

Climate Change Management at Bradesco



bradesco

Climate Change

Climate change will significantly affect our society and economy in both the short and long term, creating both risks and opportunities for the financial services industry. These impacts will include both physical factors such as warmer global temperatures and increasingly severe and frequent extreme weather events, as well as political and market changes such as new regulations and new consumption and production patterns.

In this context, Bradesco has worked to ensure that our operations and businesses are prepared to tackle climate change by strengthening our climate governance and implementing strategies and processes for managing climate risks and opportunities.

This document presents the main management practices, guidelines and assignments adopted to manage climate-related issues at Bradesco.

Sustainability Strategy

In 2019, we revisited our Sustainability Strategy to reflect the major challenges and global megatrends affecting our business, the contents of our Materiality Matrix, our business goals, and national and international sustainable development agendas—especially the United Nation’s Sustainable Development Goals.

Given its relevance to the Organization and our clients, Climate Change is among the themes within our strategic pillars and the SDGs prioritized by Bradesco.

Pillar in Bradesco’s Sustainability Strategy: Ensure that our businesses are prepared for climate challenges and to create greater transparency around our climate impacts.

For more information on the core pillars of our Sustainability Strategy, please refer to the 2019 Integrated Report from Bradesco



Goal 13. Climate Action: “Take urgent action to combat climate change and its impacts” – with a specific focus on the following targets:

“13.1. Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries”

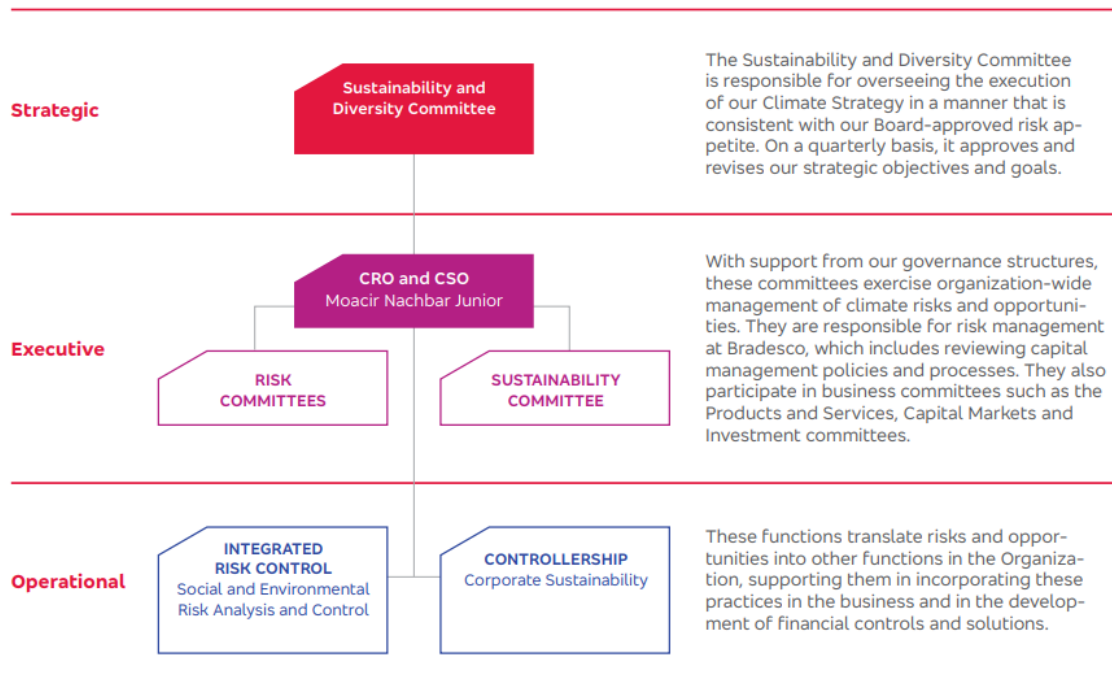
“13.3. Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning”

“13.b. Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities”

For more information on Bradesco’s priority SDGs, please refer to the 2019 Integrated Report from Bradesco

Climate Change Governance

Climate Change governance at Bradesco is an integral part of our existing risk management and sustainability management structure.



