs in the country are expected in the coming years.

BRAZIL HAS A LOT TO GAIN FROM THE GREEN ECONOMY

- More than 2 million new jobs created by 2030
- Additional (accumulated) GDP of BRL 2.8 trillion by 2030
- Restoration of 12 million hectares of degraded pastures
- BRL 19 billion in additional agricultural productivity by 2030
- BRL 742 million in additional tax revenues
- Brazil has a reserve of 50 million hectares of reforestable land

GUIDELINES FOR CLIMATE NEUTRALITY

- Brazilian efforts towards climate neutrality are in accordance with the basic principles of the UNFCCC (United Nations Framework Convention on Climate Change).
- The operational strategy to achieve climate neutrality is based on several actions, constantly updated.
- Actions are within the areas of

→ Climate Change Mitigation Market Mechanisms
→ Adaptation to climate change
→ Measurement, Reporting and Verification (MRV)

→ Strengthening of Multilateralism and National Sovereignty
→ Environmental Integrity
→ International Technical Cooperation.

→ Sanitation
→ Infrastructure
→ Digital government
→ Financing
→ National Green Growth Plan

United Nations Framework Convention on Climate Change

MAIN POLICIES ADOPTED BY THE COUNTRY

SECTOR	MAIN POLICIES
Land Use	• Forest Code • National Plan for the Control of Illegal Deforestation and Vegetation Recovery Native 2020 – 2023 • Action Plan for the Prevention and Control of Deforestation in the Legal Amazon (PPCDAm) • Amazon Plan 2021/2022 • Action Plan for the Prevention and Control of Deforestation and Forest Fires in the Cerrado Biome (PPCerrado) • National Policy for the Recovery of Native Vegetation - Proveg
Agriculture	• Sector Plan for Adaptation to Climate Change and Low Carbon Emissions in Agriculture, with a view to Sustainable Development (2020 – 2030) – ABC+
Energy	• Ten-Year Energy Expansion Plan 2030 - PDE 2030 • National Policy for Biofuels (RenovaBio)
Industry	• Sector Plan to Reduce Emissions from the Steel Industry
Adaptation	• National Plan for Adaptation to Climate Change (PNA) • National Civil Defense and Protection Plan • National Water Resources Plan

TARGETS TO REDUCE GREENHOUSE GAS EMISSIONS

The goal for 2025 remained the same as the Nationally Determined Contribution originally presented in 2015, that is, to reduce the emission of greenhouse gases in Brazil by 37% compared to the year 2005.

Another goal is to reduce our greenhouse gas emissions by 50% by 2030 compared to that same base year.

The country aims at completely eliminating ilegal deforestation until 2028 and at becoming carbon neutral until 2050.

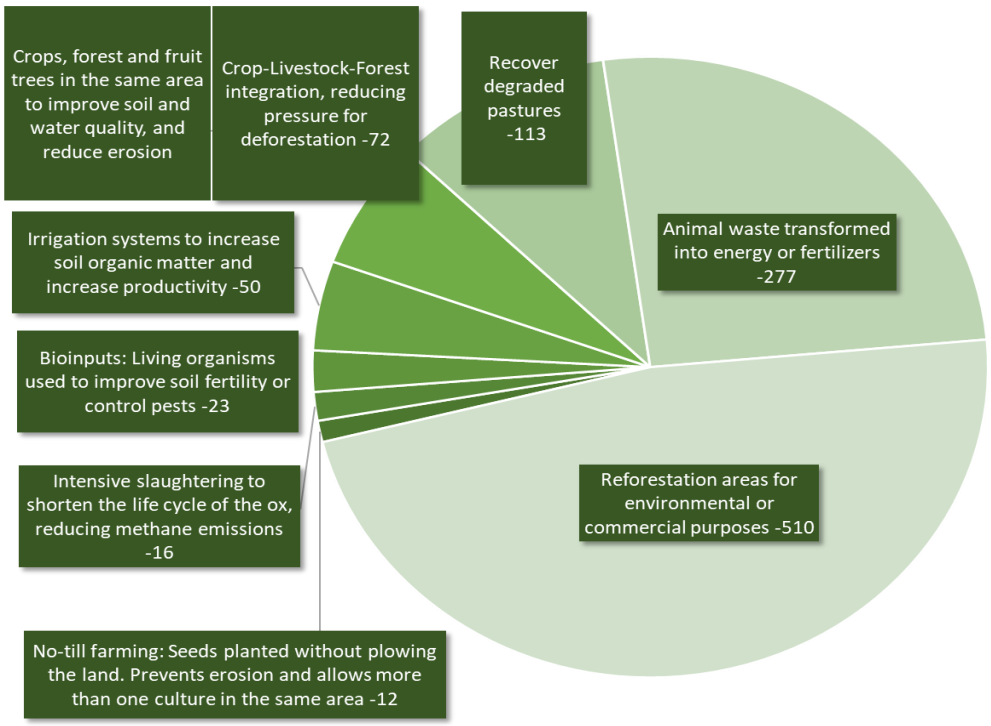
SOME GOVERNMENT ACTIONS

Green Growth Program

A federal government initiative aiming at carbon neutrality by 2050, generating employment and income, respecting Brazilian regional differences.

