



# Greenhouse Gases Inventory 2018



## Introduction

Founded in 1983, Banco BTG Pactual is an investment bank and asset and wealth manager with a dominant franchise in Brazil, and a successful international investment and distribution platform. Since its creation, the bank has operated as a meritocratic partnership and, currently, has offices on three continents, providing a comprehensive range of financial services to a Brazilian and global client base that includes corporations, institutional investors, governments and high net worth individuals.

BTG Pactual is committed to Sustainability and Environmental, Social and Governance (ESG) matters and have set a strong governance structure to drive these aspects through its business units and daily activities. On an annual basis, BTG Pactual publishes its Greenhouse Gases (GHG) emissions inventory. This publication shows BTG Pactual's GHG for the year 2018 and reinforces its global effort to manage direct and indirect emissions globally. The GHG Inventory is a form to evaluate GHG emissions associated with the organization's activities and processes and make possible define goals to reduce our impact.

For the present GHG Inventory, BTG Pactual considered all offices around the world and used as reference The Greenhouse Gas Protocol Initiative, Brazilian GHG Protocol Program and ABNT NBR ISO 14064-1:2007. The reporting period of this inventory is from January 1, 2018 to December 31, 2018. The Inventory was conducted to an external consultancy named ERM – ERM Brasil Ltda. and was certified by an independent third party named Green Domus Desenvolvimento Sustentável Ltda - find attached the Verification Statement.

In 2018, BTG Pactual conducted a large study on United Nations Sustainable Development Goals (SDG) and listed the ones our activity can intensively contribute to. One of them, is SDG 13 – Climate action. This report is a way BTG Pactual intends to be transparent concerning our practices on climate change global challenge.



## Scope, Limits and Total Emission Highlights

The present GHG Inventory encompasses direct and indirect emissions considered in scopes 1, 2 and 3, as defined below:

**Scope 1:** It contemplates direct GHG emissions from sources owned or controlled by the organization, such as: mobile and stationary combustion processes; fugitive emissions (fire extinguishers and refrigerant gases);

**Scope 2:** It contemplates indirect GHG emissions from the generation of purchased energy (imported) that is consumed by the organization, for example electricity. Once the energy is brought into the organization, emissions are considered indirect because they physically occur at the location where the energy is produced.

**Scope 3:** It contemplates emissions that are a consequence of the activities of the company, but occur from sources not owned or controlled by the company. The consolidation of the data reported for Scope 3 was performed based on the 15 categories defined by the GHG Protocol Corporate Value Chain (Scope 3) methodology, which presents requirements and guidelines for the preparation and publication of emissions resulting from activities of the value chain.

The organizational boundary for the quantification of GHG emissions was defined based on an operational control approach of BTG Pactual offices located in Brazil, USA, Europe and Latin America (LATAM).

BTG Pactual's emissions highlights for this Inventory are:

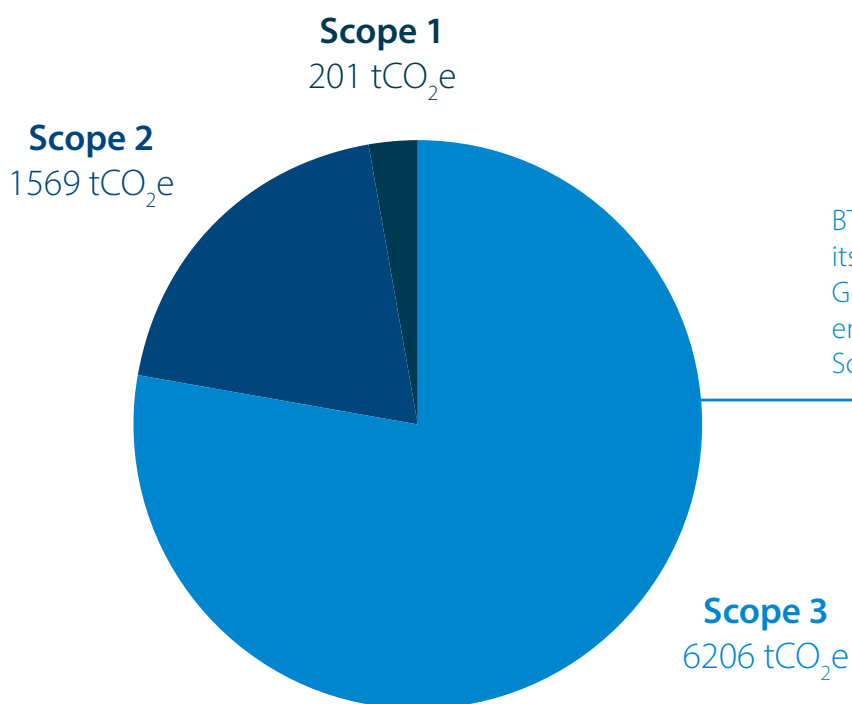
Scope 1 - 200.56 tCO<sub>2</sub>e  
Scope 2 - 1,568.89 tCO<sub>2</sub>e  
Scope 3 - 6,206.20 tCO<sub>2</sub>e