Climate Strategy at Bradesco

With support and guidance from our management and governance structure, Bradesco's climate strategy four axis:

1. **Reduce and mitigate greenhouse gas emissions** from our operations and manage our operations' exposure to climate risks.
2. **Incorporate assessments of current and future climate risks and opportunities** into business decisions and business management.
3. **Provide financial solutions that support lower carbon consumption and production patterns** and increased resilience to climate impacts.
4. **Promote engagement and raise awareness among our stakeholders**, including employees, partners and suppliers, customers and civil society organizations.

1. Reduce and mitigate greenhouse gas emissions from our operations and manage our operations' exposure to climate risks

Eco-Efficiency Management

Eco-efficiency is part of our approach to strategic management, which reconciles environmental and financial performance through process optimization, recycling, innovation and improved resource and materials efficiency. The goal is to reduce the environmental impact and drive operating efficiency.

To better plan and monitor our initiatives and track their results, in 2010 we began building multi-annual plans outlining projects and targets to reduce

consumption and waste, including greenhouse gas (GHG) emissions.

We are currently implementing our third Eco-Efficiency Master Plan (2019-2021); some of the targets in this edition (electricity consumption, road fleet and air fleet) are aligned with the ambition under the Paris Agreement to limit global warming to 2°C, using the sectorial tools outlined by the Science-based Targets initiative (SBTi).

We measure the results from these initiatives and have reported them in the chapter Environmental Value as well as in our Annual GHG Emissions Inventory, in accordance with the Brazilian GHG Protocol Program guidelines.

**DIRECT GREENHOUSE EMISSIONS (SCOPE 1) (tCO₂ EQUIVALENT)
GRI 305-1**

Scope 1 ¹	2017	2018	2019
Production of electricity, heat or steam	944.12	844.81	765.97
Transportation of materials, products, waste, employees and passengers	1,054.09	1,046.51	973.40
Fugitive emissions	6,036.73	11,700.52	8,594.39
Total gross CO₂ emissions	8,034.94	13,591.84	10,333.76

Biogenic CO₂ emissions (t)

Production of electricity, heat or steam	72.45	72.68	79.89
Transportation of materials, products, waste, employees and passengers	270.09	256.76	268.32
Total biogenic CO₂ emissions	342.54	329.43	348.22

1. Since 2015 the calculation has excluded emission sources related to the combustion of LPG and natural gas for cooking (0.02% and 0,04% of scope 1 emissions in 2011), fugitive emissions from recharging fire extinguishers (0.89% of scope 1 emissions 2014) and emissions from composting organic waste at Cidade de Deus (0.36% of scope 1 emissions in 2014) as these emissions are less than the uncertainty in the GHG inventory.

GHG EMISSIONS (SCOPE 1) – TARGET VERSUS ACTUAL REDUCTION

Year	Emissions scope 1 (tCO ₂ e)	Reduction target from a prior-year baseline (%)	Reduction from previous year (%)	Reduction from baseline (%)
2016	6,350.89	-18.80%	34.87%	34.87%
2017	8,034.94	-1.00%	26.52%	70.63%
2018 (baseline)	13,591.84	-1%	69.16%	188.63%
2019	10,333.76	-0.13%	-23.98%	-23.98%

GHG EMISSIONS (SCOPE 2) – TARGET VERSUS ACTUAL REDUCTION

Year	Emission scope 2 (tCO ₂ e)	Reduction target from a prior-year baseline (%)	Reduction from previous year (%)	Reduction from baseline (%)
2016	44,707.68	-4.70%	-23.90%	-23.90%
2017	47,760.83	-4.70%	6.83%	-18.71%
2018 (baseline)	37,577.67	-4.70%	-21.32%	-36.04%
2019	38,346.97	-4.29%	2%	2%

