

# Republic of Brazil

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## Introduction

The Federative Republic of Brazil (the “Republic of Brazil” or the “Issuer”) issued two sustainability bonds, the Global 2031 Bond in November 2023 and the Global 2032 Bond in June 2024 (collectively the “Sovereign Sustainable Bonds”) and raised total net proceeds of BRL 20,443.73 million (USD 3.94 billion) to finance and refinance projects aimed at supporting Brazil’s transition to a low carbon economy, enhancing environmental protection and promoting socio-economic development. In 2025, the Republic of Brazil engaged Sustainalytics to review the projects financed with proceeds from the Sovereign Sustainable Bonds (the “Nominated Expenditures”) and provide an assessment as to whether they meet the use of proceeds criteria and whether the Republic of Brazil complied with the reporting commitments in Brazil’s Sovereign Sustainable Bond Framework (the “Framework”).<sup>1</sup> Sustainalytics provided a Second-Party Opinion on the Framework in August 2023.<sup>2</sup> This is Sustainalytics’ second annual review of allocation and reporting of the instruments issued under the Framework, following a previous review in October 2024.<sup>3</sup>

## Evaluation Criteria

Sustainalytics evaluated the Nominated Expenditures and the Republic of Brazil’s reporting based on whether they:

1. Meet the use of proceeds and eligibility criteria defined in the Framework; and
2. Reported on at least one key performance indicator (KPI) for each use of proceeds category defined in the Framework.

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<sup>1</sup> Republic of Brazil, “Brazil’s Sovereign Sustainable Bond Framework”, (2023), at: <https://thot-arquivos.tesouro.gov.br/publicacao-anexo/21043>

<sup>2</sup> Sustainalytics, “Second-Party Opinion: Brazil’s Sovereign Sustainable Bond Framework”, (2023), at: <https://mstar-sustops-cdn-mainwebsite-s3.s3.amazonaws.com/docs/default-source/spos/federative-republic-of-brazil-sustainable-bond-second-party-opinion-2023.pdf>

<sup>3</sup> Sustainalytics, “Annual Review: Republic of Brazil”, (2024), at: <https://thot-arquivos.tesouro.gov.br/publicacao-anexo/23762>

Table 1: Use of Proceeds Categories, Eligibility Criteria and Associated KPIs

Use of Proceeds Category	Eligibility Criteria	Key Performance Indicators
<b>Pollution Prevention and Control - Control of GHG emissions</b>	<p>Expenses related to:</p> <ul style="list-style-type: none"> <li>Monitoring, reporting and verification, as well as disclosure and estimation of greenhouse gas (GHG) emissions and their reduction;<sup>4</sup></li> <li>Initiatives to reduce GHG emissions supported by the National Fund on Climate Change,<sup>5</sup> as long as they are aligned with the exclusion criteria defined in the Framework.</li> </ul>	<ul style="list-style-type: none"> <li>Volume of CO<sub>2</sub> removed from the atmosphere (in mass units)</li> <li>Volume of reduced CO<sub>2</sub>e (in mass units)</li> <li>Number of experimental sites in operation</li> <li>Number of sector policies and plans applied</li> <li>Mitigation technologies, actions and initiatives (expressed in area, volume or units)</li> </ul>
<b>Pollution Prevention and Control – Solid Waste Management</b>	<p>Expenses related to:</p> <ul style="list-style-type: none"> <li>Subsidies to states and municipalities for proper management of urban solid waste in line with the National Solid Waste Policy (Law No. 12,305/10), including collection,<sup>6</sup> separation, processing and recycling;<sup>7,8</sup></li> <li>Installation and maintenance of biogas capture systems in sanitary landfills.<sup>9</sup></li> </ul>	<ul style="list-style-type: none"> <li>Tonnes of urban solid waste collected and handled properly</li> <li>Number of directly funded waste management research projects</li> <li>Reduction of the % of waste disposed in landfills</li> <li>Increase in the % of recycling</li> <li>National Waste Recovery Index</li> <li>% coverage of selective waste collection</li> <li>Treated animal waste in tonnes</li> </ul>
<b>Renewable Energy</b>	<p>Expenditures related to:</p> <ul style="list-style-type: none"> <li>Development, construction, installation, expansion, operation, maintenance, refurbishment and land related to electricity production and energy storage for the following sources of energy. To be eligible, activities' emissions level must be &lt;100 gCO<sub>2</sub>e/kWh, unless otherwise stated.</li> <li>Solar energy (photovoltaic);</li> </ul>	<ul style="list-style-type: none"> <li>Energy (in KWh) produced and stored under a clean energy source (solar, wind and hydroelectric power within the specifications)</li> <li>Number of directly funded clean energy research projects</li> </ul>

<sup>4</sup> Expenses related to Brazil's country-level National Registration System for GHG Emissions (SIRENE) (Sistema de Registro Nacional de Emissões). SIRENE's main objective is to register and disclosure data on Brazil's national inventory of anthropogenic GHG emissions and removal. It also provides annual estimates of greenhouse gas emissions.

Republic of Brazil, "Sobre o SIRENE", at: <https://www.gov.br/mcti/pt-br/acompanhe-o-mcti/sirene/sobre-o-sirene>

<sup>5</sup> Eligible activities under Brazil's National Fund on Climate Change are regulated under Law No. 12,114/2009, Article 4º. These activities include education and capacity building on climate related topics; studies on climate science, impacts and vulnerability; GHG emissions reduction projects; and projects to reduce carbon emissions from deforestation and forest degradation, prioritizing natural areas threatened with destruction and relevant to biodiversity conservation strategies and development of mitigation technologies.

Republic of Brazil, "Lei No. 12.114, de 9 de dezembro de 2009", at: [https://www.planalto.gov.br/ccivil\\_03/\\_ato2007-2010/2009/Lei/L12114.htm](https://www.planalto.gov.br/ccivil_03/_ato2007-2010/2009/Lei/L12114.htm)

<sup>6</sup> To be eligible, waste collection vehicles must meet an emissions threshold of 25 gCO<sub>2</sub>/tkm or below.

<sup>7</sup> Chemical recycling of plastics is not eligible.

<sup>8</sup> Segregation of waste at the source will be ensured for all waste collection activities. For waste recovery and processing, segregation of recyclables will be ensured prior to processing. Additionally, eligible projects related to e-waste recycling will have a robust waste management plan to ensure mitigation of any risks associated with such activities.

<sup>9</sup> Flaring of biogas is not an eligible activity

	<ul style="list-style-type: none"> <li>• Wind power;</li> <li>• Solar thermal plants;<sup>10</sup></li> <li>• Hydroelectric power from run-of-the-river plants without artificial reservoir or low-storage capacity; or plants with a carbon footprint below 50 gCO<sub>2</sub>e/kWh or power density above 10 W/m<sup>2</sup> for projects that started operations in 2020; or plants with a carbon footprint below 100 gCO<sub>2</sub>e/kWh or power density above 5 W/m<sup>2</sup> for projects in operation before 2020;<sup>11</sup></li> <li>• Power from biomass,<sup>12</sup> and municipal solid waste or industrial waste;<sup>13</sup></li> <li>• Production of biofuels<sup>14</sup> with an Efficient Biofuel Production Certificate, in line with ANP Resolution No. 758/2018<sup>15</sup> issued by the National Agency of Oil, Natural Gas and Biofuels;</li> <li>• Production of biomethane: <ul style="list-style-type: none"> <li>◦ Development, construction, installation and expansion of the production of waste-derived fuel.<sup>16</sup></li> </ul> </li> <li>• Renewable energy storage technologies (including efficient batteries);</li> <li>• Low carbon hydrogen technologies, including production and storage or application of hydrogen in different technologies;<sup>17</sup></li> <li>• Development and industrial capacity to produce equipment, component, technologies and materials needed for the energy transition; related to wind power, solar energy, storage, electric vehicles, vehicles powered by biofuel and low carbon hydrogen.</li> </ul>	<ul style="list-style-type: none"> <li>• Estimated annual GHG emissions reduced or avoided (in tonnes of CO<sub>2</sub> equivalent)</li> <li>• Participation of biofuels in the vehicle fuel matrix</li> <li>• Increase in installed capacity of electricity generation from renewable sources (in MW) vs non-renewable sources</li> <li>• Annual energy generation from renewable sources (in MWh) vs non-renewable sources</li> </ul>
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<sup>10</sup> Concentrated solar power (CSP) plants must generate at least 85% of electricity from solar sources.

<sup>11</sup> Mitigation criteria established by the Climate Bonds Initiative in version 1.0 of the hydropower criteria. All new hydropower projects will be subject to an environmental and social impact assessment to ensure that no significant risks, negative impact or significant controversies related to the projects are identified.

<sup>12</sup> Biomass eligibility: i) life cycle GHG emissions intensity is below 100 gCO<sub>2</sub>e/kWh; or ii) life cycle emissions reduction is 80% compared to the fossil fuel baseline of 183 gCO<sub>2</sub>e/MJ for electricity production.

<sup>13</sup> For waste-to-energy projects that use municipal solid waste for energy recovery, segregation of recyclable wastes, including plastics, will be done before energy conversion. Projects or activities related to waste heat from fossil fuel production are not eligible.

<sup>14</sup> Under RenovaBio, biofuel production routes are planned from sugarcane, corn, soya, palm and agrosilvopastoral residues. The inclusion of other feedstock and technological routes for biofuel production can be requested from the regulator through certification, based on a "well-to-wheel" life cycle analysis of its production.