**Total emissions - 7,975.65 tCO<sub>2</sub>e**



## Results - Emissions by Scope and others breakdowns

### Results by scope



BTG Pactual is an investment bank and its activities are characterized by low GHG emissions. Its most representative emissions in 2018 were indirect, as Scope 3, with 6,206 tCO<sub>2</sub>e (78%).

### Results by gas by region

#### BRAZIL

GHG	Emission by gas in metric tons (t)			Emissions in metric tons of equivalent CO <sub>2</sub> (tCO <sub>2</sub> e)		
	Scope 1	Scope 2	Scope 3	Scope 1	Scope 2	Scope 3
CO <sub>2</sub>	21.580	843.594	2,704.759	21.580	843.594	2,704.759
CH <sub>4</sub>	0.003	0.018	5.009	0.075	0.450	125.225
N <sub>2</sub> O	0.002	0.001	0.183	0.596	0.298	54.534
HFCs	0.029	-	0.011	58.810	-	15.730
PFCs	-	-	-	-	-	-
SF <sub>6</sub>	-	-	-	-	-	-
NF <sub>3</sub>	-	-	-	-	-	-
<b>Total</b>	-	-	-	<b>81.061</b>	<b>844.342</b>	<b>2,909.224*</b>

\* Note: this value is different from the one obtained multiplying each gas per its GWP, since category 3a is reported in terms of CO<sub>2</sub>e and its emission is considered only in the 'Total' line.

## Results by gas by region

### USA

GHG	Emission by gas in metric tons (t)			Emissions in metric tons of equivalent CO <sub>2</sub> (tCO <sub>2</sub> e)		
	Scope 1	Scope 2	Scope 3	Scope 1	Scope 2	Scope 3
CO <sub>2</sub>	0.012	307.502	1,168.395	0.012	307.502	1,168.395
CH <sub>4</sub>	-	0.001	0.411	-	0.025	10.275
N <sub>2</sub> O	-	-	0.042	-	-	12.516
HFCs	0.000	-	0.001	0.040	-	1.430
PFCs	-	-	-	-	-	-
SF <sub>6</sub>	-	-	-	-	-	-
NF <sub>3</sub>	-	-	-	-	-	-
<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.052</b>	<b>307.527</b>	<b>1,192.616</b>

## Results by gas by region

### LATAM

GHG	Emission by gas in metric tons (t)			Emissions in metric tons of equivalent CO <sub>2</sub> (tCO <sub>2</sub> e)		
	Scope 1	Scope 2	Scope 3	Scope 1	Scope 2	Scope 3
CO <sub>2</sub>	4.672	318.091	1,659.133	4.672	318.091	1,659.133
CH <sub>4</sub>	0.001	0.009	1.963	0.025	0.225	49.075
N <sub>2</sub> O	-	0.001	0.055	-	0.298	16.390
HFCs	0.055	-	0.003	114.724	-	4.290
PFCs	-	-	-	-	-	-
SF <sub>6</sub>	-	-	-	-	-	-
NF <sub>3</sub>	-	-	-	-	-	-
<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>119.421</b>	<b>318.614</b>	<b>1,789.113*</b>

\* Note: this value is different from the one obtained multiplying each gas per its GWP, since category 3 is reported in terms of CO<sub>2</sub>e and its emission is considered only in the 'Total' line.