- Rural Product Certificate for environmental assets (CPR Verde). Allow the financing of environmental areas belonging to rural producers.
- ABC: Reduced interest rates to rural producers that contribute to the reduction of emission of greenhouse gases.
- Green Bonds: tax benefits for corporate financing of infrastructure projects with environmental and social benefits, aiming at developing the green bond market.
- Sustainable Brazilian Finances – FiBraS: support for the development of policies and instruments for attracting investments for green and sustainable initiatives.
- Structuring forest and national park concessions.

ABC+ Plan: Actions and Potencial of GHG reduction



ABC+ Plan

- Adaptation to Climate Change and Low Carbon Emissions in Agriculture
- The agricultural sector must adopt sustainable production technologies by 2030
- Carbon emission reduction is expected to reach 1.1 billion tons.
- Actions involve million-acrescre, 208 million m^3 of waste, and 5 million animals.

National Zero Methane Program

A Federal Government initiative to promote the reduction of methane emissions, based on cooperation for financing, incentives, exemptions, training, development, transfer and dissemination of technologies and processes.

Waste or organic products are used as sources of biogas and biomethane.

Emphasis is given to urban and agricultural solid waste, coming, for example, from sanitary landfills, sugarcane production, swine farming, poultry farming and the dairy industry, among others.

Forests+ Program

Paying for environmental services is an efficient way to generate employment and income in regions with a significant potential for forest conservation. The Forests+ Program aims to promote the market for payments for environmental services. Now, native forest conservation is formalized as an economic activity.

With resources of around R$500 million donated by the Green Climate Fund, the project is currently being implemented.

SUSTAINABLE FINANCE

• Sustainable finance is a fundamental instrument for building the Green Economy, especially in the current scenario of budgetary constraints.

• It is estimated that between US$5 and US$7 trillion will be needed annually by 2030 for the world to reach the goals stipulated in the Sustainable Development Goals (SDGs) and in the Paris Climate Agreement.

• The global sustainable finance market, in 2021, reached an accumulated value of USD 4.0 trillion. Latin America represented less than 1% of this amount.

National Solid Waste Policy

• Brazil has a modern regulatory framework, such as the National Solid Waste Policy (PNRS), and has been intensifying the use of market mechanisms in its environmental policy.

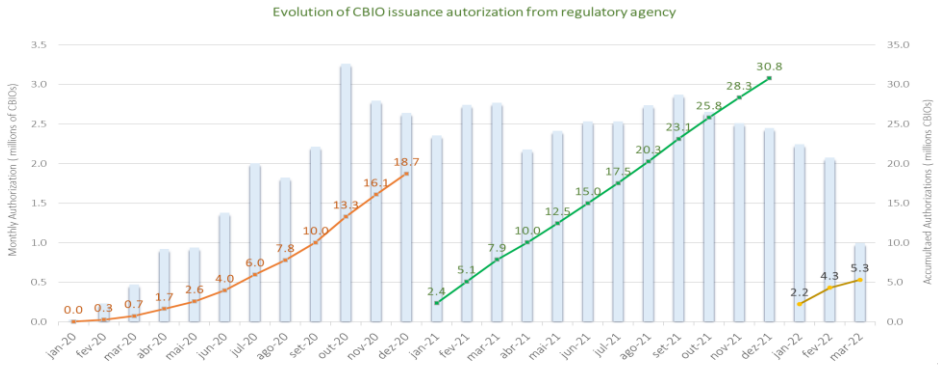
• There is great untapped potential for sustainable investments. In the solid waste sector, Brazil produces 67 million tons of solid waste annually, with a recycling rate varying between 3% and 5%. The estimated waste due to non-recycling is R$ 3 billion per year.

• Brfazil introduced the Recycling Credit Certificate (CCR - Recicla+). Credits issued through electronic invoices issued by recyclers, approved by competent authorities, and sold to companies that need to prove compliance with reverse logistics goals.