<sup>15</sup> ANP Resolution No. 758/2018 provides specific eligibility criteria for receiving the Efficient Biofuel Production Certificate. These criteria include the attribution of an Energy-Environmental Efficiency Score, which covers the intensity of fuel emissions (gCO<sub>2</sub>e/MJ) and compliance with parameters such as the non-removal of native vegetation and the existence of a Rural Environmental Registry (CAR). In addition, to be eligible, the biofuel production must follow the CBI thresholds for GHG for biofuels and the "do no significant harm" criteria for certifying the production of non-deforested areas.

<sup>16</sup> To be eligible, this must follow energy-from-waste criteria established by the CBI. Waste heat from fossil fuel will be excluded.

<sup>17</sup> According to the Brazilian National Hydrogen Programme, low carbon hydrogen means any hydrogen produced with low and/or zero carbon emissions, which can include a variety of processes (for carbon reduction and/or removal), technologies (including carbon negative ones) and renewable energy sources. Some examples of renewable energy sources include 100% sustainably sourced biomass and biofuels; fossil fuels with carbon capture, storage or use, including in the form of solid carbon; geological or natural hydrogen; other low-emission technologies and combinations of processes (hybrid processes). Production of hydrogen from fossil fuels is not an eligible expenditure under the Framework.

<b>Energy Efficiency</b>	<p>Expenditures related to:<sup>18</sup></p> <ul style="list-style-type: none"> <li>• Modernization of public buildings (for example, using retrofit techniques, thermal insulation or replacement of air conditioning systems) that results in savings of at least 20% in energy consumption only in cases where there is no PBE Edifica application, at level A;</li> <li>• Investments in public lighting, replacing light bulbs with others with higher efficiency;</li> <li>• Investments in public lighting associated with replacing conventional light bulbs with LEDs;</li> <li>• Substitution of industrial infrastructure to obtain higher levels of energy efficiency, resulting in an improvement of at least 20% when compared to the pre-investment conditions.<sup>19</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Number of conventional lamps replaced by LED lamps annually</li> <li>• Number of modernization works carried out in public assets that are related to energy efficiency</li> <li>• Estimated annual GHG emissions reduced or avoided (in tonnes of CO<sub>2</sub> equivalent)</li> <li>• Total energy saved (KWh) compared to baseline</li> </ul>
<b>Clean Transport</b>	<p>Expenditures related to:</p> <ul style="list-style-type: none"> <li>• Purchase, design, maintenance, extension, repair, reconditioning, upgrade, operation and/or deployment of low or zero-carbon<sup>20</sup> transportation;</li> <li>• Public transportation programmes and projects with low or zero-carbon emissions, related to: <ul style="list-style-type: none"> <li>◦ Metro lines – new lines, expansion: <ul style="list-style-type: none"> <li>▪ Light rail transit;<sup>21</sup></li> <li>▪ Freight rail transit;<sup>22</sup></li> <li>▪ Electric buses;</li> <li>▪ Tram, trolleybus, bus and rail;</li> </ul> </li> </ul> </li> <li>• Infrastructure related to low and zero-emission public transport, such as electric charging stations, signalling and control systems, intermodal stations, hydrogen fuelling stations or electric highways, as well as sidewalks, footbridges, underground walkways and pedestrian pathways;<sup>23</sup></li> <li>• Construction and modernization of low-impact rail for cargo transport;<sup>24</sup></li> <li>• Electrification of public fleet.<sup>25</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Number of vessels (passenger or cargo) using rail and river facilities per year</li> <li>• Volume of transported cargo that is no longer carried by other more polluting transport modals</li> <li>• Estimated annual GHG emissions reduced or avoided (in tonnes of CO<sub>2</sub> equivalent)</li> <li>• Total kilometres of built sidewalks and other pedestrian pathways</li> <li>• Kilometres of cycle lanes built</li> </ul>

<sup>18</sup> Expenditures related to fossil fuel-operated equipment or any activity or technology that is inherently designed for carbon-intensive activities are not eligible. Additionally, heat pumps will not be financed.

<sup>19</sup> Energy-efficient mechanical cooling systems might be considered.

<sup>20</sup> To be eligible, hybrid passenger vehicles must meet the threshold of 50 gCO<sub>2</sub>/km and hybrid freight vehicles (such as heavy trucks) must meet the threshold of 25 gCO<sub>2</sub>/km. In addition, the tailpipe emissions intensity of the eligible vehicles must not exceed 50 gCO<sub>2</sub>/km until 2025, and from 2026 onwards, eligible vehicles must have an emissions intensity of 0 gCO<sub>2</sub>/km. To be eligible, hybrid freight vehicles (such as locomotives) must meet the threshold of 25 gCO<sub>2</sub>/tkm. Transportation of fossil fuels (including blended fuels) is not an eligible activity.

<sup>21</sup> Vehicles and trains (including hybrids) with less than 50 gCO<sub>2</sub>/pkm or 25 gCO<sub>2</sub>/tonne-km (freight).

<sup>22</sup> To be eligible, hybrid freight locomotives must meet threshold of 25 gCO<sub>2</sub>/tkm. Freight rail where more than 25% of the rolling stock is dedicated to the transport of fossil fuels is not eligible.

<sup>23</sup> Expenditures related to parking facilities are not eligible.

<sup>24</sup> Low-impact rail means that fossil fuels represent less than 25% of the freight in tkm transported by the line.

<sup>25</sup> Electrified vehicles (BEVs and HEVs) in accordance with CBI's Land Transport Criteria. Climate Bonds Initiative, "Land Transport", at: <https://www.climatebonds.net/our-expertise/climate-bonds-standard-and-certification-scheme/sector-criteria/low-carbon-transport>

<p><b>Sustainable Management of Living and Natural Resources and Land Use</b></p>	<p>Expenditures related to:</p> <ul style="list-style-type: none"> <li>• Sustainable agricultural practices and climate smart farming that prevent or minimize the degradation of soil, ecosystems or habitats, or that promote soil carbon sequestration;</li> <li>• Recovery of degraded pastures;<sup>26</sup></li> <li>• Forestation, reforestation and forest restoration of degraded areas;<sup>27</sup></li> <li>• Implementation and improvement of crop-livestock-forestry integration systems in all their possible combinations, and of agroforestry systems;<sup>28</sup></li> <li>• Implementation and improvement of irrigated and soil management systems;<sup>29</sup></li> <li>• Animal waste management;<sup>30</sup></li> <li>• Implementation and improvement of management and planting of commercial forests;<sup>31</sup></li> <li>• Adequacy and regularization of rural properties to the Forestry Code;<sup>32</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Number of environmental inspection actions carried out annually</li> <li>• Number of validated CARs<sup>38</sup></li> <li>• Area of degraded pastures that have been recovered</li> <li>• Area under natural regeneration</li> <li>• Number of rural properties compliant with the forestry code</li> <li>• Reforested area (in ha)</li> <li>• Area of adoption of the direct planting system (grains and vegetables)</li> <li>• Area of adoption of crop-livestock-forest integration (ILPF)</li> </ul>
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<sup>26</sup> The recovery of degraded pastures include activities to: i) expand production and enable access to fertilizers; ii) educate and train financial agents, market professionals and/or rural producers in good pasture management practices; iii) support the adoption of appropriate forage varieties and the enrichment and diversification of cultivated or native pastures; iv) enhance public and private technical assistance and rural extension; v) offer economic incentives to individuals to recover degraded pastures; vi) identify and map pasture areas with some degree of degradation; vii) offer up-to-date technical subsidies to financial agents for the analysis of credit operations that recover or renew degraded pastures; viii) prevent the degradation of new pasture areas; ix) develop and use technological innovations; and/or x) enable technology transfer and technological innovation mechanisms for small rural producers. For the avoidance of doubt, production of fertilizers is eligible based on the following criteria: i) manufacture of fertilizers produced from ammonia made from green hydrogen; and ii) CO<sub>2</sub> can be sourced from heavy industries but not fossil fuel operations. Additionally, expenditures associated with technological innovations will not be carbon intensive.

<sup>27</sup> To be considered eligible under this category, the projects will need to be certified to, for example, the Forest Stewardship Council or the Programme for the Endorsement of Forest Coalition. An activity outlined in the ABC+ Plan is to promote the implementation of crop-livestock-forestry integration systems and agroforestry systems, in the context of family farming. Under this category, the Republic of Brazil will also finance projects related to the training and capacity building activities, for sustainable forest management.

<sup>28</sup> To be considered eligible under this category, the projects will need to be certified to, for example, the Forest Stewardship Council or the Programme for the Endorsement of Forest Coalition. An activity outlined in the ABC+ Plan is to promote the implementation of crop-livestock-forestry integration systems and agroforestry systems, in the context of family farming. Under this category, the Republic of Brazil will also finance projects related to the training and capacity building activities, for sustainable forest management.

<sup>29</sup> To be eligible, the irrigation systems must not depend on fossil fuels and must be drip irrigation, or whose investment is related to either water or energy efficiency.

<sup>30</sup> To be eligible, waste management must not include confined animals or any industrial livestock.

<sup>31</sup> To be considered eligible under this category, the projects will need to be certified to, for example, the Forest Stewardship Council or the Programme for the Endorsement of Forest Coalition. An activity outlined in the ABC+ Plan is to promote the implementation of crop-livestock-forestry integration systems and agroforestry systems, in the context of family farming. Under this category, the Republic of Brazil will also finance projects related to the training and capacity building activities, for sustainable forest management.