OTHER INDIRECT (SCOPE 3) GHG EMISSIONS (tCO₂ EQUIVALENT) GRI 305-3

Scope 3	2017	2018	2019
Transportation and distribution (third-party fleet – upstream) ¹	60,131.65	49,813.48	63,088.79
Waste generated in operations	9,827.48	6,450.37	5,234.02
Business travel ²	26,362.31	23,532.02	21,330.55
Employee commuting	92,492.24	94,022.86	99,504.60
Total	188,813.69	173,818.73	189,157.96

Biogenic CO₂ emissions (t)

	2017	2018	2019
Transportation and distribution (third-party fleet – upstream)	12,361.98	5,664.39	7,988.93
Business travel	2,274.04	3,407.78	3,065.69
Employee commuting	19,938.94	21,326.13	22,623.14
Total	34,574.96	30,398.30	33,677.76

1. Transportation and distribution (upstream) includes: cash-in-transit services; medevac transportation (Bradesco Seguros); mailbag transportation; and cargo transportation.

2. Business travel includes: air travel by employees; reimbursement for mileage; and taxi rides.

GHG EMISSIONS (SCOPE 3) – TARGET VERSUS ACTUAL REDUCTION

Year	Emissions scope 3 (tCO ₂ e)	Reduction target from a prior-year baseline (%)	Reduction from previous year (%)
2016	149,380.91	-1.57%	-3.06%
2017	188,813.69	-1.57%	26.40%
2018 (baseline)	173,818.74	-1.57%	-7.94%
2019	189,157.96	-0.15%	8.82%

GHG EMISSIONS INTENSITY (tCO₂e) GRI 305-4

Scopes 1, 2 and 3	2017	2018	2019
By revenue (R\$ million)	0.448	0.97	1.03
By book net income (R\$ million)	8.110	11.79	10.53
Per capita (employees)	0.846	2.30	2.44

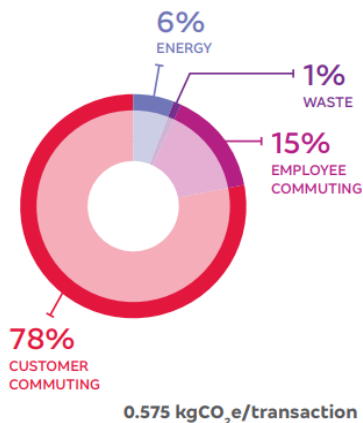
For more information, please visit BradescoSustentabilidade.com.br

Digital Strategy

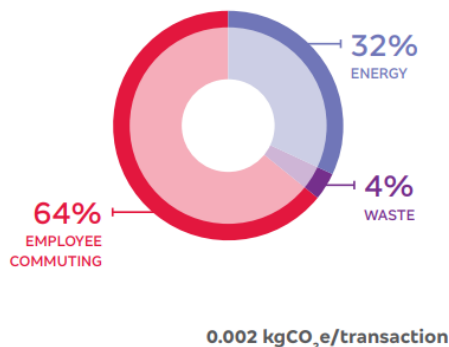
Our digital presence strategy, for example, helps to reduce carbon emissions, expand and facilitate customer access to our services, and reduce our dependence on physical service structures, which are more impact-intensive and more exposed to the risk of disruption from climate factors (such as flooding).

An internal survey of transaction and eco-efficiency data from our Integrated Report 2018 found that a transaction via a digital channel (internet, smart phone, self-service and telephone banking) generates 300 times less carbon emissions per transaction than an equivalent transaction via a physical channel (branch), as a result of electricity savings, reduced cash-in-transit requirements, and reduced employee and customer commuting.

TRANSACTIONS VIA PHYSICAL CHANNELS



TRANSACTIONS VIA DIGITAL CHANNELS



Climate Commitments

In addition to our efforts to reduce our carbon footprint, Bradesco is committed to neutralizing emissions from our operations. Since 2006, we have offset 100% of direct emissions and emissions from purchased electricity (respectively scope 1 and 2) against carbon credits from carbon mitigation or greenhouse gas sequestration projects, such as forest remediation and conservation initiatives.