Brazil set annual decarbonization targets for its fuel sector to increase the bioenergy share in the Brazilian energy matrix to approximately 18% by 2030.

The Decarbonization Credit (CBIO) will be issued by biofuels producers and importers duly certified by the National Petroleum Agency (ANP), based on their purchase and sale invoices. In contrast, fossil fuel distributors will have annual decarbonization targets calculated by the ANP based on the ratio of fossil fuels they sell. Purchasing CBIOs is the only way to reach these targets.

Each CBIO will be equivalent to 1 ton of CO_2 avoided. It won't expire and can only be withdrawn from circulation when its retirement is requested. Each year, fuel distributors should request the retirement of CBIOs held by them in an amount equivalent to the decarbonization targets set for them.



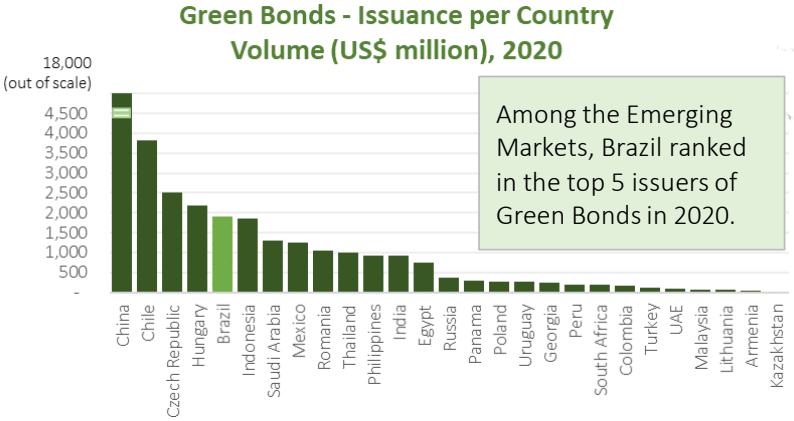
Total Authorization of CBIO Issuance since 2020

54,797,010

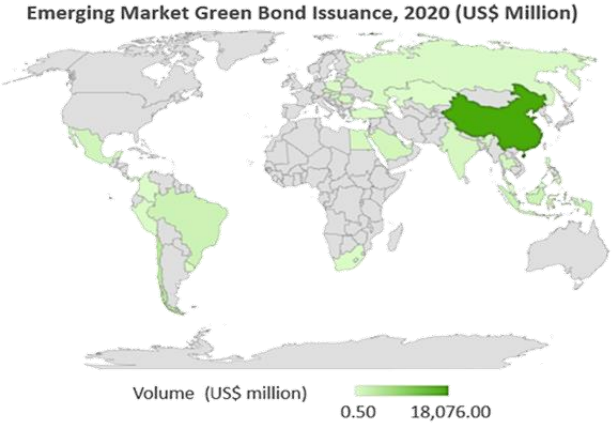
(Volume of avoided tCO2e emissions)

Source: ANP. RenovaBio Dynamic Panel

GREEN BONDS



Among the Emerging Markets, Brazil ranked in the top 5 issuers of Green Bonds in 2020.



Source: IFC/WB & Amundi (2021). Emerging Market Green Bonds Report 2020.

ALIGNMENT WITH OECD CORE ACQUIS ON THE ENVIRONMENT

The OECD issued a report to evaluate the alignment of Brazil's environmental legislation, policies, and practices with selected 23 OECD legal instruments on the environment. It also assesses the country's progress in implementing the related 13 recommendations of the 2015 OECD Environmental Performance Review of Brazil.

The main messages from the report are as follows:

- In many policy areas, legislation and regulations match, and sometimes go beyond, the provisions of the OECD recommendations on environmental issues.
- Extensive environmental legislation and an active civil society puts Brazil in a good position to achieve an acceptable degree of alignment.
- Brazil has developed sound legislation on environmental information, water and waste management, biodiversity conservation and sustainable use, indicating that Brazil's legislation on public access to environmental information is in line with good international practices.
- The country is on the right track to implement a water management framework aligned with the OECD legal instrument on water, and has considerably strengthened its governance structure for water resource management. In addition, the country has developed extended producer responsibility programs in solid waste management and closed many uncontrolled waste dumps.
- Brazil has shown its ability to effectively contain ecosystem loss and control deforestation.

ALIGNMENT WITH OECD PRINCIPLES

Total Alignment	Partial Alignment	Missing Alignment
• Water • Biodiversity conservation and sustainable usage • Waste	• The polluter-pays principle • Environmetal assesment • Integrated pollution prevention and control • Environmental performance of government • Use of Economics instruments • Energy and air pollution • Transport	• Environmental information and transparency