



Greenhouse gas (GHG) accounting report

South Pole

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South Pole

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Acronyms and abbreviations

AC	air conditioning
BEIS	United Kingdom Department for Business, Energy and Industrial Strategy
BSI	British Standards Institution
CH ₄	methane
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
EUR	Euro
GHG	greenhouse gases
GJ	gigajoule
GRI	Global Reporting Initiative
GWP	Global Warming Potential
HFCs	hydrofluorocarbons
IPCC	Intergovernmental Panel on Climate Change
kg	kilogram

KPI	key performance indicator
MWh	megawatt-hour
N ₂ O	nitrous oxide
PFCs	perfluorocarbons
pkm	passenger-kilometre
REC	renewable energy certificate
SF ₆	sulphur hexafluoride
t	tonne
tkm	tonne-kilometre
T&D	Transmission and distribution
UNFCCC	United Nations Framework Convention on Climate Change
WRI	World Resources Institute
WTT	Well-to-tank transmission

Executive summary

The total greenhouse gas (GHG) emissions of South Pole's operations for the calendar year 2019 added up to 1,923.8 tonnes (t) of carbon dioxide equivalent (CO₂e).

A summary of Key Performance Indicators (KPIs) is presented in Table 1. The distribution of the 2019 GHG emissions by source and by scope is presented in Figure 1 and Figure 2, respectively.

The largest emission sources in 2019 were business travel, followed by purchased goods and services, corresponding to 66.7% and 11.1% of total emissions, respectively.

Table 1: Summary of KPIs

Number of employees	318	tCO₂e/employee	6.0
Premises area (m²)	2,509.7	tCO₂e/sqm	0.8

(Source: South Pole, 2020)

Table 2: GHG emissions by emission source

Scope	Emissions (tCO ₂ e)	% of total
Scope 1: direct GHG emissions	52.2	2.7
Scope 2: indirect GHG emissions from purchased electricity, heating and cooling	6.0	0.3
Gross emissions without contractual instruments	44.3	
Avoided emissions from contractual instruments ¹	38.3	
Scope 3: other indirect GHG emissions	1,865.6	97.0
Gross emissions without contractual instruments	1,865.9	
Avoided emissions ²	0.3	
Total GHG emissions	1,923.8	100.0

(Source: South Pole, 2020)

¹ Contractual instruments refer to renewable energy purchase instruments and contracts such as renewable energy certificates, renewable power contracts, power purchase agreements and GoldPower offsets. The Stockholm office procures Green Power. Electricity consumption from the remaining offices has been compensated through renewable energy certificates (RECs).

² Emissions were avoided through carbon neutral purchases such as certified carbon neutral paper.

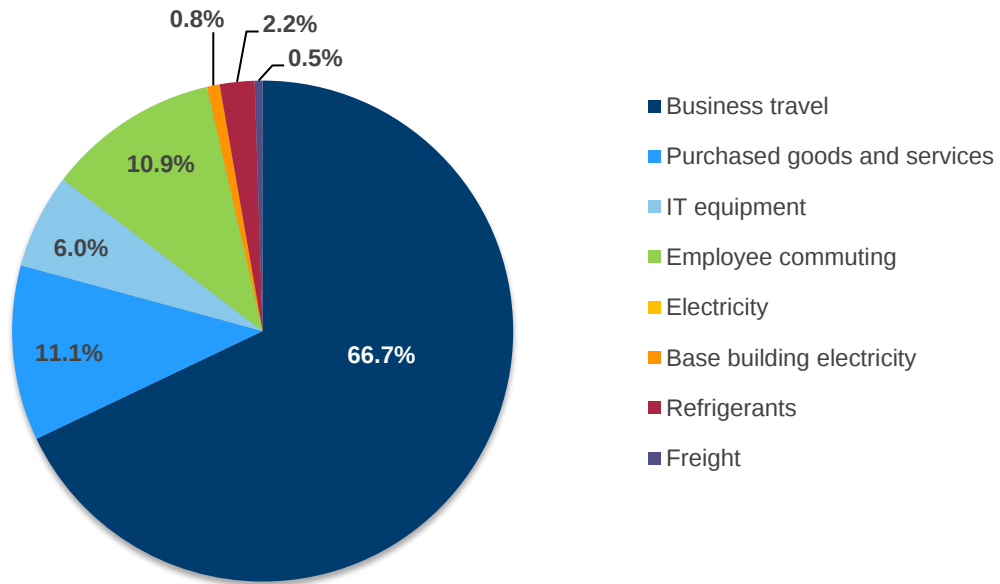


Figure 1: Sources of GHG emissions in 2019

(Source: South Pole, 2020)