<sup>32</sup> The Forestry Code was established by Law No. 12,651/2012 and requires rural properties to comply with certain conservation thresholds according to their biome. All properties must maintain a legal reserve corresponding to 20-80% of its total area (depending on their biome), in which native vegetation must be fully conserved and economically exploited only under approved sustainable management practices. All properties must also maintain APP, established according to its position regarding watercourses, springs, slopes, mangroves and other key areas for conserving water resources, landscapes, geological stability, biodiversity, soil protection, fauna and flora genetic flow and communities' well-being. In this context, adequacy and regularization refer to all related activities necessary to provide such practices and comply with these thresholds through each property CAR.

<sup>38</sup> Rural environmental registry (CAR), created by Law No. 12. 651/2012, within the scope of the National Environmental Information System (SINIMA) and regulated by MMA Normative Instruction No. 2, of May 5, 2014. The CAR is a nationwide electronic public registry, mandatory for all rural properties, with the purpose of integrating the environmental information of rural properties and possessions regarding permanent preservation areas (APP), restricted use, legal reserves, remaining forests and other forms of native vegetation, and consolidated areas. It is a database for the control, monitoring, environmental and economic planning, and combating of deforestation. Republic of Brazil, "O que é o CAR?", at:

<https://www.car.gov.br/#/sobre>

	<ul style="list-style-type: none"> <li>• Implementation or expansion of units for biofertilizer production;<sup>33</sup></li> <li>• Implementation or expansion of units for organ mineral fertilizers using biological waste as an input;</li> <li>• Projects that use biological nitrogen fixation of micro-organisms that boost the growth of plants and multi-functionals;<sup>34</sup></li> <li>• Projects for the production of organic food;</li> <li>• Implementation of Agricultural Climate Risk Zoning;<sup>35</sup></li> <li>• Conservation of natural resources, maintenance of permanent soil cover and improvement of its chemical, physical and biological quality;<sup>36</sup></li> <li>• Sustainable use of natural resources in production chains based on biodiversity;</li> <li>• Expenditures related to social biodiversity: <ul style="list-style-type: none"> <li>○ Conservation of biodiversity in production chains that use natural resources;</li> <li>○ Integrated and sustainable productive systems in productive chains based on biodiversity;</li> </ul> </li> <li>• Valuing rural communities, their products, services and processes related to social biodiversity, related to: <ul style="list-style-type: none"> <li>○ Projects to identify and boost visibility of products and rural communities;</li> <li>○ Registration, management and dissemination of knowledge, techniques, and traditional and scientific knowledge;</li> </ul> </li> <li>• Projects that enable participation of family farming in renewable energy;</li> <li>• Projects for areas belonging to Indigenous peoples and traditional peoples and communities,<sup>37</sup> including demarcation and restoration of areas;</li> <li>• Revitalization of hydrographic basins: water production and retention in their natural</li> </ul>	<ul style="list-style-type: none"> <li>• Area of adoption of agroforestry systems (SAFs)</li> <li>• Area of planted forests</li> <li>• Area of adoption of irrigated systems</li> <li>• Waste sustainably handled in tonnes</li> <li>• Number of projects and initiatives supported by Program ABC that guarantee the preservation, management and sustainable use of natural resources</li> <li>• Number of projects and initiatives supported by Program ABC that promote the conservation and recovery of endemic species</li> <li>• Number of projects supported by Program ABC that use production systems that contribute to the increase of natural capital</li> <li>• Number of producers or agro-industries with environmental certifications</li> <li>• Number of farmers who supply companies with products with the biofuel certification</li> <li>• Number of producers using sustainable production technologies</li> <li>• Number of rural properties compliant with the forestry code</li> <li>• Kilometres of trails that are part of the national network of long-distance trails and connectivity</li> </ul>
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<sup>33</sup> The original ABC Plan (implemented from 2010 to 2020) considered the implementation or expansion of units for biofertilizer productions through the stimulation of Biological Nitrogen Fixation (BNF). The updated version of the plan, called ABC+ (implemented from 2021 to 2030) maintains the BNF but also includes other micro-organisms that promote plant growth (MPCP) and multifunctional organisms that can contribute to improving the fixation and/or availability of nutrients and increasing biological control. Additionally, the plan: i) promotes the use of inoculants and co-inoculants with nitrogen-fixing bacteria and other MPCP by producers; and ii) offers incentives to develop new inoculants, including the identification and validation of new micro-organisms, microbial molecules, fermentation processes, support vehicles and delivery technologies.

<sup>34</sup> To be eligible, projects will have a sustainable management plan certified to, for example, FSC or PEFC.

<sup>35</sup> To be eligible, the expenditure must not include devices for short-term meteorological purposes.

<sup>36</sup> Soil remediation activities will not be related to the contamination or negative environmental externalities from the government's own activities.

<sup>37</sup> Defined by Decree No. 6.040/2007 as "culturally differentiated groups that recognize themselves as such, that have their own forms of social organization, that occupy and use territories and natural resources as a condition for their cultural, social, religious, ancestral and economic reproduction, using knowledge, innovations and practices generated and transmitted by tradition".

	environments with a focus on sustainable development.	<ul style="list-style-type: none"> <li>Economic circularity indicators in productive chains based on biodiversity</li> </ul>
<b>Terrestrial and Aquatic Biodiversity</b>	<p>Expenditures related to:</p> <ul style="list-style-type: none"> <li>Protection, conservation, recovery, restoration and sustainable management of biodiversity, terrestrial and marine ecosystems;</li> <li>Creation, operation and maintenance of land and marine conservation units;</li> <li>Implementation of the Rural Environmental Registry (CAR)</li> <li>Prevention and fight against forest fires: <ul style="list-style-type: none"> <li>Educational campaigns, training of local communities and firefighters;</li> <li>Employee improvement and updating courses;</li> <li>Selection and hiring of local firefighters;</li> <li>Implementation of short- and long-term fire prevention actions;</li> <li>Maintenance and improvements of monitoring and early detection and warning systems;</li> <li>Investments in firefighting equipment (including specific individual protective equipment, vehicles and others);</li> <li>Expenses with overflight to assess wildfires and define firefighting strategies.</li> </ul> </li> <li>Improvement of the inspection process for compliance with environmental legislation, including remote monitoring technologies;</li> <li>Combating deforestation, related to: <ul style="list-style-type: none"> <li>Promotion of sustainable productive activities;</li> <li>Environmental monitoring and control;</li> <li>Land and territorial organization;</li> <li>Normative and economic instruments;</li> </ul> </li> <li>Monitoring and recording of the fauna of Brazilian biomes;<sup>39</sup></li> <li>Development and implementation of Marine Spatial Planning;</li> <li>Research and development of conservation technologies and strategies;</li> <li>Implementation of the "Bolsa Verde".<sup>40</sup></li> </ul>	<ul style="list-style-type: none"> <li>Number of financed bio-inputs and biofertilizer production units</li> <li>Area under sustainable management practices (ha)</li> <li>Number of species monitored</li> <li>Number of events for prevention and fight against forest fires</li> <li>Number of hired fire brigade members, regardless of their residence inside the conservation units and immediate surroundings</li> </ul>

<sup>39</sup> Coutinho, L.M., (2006), "O conceito de bioma", Acta Botanica Brasilica, at: <https://www.scielo.br/j/abb/a/RhxPXyYPBPbCQCxz8hGtSn/?lang=pt>

<sup>40</sup> The Bolsa Verde Programme (Programme of Support to Environmental Conservation – Decree No. 7.572/2011) combines cash transfer with the provision of technical assistance, productive structure and access to basic public services. The beneficiaries are Indigenous peoples and other traditional peoples and communities living in conservation units, environmental rural settlements and other traditional territories, whose participation is conditioned to the conservation and sustainable use of forests and biodiversity.

<b>Sustainable Management of Water and Effluents</b>	<p>Expenditures related to:<sup>41</sup></p> <ul style="list-style-type: none"> <li>• Design, construction, operation, maintenance, improvement, enlargement and adaptation for efficient and sustainable management of water and wastewater;</li> <li>• Implementation and improvement of the management instruments provided under the National Water Resources Policy (Law No. 9,433/97);<sup>42</sup></li> <li>• Revitalization of river basins;</li> <li>• Implementation of monitoring mechanisms and granting controls;</li> <li>• Control of water pollution and compatibility of water quality for different uses;</li> <li>• Conservation of water resources, protection of river basins and prevention of pollution affecting water supply;</li> <li>• Network systems for monitoring water resources, flood control, weather and atmospheric conditions;</li> <li>• Technical and financial assistance for implementation of decentralized and low-environmental-impact technologies, including bio-digestive tanks, wetlands, root zones and evapotranspiration tanks, for the management of domestic effluents for families in rural areas and/or situation of poverty.<sup>43</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Volume of effluents treated annually and proportion relative to total</li> <li>• Number of sponsored projects related to waterbodies protection</li> <li>• Number of revitalized hectares close to waterbodies</li> <li>• Number of springs protected annually</li> </ul>
<b>Adaptation to Climate Change</b>	<p>Expenditures related to:<sup>44</sup></p> <ul style="list-style-type: none"> <li>• Surveys, studies and mechanisms for the prevention and alerts of extreme weather events, focusing on the construction of the adaptive capacity of vulnerable communities;</li> <li>• Strengthening of the National Civil Protection and Defense System (SINPDEC);</li> <li>• Reduced vulnerability and increased resilience of agricultural production systems;</li> <li>• Development and improvement of methods for assessing the efficiency of resilience, adaptive capacity and productivity of sustainable systems, practices, products and production processes;</li> <li>• Integration of information and systems for analysis of resilience, adaptive capacity and risk monitoring</li> </ul>	<ul style="list-style-type: none"> <li>• Number of families in risk areas benefiting from prevention actions</li> <li>• Indicator of municipal capacity in disaster risk management</li> <li>• Proportion of water tanks for access to water for human consumption, delivered in municipalities in situation of poverty, extreme poverty, and food and nutrition insecurity</li> <li>• Increase in the adaptive capacity of agricultural production systems</li> <li>• Actions to raise roads or other infrastructure works to reduce</li> </ul>

<sup>41</sup> Systems and measures that provide water for fossil fuel operations, fracking, and nuclear and mining industries and operations are not eligible.