Building on this commitment and to further mitigate our impacts, Bradesco has announced the following climate commitments:

- **Renewable energy:** From yearend 2020, 100% of Bradesco's operations will be supplied with electricity from renewable sources. The initiative will make us one of the first major financial institutions in the world to complete the transition.

- **Carbon offsets:** In addition, we have committed to neutralizing 100% of the greenhouse gas (carbon equivalent) emissions from our operations¹ from 2019, becoming the first major Brazilian bank to achieve this level of carbon offsets.

Extreme events and our corporate structures

We have a Business Continuity Management (GCN) program, which involves departments in the constant planning of responses to incidents that may cause the interruption of our activities, thus mitigating possible impacts - which includes those of climatic origin.

2. Incorporate assessments of current and future climate risks and opportunities into business decisions and business management.

Future vision

Assessing impacts from climate change on businesses requires a long-term vision and an understanding of different scenarios and their inherent risks and opportunities. In 2019, we continued to use different tools and methodologies to improve our understanding of current and future impacts from climate change.

Climate Risk Management

Climate risks are factored in risk assessments of Bradesco's operations, businesses, customers and portfolios. Alongside other risk components, we consider environmental and climate-related factors in our methodologies, models and tools for measuring and risk control.

We became voluntary signatories of the Equator Principles in 2004 and ensure that all major projects that are funded or advised by Bradesco and are subject to the Equator Principles are developed and managed in a socially responsible manner and implement environmental and human rights practices that support sustainable development.

Bradesco is currently preparing to implement the new version of the Equator Principles, which are due to enter into effect in the second half of 2020. Following implementation of the fourth version of the Equator Principles, we will address human rights and climate change issues more comprehensively to ensure we are aligned with international best practices.

For more information on our practices, please refer to the 2019 Integrated Report from Bradesco

Measuring climate change risk

Recognizing the financial impacts of climate change on business, Bradesco supports the Task Force on Climate-Related Financial Disclosures (TCFD). Under the coordination of UNEP-FI (the financial arm of the United Nations Environment Program), we are among the banks that participate in the pilot projects for implementing the TCFD recommendations.

In the first project, we developed a modelling tool to assess the economic effects of climate change, under a stress test view, to calculate the impact of approximately 400 quantitative transition factors on customers (related to climate, carbon emissions and sequestration, demographics, economy, energy, investment, policies), based on their sectors, sub-sectors and areas of operation. Regarding physical factors, the methodology considers geographic variables (location of clients' productive assets) and the respective estimates of increase in frequency and severity of extreme weather events, in addition to the impact of incremental climate changes (particularly global warming) on productivity and, eventually, on client's future revenue.

The physical and transition risk methodologies developed during the first pilot project are available from UNEP FI's website - <https://www.unepfi.org/banking/tcfid/>

In the second cycle of the project, we expanded the number of industries assessed using methods that cover both physical transition risks and risks from climate change. The goal of the project is to determine the potential impacts from global warming and their environmental, political, technological, market and business effects on customers operating in critical industries highly sensitive to climate change and highly weighted both in our loan portfolio and in Brazil's economy.

As our methodologies evolve, our goal is to incorporate the results of scenario analyses into business decisions, advise customers in managing exposure to climate risks, and support them with financial solutions focused on reducing the vulnerability of their businesses to climate-change impacts.

Financed emissions

As any other financial institution, our organization's greatest potential for generating greenhouse gas emissions is through our businesses - such as loans, financing and investments.