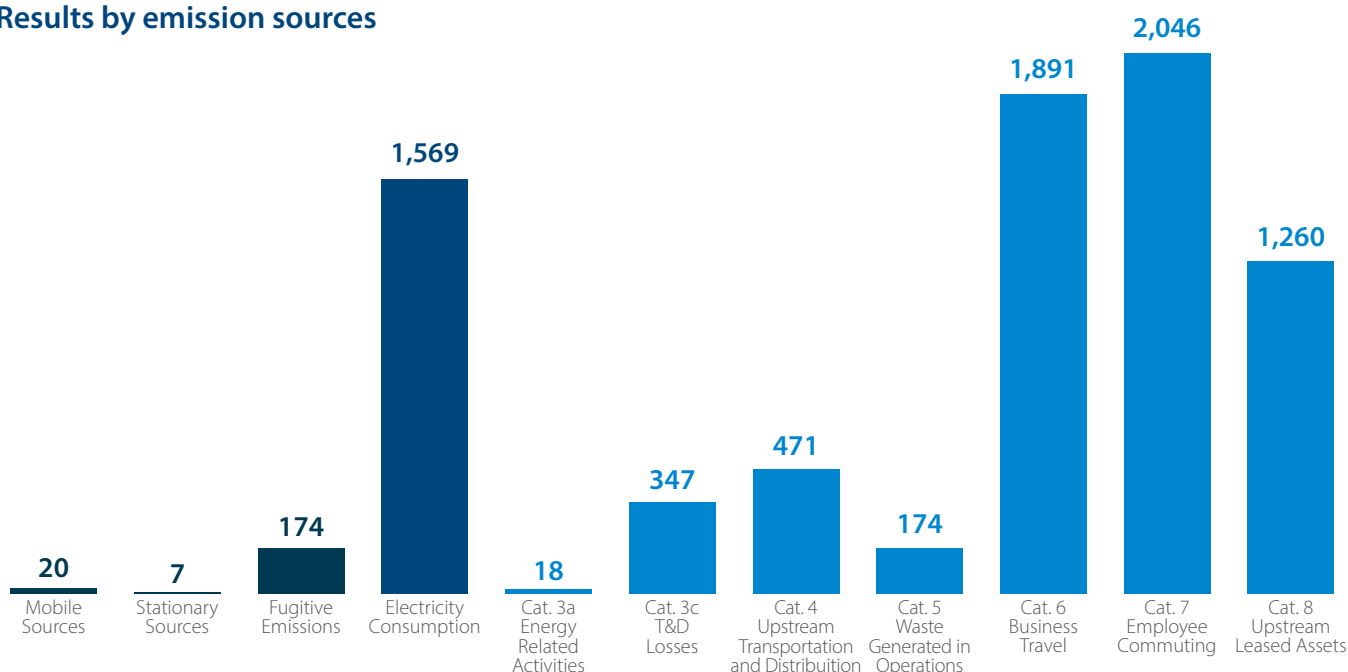
## Results by gas by region

### EU

GHG	Emission by gas in metric tons (t)			Emissions in metric tons of equivalent CO <sub>2</sub> (tCO <sub>2</sub> e)		
	Scope 1	Scope 2	Scope 3	Scope 1	Scope 2	Scope 3
CO <sub>2</sub>	0.010	98.405	291.833	0.010	98.405	291.833
CH <sub>4</sub>	-	-	0.190	-	-	4.750
N <sub>2</sub> O	-	-	0.009	-	-	2.682
HFCs	0.000	-	-	0.014	-	-
PFCs	-	-	-	-	-	-
SF <sub>6</sub>	-	-	-	-	-	-
NF <sub>3</sub>	-	-	-	-	-	-
<b>Total</b>	-	-	-	<b>0.024</b>	<b>98.405*</b>	<b>307.255*</b>

\* Note: this value is different from the one obtained multiplying each gas per its GWP, since category 3 is reported in terms of CO<sub>2</sub>e and its emission is considered only in the 'Total' line.