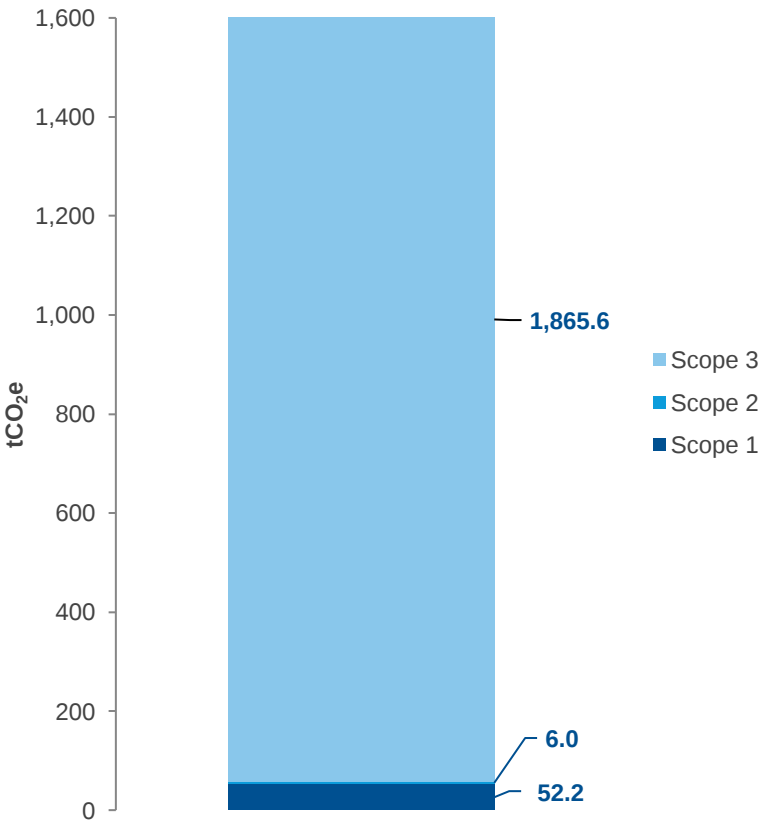


Figure 2: GHG emissions (tCO₂e) by scope in 2019

(Source: South Pole, 2020)

1 Introduction

This report provides a summary of the GHG emissions from South Pole's operations from 1 January to 31 December 2019.

South Pole is a leading sustainability solution provider. Initially focused on the development of premium carbon emission reduction projects, the company now offers a wide spectrum of sustainability services, including climate policy and strategy advisory. Its expertise covers the areas of climate change, forests and land use, water, and sustainable cities and buildings, as well as renewable energy and energy efficiency. The company is determined to help its clients grow their business with ground-breaking solutions that positively impact the environment and the needs of society. Company information and the reporting period are presented in Table 3.

Table 3: Company information

Company information	
Website	www.southpole.com
Business area	consultancy services
Reporting period	1 January to 31 December 2019

(Source: South Pole, 2020)

1.1 Methodology

The GHG accounting and reporting procedure is based on the 'The Greenhouse Gas Protocol: GHG Protocol: A Corporate Accounting and Reporting Standard – Revised Edition' (GHG Protocol) and the complementary 'Corporate Value Chain (Scope 3) Accounting and Reporting Standard' – the most widely used international accounting tools for government and business leaders to understand, quantify, and manage GHG emissions. The standards were developed in a partnership between the World Resources Institute and the World Business Council for Sustainable Development.

