

# Brazil's Nationally Determined Contributions



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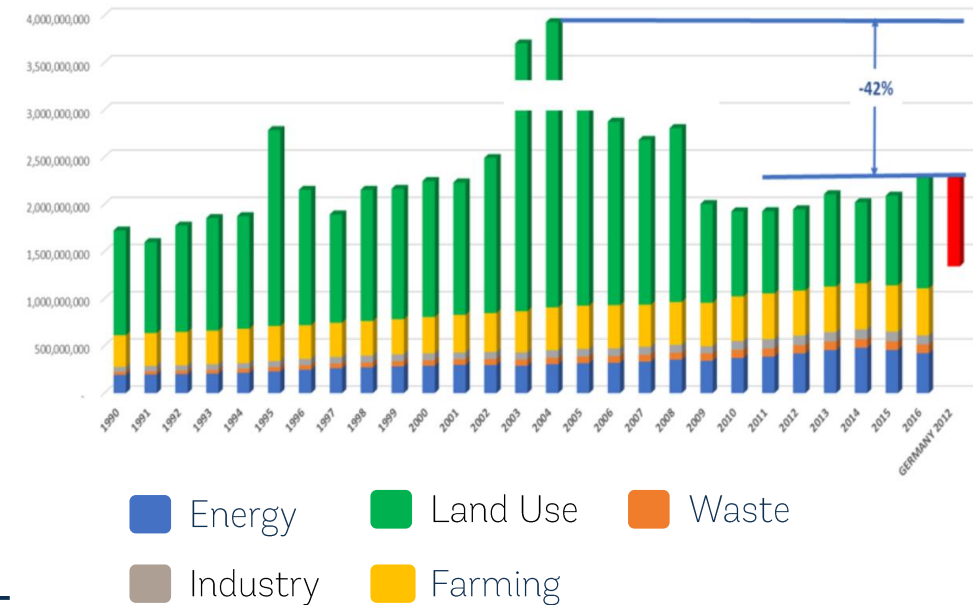
September 6, 2018

# I. Key Sectoral Challenges

## Paris Agreement: Brazil NDCs pledges and targets

- Brazil is one of few large developing nation that has pledged an absolute reduction in greenhouse gas (GHG) emissions:
  - By 2025: 1.3GtCO<sub>2</sub> (37% reduction compared to 2005)
  - By 2030; 1.2GtCO<sub>2</sub> (43% reduction compared to 2005)
  - Despite projected economic and populational growth!
- **Critical sectors**
  - Agriculture, land-use change and forestry
  - Emissions from energy (incl. transport), industry, agriculture and waste
- **Good progress in forestry emission mitigation since 2005**
  - **WARNING:** stabilization and increase in recent years
  - Budget cuts raise concerns about monitoring and enforcement
- **Emissions in most sectors are expected to rise until 2030**
  - Hydropower is being replaced by fossil fuel energy sources
  - Economic recession masks lack of efficiency in energy use