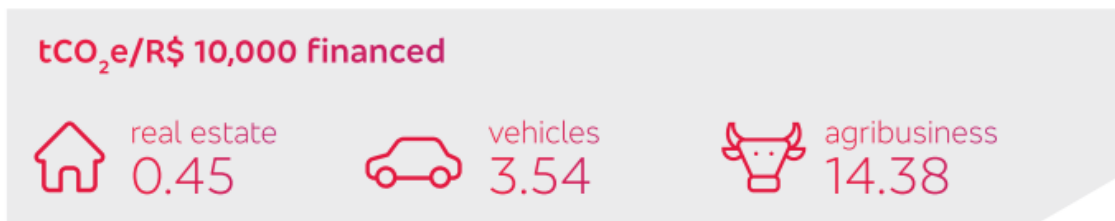
In 2019, we conducted the first study of financed emissions in industries that are highly weighted in our loan portfolio and in Brazil's economy, and which are considered critical in terms of carbon emissions (find details below).

To broaden our understanding of the indirect impacts of businesses, in 2020 Bradesco joined the Partnership for Carbon Accounting Financials (PCAF).

PCAF is an international collaboration of financial institutions to develop and implement a standardized methodology for measuring, analyzing and reporting greenhouse gas emissions associated with credit and investment operations.

Bradesco's participation in PCAF will allow advances in public reporting of environmental information and impacts, in assessing climate-related risks and opportunities. Additionally, it will support Bradesco in engaging and offering financial solutions to support clients in the transition to a low carbon economy and to become more resilient to the effects of climate change.

General disclosures	Portfolio disclosures		
Amounts and assets financed in 2019	Properties	Vehicles	Agribusiness
Potential emissions over the term of the contract	Construction and consumption of electricity and natural gas	Manufacture of goods and fuel combustion in their use	Emission factor by type of herd and type of crop



Carbon Pricing

Carbon pricing mechanisms, such as carbon markets, are a reality in more than 40 countries and dozens of jurisdictions

around the world. While Brazil has yet to implement carbon pricing mechanisms, Bradesco is taking steps to gain a better understanding of and get business prepared for them.

Intermediation in the Carbon Market

We have been acting since 2018 as intermediaries (special market operators - SMO) in the purchase and sale of permits, offsets and URB (biogenic removal units) using the Emissions Trading System (SCE) simulation, promoted by FGV's Sustainability Study Center in its Business for Climate Platform (EPC).

[*Click here for more information on this initiative.*](#)

Asset Management

In partnership with EPC-FGV, we published a study on the sensitivity of companies invested by BRAM - Bradesco Asset Management - to the eventual regulation on carbon in the Brazilian economy.

[*Click here to access the full version of this study, which describes the methodology and results.*](#)

Corporate investments

Between 2019 and 2020, we conducted a pilot study to assess the incorporation of a carbon price into the Organization's investment assessment and resource allocation tools (such as acquisitions, expansion, partnerships, and infrastructure).

As a result, a multiplier factor was defined to be included in the costing of certain projects, simulating a carbon-priced scenario.

The objective is to monitor and understand the impacts of the eventual implementation of a tax system or a carbon market to integrate Bradesco's operational expenses

3. Provide financial solutions that support lower carbon consumption and production patterns and increased resilience to climate impacts.

Following best corporate practices, sectorial and multi-sectoral guidelines and internationally established government taxonomies, we have defined eight key sectors to classify Sustainable Businesses at Bradesco, from which six relate to the climate change agenda: biofuels, low carbon agriculture, renewable energy, sanitation and water, forest management and waste management.