The accounting was based on the principles of the 'GHG Protocol':

- **relevance:** an appropriate inventory boundary that reflects the GHG emissions of the company and serves the decision-making needs of users;
- **completeness:** accounting includes all emission sources within the chosen inventory boundary. Any specific exclusion is disclosed and specified;
- **consistency:** meaningful comparison of information over time and transparently documented changes to the data;
- **transparency:** data inventory sufficiency and clarity, where relevant issues are addressed in a coherent manner; and
- **accuracy:** minimised uncertainty and avoided systematic over- or under-quantification of GHG emissions.

1.2 System boundaries

1.2.1 Organisational boundaries

System boundaries were defined by the control approach, i.e. covering all entities where South Pole has operational control. The 2019 accounting included offices in Amsterdam, Australia,³

³ The Australia office includes operations in Melbourne and Sydney.

Bangkok, Beijing, Colombia,⁴ Jakarta, London, Mexico City, New Delhi, New York, Singapore, Stockholm and Zurich.⁵ Table 4 presents the area and headcount of each office included in this GHG report.

Table 4: Offices included in the 2019 GHG accounting

Country	Area (m ²)	Headcount
Bangkok	234	19
Beijing	117	6
Jakarta	210	26
Colombia (Medellin and Bogotá)	700	84
Mexico	200	20
New Delhi	92	4
New York	32	7
Zurich	450	59
Singapore	14	2
Amsterdam	96	16
Stockholm	42	8
London	175	43
Australia (Sydney and Melbourne)	147.5	9
Total	2,509.5	318

(Source: South Pole, 2020)

1.2.2 Operational boundaries

Under the 'GHG Protocol', emissions are divided into direct and indirect emissions. Direct emissions are those originating from sources owned or controlled by the reporting entity. Indirect emissions are generated as a consequence of the reporting entity's activities, yet they occur at sources owned or controlled by another entity.

The direct and indirect emissions are divided into three scopes, as found below.

Scope 1

Scope 1 includes all carbon emissions that can be directly managed by the organisation (direct GHG emissions). This includes the emissions from the combustion of fossil fuels in mobile and stationary sources (e.g. owned or controlled boilers, power generators and vehicles) and carbon emissions generated by chemical and physical processes, as well as fugitive emissions from the

⁴ The Colombia office includes operations in Bogotá and Medellín.

⁵ The Zurich office also includes emissions by employees based in Addis Ababa, Berlin, Ethiopia, Helsinki, Madrid, Paris, Santiago de Chile, Toronto and Valencia.

use of cooling and air conditioning (AC) equipment. Table 5 gives an overview of the emission sources considered in Scope 1.

Table 5: Overview of Scope 1 emission sources for 2019

Category	Emission sources	Boundary
Stationary combustion	Generation of electricity and heat	Included
Mobile combustion	Company-owned or leased vehicles	Included
Physical or chemical processing	Manufacture or processing of chemicals and materials	Not applicable
Fugitive emissions	Emissions from the use of cooling systems and AC equipment, leakage from CO ₂ tanks or methane tubes	Included

Scope 2

Scope 2 includes indirect GHG emissions from the generation of purchased electricity, steam, heat or cooling purchased by the organisation from external energy providers. Table 6 below gives an overview of the emission sources considered in Scope 2.

Table 6: Overview of Scope 2 emission sources for 2019

Category	Emission sources	Boundary
Electricity	Purchased electricity	Included
Steam	Purchased steam	Not applicable
District heating	Purchased district heating	Included
District cooling	Purchased district cooling	No emissions

Scope 3

Scope 3 includes other indirect emissions, such as emissions from the extraction and production of purchased materials and services, vehicles not owned or controlled by the reporting entity, outsourced activities, waste disposal, etc.

According to the 'GHG Protocol', companies shall separately account for and report on emissions from Scope 1 and 2. Scope 3 is an optional reporting category but its reporting is often required for Climate Neutrality Labels.

Table 7 below gives an overview of the emission sources considered in Scope 3.

