

Barriers and Policy Instrument Proposals in Brazil

William Wills, D.Sc.
CentroClima/COPPE/UFRJ

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- ❑ Literature review;
- ❑ Review of previous national mitigation studies and low-carbon scenario exercises;
- ❑ Identification of the most relevant mitigation actions in each sector;
- ❑ Identification and selection of the key barriers affecting the performance of the most relevant mitigation actions;
- ❑ Mapping of stakeholders and undertaking of the expert consultation process (through telephone, email, virtual meetings, semi-structured and structured interview scripts);
- ❑ Collection and processing of responses to the consultation process;
- ❑ Selection of Barriers to be addressed and Policy Proposals to overcome them.

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Mitigation Actions	Policy Instrument Proposals
Reduction of the annual deforestation rate	<ul style="list-style-type: none">- Adoption of cattle monitoring systems to ensure compliance with environmental regulations.- Proposition of new productive arrangements to encourage the traceability of the production chain.- Vertical integration of chains (producers, slaughterhouses and retailers).
Recovery of Native Forest and Increased Forest Plantation Area	<ul style="list-style-type: none">- Fully implementation of the Forest Code (Law 12,651/2012)- Implementation of the Environmental Regularization Program – PRA (Law 12,651/2012 and decree 7,830/2012)- Adoption of proposals concerning Forest Restoration elaborated by Coalition Task Force (Coalition, 2021)- Public Forest Management Law
Adoption of Sustainable Agricultural Practices	<ul style="list-style-type: none">- ABC PLAN (2021-2030) - Establishes the Integrated Information System and the ABC Plan Monitoring Technical Committee.- Granting of funds from the Safra Plan conditioned to sustainable practices.- National Policy on Payments for Environmental Services (Law 14,119/2021)

Transport

Mitigation Actions	Barriers Identified	Policy Instrument Proposals
Vehicle fleet electrification	<ul style="list-style-type: none">- Lack of specific credit lines- High acquisition cost- Acceptance of new technologies in the market- Lack of local suppliers and manufacturers	<ul style="list-style-type: none">- Adoption of Bonus/Malus systems- Financial incentives for new business models and charging infrastructure- Investments in research and development focused on electric mobility
Urban public transport improvements	<ul style="list-style-type: none">- Prioritization of individual motorized transport- Lack of specific credit lines- Concession models are poorly designed and adapted to new technologies	<ul style="list-style-type: none">- Investments in public transport infrastructure and priority measures- Access to financial instruments for green investments, such as green bonds and structured green funds- Development of new concession models- Revision of tariff modalities and current contracts
Electrification of transport networks	<ul style="list-style-type: none">- High presence of inactive or underutilized railways	<ul style="list-style-type: none">- Investments and financing of research and development- Recovery and electrification of underused and inactive railways

Industry

Mitigation Actions	Barriers Identified	Policy Instrument Proposals
Energy efficiency and other process improvements	<ul style="list-style-type: none">- Credit access and cost- High investment risk- Competition with internal investments- High investment costs	<ul style="list-style-type: none">- Credit line for energy efficiency- De-bureaucratization of access to credit for low-carbon measures- Create an Industrial Energy Efficiency Seal- Low Carbon technologies consolidation and dissemination- Conduct training activities and awareness campaigns on the adoption of low-carbon key technologies
Fuel shift from fossil fuels to renewable energy or alternative fuels	<ul style="list-style-type: none">- Regulations on the use of waste/cogeneration- Lack of guarantee of raw material supply	<ul style="list-style-type: none">- Create a regulation to encourage the use of residues as an energy source- Regulatory improvements fostering recycling- Create stamps of origin for firewood from energy forests
Replacement of high GWP industrial gases	<ul style="list-style-type: none">- Absence of regulation encouraging new products	<ul style="list-style-type: none">- Standards establishment