<sup>42</sup> The Brazilian government plans to support the sustainable management of water and effluents by implementing the mechanisms regulated by Law No. 9,433/97. The government will promote financing related to the implementation of systems to improve the management of water resources, such as the Grant Management System in the State of Minas Gerais, which was implemented with funds transferred by the Ministry of Integration and Regional Development.

<sup>43</sup> To be eligible, the energy consumption must not be dependent on fossil fuels.

<sup>44</sup> All adaptation measures and activities are designed and implemented according to Brazil's National Adaptation Plan and available data on climate vulnerability through platforms such as AdaptaBrasil, ClimaAdapt and Projeções Climáticas no Brasil.



	<p>of sustainable systems, practices, products and production processes;</p> <ul style="list-style-type: none"> <li>• Reduction of erosion (including reduced loss of soil, water and nutrients) and increase in the adaptive capacity to droughts;</li> <li>• Reduction of the negative impacts of extreme rainfall events on soil and water conservation;</li> <li>• Reduction of productivity losses and vulnerability of grains to pests due to reduced water availability;</li> <li>• Reduction of the effects of water deficit, increase in thermal comfort and animal well-being, improved productivity and use of natural resources, especially the soil and the water, and minimization of pasture losses in regions subject to sudden temperature inversions;<sup>45</sup></li> <li>• Reduction of the vulnerability of production systems in periods of drought and the risk of crop loss due to extreme weather events;</li> <li>• Adaptation, reducing vulnerability and increasing resilience of urban infrastructure.</li> </ul>	<p>the risk of flooding caused by climate change</p> <ul style="list-style-type: none"> <li>• Reduction in land loss from inundation and/or coastal erosion (in km<sup>2</sup>)</li> </ul>
<b>Circular Economy Adapted Products, Production Technologies and Processes</b>	<p>Expenditures related to:</p> <ul style="list-style-type: none"> <li>• Industrial plants that process waste to generate new products or to restore them to a previous state that enables new processing;</li> <li>• Bio-based products that use renewable materials in substitution of fossil inputs;</li> <li>• Encouragement of reverse logistics<sup>46</sup> actions and negotiation of sector agreements.<sup>47</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Proportion of recoverable waste in kilograms and percentages recycled</li> <li>• Waste that is prevented, minimized or reused before and after the project (in % of total waste and/or in absolute amount in tonnes per annum)</li> <li>• Annual absolute (gross) amount of waste that is separated and/or collected and treated (including composted) or disposed of (in tonnes per annum and in % of total waste)</li> <li>• Tonnes of waste reduced</li> </ul>
<b>Socio-economic Development and Empowerment - Combating Poverty</b>	<p>Expenditures related to Combating Poverty:</p> <ul style="list-style-type: none"> <li>• Financial assistance through direct cash transfers for families living in situation of poverty or extreme</li> </ul>	<ul style="list-style-type: none"> <li>• Number of eligible families benefiting from social programmes</li> </ul>

<sup>45</sup> To be eligible, expenditures related to reducing the effects of water deficit must not support industrial-scale livestock production.

<sup>46</sup> The National Information System on Solid Waste Management (SINIR+) defines reverse logistics as: "An instrument of economic and social development characterized by a set of actions, procedures and means aimed at enabling the collection and return of solid waste to the business sector, for reuse, in its cycle or in other productive cycles, or other environmentally appropriate final destination". SINIR has been established by Law No. 12.305. To be eligible, procurement of bio-based raw materials (excluding bioplastics) will be done by sustainable sourcing. Additionally, production of aluminium-based products must have: i) at least 90% of inputs being scrap or recycled aluminium; or ii) at least 75% of input being scrap or recycled aluminium and the remaining (primary) aluminium having a carbon intensity below 2.5 tCO<sub>2</sub>e/tonne.

Republic of Brazil, "O que é Logística Reversa", at: <https://sinir.gov.br/perfis/logistica-reversa/logistica-reversa/>

Republic of Brazil, "Lei No. 12.305, de 2 de Agosto de 2010", at: [https://www.planalto.gov.br/ccivil\\_03/\\_ato2007-2010/2010/lei/l12305.htm](https://www.planalto.gov.br/ccivil_03/_ato2007-2010/2010/lei/l12305.htm)

<sup>47</sup> This category will not include: i) commercial-scale manufacturing and production of resource-efficient and low carbon of products without details on the manufacturing process, assurance of sustainable sourcing and/or reasonable basis for substantial reduction of life cycle emissions; and/or ii) procurement of recycled and waste inputs intended for (non-medical) plastic packaging for single-use consumer products.

	<p>poverty linked to the Single Registry of the Federal Government,<sup>48</sup> as defined in the section of target population;</p> <ul style="list-style-type: none"> <li>Financial assistance for the elderly (65 years old or older) and people with disabilities;</li> <li>Basic Social Protection Actions of the Unified Social Work System (SUAS).<sup>49</sup></li> </ul>	<ul style="list-style-type: none"> <li>Families' registration update rate</li> <li>Number of people directly benefited (direct beneficiaries of financial resources or other form of assistance) within the target population</li> <li>Number of people indirectly benefited (relatives and dependents of direct beneficiaries) within the target population</li> <li>Percentage of municipalities that receive federal funds to offer SUAS Basic and Special Social Protection Actions</li> <li>Coverage rate of families benefiting from the Crop Guarantee<sup>50</sup></li> </ul>
<b>Food Security and Sustainable Food Systems</b>	<p>Expenditures related to:<sup>51</sup></p> <ul style="list-style-type: none"> <li>Healthy and nutritious food service programmes, including the purchase and distribution of food, as well as food subsidies to the target population: <ul style="list-style-type: none"> <li>Populations experiencing food or nutrition insecurity;</li> <li>Students of public schools;</li> <li>Traditional communities, including quilombolas, people living from extractivism and Indigenous peoples.</li> </ul> </li> <li>Finance activities of the National Food and Nutrition Security System (SISAN) to increase food security;</li> <li>Encouragement of agro-ecological food production in urban and semi-urban areas;</li> <li>Regional and articulated measures to strengthen production chains and co-operativism and increase the potential for success of family farmers,<sup>52</sup> mainly located in semi-arid zones.</li> </ul>	<ul style="list-style-type: none"> <li>Municipalities in situation of poverty, extreme poverty and food and nutrition insecurity that adhere to the programmes (% or total)</li> <li>Number of beneficiary families</li> <li>Rate of family farmers benefiting from programmes and located in priority municipalities (in situation of poverty and extreme poverty, and food and nutrition insecurity)</li> <li>Percentage of municipalities that adhere to the Crop Guarantee</li> </ul>

<sup>48</sup> The eligible population will be characterized based on monthly income per person.

<sup>49</sup> SUAS is regulated by Law No. 8,742/1993, which frames social assistance as a right and as a non-contributory social security policy. In this sense, it is available to all, regardless of the ability to pay.

<sup>50</sup> Crop guarantee is an action of the National Program for the Strengthening of Family Agriculture (PRONAF), which aims to ensure minimum survival conditions for family farmers in municipalities systematically subject to severe crop loss due to drought or water excess.

<sup>51</sup> Expenditures under this category will only go to regions in Brazil with deficiencies in food production, distribution and food security.

<sup>52</sup> Family farmers are defined by Law No. 11,326/2006. A family farmer and rural family entrepreneur is considered to be one who practices activities in the rural environment while meeting the following requirements: i) does not own, in any capacity, an area larger than four fiscal modules; ii) predominantly uses labor from his own family in the economic activities of his establishment or enterprise; iii) has a minimum percentage of family income originating from economic activities of his establishment or enterprise, as defined by the Executive Power; and iv) has a minimum percentage of family income originating from economic activities of his establishment or enterprise, as defined by the Executive Power. A fiscal module is a unit of measurement established for each Brazilian municipality by the National Institute of Colonization and Agrarian Reform, which may vary between 5 and 110 hectares.