Figure 1: Brazil GHG Emissions, 1990-2016

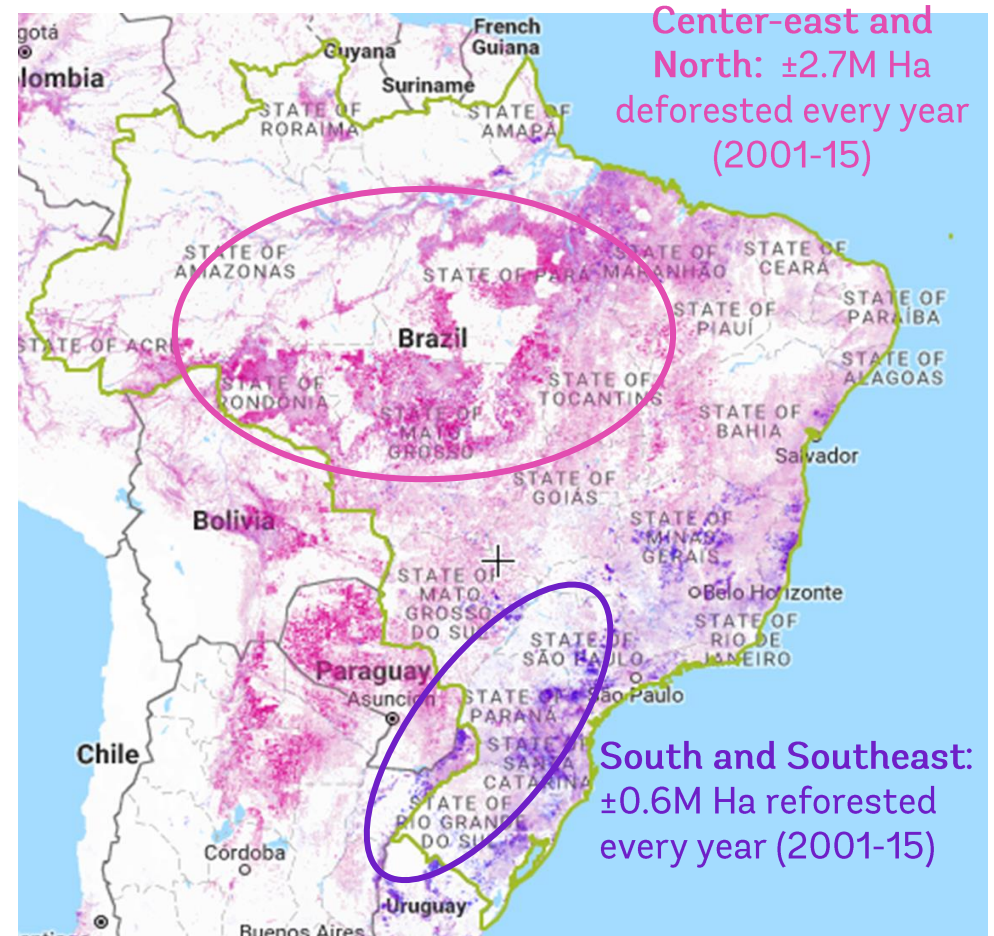


# I. Key Sectoral Challenges

## Much progress, but still many challenges ahead...

- **Deforestation:** can Brazil keep recent gains and achieve the “zero net deforestation” target and restore 12M Ha of deforested land by 2030?
- **Agriculture:** how to reconcile the objectives of growth in the agriculture sector with low-carbon agriculture, pasture restoration and zero deforestation?

Figure 2: Reforestation and Deforestation, 2001-2015

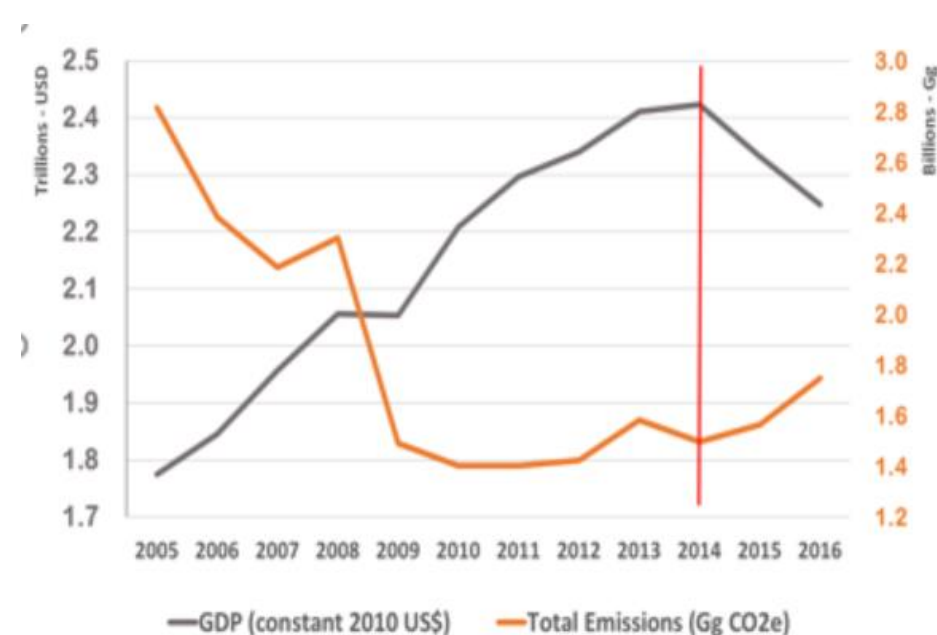


# I. Key Sectoral Challenges

## Much progress, but still many challenges ahead...

- **Unique success:** Brazil decoupled GDP growth from GHG emissions, but can it be maintained?
- **Energy:** Given the challenges of hydropower expansion, how to maintain or increase the share of renewable in the power mix? What about impact of biofuels on land use and emission changes?
- **Transport:** What policies are needed to promote more efficient modal mix with lower emissions in Brazil?
  - Regional level: road transport vs rail and waterways
  - Urban: private vehicles vs public transport, walking and biking
- **Carbon pricing:** What instrument(s) would be most appropriate (taxes, cap-and-trade, credits) and what is the impact?

Figure 3: GDP and Total CO2 Emissions



## II. Policy Recommendations

### Agriculture, land use change and forestry

- **Improve agriculture and livestock productivity to reduce deforestation**
  - Cattle ranching has great potential for further intensification
  - It could offer opportunity for soy expansion on existing pastures
- **Investment and incentives for low-carbon agriculture, such as:**
  - no-till agriculture, restoration of degraded pasture, integration of crops, livestock and forest, planting of commercial forests, biological nitrogen fixation and treatment of animal wastes.
- **Better integration between rural credit and forest code**
  - From production credit subsidies to performance based payments
  - Provide access to credit based on compliance with forest code
  - Integrate climate finance to subsidize low-carbon agriculture practices
  - Increase credit limits and amortization schedule for ABC
- **Strengthen monitoring and enforcement capacity of federal and state level agencies**
  - Cadastro Ambiental Rural (CAR) and Environment Regularization
  - Explore developing transparent pricing and trading mechanisms

## II. Policy Recommendations

### Mitigation options in the energy sector

- **Complement supply-side investments in renewables with more incentives for demand-driven investments in energy efficiency**
  - Stronger pricing signals (taxes, subsidies, etc) to improve efficiency
  - Leverage private investments to increase funding
- **Support public sector in energy audits and provide access to financing for energy efficiency investments**
  - Public buildings, vehicles, utilities and public lighting, etc. (e.g. FINBRAZEEC)
  - Potentially great savings in energy costs (fiscal benefits!)
- **Support improvements in industrial energy efficiency**
  - Remove energy subsidies, internalize environmental costs, provide targeted incentives and ensure ready access to financing
- **Implement policies that increase the overall energy efficiency of regional and urban transport**
  - Promote shifts of passengers and freight to more efficient modes (waterways, railway, etc).
  - Planning of TOD zones: compact, walkable and accessible communities
  - Incentives for clean technologies: standards, subsidies, performance contracts





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