## Results by emission sources



■ Scope 1. Main emission source analysis for scope 1: fugitive emissions from LATAM;

■ Scope 2. Main emission source analysis for scope 2: Electricity purchased in grid and provided by condominium generators - Brazil;

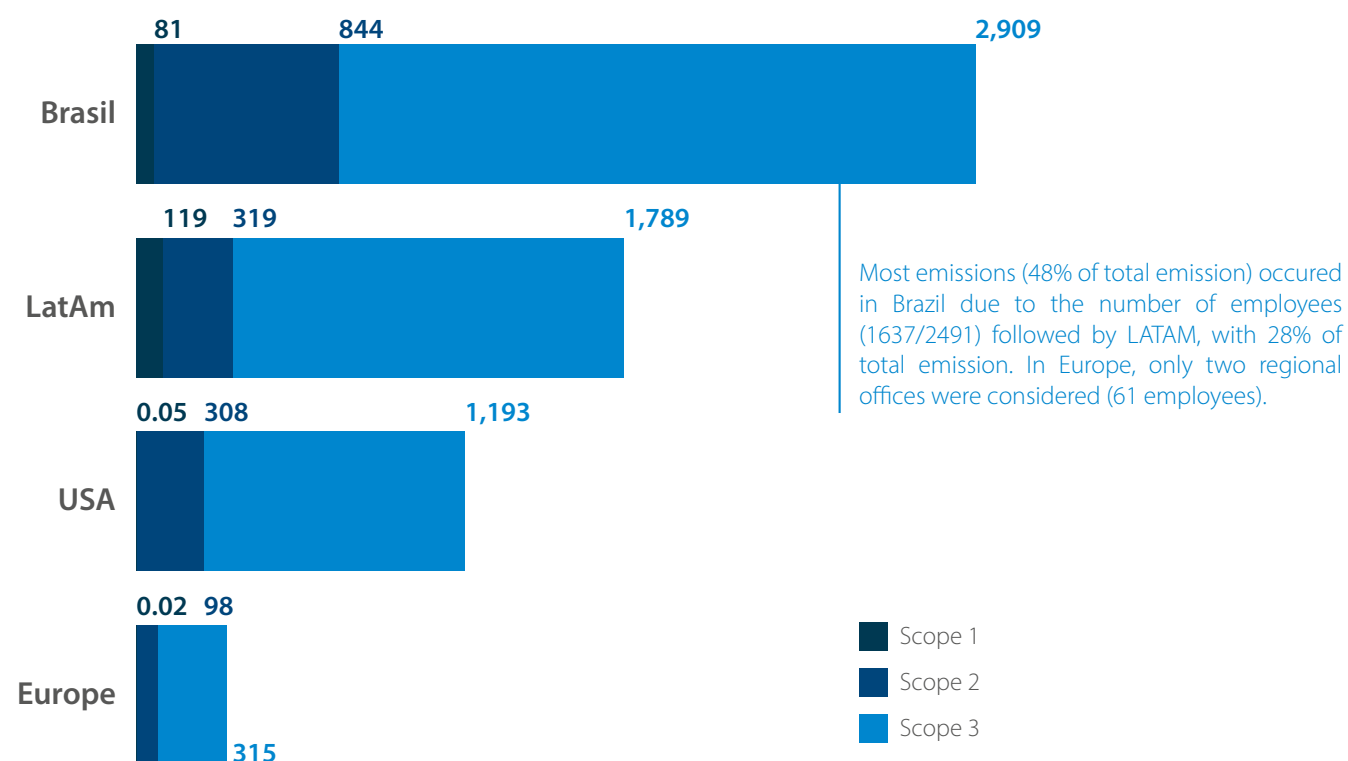
■ Scope 3. Main emission source analysis for scope 3: Employee commuting (Cat. 7) in Brazil, considering municipal transportation and particular vehicles.