		<ul style="list-style-type: none"> <li>Number of family farmers who supply to the PAA<sup>53</sup> and PNAE<sup>54</sup></li> </ul>
<b>Access to Basic Infrastructure - Urban Development and Mobility</b>	<p>Expenditures related to:</p> <ul style="list-style-type: none"> <li>Preparation and implementation of the National Urban Development Policy;</li> <li>Planning and implementation of public transport, including buses, subways and support infrastructure, focusing on the promotion of accessible mobility and connection between urban centres and peripheral areas, as well as between urban centres and rural areas;<sup>55</sup></li> <li>Access to affordable electricity, including subsidy programmes, and transmission and distribution projects within remote or underserved areas with either no or inadequate access to electricity;<sup>56</sup></li> <li>Concessions and public-private partnerships with a focus on sustainable development;</li> <li>Incentives for intermodal transport in underserved or remote regions.</li> </ul>	<ul style="list-style-type: none"> <li>Volume of CO<sub>2</sub>e emissions reduced by urban mobility projects</li> <li>Number of completed urban mobility projects</li> <li>Number of jobs generated by development and urban mobility programmes</li> <li>Number of people served daily by low carbon collective public transport</li> <li>Total kilometres of built sidewalks, walkways and other pedestrian pathways</li> <li>Kilometres of cycle lanes built</li> </ul>
<b>Access to Basic Infrastructure - Universalization of Basic Sanitation</b>	<p>Expenditures related to:</p> <ul style="list-style-type: none"> <li>Expansion of access and efficacy of water supply, sewage, urban cleaning and solid waste management services for families living in situation of poverty or extreme poverty, informal settlements or households not yet connected to the service network;</li> <li>Projects and interventions that will guarantee the supply of water with sufficient and appropriate quality and quantity for human supply and multiple uses;</li> <li>Research and development of technologies that provide greater energy efficiency in water collection, treatment and supply processes;</li> <li>Sustainable urban drainage and rainwater management systems in critical municipalities<sup>57</sup> subject to recurring events of floods and overflows;</li> </ul>	<ul style="list-style-type: none"> <li>Expansion of water treatment and distribution coverage</li> <li>Expansion of wastewater collection and treatment coverage</li> <li>Expansion of treatment and correct disposal of solid waste</li> <li>Expansion of the urban drainage system</li> <li>Families in need of post-disaster housing served</li> <li>Number of families displaced due to extreme weather events</li> <li>Number of families removed from areas at risk of slope</li> </ul>

<sup>53</sup> The Food Acquisition Program (PAA), created by article 19 of Law No. 10,696, has two basic purposes: to promote access to food and to encourage family farming. [https://www.org.br/wp-content/uploads/2016/12/data\\_sheet\\_PAA\\_english.pdf](https://www.org.br/wp-content/uploads/2016/12/data_sheet_PAA_english.pdf)

<sup>54</sup> The National School Feeding Program (PNAE) consists of the supplementary transfer of federal financial resources for the care of students enrolled in all stages and modalities of basic education in the municipal, district, state and federal networks and in the entities qualified as philanthropic or maintained by them, in the confessional schools maintained by a non-profit entity and in the community schools agreed with the states, the federal district and the municipalities. PNAE targets the students' growth and biopsychosocial development, learning, school performance and the formation of healthy eating habits through food and nutrition education actions and the provision of meals that cover their nutritional needs during the school period. Republic of Brazil, "Programa Nacional de Alimentação Escolar", at: <https://www.gov.br/fnde/pt-br/aceso-a-informacao/acoes-e-programas/programas/pnae>

<sup>55</sup> In order to be considered as Eligible Projects, they must be related to: i) electric vehicles and trains; ii) Vehicles and trains (including hybrids) with less than 50 gCO<sub>2</sub>/pkm or 25 gCO<sub>2</sub>/tkm (freight); iii) green hydrogen-powered vehicles; iv) development or improvement of railway transport to spur a shift from road to rail.

<sup>56</sup> In order to be considered an Eligible Project, >80% of the electricity in the relevant grid should have to be generated from renewable sources.

<sup>57</sup> Critical municipalities are defined according to the National Register of Municipalities with Areas Susceptible to the occurrence of high impact

	<ul style="list-style-type: none"> <li>• Containment of slopes in urban areas;</li> <li>• Provision of temporary housing for people displaced by extreme weather events;</li> <li>• Support for the implementation, expansion or improvement of water supply systems in municipalities in the semi-arid region;</li> <li>• Promotion of access to water for human consumption and for food production through the implementation of simple and low-cost social technologies (such as cisterns) for low-income rural families affected by droughts or regular lack of water, with priority given to traditional peoples and communities;</li> <li>• Investments in design and implementation of efficient and clean water supply for municipalities in the semi-arid region and the target population.</li> </ul>	<p>containment actions for mitigation</p> <ul style="list-style-type: none"> <li>• Number of studies, guidelines, policies or programmes completed focused on the identification, analysis and prevention of the risk of the impact caused by natural events associated with climate change</li> <li>• Number of households served</li> <li>• Number of projects executed</li> <li>• Number of water desalination systems implemented in priority locations in terms of access to water</li> <li>• Total volume of treated water</li> </ul>
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## Issuer's Responsibility

The Republic of Brazil is responsible for providing accurate information and documentation relating to the details of the projects, including descriptions, amounts allocated and impact.

## Independence and Quality Control

Sustainalytics, a leading provider of ESG research and ratings, conducted the verification of the use of proceeds from the Republic of Brazil's Sovereign Sustainable Bonds. The work undertaken as part of this engagement included collection of documentation from the Republic of Brazil and review of said documentation to assess conformance with the Framework.

Sustainalytics relied on the information and the facts presented by the Republic of Brazil. Sustainalytics is not responsible, nor shall it be held liable, for any inaccuracies in the opinions, findings or conclusions herein due to incorrect or incomplete data provided by the Republic of Brazil.

Sustainalytics made all efforts to ensure the highest quality and rigor during its assessment process and enlisted its Sustainability Bonds Review Committee to provide oversight of the review.

## Conclusion

Based on the limited assurance procedures conducted,<sup>58</sup> nothing has come to Sustainalytics' attention that causes us to believe that, in all material respects, the Nominated Expenditures do not conform with the use of proceeds criteria and reporting commitments in the Framework. The Republic of Brazil has disclosed to Sustainalytics that 100% of the proceeds from the Global 2031 Bond and 65.2% of the Global 2032 Bond proceeds were fully allocated as of June 2025. The Republic of Brazil intends to allocate the remaining 34.8% of proceeds from the Global 2032 Bond by the end of June 2026.

landslides, flash floods or related geological or hydrological processes. The National Register is regulated by Decree No. 10,692/2021, which establishes the criteria and processes for such definition. Additionally, critical municipalities might also be indicated by the Brazilian Geological Service based on its technical analysis.

<sup>58</sup> Sustainalytics' limited assurance process includes reviewing documentation relating to details of projects, as provided by the issuing entity, which is responsible for providing accurate information. These may include descriptions of projects, estimated and realized costs, and reported impact. Sustainalytics has not conducted on-site visits to projects.

## Detailed Findings

Table 2: Detailed Findings

Framework Requirements	Procedure Performed	Factual Findings	Error or Exceptions Identified
<b>Use of Proceeds Criteria</b>	Verification of the Nominated Expenditures to determine alignment with the use of proceeds criteria outlined in the Framework	The Nominated Expenditures comply with the use of proceeds criteria.	None
<b>Reporting Criteria</b>	Verification of the Nominated Expenditures to determine if impact was reported in line with the KPIs outlined in the Framework	The Republic of Brazil reported on at least one KPI per use of proceeds category.	None

## Appendices

### Appendix 1: Allocation of Proceeds

Table 3: Allocation of proceeds from the 2031 Global Bond

Use of Proceeds Category	Group <sup>59</sup>	Project Description	Amount Allocated in 2024 (BRL million)	Amount Allocated in 2025 (BRL million)	Total Amount Allocated (BRL million)
Pollution Prevention and Control - Control of GHG Emissions <sup>60</sup>	Budget Program	Monitoring of land cover and wildfire and forest fire risk (INPE)	6.14	1.43	7.57
		Support for studies and Research and development projects related to climate change	1.63	1.44	3.06
		Implementation and monitoring of the National Policy on Climate Change	-	5.38	5.38
Pollution Prevention and Control - Solid Waste Management	Climate Fund	Installation and maintenance of landfill biogas capture systems (excluding for flaring), along with the construction of a biogas purification plant to produce biomethane	-	12.14	12.14
Renewable Energy	Budget Program	Biofuels industry studies	-	0.51	0.51
	Climate Fund	Solar energy	394.24	883.90	1,278.14
		Energy from biomass and municipal solid waste or industrial waste <sup>61</sup>	51.47	49.77	101.24
		Biomethane production <sup>62</sup>	45.86	-	45.86
		Hydropower from run-of-river plants without artificial reservoirs or with reduced storage capacity <sup>63</sup>	-	15.69	15.69
Clean Transport	Climate Fund <sup>64</sup>	Electric buses	3.13	101.37	104.50
		Low-impact rail and waterway infrastructure for cargo transport	-	78.00	78.00
		Infrastructure related to low and zero-emission public transport, such as electric charging stations, signaling and control systems, intermodal stations, hydrogen refuelling	43.00	20.44	63.44

<sup>59</sup> The Republic of Brazil has evaluated projects within the budgetary programme associated with the PPA, which is Brazil's main medium-term instrument that defines government programmes over a four-year cycle. In addition, some of the projects are financed through resources from the National Fund on Climate Change (FNMC or "Climate Fund").

<sup>60</sup> The Republic of Brazil has confirmed that the expenses under this category are related to the development of the Republic of Brazil's National Registration System for GHG Emissions (SIRENE), a country-level platform for monitoring, reporting, verification, estimation and disclosure of GHG emissions.

<sup>61</sup> The Republic of Brazil has confirmed that the waste-to-energy projects do not include municipal solid waste and waste heat from fossil fuel production. Additionally, the life cycle GHG emissions intensity is below 100 gCO<sub>2</sub>e/kWh for this project.

<sup>62</sup> The Republic of Brazil has confirmed that biomethane production follows the CBI's waste-to-energy criteria and waste heat from fossil fuel is excluded.

<sup>63</sup> The Republic of Brazil has confirmed that hydropower projects do not have artificial reservoirs. In addition, environmental and social impact assessments have been carried out and none of the projects were classified as a high sensitivity project.