Energy

Mitigation Actions	Barriers Identified	Policy Instrument Proposals
Increase renewable power generation (Increase supply of hydropower and bioelectricity)	<ul style="list-style-type: none">- Lack of regulation that encourages repowering of hydroelectric plants (need for new supply guarantee criteria with the increase in hydropower plants capacity, etc.)- Uncertainties regarding the collection of prosumers tariff	<ul style="list-style-type: none">- Create regulations that encourage measures for the repowering of hydroelectric plants over 20 years old and the use of “empty wells”;- Create a law that balances tariffs, without discouraging the increase in distributed generation;
Reduce emissions of Gas flaring in Oil and Gas E&P	<ul style="list-style-type: none">- The regulation does not focus on reducing emissions, but on operational safety, especially due to technical-economic feasibility issues- Lack of information on gas emissions	<ul style="list-style-type: none">- Elaboration of technical cooperation agreements to study concrete emission mitigation possibilities;- Create regulations to standardize GHG emission inventories, monitoring instruments, and offsetting fugitive emissions. The regulation should also require the publication of the data;
Increased Efficiency in Energy sector consumption	<ul style="list-style-type: none">- Lack of inspection and verification systems related to energy retrofiting of existing buildings	<ul style="list-style-type: none">- Improve regulations with gradual enforcement on energy efficiency to the public sector;- Create periodic programs of mandatory energy audits as a prerequisite for credit release, with monitoring of annual energy performance and energy labelling of buildings;

Waste

Mitigation Actions	Barriers Identified	Policy Instrument Proposals
Elimination of inappropriate disposition	<ul style="list-style-type: none">- Non-compliance with legislation, postponement of deadlines and guidelines	<ul style="list-style-type: none">- Effective implementation of Public Policies in the sector;- Promotion of resources: financing lines and private sector participation; Formation of consortia- Education and awareness campaigns
Energy use of waste	<ul style="list-style-type: none">- Access to credit and transaction costs	<ul style="list-style-type: none">- Articulation and elaboration of financing mechanisms through the federal, state and municipal governments- Economic incentives for projects that seek the recovery of waste - granting tax exemptions and incentives
Biomethane dissemination in industries	<ul style="list-style-type: none">- Absence of specific policies	<ul style="list-style-type: none">- Investment in pipeline networks for transporting biomethane- Creation of a “National Biogas and Biomethane Program” and specific policies

Finance

Mitigation Actions	Barriers Identified	Policy Instrument Proposals
<p>Eliminate Fossil Fuel Subsidies</p>	<ul style="list-style-type: none"> - Opacity of tax expenditures. - Lack of transparency about the methodologies used to measure subsidies by the Brazilian Federal Revenue (RFB). - All exemptions related to the Repetro, Repex, Reidi and Reporto regimes, likewise, as well as the regional tax exemptions, lack greater transparency in the details of sectors and sub-sectors benefited and values. 	<p>Approval of the legislative proposal that puts an end to the fiscal secrecy of the beneficiaries of Tax Expenses in Brazil, which would allow to identify the beneficiaries linked to the Oil & Gas sector.</p>
<p>Improve Financial Policies and Regulations</p>	<ul style="list-style-type: none"> - Deficiencies in legal and judicial system - Subsidized credit 	<p>In developing countries, fostering these structural conditions is even more relevant as these countries tend to have weaker legal, macroeconomic and political systems and less developed capital markets. This is particularly relevant for Brazilian policy-makers. Most barriers mentioned here are beyond the scope of this project but are worth mentioning.</p>
<p>Improve/establish Climate Finance Instruments</p>	<ul style="list-style-type: none"> - Lack of economic instrument to stimulate low carbon investments in the productive sector - Carbon Pricing - Incipient green bonds market 	<ul style="list-style-type: none"> - Carbon pricing - Improve structural conditions that foster the development of a bond market - The creation of a Smart Financial Mechanism that operates at the early stages of investment, reducing risks and capital costs.

Conclusions



- ❑ Barriers vary from country to country, between sectors within countries and according to the source of financing: public or private, national or international.
- ❑ The most fundamental barriers are inherited from the historical process leading to the insertion of Brazil in the global economy as a peripheral country. They are usually known as the “political risks” of the country (political instability; macroeconomic conditions; currency risk (exchange rate fluctuations); inflation risk; public debt; external debt; fluctuation of interest rates; legal insecurity; among others).
- ❑ In developing countries, fostering these structural conditions is crucial to accelerate climate finance and meet Paris Agreement goals.
- ❑ In addition, it is necessary to improve transparency and to reform fossil fuel subsidies, to improve climate legislation, to create smart finance mechanisms and to establish a carbon pricing mechanism in Brazil.

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