Table 7: Overview of Scope 3 emission sources for 2019

Category	Emission sources	Boundary
Purchased goods and services	Purchased goods (raw materials) and services	Included
Capital goods	Production of capital goods (e.g. machinery, IT equipment, etc.)	Included
Fuel- and energy-related activities	Upstream lifecycle emissions from fuel and electricity generation, incl. transmission and distribution losses	Included
Upstream transportation and distribution	Transportation and distribution of goods and services to the company	Included
Waste generated in operations	Waste management of operational waste (landfilling, recycling, etc.)	Included
Business travel	Travel and accommodation of employees/contractors	Included
Employee commuting	Employee travel between home and work	Included
Upstream leased assets	Operation of assets leased by the organisation (lessee) in the reporting year and not included in Scope 1 or 2	Not applicable
Downstream transportation and distribution	Transportation and distribution of products sold by the organisation	Included
Processing of sold products	Processing of intermediate products sold by the organisation	Not applicable
Use of sold products	Use of sold goods that require energy to operate	Not applicable
End-of-life treatment of sold products	Waste disposal and treatment of sold products	Not applicable
Downstream leased assets	Operation of assets owned by the company (lessor) and leased to other entities, not included in Scope 1 or 2	Not applicable
Franchises	Operation of franchises not included in Scope 1 or 2	Not applicable
Investments	Operation of investments not included in Scope 1 or 2	Not applicable

1.3 Data inventory and assumptions

South Pole has provided data on fuel usage for company and leased vehicles, refrigerants, purchased electricity, heating, fuel- and energy-related activities, business travel, IT equipment, paper use, other purchased goods and services, freight, waste generation, water use and employee commuting.

Overall, the data inventory, emission factors, and assumptions are based on the 'GHG Protocol'. The choice of assumptions and emission factors followed a conservative approach. Unless

otherwise specified, all emission values in this report are given in metric tonnes of carbon dioxide equivalent (tCO₂e).

Where activity data of the inventory was lacking, extrapolations and estimations were made. The complete overview of activity data, extrapolations, and estimations are summarised in Annex II.

1.4 Global Warming Potentials (GWP)

Global Warming Potential (GWP) is a measure of the climate impact of a GHG compared to carbon dioxide over a time horizon. GHG emissions have different GWP values depending on their efficiency in absorbing longwave radiation, and the atmospheric lifetime of the gas. The GWP values used in GHG accounting include the six GHGs covered by the United Nations Framework Convention on Climate Change (UNFCCC) and Kyoto Protocol and blends from these, presented in Table 8. These are the GWP used by BEIS and are based on the 'Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4)'. Although the 'AR5' is more recent, it has not been accepted internationally by all stakeholders.

Table 8: Applied GWP

GHG	GWP (100 years)
Carbon dioxide (CO ₂)	1
Methane (CH ₄)	25
Nitrous oxide (N ₂ O)	298
Hydrofluorocarbons (HFCs)	See IPCC AR4 – Table 2.14
Perfluorocarbons (PFCs)	See IPCC AR4 – Table 2.14
Sulphur hexafluoride (SF ₆)	22,800

(Source: IPCC AR4, 2007)

2 Results

Based on the information provided by South Pole, the total GHG emissions for 2019 are 1,924.8 tCO₂e.

Table 9 below illustrates key figures in terms of GHG emissions (in CO₂) and energy intensity (in gigajoules (GJ)), relevant to corporate sustainability reporting in accordance with the GHG Protocol.

Please note that, due to rounding of numbers, the figures may not add up exactly to the total provided.

Table 9: Key figures according to the Global Reporting Initiative (GRI)

GRI G4	GRI Standard	Topic	Quantity	Unit
G4-EN3	302-1	Direct energy consumption by primary source	148.5	GJ
		Diesel ⁶	12.5	GJ
		Petrol ⁷	136.0	GJ
		Natural gas ⁸	<0.01	GJ
G4-EN3	302-1	Indirect energy consumption by primary source	428.7	GJ
		Renewable electricity	377.0	GJ
		Grid electricity ⁹	45.0	GJ
		District heating	5.7	GJ
G4-EN15	305-1	Direct GHG emissions (Scope 1)	52.2	tCO ₂ e
G4-EN16	305-2	Energy indirect GHG emissions (Scope 2)	6.0	tCO ₂ e
G4-EN17	305-3	Other indirect GHG emissions (Scope 3)	1,865.6	tCO ₂ e
G4-EN18	305-4	GHG emission per employee	6.0	tCO ₂ e per employee

(Source: South Pole, 2020)

Table 10 and Figure 3 below present the breakdown of the GHG emissions by scope and by source, respectively.