<sup>64</sup> The Republic of Brazil has confirmed that all financed projects are related to electric vehicles, except for the waterway transport project. The latter meets the 25 gCO<sub>2</sub>/tkm threshold and is intended for grain transportation.

		stations or electric roads, as well as sidewalks, walkways, underpasses and pedestrian paths			
		Procurement, design, maintenance, extension, repair, refurbishment, upgrade, operation and/or implementation of low or zero-carbon transport	-	62.65	62.65
<b>Sustainable Management of Living and Natural Resources and Land Use</b>	Budget Program	Land regularization, protection, and management of Indigenous territories	167.91	165.23	333.14
		Risk reduction in agricultural activities that involves studies, implementation and maintenance of agricultural climate risk zoning <sup>65</sup>	0.84	0.96	1.80
		Valuing rural communities through productive structuring, promotion and strengthening of family farming, small and medium rural producers, and agroecology	80.64	58.47	139.11
		Support for economic organization and promotion of citizenship and well-being of rural women. It also involves reducing risks in agricultural activities, and promoting and protecting the multi-ethnic, cultural and social rights of Indigenous peoples through productive models that contribute to environmental recovery and Indigenous health. Additionally, the initiative strengthens environmental management for agrarian reform beneficiaries and enhances sustainable productive activities to improve local integration and development.	0.18	2.09	2.27
		Sustainable development of the bio-economy	4.34	1.17	5.51
		Multi-ethnic cultural and social rights of Indigenous peoples, including contribution to community infrastructure, environmental licensing and territorial and environmental management of Indigenous lands	68.64	78.36	147.00
		Hydro-environmental recovery in watersheds within CODEVASF's <sup>66</sup> area of operation	22.60	9.80	32.40
		Management of policies for Indigenous peoples, including implementation of basic Indigenous health units and identification, delimitation, demarcation and regularization of Indigenous lands and reservations	31.57	47.28	78.85
		Support for the development of sustainable agricultural production	0.80	15.83	16.63
		Promotion, protection and recovery of Indigenous health <sup>67</sup>	-	602.47	602.47
		Support for the implementation of productive environmental zoning and application of sustainability indicators in agro-ecosystems	-	0.02	0.02

<sup>65</sup> The expenditure does not include devices for short-term meteorological purposes.

<sup>66</sup> Companhia de Desenvolvimento dos Vales do São Francisco e do Parnaíba (CODEVASF) is a company based in Brazil that operates primarily in the water and waste infrastructure sector.

<sup>67</sup> Republic of Brazil has confirmed that this expenditure, focused on healthcare, supports indigenous communities' ability to continue their traditional stewardship, thereby contributing to environmental preservation.

		Promotion of socio-biodiversity in territories of traditional peoples and communities, socio-productive inclusion in territories of Traditional Peoples and Communities (PCT) and environmental management on Indigenous lands	-	0.14	0.14
		Forest registration, restoration, production and regularization of rural properties in the federal units <sup>68</sup>	-	2.45	2.45
		Sustainable development of artisanal fisheries	-	1.69	1.69
		Environmental development and management in agrarian reform settlement projects and reduction of risks in agricultural activities	-	0.13	0.13
		Structuring and dynamization of productive activities – national integration routes	-	31.86	31.86
<b>Terrestrial and Aquatic Biodiversity</b>	Budget Program	Promotion of research and development in marine, ocean and climate science and technology	1.06	0.24	1.30
		Monitoring of land cover and wildfire and forest fire risk (INPE) <sup>69</sup>	1.00	0.83	1.83
		Support for environmental conservation and the eradication of extreme poverty <sup>70</sup> (Green Grant Program)	86.64	130.63	217.27
		Support for the creation, management and implementation of federal conservation units	308.21	246.66	554.87
		Prevention and control of forest fires in priority federal areas	100.62	141.49	242.11
		Environmental control, inspection and enforcement in several areas, such as polluting and contaminating activities, fauna, flora, genetic heritage, among others.	264.88	229.33	494.21
		Environmental enforcement and forest fire prevention and response through education, management, preparedness, monitoring, active firefighting, post-fire area recovery and promotion of alternatives to fire use in rural areas. It also supports climate emergency response by training Ibama staff and partners and hiring temporary federal firefighters to operate in affected regions.	196.83	-	196.83
		Promotion of scientific and technological research and development	2.16	2.26	4.42
		Science, technology and innovation at the National Atlantic Forest Institute (INMA)	0.28	0.67	0.95

<sup>68</sup> Rural properties are regulated under the Forestry Code, which requires rural properties to comply with certain conservation thresholds according to their biome. All properties maintain a legal reserve corresponding to 20-80% of its total area (depending on their biome), in which native vegetation is fully conserved and economically exploited only under approved sustainable management practices. All properties maintain APP, established according to its position regarding watercourses, springs, slopes, mangroves and other key areas for conserving water resources, landscapes, geological stability, biodiversity, soil protection, fauna and flora genetic flow and communities' well-being. In this context, adequacy and regularization refer to all related activities necessary to provide such practices and comply with these thresholds through each property's CAR.

<sup>69</sup> JPI Climate, "National Institute for Space Research", at: <https://jpi-climate.eu/partner/inpe/>

<sup>70</sup> The Bolsa Verde provides payments to families living in Sustainable Use Conservation Units (extractive reserves, national forests and sustainable development reserves), in environmentally differentiated settlements from the Agrarian Reform (forestry, agro-extractive and sustainable development), and in territories occupied by traditional peoples and communities. The beneficiaries of the program commit to taking care of the region where they live, using natural resources sustainably and preserving the forest, in addition to helping with monitoring and protecting these areas. Besides the payments, they will have access to technical assistance actions, socio-environmental rural extension, environmental conservation and socio-productive inclusion.



		Environmental restoration of the Santa Catarina Carboniferous Basin	-	3.12	3.12
		Development of infrastructure for the National Semi-Arid Institute <sup>71</sup>	-	0.40	0.40
		Forest research and information	-	1.46	1.46
		Research, assessment and monitoring of Brazilian flora	-	0.69	0.69
		Research and conservation of species and speleological heritage	-	2.08	2.08
		Management of sustainable biodiversity use and environmental restoration	-	8.50	8.50
		Formulation and implementation of strategies to promote conservation, restoration and sustainable use of biodiversity, native vegetation and genetic heritage	-	0.96	0.96
<b>Sustainable Management of Water and Effluents<sup>72</sup></b>	Budget Program	Support for the implementation, expansion or improvement of sanitation systems	-	503.94	503.94
		Hydro-environmental restoration in watersheds within CODEVASF's area of operation	-	2.41	2.41
		Upgrading of sanitation systems in CODEVASF's area of operation	-	5.89	5.89
		Conservation and restoration of watersheds	-	20.59	20.59
		Formulation and support for the implementation of the National Water Resources Policy	-	1.34	1.34
		Implementation of the National Water Resources Policy	-	203.80	203.80
		Socio-environmental management of water conservation in territories of traditional peoples, communities and family farmers	-	0.69	0.69
		Support for experimental development, institutional research and basic industrial technology projects in the water resources sector (CT-Hidro) <sup>73</sup>	-	30.07	30.07
		Regulation and oversight of water resource uses	-	19.68	19.68
<b>Adaptation to Climate Change</b>	Budget Program	Expansion and modernization of infrastructure for the study of biodiversity, technological innovation and sustainability of Amazonian ecosystems in response to global changes	5.44	4.19	9.63
		Monitoring and early warning of natural disasters (CEMADEN)	30.72	8.97	39.69
		Science, technology and innovation at the National Semi-Arid Institute (INSA)	0.38	0.72	1.10

<sup>71</sup> The National Institute of the Semi-Arid (INSA) develops research and technologies aimed at conservation and sustainable development in the region. Its work focuses on generating solutions that promote co-existence with the environmental conditions of the Brazilian semi-arid region.

<sup>72</sup> The Republic of Brazil has confirmed that systems and measures that provide water for fossil fuel operations, fracking, and nuclear and mining industries and operations are not included under this category.

<sup>73</sup> The Republic of Brazil has confirmed that this project is a strategic initiative of Ministry of Science, Technology and Innovation (MCTI), established to fund scientific and technological research focused on sustainable water management. It is regulated by Federal Law No. 9.433/1997, which established the National Water Resources Policy and mandates that 4% of the financial compensation paid by hydroelectric power concessionaires be allocated to the Water Resources Sector Fund (CT-Hidro).

		Science, technology and innovation at the National Institute for Amazonian Research (INPA)	1.90	6.66	8.56
		Support for research and development studies and projects related to climate change	2.88	0.38	3.26
		Support for emergency mitigation works to reduce disasters	8.75	0.16	8.91
		Support for the execution of studies, plans, projects and works for coastal erosion prevention and protection in urbanized areas	-	1.55	1.55
		Addressing desertification processes, mitigation and adaptation to drought effects	-	0.10	0.10
		Implementation of programmes, plans and actions for the improvement of urban environmental quality	-	4.14	4.14
Socio-economic Development and Empowerment – Combating Poverty	Budget Program	Continuous provision benefits (BPC) for the elderly and lifetime monthly income (RMV) by age	592.54	-	592.54
		Continuous cash benefits for people with disabilities and monthly lifetime income for disability	752.11	-	
		Basic social protection actions	17.96	-	2,885.00
		Direct and conditional transfer of income to families benefiting from the Bolsa Família programme	1,522.39	-	
Food Security and Sustainable Food Systems	Budget Program	Distribution of food to traditional and specific population groups	152.94	-	152.94
		Acquisition and distribution of food from family farming	808.72	-	808.72
Total Allocated Amount			5,781.40	3,833.64	9,616.65
Total Unallocated Amount			3,835.24	0.00	0.00
Net Proceeds Raised			9,616.65		

**Table 4: Allocation of proceeds from the 2032 Global Bond**

Use of Proceeds Category	Group	Project Description	Amount Allocated in 2024 (BRL million)	Amount Allocated in 2025 (BRL million)	Total Amount Allocated (BRL million)
<b>Renewable Energy</b>	Climate Fund	Solar energy	-	659.08	659.08
		Wind energy	-	500.00	500.00
		Energy from biomass and urban solid waste or industrial waste <sup>74</sup>	-	47.00	47.00
		Development and industrial capacity for the production of equipment, components, technologies and materials necessary for the energy transition	-	2.69	2.69
	Climate Fund	Investments in public lighting through the replacement of conventional lamps with LED technology	-	5.28	5.28

<sup>74</sup> The Republic of Brazil has confirmed that life cycle GHG emissions intensity is below 100 gCO<sub>2</sub>e/kWh and activities with waste heat from fossil fuel production are not included under this project. Additionally, the project does not include municipal solid waste.