## Consolidated Results

Scope	Scope 1			Scope 2		Scope 3		
	CO <sub>2</sub> Non Renewable	CO <sub>2</sub> Renewable	%	CO <sub>2</sub> Non Renewable	CO <sub>2</sub> Renewable	CO <sub>2</sub> Non Renewable	CO <sub>2</sub> Renewable	%
Mobile Sources (Scope 1 and Cat. 4)	20	3.55	10%	-	-	471	608.82	8%
Stationary Sources	7	0.31	3%	-	-	-	-	-
Fugitive Emissions (air conditioning/fire extinguishers)	174	-	87%	-	-	-	-	-
Electricity Consumption and T&D Losses	-	-	-	1,569	8.08	-	-	-
Cat. 3a - Energy Related Activities	-	-	-	-	-	18	-	0%
Cat. 3c - T&D Losses	-	-	-	-	-	347	-	6%
Cat. 5 - Waste Generated in Operations	-	-	-	-	-	174	-	3%
Cat. 6 - Business Travel	-	-	-	-	-	1,891	63.91	30%
Cat. 7 - Employee Commuting	-	-	-	-	-	2,046	194.19	33%
Cat. 8 - Upstream Leased Assets	-	-	-	-	-	1,260	-	20%
<b>Total</b>	<b>201</b>	<b>3.86</b>	<b>100%</b>	<b>1,569</b>	<b>8.08</b>	<b>6,206</b>	<b>866.92</b>	<b>100%</b>

## Results by Region



## Results - Indicators

	Scope 1	Scope 2	Scope 3
<b>Emission (tCO<sub>2</sub>e)</b>			
	201	1,569	6,206
<b>Indicator</b>	<b>Scope 1</b>	<b>Scope 2</b>	<b>Scope 3</b>
Emission (tCO <sub>2</sub> e)/employee	0.08	0.63	2.49
Emission (tCO <sub>2</sub> e)/million of reais (revenue)	0.04	0.29	1.16
Emission (tCO <sub>2</sub> e)/million of reais (net profit)	0.07	0.57	2.26

Note:

Information (as of December, 2018)	Data
Total number of employees	2,493
Revenue (million of reais)	5,352
Net profit (million of reais)	2,741



## Conclusion and next steps

During the preparation of the BTG Pactual's GHG inventory, ERM verified good practices that potentially lead to GHG mitigation (reduction), as presented below:

- Use of video conferencing over the use of air or land travel.
- Buildings with LEED certification, with consequent reduction of electricity consumption and use of refrigerant gases with lower global warming potential in air conditioning equipment.
- Waste management program in the São Paulo office and recycling practices in Rio de Janeiro office.

The consultancy recommends the increase of those programs and encourages the calculation of avoided emissions through reliable and auditable methods.

**For 2018 GHG Inventory, BTG Pactual has reached the following targets set in 2017:**

**Improve the data collection:** consultancy noted increase in collection of the inventory data, mainly on regional offices and information of emissions sources under operational control.

**Review the emission sources for Inventory:** BTG Pactual reviewed emissions sources and plans to conduct such process annually.

**Try to calculate GHG avoided:** Consultancy evaluated the total emissions avoided by BTG Pactual from the use of video conferencing by 1,253 tCO<sub>2</sub>e.

**Compensate emissions:** in 2018, all BTG's direct and indirect emission related to energy consumption (scopes 1 and 2) were compensated through REDD+ Manoa Project carbon credit.

### For the next year, BTG Pactual aims to:

1. Continuity to **improve the data collection** at regional offices in Brazil, United States, Europe and Latin America;
2. Annually **review the emission sources** for Inventory;
3. Annually **calculate GHG avoided** and **compensate direct and indirect emissions** due to energy consumption;
4. Incentivate the **use of renewable energy sources** at BTG Pactual offices; and
5. Implement **programs to reduce GHG emissions** at the international offices.

## Attachment 1

	Verification Statement	Document: GPV 010 (DM)	Rev #:002
			In effect since: APRIL 2017

Contrat/Proposal Number	Client
C1539	BTG PACTUAL S.A.

### VERIFICATION STATEMENT

#### Verification Statement

This verification statement ensures that the Green Domus Desenvolvimento Sustentável Ltda conducted the verification activity accordingly with ISO 14064-3:2007 and Especificações de Verificação do Programa Brasileiro GHG Protocol (*Specification and Verification of the Brazil GHG Protocol Program*).