⁶ Fuel for leased and owned vehicles in the Colombia and Stockholm offices

⁷ Fuel for leased and owned vehicles in the Bangkok, Jakarta, Colombia, Mexico, New Dehli, Zurich, Amsterdam, and Singapore offices

⁸ Fuel for cooking stoves in the Colombia office

⁹ Electricity for cooling in the Bangkok office

Table 10: GHG emissions by scope and activity for 2019

Activity	Consumption	Unit	Emissions (tCO ₂ e)	Percentage of total (%)
Scope 1: direct GHG emissions			52.2	2.7
Stationary combustion	100	litres	<0.1	<0.1
Natural gas	100	litres	<0.1	<0.1
Mobile combustion			10.5	0.5
Diesel	111.3	litres	0.3	<0.1
Diesel	2,374.0	km	0.6	<0.1
Petrol	4,103.0	litres	9.5	0.5
Petrol	280.0	km	0.1	<0.1
Refrigerants	22.2	kg	41.7	2.2
R407C	9.0	kg	16.0	0.8
R410A	12.2	kg	25.7	1.3
R600A	1.0	kg	<0.1	<0.1
Scope 2: indirect GHG emissions from purchased electricity, heating and cooling			6.0	0.3
Electricity	104,708.4	kWh	0.0	0.0
Grid ¹⁰	0.0	kWh	0.0	0.0
Renewable	104,708.4	kWh	0.0	0.0
Heating	1,571.5	kWh	0.0	0.0
District heating ¹¹	1,571.5	kWh	0.0	0.0
Electricity, grid	0.0	kWh	0.0	0.0
Cooling	12,500.0	kWh	6.0	0.3
District cooling	0.0	kWh	0.0	0.0
Electricity, grid	12,500.0	kWh	6.0	0.3
Scope 3: other indirect GHG emissions			1,865.6	97.0
Base building electricity	17,755.0	kWh	15.3	0.8
Grid	17,755.0	kWh	15.3	0.8
Renewable	0.0	kWh	0.0	0.0
Business travel			1,283.8	66.7

¹⁰ 38.3 tCO₂e has been avoided by South Pole through the purchase of RECs. Total gross emissions from grid electricity prior to REC purchase were 38.3 tCO₂e.

¹¹ It was assumed that as per previous years, district heating is renewable. Total net emissions from district heating are estimated to be 0.1 tCO₂e based on Stockholm's district heating consumption in the previous year.

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Activity	Consumption	Unit	Emissions (tCO ₂ e)	Percentage of total (%)
Flights - Global ¹²	6,120,329.9	pkm	1,047.6	54.4
< 463 km	184,156.6	pkm	52.1	2.7
463 – 3,700 km	1,327,812.7	pkm	229.4	11.9
> 3,700 km	4,608,360.6	pkm	766.0	39.8
Flights - Australia	541,409.6	pkm	77.6	4.0
< 400 km	2,516.4	pkm	0.6	<0.1
400 – 3,700 km	119,549.2	pkm	18.6	1.0
3,700 – 10,000 km	39,430.6	pkm	5.9	0.3
> 10,000 km	379,913.5	pkm	52.4	2.7
Land travel	431,757.5	pkm	46.5	2.4
Taxi	52,280.1	pkm	15.2	0.8
Car	41,430.5	pkm	2.7	0.1
Train – local	155,109.8	pkm	7.9	0.4
Train – long distance	1,344.1	pkm	<0.1	<0.1
Metro/subway	26,242.0	pkm	0.5	<0.1
Tram	3,704.8	pkm	0.1	<0.1
Bus	59,686.4	pkm	9.0	0.5
Ferry	24,463.9	pkm	0.5	<0.1
Motorcycle	485.3	pkm	0.1	<0.1
Uber	14,939.3	pkm	2.8	0.1
Public transport (unspecified)	52,071.4	pkm	7.7	0.4
Accommodation	3,942	guest-nights	112.0	5.8
Hotel stay	3,942	guest-nights	112.0	5.8
Purchased goods and services			214.4	11.1
Water - Global ¹³	985.6	m ³	1.0	0.1
Supply	985.6	m ³	0.3	<0.1
Treatment	985.6	m ³	0.7	<0.1
Water - Australia	79.6	m ³	0.1	<0.1

¹² Due to calculation requirements under the Australian Government's Climate Active carbon neutral certification scheme, Australian flights have been calculated and reported separately from global South Pole flights.

