

# Green Finance in Brazil and Prospects for Sino-Brazilian Cooperation

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*[As tackling climate change and pursuing sustainable development becoming global consensus, green finance has gained rapid progress in many countries. International Institute of Green finance launches a series of opinion articles on global green finance development. It aims to introduce the green finance development among the world's major economies to Chinese stakeholders, summarize the experience and enlightenment, and explore the prospects for their cooperation with China in this field. This article is the fourth one in the series, introducing the current status of green finance development in Brazil and discussing the China-Brazil green finance cooperation prospects.]*

## 1. Background

The Federative Republic of Brazil is the largest country in South America both by population and by territory. It is the sixth largest nation and has an urbanization rate of 86%. Its major industries include iron and steel production, automobile assembly, petroleum processing, chemicals production, and cement making.<sup>1</sup> It is also the third largest food producer in the world. Agriculture accounts for 4% of Brazil's GDP and 9% of its employment. It also ranks third in the world in installed renewable energy capacity, after China and the US.<sup>2</sup> Renewables provide 45% of Brazil's own energy needs.<sup>3</sup> Over the last decade, Brazil's economy has been slowing down and is now heavily affected by the Covid-19 pandemic. Experts are recommending a sustainable infrastructure and agriculture-based recovery with the incorporation of green technologies.<sup>4</sup>

Brazil, while not a member of the BRI initiative, is China's key business partner in South America and a fellow participant in the BRICS grouping. China and Brazil have a strong relationship based on trade and investment, with China being Brazil's number one destination for foreign exports in

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<sup>1</sup> *Industry - Brazil - average, growth, annual, sector.* (n.d.). Nations Encyclopedia. Retrieved July 4, 2021, from <https://www.nationsencyclopedia.com/Americas/Brazil-INDUSTRY.html>

<sup>2</sup> Soutar, R. (2021, March 26). *Carbon market grows in Brazil ahead of expected regulation in Glasgow.* Dialogo Chino. <https://dialogochino.net/en/climate-energy/41641-carbon-market-grows-in-brazil-ahead-of-expected-regulation-in-glasgow/>

<sup>3</sup> *Brazil - Countries & Regions.* (2018). IEA. <https://www.iea.org/countries/brazil>

<sup>4</sup> Barbosa, P. H. B. (2021, March 31). *OPINION | China in Brazil's electricity sector: trends and opportunities.* Dialogo Chino. <https://dialogochino.net/en/climate-energy/china-in-brazils-electricity-sector-trends-and-opportunities/>

2019 and China's investments in Brazil making up more than half of its investments in South America.<sup>5</sup> China holds large investments in Brazil's energy sector, especially in hydroenergy where Brazil has a natural advantage, but also increasingly in wind and solar. An area where Chinese efforts to invest have not been productive is in transportation infrastructure such as roads and railways.<sup>6</sup> During the recent US-China trade war, Brazil was able to increase exports of agricultural products (especially soy) to China. The Sino-Brazilian High-Level Commission (Cosban) is a platform also established for the two countries to engage in policy coordination.<sup>7</sup> While internationally, Brazil and China have often seen each other as allies, domestically there is a divide in Brazilian attitudes towards a partnership with China. The agrobusiness industry looks at China favorably but the manufacturing industry feels a lack of reciprocity and equal access in trade relations with China.<sup>8</sup>

Brazil is one of the most biodiverse countries in the world, hosting between 15 and 20 percent of the world's biodiversity. It also has vast natural resource reserves, such as water, forests, petroleum, and minerals.<sup>9</sup> Brazil also holds around 12% of the world's freshwater. Due to the abundance of natural resources in Brazil, the country's economy is now highly dependent on the extraction of it. Brazilian rain forests have been exploited, often illegally, for decades. Due to a lack of environmental law enforcement, these actions have led to deforestation and causally related to wildfires in the Amazon and the Cerrado. Deforestation peaked in 2004 at around 27,000 km<sup>2</sup>, then decreased significantly in the following years<sup>10</sup>; an increase has, however, been noted again since 2012, due to a lack of enforcement of environmental regulation. The drivers of this renewed increase in deforestation include cattle grazing and soybean production.<sup>11</sup> Deforestation has an impact on rainfall and other weather patterns: Brazil's frequency of extreme climate-related weather events is the highest in Latin America and has increased significantly over the past decades.<sup>12</sup> The linkage of deforestation with the actions of criminal networks also has negative

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<sup>5</sup> Lee, S. Y., & Woo, R. (2019, October 25). *China says willing to increase agricultural, industrial goods imports from Brazil*. Reuters. <https://www.reuters.com/article/us-china-brazil-trade-idUSKBN1X41AG>

<sup>6</sup> Studart, R., & Myers, M. (2021). *Reimagining China-Brazil Relations Under the BRI: The Climate Imperative*. Council on Foreign Relations. [https://cdn.cfr.org/sites/default/files/pdf/studart-myers-cfr-cebri-paper\\_0.pdf](https://cdn.cfr.org/sites/default/files/pdf/studart-myers-cfr-cebri-paper_0.pdf)

<sup>7</sup> Barbosa, P. H. B. (2021, March 31). *OPINION | China in Brazil's electricity sector: trends and opportunities*. Dialogo Chino. <https://dialogochino.net/en/climate-energy/china-in-brazils-electricity-sector-trends-and-opportunities/>

<sup>8</sup> Trinkunas, H. (2020, July 20). *Testing the limits of China and Brazil's partnership*. Brookings. <https://www.brookings.edu/articles/testing-the-limits-of-china-and-brazils-partnership/>

<sup>9</sup> Bada, F. (2018). *What Are The Major Natural Resources Of Brazil?* WorldAtlas. <https://www.worldatlas.com/articles/what-are-the-major-natural-resources-of-brazil.html>