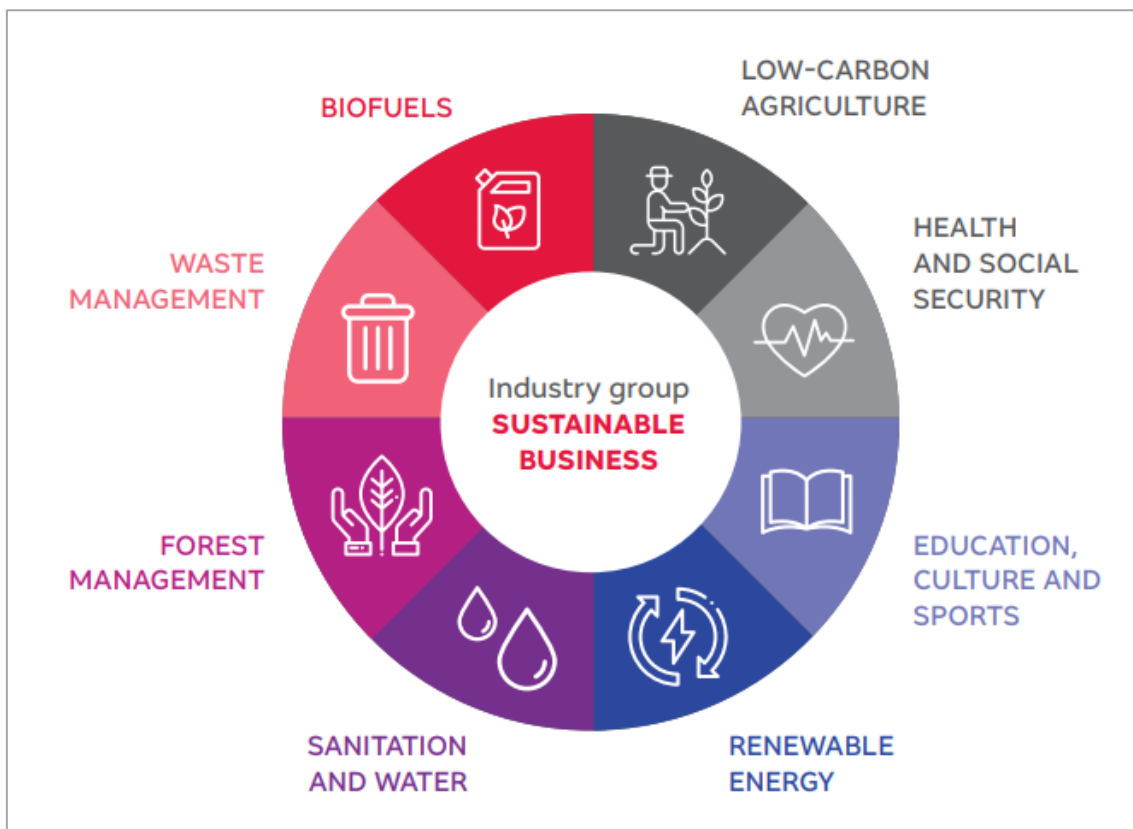
Review of products and services

We offer optimal solutions that support our customers in adopting more sustainable behaviors and practices, and provide production finance to corporate customers to help them minimize their social and environmental impact.

We continually review our portfolio of products and services using a process that takes into account social, environmental and other factors in assessing and determining whether to maintain those solutions. This enables us to identify and mitigate any indirect impacts from our portfolio, and to explore opportunities and create shared value.

Tailored Wholesale Solutions

Bradesco is also preparing to serve wholesale customers in developing tailored lending and investment solutions to improve corporations' management of impacts, offer securities with social and environmental attributes, and arrange transactions in sectors generating positive social and environmental impacts.



Highlights

Among our solutions and lines of action, we highlight the following:

Support for renewable energy	Bradesco is one of the biggest financial agents in Brazil for renewable energy. For example, in 2019, BBI (Bradesco Bank of Investment) arranged approximately 30 operations for renewable power transmission and distribution projects, amounting to a total of R\$ 10 billion.
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Integrated Crop-Livestock-Forest Systems (ICLFS)	<p>Bradesco is the only member of the Integrated Crop-Livestock-Forest Systems (ICLFS) Network created by agribusiness companies and EMBRAPA (governmental company focused on agriculture and livestock). The Network aims to accelerate the adoption of systems that integrate crop, livestock and forestry operations in a single area.</p> <p>This increases farm diversification, provides additional revenue streams, reduces environmental stress from expansion, minimizes soil degradation and mitigates carbon emissions from land use.</p>
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Low Carbon Farming (from Brazilian Development Bank - BNDES)	<p>The program offers special interest rates for farmers to remediate pastureland and forests and adopt farming technologies that help to reduce GHG emissions, achieving both conservation and financial returns.</p> <p>In the last three years, Bradesco has lent over R\$ 1.5 billion as part of the program, and has supported customers in implementing more sustainable and environmentally compliant practices in agribusiness.</p>
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Financing for Solar Energy	<p>With one of the highest levels of solar resources in the world, Brazil has significant potential to expand its solar power capacity. To finance projects to harness this potential, Bradesco offers a direct-to-customer (DTC) loan product (<i>CDC Fotovoltaico</i>) for purchasing and installing solar power equipment on properties owned by individuals or businesses.</p> <p>Through additional marketing efforts, our CDC Fotovoltaico loan portfolio grew 25-fold from 2018 to 2019, reaching R\$ 169.3 million.</p>
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For more information on the financial solutions we offer, please refer to Bradesco's service channels for individuals and businesses.

4. Promote engagement and raise awareness among our stakeholders, including employees, partners and suppliers, customers and civil society organizations.

In addition to engaging customers in risk analysis and promoting opportunities, we consider it essential to involve the different stakeholders with whom we relate to jointly seek for solutions that favor an economy that is cleaner and more resilient to climate change.

Employees

We raise awareness among our employees through training, communications and campaigns, such as Rationalize campaign, which covers the conscious consumption of water and energy with employees of administrative centers and the Zero Waste program, implemented in our network of agencies across Brazil.

Suppliers

Since 2006, we hold the annual Suppliers Meeting for which we invite companies that integrate strategic segments and suppliers that operate in sectors associated with high potential socio-environmental risks, such as furniture, civil works, vehicle maintenance, transportation of values, etc.

Such moments are meant to raise awareness among suppliers on the importance of adopting positive socio-environmental practices, with guidance on Bradesco's Supply Chain Social Responsibility Program (PBRSA CS).

For more information on our suppliers management and engagement practices from a socio-environmental perspective, please refer to the 2019 Integrated Report from Bradesco.

CDP Supply Chain

We raise awareness among our suppliers about the risks and opportunities stemming from climate change through the CDP Supply Chain Leadership Collaboration, which we have worked on to disseminate.



Multi-sectoral engagement

We actively participate in sectoral and multi-sectoral forums related to socio-environmental and sustainability issues, including those related to climate change.

Among the multi-sectorial groups we integrate are: the pilot projects of the United Nations Environment Program - Finance Initiative (UNEP FI); Global Compact initiatives; the thematic chambers of the Brazilian Business Council for Sustainable Development (CEBDS); the commissions and working groups of the Brazilian Federation of Banks (FEBRABAN); and the Insurance National Confederation (CNseg); in addition to the Business for Climate (EPC) platform of the Center for Sustainability Studies (GVces) which is part of the School of Business Administration's of Getulio Vargas Foundation (FGV-EAESP).

Voluntary Commitments

Bradesco's commitment to sustainability is also strengthened by our engagement in industry-led initiatives and voluntary commitments. Among them, we highlight the following:



Public reporting

Details on our practices and performance in climate change management are disclosed to stakeholders through Bradesco's communication channels and the Organization's financial and non-financial information disclosure platforms.

We are constantly working towards an advance in scope and detail of the information we report, in line with the main reporting guidelines on climate change, such as the TCFD.

Communication channels:

- BradescoRI.com.br
- BradescoSustentabilidade.com.br

Self-reporting platforms:

- Bradesco Integrated Report
- Reference Form (from Securities and Exchange Commission of Brazil)

Thematic platforms:

- Public Emissions Register of the Brazilian GHG Protocol Program
- CDP Climate Change

In 2019, Bradesco received a "B" rating (Management level) in our CDP Climate Change assessment, demonstrating our ability to implement strategies and make effective decisions in managing climate change within the Organization.

Coordination:
Corporate Sustainability

Contact:
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July 2020