<b>Energy Efficiency<sup>75</sup></b>		Upgrading of industrial infrastructure to achieve higher energy efficiency levels, resulting in savings of no less than 20% compared to pre-investment conditions	-	24.55	24.55
<b>Sustainable Management of Living and Natural Resources and Land Use</b>	Budget Program	Support for the implementation of agro-environmental policies	-	0.07	0.07
		Socio-environmental management in territories of traditional peoples, traditional communities and family farmers	-	6.13	6.13
		Registration, restoration and forest production	-	13.41	13.41
		Sustainable development of artisanal fisheries	-	66.47	66.47
		Support for sustainable territorial development; productive inclusion, including by providing access to technical assistance and rural extension to Amazonian families to recover degraded areas to produce healthy foods and socio-biodiversity products; and rural infrastructure <sup>76</sup>	-	2.61	2.61
		Environmental development and management for land reform beneficiaries	-	1.71	1.71
		Structuring and promotion of productive activities – national integration routes	-	66.91	66.91
		Sustainable development of the bioeconomy	-	3.20	3.20
		Socio-environmental management of natural resources in territories of traditional peoples, traditional communities and family farmers	-	8.10	8.10
		Implementation of policies for biodiversity, native vegetation and protected areas	-	4.15	4.15
		Forest management	-	6.76	6.76
		Assessment, monitoring and conservation of Brazilian flora	-	0.001	0.001
		Promotion, protection and recovery of Indigenous health	-	566.00	566.00
		Management of policies for Indigenous peoples	-	121.78	121.78
	Climate Fund	Afforestation, reforestation and ecological restoration of degraded areas <sup>77</sup>	-	95.00	95.00
<b>Terrestrial and Aquatic Biodiversity</b>	Budget Program	Environmental restoration of the Coal Basin of Santa Catarina	-	10.93	10.93
		Construction of infrastructure for the National Institute for the Semi-Arid Region (INSA)	-	1.25	1.25

<sup>75</sup> The Republic of Brazil has confirmed that expenditures related to fossil fuel-operated equipment or any activity and technology that is inherently designed for carbon-intensive activities are excluded. Heat pumps are not financed under this category.

<sup>76</sup> The support for sustainable rural infrastructure complies with the threshold mentioned in the Republic of Brazil's Forestry Code.

<sup>77</sup> The Republic of Brazil has confirmed that afforestation, reforestation, forest restoration of degraded areas and forest management projects will be accompanied by a sustainable forest management plan and that the plant and tree species used will be native or well adapted to local conditions. Additionally, these projects will be certified to the Forest Stewardship Council, the Programme for the Endorsement of Forest Certification or an equivalent scheme.

		Forest research and information	-	5.49	5.49
		Research, assessment and monitoring of Brazilian flora	-	3.53	3.53
		Research and conservation of species and speleological heritage	-	10.57	10.57
		Environmental development and management for land reform beneficiaries	-	1.82	1.82
		Management of sustainable use of biodiversity and environmental restoration	-	34.54	34.54
		Formulation and implementation of strategies to promote the conservation, restoration and sustainable use of biodiversity, native vegetation and genetic resources	-	9.52	9.52
		Formulation and implementation of policies, strategies and initiatives to control deforestation and forest fires	-	6.88	6.88
		Forest management	-	1.45	1.45
		Research and conservation of plant biodiversity	-	0.16	0.16
		Research and development at the Center for Strategic Technologies of the Northeast (CETENE)	-	2.04	2.04
		Environmental monitoring, prevention and firefighting	-	220.74	220.74
		Prevention and control of forest fires in federal priority areas	-	2.63	2.63
<b>Adaptation to Climate Change<sup>78</sup></b>	Budget Program	Monitoring and early warning of natural disasters (CEMADEN)	-	4.61	4.61
		Support for the development of studies, projects and works by federative entities for the containment or mitigation of floods and inundations, as well as the containment of marine and riverbank erosion	-	9.74	9.74
		Support for the implementation of studies, plans, projects and works for the prevention and protection against coastal erosion in urbanized areas	-	39.43	39.43
		Promotion of studies and projects for climate change mitigation and adaptation	-	8.83	8.83
		Addressing desertification processes, and mitigation of and adaptation to the effects of drought	-	7.89	7.89
		Implementation of programmes, plans and actions to improve urban environmental quality	-	47.92	47.92
	Climate Fund	Adaptation, vulnerability reduction and resilience strengthening of urban infrastructure	-	60.33	60.33
<b>Circular Economy</b>	Climate Fund	Industrial plants that process waste to generate new products or restore them to a previous state that allows for further processing	-	26.95	26.95

<sup>78</sup> The Republic of Brazil has confirmed that the projects in this category are with the National Adaptation Plan and more broadly with the National Climate Plan (Plano Clima). The plan has a National Adaptation Strategy and 16 sectoral adaptation plans. It is the public policy that updates the original 2016 National Adaptation Plan.

		Bio-based products that use renewable materials as substitutes for fossil-based inputs	-	10.27	10.27
<b>Socio-economic Development and Empowerment - Combating Poverty</b>	Budget Program	Continuous provision benefits for the elderly and lifetime monthly income, by age	616.88	-	616.88
		Continuous cash benefits for people with disabilities and lifetime monthly income for disability care	782.99	-	782.99
		Basic social protection actions	18.70	-	18.70
		Direct and conditional transfer of income to families benefiting from the Bolsa Família programme	2,479.10	-	2,479.10
<b>Access to Basic Infrastructure - Universalization of Basic Sanitation</b>	Budget Program	Support for sustainable urban drainage and rainwater management systems in municipalities critical to recurrent flooding, flash flooding and flooding events	26.14	-	26.14
		Support for the implementation, expansion or improvements of water supply systems in municipalities with a population of more than 50,000 inhabitants or municipalities that are part of metropolitan regions or integrated development regions	32.19	-	32.19
		Support for the implementation, expansion or improvement of sanitary sewage systems in municipalities with a population of more than 50,000 inhabitants or municipalities that are part of metropolitan regions or integrated development regions	98.02	-	98.02
		Support for the implementation, expansion, improvements or adaptation of water supply systems in areas where CODEVASF operates	0.28	-	0.28
		Construction of the border dam	27.48	-	27.48
		Implementation of infrastructure for water security	25.78	-	25.78
		Implementation of water supply systems	7.43	-	7.43
		Construction of an integrated water supply system	5.95	-	5.95
		Implementation of the Seridó project	4.04	-	4.04
		Implementation of the Sertão Baiano channel <sup>79</sup>	0.02	-	0.02
		Acquisition of equipment and/or implementation of water infrastructure works	11.84	-	11.84
		Implementation of the Pajeú pipeline to improve water security and environmental resilience in the states of Pernambuco and Paraíba	3.26	-	3.26
		Support for the management of basic sanitation systems in municipalities of up to 50,000 inhabitants	2.89	-	2.89

<sup>79</sup> Brazil's Ministry of Regional Development highlight the Sertão Baiano channel and the Seridó Project as major water infrastructure works designed to strengthen resilience in the semi-arid northeastern region in the face of climate emergencies. Both projects aim to address chronic water scarcity in the Sertão Baiano by ensuring a reliable water supply for human consumption and agricultural production, reducing vulnerability to droughts and promoting regional development.