<sup>10</sup> Butler, R. A. (2020). *Climate Change and the Amazon Rainforest*. Mongabay. [https://rainforests.mongabay.com/amazon/deforestation\\_calculations.html](https://rainforests.mongabay.com/amazon/deforestation_calculations.html)

<sup>11</sup> Carvalho, W. D., Mustin, K., Hilário, R. R., Vasconcelos, I. M., Eilers, V., & Fearnside, P. M. (2019). Deforestation control in the Brazilian Amazon: A conservation struggle being lost as agreements and regulations are subverted and bypassed. *Perspectives in Ecology and Conservation*, 17(3), 122–130. <https://doi.org/10.1016/j.pecon.2019.06.002>

<sup>12</sup> Cardenas, M., Bonilla, J. P., & Brusa, F. (2021). *Climate Policies in Latin America and the Caribbean*. Inter-American Development Bank. <https://publications.iadb.org/publications/english/document/Climate-policies-in-latin-america-and-the-caribbean.pdf>

social consequences.<sup>13</sup> According to a 2020 Climate Scorecard report, over 60% of Brazil's emissions come from land use changes and deforestation; if emissions from the farming sector are included, that figure would rise to 80%.<sup>14</sup> Therefore, due to deforestation, the Brazilian Amazon rainforest has also now become a net emitter of CO<sub>2</sub>.<sup>15</sup>

Brazil has hosted two significant international conferences on sustainability: the United Nations Conference on Environment and Development (1992 Earth Summit) and the United Nations Conference on Sustainable Development (Rio+20). In 2016, Brazil signed the Paris Agreement and that same year, the National Commission for the Sustainable Development Goals (SDGs) was also created in Brazil. It is composed of representatives from eight government offices and eight representatives of civil society and the private sector, chosen by public announcement. The Commission has the purpose of adopting, disseminating, and giving transparency to the process of implementing the 2030 Agenda for Sustainable Development in Brazil.<sup>16</sup>

Due to the federal nature of Brazil's administration, there are differences between the states in environmental regulation. As of 2016, four states had adopted regulations regarding mandatory emissions reporting, requesting that companies report to the states' environmental agencies information on various emissions sources. The states of São Paulo and Rio de Janeiro have adopted mandatory GHG reporting requirements, and the states of Minas Gerais and Paraná have created incentives for reporting.<sup>17</sup>

Brazil has been written about as a case study for market-based climate policy, even though it is still in the planning phase for a national ETS.<sup>18</sup> Currently, Brazil has a conditional commitment to net-zero emissions by 2050.<sup>19</sup> Brazil's LULUCF targets (which, according to experts are most influential to Brazil's climate-related efforts<sup>20</sup>) include eliminating illegal deforestation and restoring 12 million hectares of forests by 2030.<sup>21</sup> While Brazil's top leadership has recently taken

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<sup>13</sup> Picanco, L. B., Prado, M. N., & Allen, A. (2018). *Environmental Concerns - Brazil 2018 Understanding the Issues*. Wilson Center. <https://www.wilsoncenter.org/article/environmental-concerns-brazil-2018-understanding-the-issues>

<sup>14</sup> Karpavicius, L. M. (2020b). *120.24% Increase in Greenhouse Gas Emission Levels in Brazil Since 1990*. Climate Scorecard. [https://www.climate-scorecard.org/2020/12/120-24-increase-in-greenhouse-gas-emission-levels-in-brazil-since-1990/#\\_ftn1](https://www.climate-scorecard.org/2020/12/120-24-increase-in-greenhouse-gas-emission-levels-in-brazil-since-1990/#_ftn1)

<sup>15</sup> Qin, Y., Xiao, X., Wigneron, J. P., Ciais, P., Brandt, M., Fan, L., Li, X., Crowell, S., Wu, X., Doughty, R., Zhang, Y., Liu, F., Sitch, S., & Moore, B. (2021). Carbon loss from forest degradation exceeds that from deforestation in the Brazilian Amazon. *Nature Climate Change*, 11(5), 442–448. <https://doi.org/10.1038/s41558-021-01026-5>

<sup>16</sup> *National Commission for the Sustainable Development Goals*. (2020). Ministério Das Relações Exteriores. <https://www.gov.br/mre/en/subjects/sustainable-development-and-the-environment/sustainable-development/national-commission-for-the-sustainable-development-goals>

<sup>17</sup> *Brazil: A Market-based Climate Policy Case Study*. EDF, 2016.

<sup>18</sup> EDF, FGV & IETA. (2016). *Brazil: A Market-based Climate Policy Case Study*. Environmental Defense Fund. [https://www.edf.org/sites/default/files/brazil\\_case\\_study.pdf](https://www.edf.org/sites/default/files/brazil_case_study.pdf)

<sup>19</sup> *Net Zero Tracker*. (2021). Energy & Climate Intelligence Unit. <https://eci.net/netzerotracker>

<sup>20</sup> Karpavicius, L. M. (2020). *Brazil Launches New Private and Public Policy Carbon Pricing Initiatives*. Climate Scorecard. <https://www.climate-scorecard.org/2020/03/brazil-launches-new-private-and-public-policy-carbon-pricing-initiatives/>

<sup>21</sup> *Brazil*. (2016). NDC Registry. <https://www4.unfccc.int/sites/NDCStaging/Pages/Party.aspx?party=BRA>

steps backward in climate policy, including defunding the environmental agency IBAMA<sup>22</sup>, there is a strong push to stop deforestation, such as by Brazil's former environment ministers, some of its largest banks, and even the military.<sup>23</sup>

