Infrastructure as a Driver for Climate Mitigation and Adaptation

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The growing urgency of climate challenges in Brazil—evidenced by a 250% increase in climate disasters over the past four years compared to the 1990s—demands robust mitigation and adaptation strategies from the infrastructure sector, which is responsible for 79% of the world's GHG emissions and 88% of adaptation costs.[1]

Legal frameworks have an important part to play in climate mitigation and adaptation. In Brazil, government agencies and private investors have identified some essential features: (i) the proper allocation of climate risks during the legal structuring of infrastructure projects; (ii) establishing sector-specific regulations; and (iii) efficient management of infrastructure and public service concession contracts, especially when it comes to economic and financial adjustments triggered by climate risks.

Government, contractual, and regulatory incentives also have an important contribution to make to climate mitigation and adaptation in infrastructure. Examples include converting concession fees into social or environmental investments, offering tariff discounts tied to decarbonization targets, and using sustainability indicators as tie-breakers in public tenders.

Recent infrastructure contracts in Brazil—such as the Presidente Dutra Highway and a number of highways in the state of Paraná—have already put these ideas into practice through the Carbon Zero Program. These agreements require annual carbon emission inventories and compensation obligations, demonstrating that such mechanisms are both viable and effective. Other sectors are following suit, exploring carbon pricing and integrating progressive decarbonization targets into their contracts.

Brazil's National Land Transport Agency (ANTT – *Agência Nacional de Transportes Terrestres*) has been testing a sector regulatory model that prioritizes incentives, paving the way for dynamic evolution in ESG practices and climate adaptation and mitigation measures throughout the lifecycle of infrastructure projects.

The transition to a decarbonized and resilient logistics infrastructure in Brazil hinges on strengthening legal and regulatory frameworks. By embedding sustainability, adaptation, and resilience into infrastructure contracts for public services, Brazil can not only reduce financial and operational risks, but also augment its capacity to withstand extreme climate events—and position itself competitively in the global carbon market.

NOTE

1.

https://content.unops.org/publications/Infrastructure-for-climate-action_EN.pdf?mtime=20211008124956&focal=none

https://exame.com/esg/desastres-climaticos-no-brasil-crescem-25-vezes-em-quatro-anos-aponta-estudo/

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