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		Basic sanitation in Indigenous villages for the prevention of diseases and injuries	39.1	-	39.1
		Rehabilitation of dams and other water infrastructure	14.03	-	14.03
		Implementation of the Baixio de Irecê public irrigation project	1.72	-	1.72
		Implementation of the Xingo Channel	1.14	-	1.14
		Support for the execution of slope containment projects and works in urban areas	18.35	-	18.35
		Implementation of social technologies for access to water for human consumption and food production	113.41	-	113.41
<b>Total Allocated Amount</b>			<b>4,330.74</b>	<b>2,728.42</b>	<b>7,059.16</b>
<b>Total Unallocated Amount</b>			<b>6,496.34</b>	<b>3,767.92</b>	<b>3,767.92</b>
<b>Net Proceeds Raised</b>			<b>10,827.08</b>		

## Appendix 2: Reported Impact

Table 5: Reported Impact of projects under the Budget Program

Use of Proceeds Category	Impact indicators	Reported Impact
<b>Pollution Prevention and Control - Control of GHG emissions</b>	Protected area with integrated fire management implemented (km <sup>2</sup> )	344,838
	Number of climate information tools made available	2,604
	Percentage of national GHG emissions covered by mitigation plans (%)	59.80
<b>Renewable Energy</b>	Clean energy supply (%)	50.30
<b>Energy Efficiency</b>	ODEX Brasil	88.2
<b>Clean Transport</b>	Number of Decarbonization Credits (CBI0s) issued in the country during the year (in millions)	42.40
	Fleet renewal rate (%)	13.90
<b>Sustainable Management of Living and Natural Resources and Land Use</b>	Number of producers benefiting from the Rural Insurance Premium Subsidy Program (PSR)	86,443
	Number of families in the target audience served with agroecological, socio-biodiversity and agro-industry initiatives, with environmental conservation and recovery of degraded areas	2,000 <sup>80</sup>
	Land Regularization Index of Indigenous Lands	69.46
	Number of Indigenous lands supported by actions of protection, full ownership and exclusive usufruct	150
	Total area benefited by watershed revitalization actions (ha)	9,892
	Rate of infant mortality from preventable causes (%)	16.60
	Number of beneficiaries assisted (promote access to rural education for beneficiaries of Agrarian Reform, Quilombolas and Traditional Peoples and Communities)	2,061
	Number of rural women benefiting from public policies to strengthen economic and productive autonomy	758,751
	Number of Indigenous peoples represented	51
<b>Terrestrial and Aquatic Biodiversity</b>	Number of families served by the Bolsa Verde programme and other policies to promote sustainable productive activities	51,621
	Number of laboratories focused on standardization, metrology, accreditation and conformity assessment supported	1,436
	Number of beneficiaries served (promoting access to rural education for the public of Agrarian Reform, Quilombolas and Traditional Peoples and Communities)	2,061
	Percentage of terrestrial and marine territory protected	21.00
	Number of endangered fauna and flora species with action plans or other conservation instruments	1,853

<sup>80</sup> This is a targeted figure established in 2024. As of the publication of this report, the measured impact is not yet available.

	Area of native vegetation cover in recovery (ha)	187,500 <sup>81</sup>
	Percentage of monitored variables (promoting scientific knowledge, technological development and innovation in the ocean, coastal zone and polar regions)	56.00
<b>Sustainable Management of Water and Effluents</b>	Estimated annual increase in irrigated areas based on authorizations for the use of Union domain waters (ha)	277,683
	Percentage of urban households served by a sewerage system or septic tank for excreta or sanitary sewage	84.70
<b>Adaptation to Climate Change</b>	Percentage of states generating air, water, and soil quality monitoring data integrated with federal monitoring systems	27.45
	Percentage of municipalities in the high and advanced intermediate ranges of the Municipal Capacity Index for Risk and Disaster Management (ICM)	33.07
	Adjusted average time between request and transfer of resources for humanitarian assistance (days)	25.00
	Annual evolution in the availability of R&D infrastructure (units)	4,220
	Number of climate information instruments made available	2,600
<b>Circular Economy Adapted Products, Production Technologies and Processes</b>	Recovery rate of dry recyclables from municipal solid waste	5.70 <sup>82</sup>
<b>Socio-economic Development and Empowerment - Combating poverty</b>	Percentage of families with an income of up to 50% of minimum wage enrolled in the Unified Registry, covered by CRAS units	74.71
	Average concession time (in days) for the BPC (PCD and Elderly) (days)	83.00
	Percentage of municipalities with completion of the registration and monitoring systems of the requirements of Article 30 of the Council, Fund and Social Assistance Plan (LOAS)	95.00
	Percentage of attendance of families with a PBF profile (ratio of the number of families benefiting from the PBF to the estimate of families with a PBF permanence profile, calculated based on the PNADC)	100.93
<b>Food Security and Sustainable Food Systems</b>	Percentage of family farmers registered in the Unified Registry (CAD Único) as suppliers to the PAA	60.00
	Percentage of rural families in the Single Registry assisted through productive inclusion actions, especially the Rural Productive Activities Promotion Program	5.80
	Percentage of urban households supplied with water by distribution network or by well or spring	98.00
	Percentage of rural households supplied with water by distribution network or by well or spring	74.30

<sup>81</sup> This is a targeted figure established in 2024. As of the publication of this report, the measured impact is not yet available.

<sup>82</sup> In 2024, the targeted recovery rate of dry recyclables from municipal solid waste was 5.7%. The Thematic Diagnosis of Urban Solid Waste Management in 2024 has yet to be published.



	Percentage of urban households served by a collection network or septic tank for excreta or sanitary sewage	74.30
	Percentage of rural households served by a collection network or septic tank for excreta or sanitary sewage	26.00
	Number of municipalities with a low or critical Water Security Index (ISH) in the human dimension benefited from the expansion of water supply	135
	Number of Indigenous villages benefited from drinking water supply infrastructure works	225
	Number of rural families in the Unified Registry without access to water	942,495

**Table 6: Reported Impact from projects under the Climate Fund - estimated impact<sup>83</sup>**

Use of Proceeds Category	Impact indicators	Reported Impact
<b>Pollution Prevention and Control - Solid Waste Management</b>	Landfill capacity (m <sup>3</sup> )	3,633,300
	Daily waste intake and treatment capacity (tonnes/day)	10,000
	Annual biogas collection and combustion	8,194,762
	Avoided GHG emissions (tCO <sub>2</sub> e/year)	86,197
<b>Renewable Energy</b>	Installed capacity – solar (MW)	1164.18
	Physical guarantee of solar generation (average MW)	338.51
	Number of households served	1,300,914.60
	Avoided emissions – solar generation (tCO <sub>2</sub> e)	901,452.38
	Annual emissions avoided – solar generation (tCO <sub>2</sub> e/year)	258,998.44
	Installed capacity – wind (MW)	121.50
	Number of equivalent households served based on physical guarantee	256,168
	Avoided annual GHG emissions – electricity generation (tCO <sub>2</sub> e/year)	188,477.60
	Installed capacity – hydroelectric (MW)	2.50
	Number of households served	5,876
	Avoided emissions – hydroelectric generation (tCO <sub>2</sub> e)	37,403.00
	Installed capacity – PCH (MW)	4.00
	Avoided emissions – SHP generation (tCO <sub>2</sub> e)	26,898.00
	Installed capacity – biogas (MW)	2.15
	Avoided emissions – biogas generation (tCO <sub>2</sub> e)	1,761,000.00
	Biomethane produced (m <sup>3</sup> /year)	38,814,150.00

<sup>83</sup> The Republic of Brazil has estimated the impact for all eligible categories under the Climate Fund. Under the Renewable Energy category, indicators have been measured for three projects and measured impact indicators have also been reported for the Adaptation to Climate Change category. Please refer to Table 7 for further details.

	Biomethane production capacity (m <sup>3</sup> /year)	63,751,000.00
	Avoided emissions – biomethane (tCO <sub>2</sub> e)	56,536.00
	Annual emissions avoided – biomethane (tCO <sub>2</sub> e/year)	417,819.38
<b>Energy Efficiency</b>	GHG emissions avoided annually (tCO <sub>2</sub> e/year)	7,6475.5
	Energy saved (MWh/year)	77,145.07
	Implementation of energy efficiency actions – estimated energy saved (MWh/year)	77,145.07
<b>Clean Transport</b>	New products or services developed – electric vehicles	1
	Length implemented for BRT (rapid bus transit) system (km)	17.3
	Number of buses acquired	92
	Demand served (users/business day)	173,000
	Cargo transported (tonnes/year)	600,000
	Cargo handling capacity (tonnes/year)	1,200,000
	Number of vessels acquired	6
	Number of pushers acquired	1
	Annual GHG emissions avoided – waterways (tCO <sub>2</sub> e/year)	31,071.7
	Number of electric buses acquired	21
	Annual avoided GHG emissions – urban mobility (tCO <sub>2</sub> e/year)	1,470
<b>Sustainable Management of Living and Natural Resources and Land Use</b>	Area with completed actions for vegetation cover restoration with native species (ha)	27,802
	Annual GHG emissions removed (tCO <sub>2</sub> e/year)	422,466
<b>Adaptation to Climate Change</b>	Volume of reservoirs built for water storage (m <sup>3</sup> )	288,750
	Number of critical flooding, flash flood and inundation points	From 3 to 6
	Green areas implemented or restored (m <sup>2</sup> )	387,186
	Bicycle lanes implemented or modernized (metres)	7,712
	Number of seedlings planted	9,150
	Physical visitation to implemented parks (number of visits/year)	62,723
<b>Circular Economy</b>	Solid waste treatment and disposal capacity (tonnes/day)	222
	Waste effectively treated or disposed of (tonnes/day)	222

**Table 7: Reported impact from projects under the Climate Fund - measured impact**

Use of Proceeds Category	Impact indicators	Reported Impact
<b>Renewable Energy</b>	GHG emissions avoided – solar generation on commercial rooftops in northeastern Brazil (tCO <sub>2</sub> e)	653.80
	Physical guarantee of solar generation (average MW)	1.01
	Installed capacity of solar generation (MW)	5.34

	GHG emissions avoided – solar generation on commercial rooftops in northeastern Brazil (tCO <sub>2</sub> e)	601,622
	Physical guarantee of solar generation (average MW)	7.76
	Installed capacity of solar generation (MW)	26
	Biomethane production capacity (m <sup>3</sup> /year)	24,820,000
<b>Adaptation to Climate Change</b>	Recovered area/total area (%)	8
	Physical visitation (number of visits/year)	18,382,795
	Volume of waste transformed into co-products (index t co-products/t waste)	0.98
	Permeable area implemented (m <sup>2</sup> )	23,684
	User infrastructure implemented or modernized (number of structures)	5
	Soil recovery (m <sup>2</sup> )	77,064

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