## 2. Overview of green finance development

According to a 2018 SBN report evaluation, Brazil's sustainable finance is a near-mature stage of "established + measuring results." In terms of national policy, Brazil has a national plan for climate change and is evaluating carbon market policies. Voluntary green bond principles are available, ESG disclosure is required for banks, and a "report or explain" policy is in place for listed companies. The use of voluntary banking standards and disbursements of special financing funds for environmental issues (like greenhouse gases or conservation in the Amazon), represents a typical approach towards incorporating environmental and social considerations into bank lending. Several court cases have firmly established environmental liability for banks, and pressure from civil society has pushed Brazilian banks, such as BNDES, to strengthen their policies on the social impact of their lending.<sup>24</sup>

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<sup>22</sup> Spring, J. S. E. (2019). *Exclusive: As fires race through Amazon, Brazil's Bolsonaro weakens environment agency*. Reuters. <https://www.reuters.com/article/us-brazil-environment-ibama-exclusive-idUSKCN1V1141>

<sup>23</sup> Studart, R., & Myers, M. (2021). *Reimagining China-Brazil Relations Under the BRI: The Climate Imperative*. Council on Foreign Relations. [https://cdn.cfr.org/sites/default/files/pdf/studart-myers-cfr-cebri-paper\\_0.pdf](https://cdn.cfr.org/sites/default/files/pdf/studart-myers-cfr-cebri-paper_0.pdf)

<sup>24</sup> Earth, F. O. T. (2018). *The bigger picture: Brazil and China's approach to sustainable finance*. Medium. <https://foe-us.medium.com/the-bigger-picture-brazil-and-china-s-approach-to-sustainable-finance-5a43e797264d>

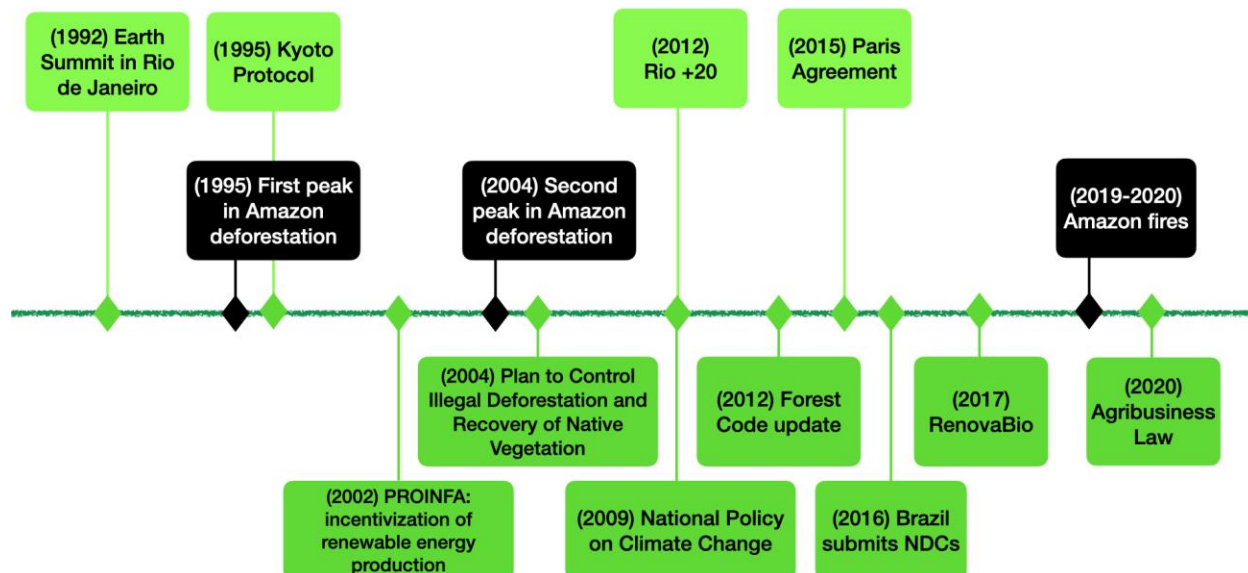


Figure 1. International sustainability action pertinent to Brazil, peak damaging events in the Amazon, and key legislation to support Brazil's low carbon transition. Author's compilation.

## (1) Policies

Environmental issues such as deforestation in the Amazon and the Cerrado have prompted Brazil's passing of key environmental finance legislation. In 2008, decree n° 6527/08 mandated BNDES to establish the Amazon Fund with a goal of sustainably managing the protected Amazon rainforests.<sup>25</sup>

In 2009, the National Climate Change Plan (PNMC) was established in Brazil, combining climate protection with socio-economic development. The financial tools intended to achieve this were the development of a national cap-and-trade mechanism; fiscal and tax measures that stimulate

<sup>25</sup> Decree n° 6527/08 providing. . . - Brazil - Climate Change Laws of the World. (2008). Grantham Research Institute on Climate Change and the Environment. <https://climate-laws.org/geographies/brazil/policies/decreo-n-6527-08-providing-for-the-establishment-of-the-amazon-fund>

emissions reduction; and credit and financing from public and private institutions.<sup>26</sup> Its articles 5, 6, and 8 outline guidelines for financial mechanisms for climate change mitigation and adaptation.<sup>27</sup>

While the Brazilian Emissions Reduction Market, as defined by the PNMC, has yet to be implemented, in 2020 the Ministry of Economy was assessing different carbon pricing instruments, including an ETS and a carbon tax.<sup>28</sup> RenovaBio, the National Policy for Biofuels, was approved in 2017 (Federal Law 13.576), establishing mandatory goals for the purchase of biofuels by fuel distributors. To achieve the targets, distributors must purchase specified volumes of emissions reductions certificates (CBIO), issued by biofuel producers and importers certified by the National Petroleum Agency (ANP). Trades in CBIOs began in June 2020 on the B3 stock exchange and annual GHG reduction goals and other design features of the program are currently under public consultation.<sup>29</sup>

Alongside energy and transportation, land use and agriculture have been key issues in Brazil's climate policy. The 2012 revision to the Forest Code introduced the Rural Environmental Registry, which provides a way to monitor and control deforestation in private landholdings. It also created two offsetting mechanisms: Environmental Reserve Quotas (CRA) and Consolidation of Conservation Areas Offsets. The



Figure 2. Sustainable finance and ESG disclosure regulations (red) and voluntary commitments/recommendations (blue). Source: author's compilation from info on Green Finance Platform and SBN reports.

