

Ten Years After Paris: Transition Outlook

BRAZIL

Emissions trajectory since Paris Agreement

Emissions rose from 1.5 GtCO₂e (2015–18) to >2.0 GtCO₂e (2019–22) due to deforestation, then declined again to 1.7 GtCO₂e in 2025 following renewed enforcement.

Progress

Land use: Major sectoral driver of GHG mitigation dynamics

Evolution in deforestation policies explain variations in the country's total GHG emissions. Most recently (2022–2025), **emissions have declined to 1.7 GtCO₂e**, thanks renewed forest protection efforts. Current emission levels are 0.4 GtCO₂e above 2025 NDC target (1.32 GtCO₂e), which represents a 33% reduction vs. 2005 levels (against a 48% reduction target).

Renewed mitigation momentum following reinstatement of tight forest management

Since 2023, Brazil has implemented a **mix of command-and-control measures and economic instruments, resulting in a 40% reduction of annual Amazon deforestation** and reversing previous trends. These gains have delivered rapid emissions reductions, underscoring the central role of land-use governance in Brazil's climate trajectory.

A low-carbon energy system already largely in place

Brazil's **emissions profile differs sharply from most big economies**: AFOLU accounts for almost 70% of emissions, while energy represents only 20.5%. Due to diversification policies rolled out during the 70's, renewables represent 88% of power generation and account for 50% of energy mix.

Enablers

Energy led sectoral progress during the Paris Agreement decade thanks to renewables and biofuels

Sharp cost decreases in solar PV and wind have boosted the share of both sources in the energy mix to 75% of current annual growth in power generation. At the forefront of **clean fuel development, production and use of biofuels** has nearly tripled in the last decade. New regulations increased the share of biofuels in fossil oil blends.

Policy packages are linking climate & development objectives

Comprehensive policies aligning economic and industry diversification objectives are enabling deployment of clean energy, including dedicated tenders for grid-connected batteries and power purchasing security for rooftop PV cells. Government-backed investments have ensured domestic manufacturing of clean energy equipment and infrastructure.

Anchoring climate action in long-term development planning

New policy packages articulate a long-term vision linking climate action to productivity, industrial policy and infrastructure. Key initiatives include the **Ecological Transformation Plan** and sectoral mitigation plans under the 2024 NDC. The Brazilian LT-LEDS under preparation will consolidate an holistic long-term approach.

Financial tools key for climate-compatible economic activities

During the current presidential term, Brazil created **new financial tools to mobilize long-term public and private investment**. Initiatives aiming to promote green investment and lower capital costs for climate-friendly projects include the Brazilian Investment Platform (to attract FDI), and developing a green taxonomy.

Main Transformations Needed in Key Sectors



Land use and agriculture

Sustained **elimination of illegal deforestation**, large-scale forest restoration, and productivity gains in cattle ranching to reduce both CO₂ and methane emissions, while increasing carbon sinks.



Electricity and energy systems

Grid reinforcement, storage deployment, and regulatory reform to fully integrate rising wind and solar capacity, avoiding curtailment and minimizing new fossil lock-in.



A new low-carbon economy as a pathway towards reindustrialization

As outlined in the latest national industrial policy (Nova Industria Brasil), scaling of low-carbon industry through increased production and use of biofuels, green hydrogen and sustainable aviation fuels will be pursued. **Development of clean manufacturing industries and deployment of a new economy** must build on Brazil's renewable energy advantage.

Barriers

Persistent deforestation due to uneven enforcement and slow progress in methane curbing are undermining net-zero trajectories

Illegal occupation of public land, weak enforcement and slow policy implementation continue to hamper the increase of carbon sinks by forestry, a key feature of mitigation efforts. Large areas of degraded land remain vulnerable to further deforestation. Emissions reductions depend on voluntary measures and fragmented supply-chain initiatives, with limited coverage of indirect emissions from land-use change. Methane emissions from livestock remain largely unaddressed by federal policy.

Infrastructure and regulatory constraints in the power system

Rapid growth in wind and solar has exposed grid limitations. In 2024, 18 TWh of wind and solar generation (roughly 11% of potential output) was curtailed due to insufficient storage, transmission constraints, and regulatory delays.

Competing interests around fossil fuel production

Potential short-term benefits from offshore fossil fuel production are ramping up political pressure for the building of cost-inefficient energy infrastructure, with consequential high risks of lock-in and derailing transition to a green economy.

Cross-governmental coordination is a challenge

Main hurdles point to **intra-governmental coordination**, as governance of the transition is split across different ministries. Key areas requiring tighter coordination include pluriannual planning, MRV guidelines and robust stakeholder engagement processes to ensure sound science-policy integration.