This statement ensures that **Green Domus Desenvolvimento Sustentável Ltda** is providing Reasonable trust that the emissions of greenhouse gases by **BTG PACTUAL S.A.** reported from January 1<sup>st</sup> to December 31<sup>st</sup> from 2018 are verifiable and in comply with the requirements of the standards and methodologies applied.

#### Level of Thrust

Third Party Verification with limited level of trust

“There is no evidence that the greenhouse gases emission inventory from **BTG PACTUAL S.A.** for the year 2018 is not materially correct or is not a fair representation of the GHG data and information nor has been prepared in discordance with the “EPB – Especificações do Programa Brasileiro GHG Protocol”.

#### Description of the Verification Scope


The Complete GHG emission inventory from 2017 of **BTG PACTUAL S.A.** was verified.

The following was excluded from this third part verification: Scope 3

Description of the Verification Scope: Scope 1 (Stationary Combustion; Mobile Combustion; Fugitive Emissions), Scope 2 (electricity imported from the distribution network) as per “Programa Brasileiro GHG Protocol”.

#### Organizational Boundaries

Reported emissions under the operational control approach.

	Verification Statement	Document: GPV 010 (DM)	Rev #:002
			In effect since: APRIL 2017

#### Sites Visited

Name of Branch/Site	Relationship with Holding Company	Address	Dates of Visit
BTG Pactual Office	Company headquarters	Brigadeiro Faria Lima Avenue, 3477 - São Paulo, SP	04/02/2019

#### Organization Verified Emissions (Operational Control)

Metric tons of CO <sub>2</sub> equivalent			
GEE	Scope 1	Scope 2	Scope 3
CO2	26,27	1.567,59	-
CH4	0,10	0,70	-
N2O	0,60	0,60	-
HFCs	173,59	-	-
PFCs	-	-	-
NF3	-	-	-
<b>Total</b>	200,59	1.568,89	-
Biomass	3,86	8,08	-

#### Other data verified

Description of other data verified:

No other data were verified.

#### Comments

The emissions of Scope 1 and 2 of the 2018 GHG Emissions Inventory of BTG Pactual S.A. were verified and comply with the requirements established by the norms and methodologies used.

#### Contact information of Green Domus Desenvolvimento Sustentável

Main Contact Name: Marcela Gomes D'Amato


Address: Eng. Luís Carlos Berrini Avenue, 936 – conj.: 81

Phone: 5093-4854

e-mail: marcela@greendomus.com.br

#### Contact Information of Emission Inventory Organization

Company Name: **BTG PACTUAL S.A.**

	Verification Statement	Document: GPV 010 (DM)	Rev #:002
			In effect since: APRIL 2017

Main Contact Name: Beatriz Freitas

Address: Brigadeiro Faria Lima Avenue, 3477 - São Paulo, SP

Phone: 11 3383 6151

e-mail: Beatriz.Freitas@btgpactual.com

#### Conflicts of Interest Declaration

I, Higor Valle, certify that no conflict of interest, as defined in Chapter 3.2.1 of the Specifications Verification of Brazilian GHG Protocol Program, exists between the **BTG Pactual** and **Green Domus Desenvolvimento Sustentável Ltda**, or any of the individual team members check involved in checking the inventory of the organization name.

Date: 04/29/2019



Higor Valle, Leader Verifier

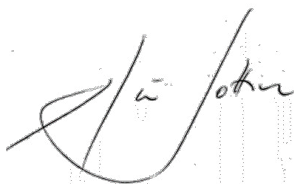
#### Conclusion on the GHG emission inventory

As responsible for carrying out verification activities of the GHG inventory of the **BTG Pactual**, we ensure that the information contained herein are true.



Higor Valle, Leader Verifier

Date: 04/29/2019



Nino Bottini, Independent Reviewer

Date: 04/29/2019

#### Autorization

I, Beatriz Freitas, accept the results of this verification statement.

Date:

Beatriz Freitas, Main Contact