<sup>26</sup> Law No.12187 – Brazilian National Policy on Climate Change – Brazilian NR. (2009). Brazilian NR. <http://www.braziliannr.com/brazilian-environmental-legislation/law-no-12187-brazilian-national-policy-on-climate-change/>

<sup>27</sup> Law No.12187 – Brazilian National Policy on Climate Change – Brazilian NR. (2009b). Brazilian NR. <http://www.braziliannr.com/brazilian-environmental-legislation/law-no-12187-brazilian-national-policy-on-climate-change/>

<sup>28</sup> Karpavicius, L. M. (2020b). *Brazil Launches New Private and Public Policy Carbon Pricing Initiatives*. Climate Scorecard. <https://www.climatescorecard.org/2020/03/brazil-launches-new-private-and-public-policy-carbon-pricing-initiatives/>

<sup>29</sup> ICAP. (2021). *ETS Detailed Information: Brazil*. [https://icapcarbonaction.com/en/?option=com\\_etsmap&task=export&format=pdf&layout=list&systems\[\]=79](https://icapcarbonaction.com/en/?option=com_etsmap&task=export&format=pdf&layout=list&systems[]=79)

implementation of the Forest Code has been a big challenge in Brazil's federal system.<sup>30</sup> In agricultural policy, the rural credit system has shown to have positive impacts for the productivity of small farmers while leading to more deforestation in the hands of large farmers.<sup>31</sup> Furthermore, law no. 13.986/2020 (Agribusiness Law) was designed to facilitate domestic and international investment, including green finance.<sup>32</sup> In another turn for sustainability, a 2020 decree by the Ministry of Mines and Energy included infrastructure projects with social and environmental benefits as being among the priority projects.<sup>33</sup>

The first move in the financial sector towards sustainable finance in Brazil was the Green Protocol, a voluntary commitment by five state banks to sustainability principles in 1995, which was updated in 2008 by FEBRABAN. In 2009, this Protocol was adopted by commercial banks. Around the same time, the banking regulator CMN began releasing a series of resolutions for financing in environmentally sensitive areas as well as regarding ESG disclosure; the latter was institutionalized in 2014. Companies listed on B3, the Sao Paulo stock exchange, were encouraged to “report or explain.” The Central Bank of Brazil also launched several sustainability initiatives in 2020 as part of its sustainability agenda, including the creation of a Green Bureau to track farmers' sustainable practices.<sup>34</sup>

There is currently no over-arching taxonomy for green or sustainable finance in Brazil like the ones in the EU or China. CVM defines sustainable finance as the “integration of environmental, social, and governance aspects in the investment decision-making processes by financial market actors.”<sup>35</sup> The publication of voluntary green bond guidelines for Brazilian issuers by FEBRABAN in collaboration with CEBDS in 2016 was considered a turning point in the provision of green financial products in Brazil.<sup>36</sup> They mandate monitoring and annual reporting and strongly recommend external review. The guidelines also point out agribusiness and forestry as the two areas with the most green financing potential.<sup>37</sup> FEBRABAN has also published several other guidance documents on a range of issues from climate risk sensitivity assessment and renewable

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<sup>30</sup> Chiavari, J., & Lopes, C. L. (2015). *Brazil's New Forest Code: How to Navigate the Complexity*. Climate Policy Initiative. <https://www.climatepolicyinitiative.org/publication/brazils-new-forest-code-how-to-navigate-the-complexity/>

<sup>31</sup> Climate Policy Initiative. (2020). *The Impacts of Rural Credit on Agricultural Outcomes and Land Use*. <https://www.climatepolicyinitiative.org/wp-content/uploads/2020/03/PB-Impacts-of-Rural-Credit.pdf>

<sup>32</sup> Ministry of Agriculture, Livestock and Food Supply. (2020b). *Unlocking Brazil's Green Investment Potential for Agriculture*. <https://www.gov.br/agricultura/pt-br/assuntos/politica-agricola/financas-verdes/iniciativas-e-parcerias/arquivos/6-sustainable-agriculture-investment-roadmap-2020.pdf>

<sup>33</sup> Decree no. 10.387 to provid. . . - Brazil - Climate Change Laws of the World. (2020). Grantham Research Institute on Climate Change and the Environment. <https://climate-laws.org/geographies/brazil/policies/decreo-no-10-387-to-provide-incentives-for-financing-infrastructure-projects-with-environmental-and-social-benefits>

<sup>34</sup> *Sustainability*. (2020). Banco Central do Brasil. <https://www.bcb.gov.br/en/financialstability/sustainability>

<sup>35</sup> *Securities and Exchange Commission of Brazil launches the Sustainable CVM Series* (2020). Sustainable Stock Exchanges Initiative. <https://sseinitiative.org/all-news/7628/>

<sup>36</sup> Pimentel, G., de Vasconcelos, M. S. F., & Albuquerque, L. (2017). *Initiative of the Year - Brazil's Green Bond Guidelines*. Environmental Finance. <https://www.environmental-finance.com/content/awards/green-bond-awards-2017/winners/initiative-of-the-year-brazils-green-bond-guidelines.html>

<sup>37</sup> FEBRABAN & CEBDS. (2016). *Guidelines for Issuing Green Bonds in Brazil 2016*. CEBDS. [https://cebds.org/wp-content/uploads/2016/10/Guia\\_emissa%CC%83o\\_ti%CC%81tulos\\_verdes\\_ING-2.pdf](https://cebds.org/wp-content/uploads/2016/10/Guia_emissa%CC%83o_ti%CC%81tulos_verdes_ING-2.pdf)

energy to carbon pricing and sustainable forest management (Table 1):

<b>Title of publication</b>	<b>Time</b>
Implementing the TCFD recommendations: a roadmap for the Brazilian banking sector	2019
Climate Risk Sensitivity Assessment Tool	2019
Financing for Solar Photovoltaic Distributed Generation - FGVces	2018
Measuring financial resources for the green economy	2018
Carbon Management and Pricing - FGVces	2018
Financing Forest Restoration with Economic Exploration - FGVces	2018
Financial Institutions and Deforestation Risk Management - FGVces	2018
Managing deforestation risks - CDP	2017
Climate risk management with a focus on carbon pricing - CDP	2017
Measuring financial resources allocated to the Green Economy Third edition	2017
Guidelines for Issuing Green Bonds Brazil	2016
Financing forest recovery	2016
Measuring financial resources allocated to the Green Economy	2016
Natural capital risks and opportunities for the financial sector	2016
Sustainable buildings and energy efficiency	2016

**Table 1.** A selection of sustainable finance guidance documents from FEBRABAN. Source: FEBRABAN official website.<sup>38</sup>

## (2) Market

Green bonds have been a popular tool of green financing in Brazil. According to Climate Bonds Initiative, between the years 2015 and 2020, the equivalent of USD7 billion of green bonds was issued by 32 issuers in 42 deals. A large part of the proceeds has gone to clean energy projects, including the largest issuance by BNDES, of USD 1 billion in 2017, which focused on wind and

<sup>38</sup> Due to unknown issues, the weblink to the list of FEBRABAN's sustainable finance publications (<https://portal.febraban.org.br/pagina/3114/43/en-us/financial-system-green-economy>) is currently only accessible from cache. Date: July 15, 2021.



solar energy.<sup>39</sup> Other themes include sustainable forest management, recycling, and industrial eco-efficiency. In 2020, Brazil's government launched the first program in Latin America to fund infrastructure projects with the sale of green bonds. Three planned freight railways, Fiol, Ferrogrão and Fico, which will have operating licenses auctioned, are expected to be certified as sustainable projects by CBI.<sup>40</sup> In 2020, around 3% of all Brazilian bonds issued were green.<sup>41</sup> Brazil also has a high rate of verification for both its international and domestic issuances.

In the area of green loans, FEBRABAN completed one of the world's first estimates of how much lending has been provided for the green economy. At the end of 2015, 17 percent of total corporate loans were allocated to the green economy, with sustainable transport as the largest category.<sup>42</sup> By 2020, this number was almost 22%, slightly lower than in 2019.<sup>43</sup> As part of the 2017 Brazilian Green Finance Initiative, two funds (one by BNDES in 2017 and another by BrasilPrev in 2019) have been launched and USD 1 billion (BRL 235 million) was issued for refinancing renewable energy portfolios.<sup>44</sup> A new green finance tool, developed by The Lab in Brazil is the green receivables fund, or the green FIDC, which seeks private capital to finance green economy projects. Once the project is operational, the vehicle will be refinanced in the Brazilian capital markets. The green FIDC is helpful in attracting pension funds and insurance companies to invest in the green economy. A spinoff from the green FIDC is the Green CRI (Certificate of Real Estate Receivables); in 2021, USD50 million was raised by a Brazilian FI through these vehicles.<sup>45</sup> In 2019, the Responsible Commodities Facility, a financial facility offering green bonds for sustainable soy production in Brazil, was launched on the London Stock Exchange with the aim of providing low-interest credit to Brazilian soy and corn farmers.<sup>46</sup>

In the carbon market simulation coordinated by FGVces that began with 20 companies in 2013, trading began in 2020. Certified Emission Reductions (CER) and other environmental assets can

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<sup>39</sup> BNDES raises US\$ 1 billion in green bonds on the international market - BNDES. (2017). BNDES. [https://www.bndes.gov.br/SiteBNDES/bndes/bndes\\_en/Institucional/Press/Noticias/2017/20170509\\_green\\_bonds.html](https://www.bndes.gov.br/SiteBNDES/bndes/bndes_en/Institucional/Press/Noticias/2017/20170509_green_bonds.html)

<sup>40</sup> Brazil launches green bond program for railways. (2020). Reuters. <https://www.reuters.com/article/brazil-infrastructure-green-bonds-idUKL1N2DN1IZ>

<sup>41</sup> Green bond data from Climate Bonds Initiative; total Brazilian bond data from BIS.

<sup>42</sup> UNEP. (2017). *Roadmap for a Sustainable Financial System*. World Bank. <https://documents1.worldbank.org/curated/en/903601510548466486/pdf/121283-12-11-2017-15-33-33-RoadmapforaSustainableFinancialSystem.pdf>

<sup>43</sup> MORE THAN 20% OF THE CREDIT GRANTED IN 2020 WAS DESTINED FOR THE GREEN ECONOMY, POINTS OUT FEBRABAN. (2021). Datagro. <https://portal.datagro.com/en/agribusiness/12/331056/more-than-20-of-the-credit-granted-in-2020-was-destined-for-the-green-economy-points-out-febraban>

<sup>44</sup> Ministry of Agriculture, Livestock and Food Supply. (2020b). *Unlocking Brazil's Green Investment Potential for Agriculture*. <https://www.gov.br/agricultura/pt-br/assuntos/politica-agricola/financas-verdes/iniciativas-e-parcerias/arquivos/6-sustainable-agriculture-investment-roadmap-2020.pdf>

<sup>45</sup> Buchner, B. (2021). *Brazil's first FIDC and CRI issued as climate bonds raise USD 50 million*. CPI. <https://www.climatepolicyinitiative.org/press-release/lab-green-fidc-closes/>

<sup>46</sup> UNEP. (2019). World's first green bonds scheme to finance responsible soy production in Brazil launched. <https://www.unep.org/news-and-stories/press-release/worlds-first-green-bonds-scheme-finance-responsible-soy-production>

be traded by private parties in different ways, notably through the BVRio environmental assets stock exchange.<sup>47</sup> According to the UNFCCC, this initiative has resulted in a total stock or reduction of carbon derivative of BVRio's market mechanisms of 322 million tons of CO<sub>2</sub> equivalent.<sup>48</sup>

The BOVESPA Stock Exchange set up a Corporate Sustainability Index as early as 2005. Later this became the ISE B3.<sup>49</sup> Since its inception in 2005, the ISE B3 has gained +266.19% against +235.43% for Ibovespa (based on a November 26<sup>th</sup> 2019 closing). In the same period, the ISE B3 was also less volatile: 23.86% compared to 26.51% for Ibovespa. B3's 15th Corporate Sustainability Index (ISE B3) portfolio, effective from January 6<sup>th</sup> 2020 to January 1<sup>st</sup>, 2021, comprised 36 stocks from 30 companies. The companies were drawn from 15 industry sectors and together accounted for a market capitalization of BRL1.64 trillion, or 37.62% of the combined figure for all companies whose stocks were traded on the B3, based on a November 26<sup>th</sup> 2019 closing.<sup>50</sup>

Finally, the national development bank BNDES is also engaged in green finance activities. By 2018, its Climate Fund Program had leveraged more than R\$ 1 billion in financing to reduce greenhouse gas emissions. It is estimated that these investments should reduce the emission of greenhouse gases by about 4 million tons of CO<sub>2</sub> equivalent.<sup>51</sup> In 2018, BNDES launched a permanent line to support investments in renewable energy, the BNDES Finame Renewable Energy line, with an initial R\$ 2 billion allocation. As a complement, the Climate Fund Program – Efficient Machinery and Equipment Line also received a R\$ 228 million contribution of new financing. BNDES' Amazon Fund has raised USD 707 million in funds and used USD 534 million of it to fund 102 projects in the Amazon since its launch in 2008.<sup>52</sup>

### **(3) International Cooperation**

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<sup>47</sup> Baker McKenzie. (2017). Recommendations of the Task Force on Climate-related Financial Disclosures. Review of local relevance: BRAZIL. UN PRI. <https://www.unpri.org/download?ac=1405>

<sup>48</sup> BVRio - Environmental Exchange of Rio de Janeiro - Brazil. (n.d.). UNFCCC. Retrieved July 7, 2021, from <https://unfccc.int/climate-action/momentum-for-change/activity-database/bvrio-environmental-exchange-of-rio-de-janeiro>

<sup>49</sup> Berensmann, K. (2017). *Fostering sustainable global growth through green finance – what role for the G20?* G20 Insights. [https://www.g20-insights.org/wp-content/uploads/2017/04/Climate\\_Green-Finance\\_V2.pdf](https://www.g20-insights.org/wp-content/uploads/2017/04/Climate_Green-Finance_V2.pdf)

<sup>50</sup> B3 Announces the 15th ISE – Corporate Sustainability Index Portfolio. (2019, February). B3. [http://www.b3.com.br/en\\_us/news/ise.htm](http://www.b3.com.br/en_us/news/ise.htm)

<sup>51</sup> BNDES announces an additional R\$ 2.2 bi to support investments in renewable energy - BNDES. (2018, September). BNDES.

[https://www.bndes.gov.br/SiteBNDES/bndes/bndes\\_en/Institucional/Press/Noticias/2018/20180927\\_bndes\\_renewable\\_energery.html](https://www.bndes.gov.br/SiteBNDES/bndes/bndes_en/Institucional/Press/Noticias/2018/20180927_bndes_renewable_energery.html)

<sup>52</sup> Amazon Fund. (n.d.). Amazon Fund. Retrieved July 7, 2021, from <http://www.amazonfund.gov.br/en/home/>

Brazilian financial institutions are involved in numerous international initiatives where they have recently been active (Table 2). Additionally, Brazil has bilateral cooperation in sustainable finance with

**Brazil's participation in international sustainable finance initiatives**

Initiative	Brazil's involvement	Recent activity
Equator Principles	6 financial institutions are members, including the Central Bank of Brazil	
UN Principles for Responsible Investment	87 signatories (7 service providers, 15 asset owners, 65 investment managers)	
UNEP FI	17 members (including several state-owned banks), 5 supporting institutions	
UN Principles for Sustainable Insurance	12 signatories	In 2019, 6 Brazilian insurance companies and the CNseg became signatories to the first global guide to the insurance industry on how to protect World Heritage Sites.
Network for Greening the Financial System	Central Bank of Brazil (BCB) joined in 2020	BCB launched its 'sustainable agenda' in 2020.
Climate Bonds Initiative	Memorandum of Understanding (MAPA)	The 2020 <i>Unlocking Brazil's Green Investment Potential for Agriculture</i> report by CBI and Brazil Agriculture Subcommittee identifies a large pipeline of projects and assets eligible for green financing.
International Development Finance Club	1 member (BNDES)	
Task Force on Climate-related Financial Disclosures	27 organizations have joined, including B3, FEBRABAN, and the Brazilian Central Bank	In 2019, FEBRABAN published "Implementing the TCFD Recommendations: a Roadmap for the Brazilian Banking Sector".
Sustainable Banking Network	Central Bank of Brazil (since 2012) and FEBRABAN (since 2017) are members	IFC and FEBRABAN announced a collaboration to promote sustainable finance and further align the banking sector with the commitments assumed by Brazil in the Paris Agreement.
Carbon Disclosure Project	Several Brazilian cities and companies report to CDP	Annual reports
Sustainable Stock Exchange Initiative	B3 is a member	B3 launched the S&P/B3 Brazil ESG Index in September 2020.
Principles for Responsible Banking	3 signatories	

Table 2. Brazil's participation in international sustainable finance initiatives. Author's compilation based on information available on relevant official websites.

several developed countries.

### Brazil - UK

1. In 2017, the UK and Brazil launched the UK–Brazil Green Finance Partnership as part of the Brazil Prosperity Fund Programme to deepen cooperation on green finance.<sup>53</sup>
2. The UK will invest GBP 56 million in energy, green finance, future cities, and trade in Brazil. The green finance part of the program aims to develop a new Environmental Social and

<sup>53</sup> HM Treasury. (2017, July 31). *Chancellor in Brazil and Argentina to boost economic and trade ties*. UK Government. <https://www.gov.uk/government/news/chancellor-in-brazil-and-argentina-to-boost-economic-and-trade-ties>

Governance (ESG) framework for development banks in Brazil in order to design sustainable infrastructure projects to attract private investment.<sup>54</sup>

3. As a program beneficiary, BNDES is set to incorporate international ESG standards into its operating framework and to align its portfolio to the Brazilian NDCs.<sup>55</sup>

### Brazil - Germany

1. The 2016-2021 Climate Policy Programme Brazil (PoMuC) supports the Brazilian government in the successful implementation of selected areas of the national climate policy.<sup>56</sup>
2. Green Finance Market Regulation and Green Bonds (2018-2022) is a cooperation between GIZ, the Ministry of the Economy, and the BCB to improve the framework conditions for developing green financial markets. It has a EUR 4 million budget.<sup>57</sup>

### Brazil - USA

1. In their 2015 agreement, presidents B. Obama and D. Rousseff committed to cooperation both under the UNFCCC as well as bilaterally through the Joint Initiative on Climate Change.<sup>58</sup>
2. The bilateral cooperation has resulted in the creation of The Lab and the first binational private-public Forum on Innovative Forest Investment.<sup>59</sup>

### Climate Finance Aid

According to Climate Funds Update, Brazil has been approved for USD 1.159 billion in climate funding. Brazil receives funding from several vehicles:

- USAID: In 2020, Brazil received a total of USD 3.5 million from USAID Regional Climate Change Funding.<sup>60</sup>
- Green Climate Fund: in 2019, Brazil received USD 96 million from the GCF for reducing deforestation in the Amazon.<sup>61</sup>
- UN Partnership for Market Readiness: Brazil received USD 3 million in 2014.

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<sup>54</sup> *Brazil Prosperity Fund Programme*. Foreign, Commonwealth & Development Office and Foreign & Commonwealth Office, Government of the UK, Dec 10, 2020.

<sup>55</sup> UK Government. (2020, December). *Joint Statement by the Economy Minister of Brazil and the Chancellor of the Exchequer of the UK at the Fourth UK-Brazil Economic and Financial Dialogue, 10 December 2020*. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/943514/UK-Brazil\\_4th\\_EFD\\_Joint\\_Statement\\_10\\_Dec\\_2020.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/943514/UK-Brazil_4th_EFD_Joint_Statement_10_Dec_2020.pdf)

<sup>56</sup> *Climate Policy Programme Brazil*. (n.d.). GIZ. Retrieved July 7, 2021, from <https://www.giz.de/en/worldwide/42540.html>

<sup>57</sup> *Green and Sustainable Finance*. (2018). GIZ. <https://www.giz.de/en/worldwide/76070.html>

<sup>58</sup> Office of the Press Secretary. (2015). *U.S.-Brazil Joint Statement On Climate Change*. The White House. <https://obamawhitehouse.archives.gov/the-press-office/2015/06/30/us-brazil-joint-statement-climate-change>

<sup>59</sup> *Second Meeting of the U.S.-Brazil Climate Change Working Group*. (2016, November 16). U.S. Department of State. <https://2009-2017.state.gov/e/oes/rls/rpts/265776.htm>

<sup>60</sup> *Brazil*. (n.d.). Climate Links. Retrieved July 7, 2021, from <https://www.climatelinks.org/countries/brazil>

<sup>61</sup> *Brazil receives US\$ 96 million for having reduced its deforestation*. (2019, March 1). United Nations Development Programme. <https://www.undp.org/press-releases/brazil-receives-us-96-million-having-reduced-its-deforestation>

- Amazon Fund: Brazil has received funds from the Norwegian government (USD1.2 billion<sup>62</sup> to date) and GIZ.
- IBRD Clean Technology Fund, Forest Investment Program, IADB Forest Investment Program: Brazil has received a total of over US \$100 million between 2014 and 2018.<sup>63</sup>

Brazil receives funding from the German government via the REDD+ framework and also from the Green Climate Fund for reducing deforestation; however, there is controversy over the use of proceeds and effectiveness of either. Deforestation in targeted areas has, in fact, increased during the funding period.<sup>64</sup>

### 3. Summary and Prospects for Cooperation

#### (1) Key features and learnings

Brazil is an emerging economy with still growing energy needs and widespread environmental damage from decades of natural resource exploitation, which is having a harmful impact not only on its globally significant ecosystems and indigenous communities but also on the business operations of its companies. The development of sustainable finance in Brazil was triggered by the increase of environmental and social issues in the country, and is a result of initiatives from industry actors, government bodies, and the banking regulator in order to promote and develop sustainable practices within the Brazilian financial sector.<sup>65</sup> The collaboration between these actors has produced a unique landscape of sustainable finance with innovative financial tools that fit Brazil's particular needs. Most efforts have been paid in the areas of clean energy production and GHG emissions reductions. However, the rules of sustainable finance have not been so clear in Brazil and there is a lack of environmental oversight and monitoring so some sustainable finance initiatives in Brazil have been questioned by the international community.

#### (2) Prospects for cooperation

**Investment in Brazil's sustainable agriculture.** Brazil is a large agricultural producer and exporter of agricultural products; however, its agricultural productivity is low. Additionally, emissions and environmental damage from agriculture and land use change are currently the biggest obstacles faced by Brazil in meeting its climate goals. Chinese investments could help

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<sup>62</sup> *Major donor Norway frets over Brazil deforestation.* (2019, July 5). Reuters. <https://www.reuters.com/article/us-brazil-environment-norway-idUSKCN1U00ZL>

<sup>63</sup> *Brazil.* (n.d.-b). Climate Investment Funds. Retrieved July 7, 2021, from <https://www.climateinvestmentfunds.org/country/brazil>

<sup>64</sup> *Deforestation in the Amazon, and the REDD+ Money that Keeps Coming to Brazil | WRM in English.* (2020, September 24). World Rainforest Movement. <https://wrm.org.uy/articles-from-the-wrm-bulletin/section1/deforestation-in-the-amazon-and-the-redd-money-that-keeps-coming-to-brazil/>

<sup>65</sup> Sustainable Banking Network. (2018). *Country Progress Report: Brazil.* SBN. <https://documents1.worldbank.org/curated/en/521651520939306402/pdf/124225-WP-BR-SBN-Country-Progress-Report-Brazil-PUBLIC.pdf>

Brazil build capacity in sustainable agriculture while also helping provide agricultural produce for China’s huge market. Brazil’s political alignment with China (or rather, the common lack of alignment with the liberal world order promoted by Europe and the United States) makes it a suitable trade partner for China in its efforts to ensure food security for its people.

**Engagement in Brazil’s carbon market (with due diligence).** China Three Gorges, a Chinese power generation company, purchased carbon credits for a conservation project which protects an

**Main actors in Brazilian sustainable finance development**

Organization	Type	Role
Ministry of the Environment (MMA)	Government body	Formulation and implementation of national public environmental policies
Brazilian Institute of the Environment and Renewable Natural Resources (IBAMA)	Administrative body	Responsible for the monitoring, preservation, enforcement and control of the sustainable use of natural resources in Brazil
Ministry of Mines and Energy	Government body	Focuses on energy and infrastructure aspects of sustainable development
Ministry of Agriculture, Livestock and Food Supply (MAPA)	Government body	Formulator and executor of agribusiness policies
Ministry of the Economy	Government body	Previously Ministry of Finance
Ministry of Science, Technology and Innovation	Government body	Involved in the development of the Brazilian ETS
BNDES	Development bank	The Brazilian Development Bank, controlled by the Ministry of Development, Industry and Trade; one of the initial signatories to the Green Protocol
Brazilian Central Bank (BCB)	Central bank	Authority in charge of supervising financial institutions and issuing currency
CMN	Financial regulator	National Monetary Council; responsible for money and credit policy
CVM	Financial regulator	Securities and Exchange Commission of Brazil
PREVIC	Financial regulator	the Brazilian occupational pension funds supervisory body
SUSEP	Financial regulator	Superintendence of Private Insurance
FEBRABAN	Industry association	Brazilian Federation of Banks (Federação Brasileira das Associações de Bancos)
CEBDS	Industry association	Business Council for Sustainable Development: promotes the practical transformation of industries, markets, companies and professionals, joining business and society for sustainability; promotes the “triple bottom line.”
CNSeg	Industry association	Brazilian Insurance Confederation
B3	Stock exchange	
FGVces	Academia/Research	the Center for Sustainability at the at the Business Administration School of Fundação Getulio Vargas; a platform for creating policy and tools to promote the green economy.
Global Innovation Lab for Climate Finance (The Lab)	Innovation center	an investor-led initiative that helps provide green financing solutions

Appendix 1. Main actors in Brazilian sustainable finance development. Author’s compilation.

area of 200,000 hectares, to offset the environmental impact of its infrastructure projects.<sup>66</sup> However, due to uneven levels of environmental law enforcement in different parts of Brazil, it is important that companies ensure the effectiveness of the carbon credits in protecting the environment.

<sup>66</sup> Soutar, R. (2021) *Carbon market grows in Brazil ahead of expected regulation in Glasgow*. Dialogo Chino. <https://dialogochino.net/en/climate-energy/41641-carbon-market-grows-in-brazil-ahead-of-expected-regulation-in-glasgow/>

**Supporting Brazil in creating a national taxonomy for sustainable finance.** China has been recognized by the international sustainable finance community for its leadership in developing a comprehensive sustainable banking policy framework complete with a monitoring and evaluation system. In Brazil, while industry players have shown strong commitment to sustainable development, the reporting requirements have not been as stringent or unified as in China, leading to difficulties in measuring the effects of sustainability-oriented actions. Additionally, China and Brazil as emerging economies may have more similarities in the challenges they face when implementing green finance tools and principles, such as environmental protection, agriculture, and health, as well as the vast economic differences among their populations.

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