¹³ Due to calculation requirements under the Australian Government's Climate Active carbon neutral certification scheme, emissions from Australian water consumption has been calculated and reported separately from global South Pole water consumption.

Activity	Consumption	Unit	Emissions (tCO ₂ e)	Percentage of total (%)
Supply and treatment	79.6	m ₃	0.1	<0.1
Paper	101,941	sheets	0.4	<0.1
Unspecified	6,640	sheets	<0.1	<0.1
Virgin	7,010	sheets	<0.1	<0.1
Recycled	85,884	sheets	0.3	<0.1
Carbon neutral	2,407	sheets	0.0	0.0
Food and drink products	234,422.3	EUR	168.8	8.8
Printing and publishing	11,133.1	EUR	4.9	0.3
Internet	9,674.9	EUR	1.6	0.1
Office supply	53,717.3	EUR	22.7	1.2
Telecommunications and phone	40,708.4	EUR	11.6	0.6
Postage	5,715.8	EUR	1.4	0.1
Catering services	4,007.2	EUR	1.9	0.1
Capital goods			116.4	6.0
IT equipment			116.4	6.0
Laptop	242.0	No. of devices	13.4	0.7
Desktop	65.0	No. of devices	3.8	0.2
Monitor	284.0	No. of devices	18.5	1.0
Projector	3.0	No. of devices	<0.1	<0.1
Printer	14.0	No. of devices	0.6	<0.1
Mobile phone	8.0	No. of devices	0.2	<0.1
Office telephone	84.0	No. of devices	0.6	<0.1
Television	4.0	No. of devices	<0.1	<0.1
Conferencing system	4.0	No. of devices	<0.1	<0.1
Coffee machine	1.0	No. of devices	<0.1	<0.1
Router	1.0	No. of devices	<0.1	<0.1
Server	2.0	No. of devices	0.3	<0.1
Multifunctional printer (scanner)	1.0	No. of devices	<0.1	<0.1
Other IT devices	182,950.0	EUR	79.1	4.1
Employee commuting	1,196,536.6	pkm	209.5	10.9
Bicycle	165,282.6	pkm	0.0	0.0

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Activity	Consumption	Unit	Emissions (tCO ₂ e)	Percentage of total (%)
Walking	27,947.8	pkm	0.0	0.0
Tram	27,857.5	pkm	1.1	0.1
Metro/subway	166,685.7	pkm	5.9	0.3
Train	413,895.1	pkm	20.1	1.0
Bus	145,479.5	pkm	151.1	7.9
Ferry	1,483.2	pkm	<0.1	<0.1
Car	129,854.8	pkm	29.8	1.6
E-bike	2,697.4	pkm	<0.1	<0.1
Scooter	6,600.8	pkm	0.7	<0.1
Motorcycle	105,519.5	pkm	0.4	<0.1
Other	3,232.8	pkm	0.3	<0.1
Downstream transportation and distribution			9.7	0.5
Freight			9.7	0.5
Air	41.7	tkm	0.1	<0.1
Air	4,128.9	EUR	7.9	0.4
Road	59.3	tkm	0.8	<0.1
Road	285.7	EUR	0.4	<0.1
Rail	0.0	tkm	0.0	0.0
Rail	930.3	EUR	0.5	<0.1
Waste generated in operations	4.6	tonnes	3.1	0.2
General	2.4	tonnes	1.5	0.1
Food	0.6	tonnes	0.6	<0.1
Paper	1.5	tonnes	1.0	0.1
Comingled recycling	<0.1	tonnes	<0.1	<0.1
Fuel and energy-related activities			13.5	0.7
WTT fuels	4,314.3	litres	2.5	0.1
WTT fuels	2,654.0	km	0.2	<0.1
T&D electricity ¹⁴	136,534.9	kWh	10.8	0.6
Total net GHG emissions			1,923.8	100.0

(Source: South Pole, 2020)

¹⁴ Electricity consumption from offices, heating, cooling, and base buildings

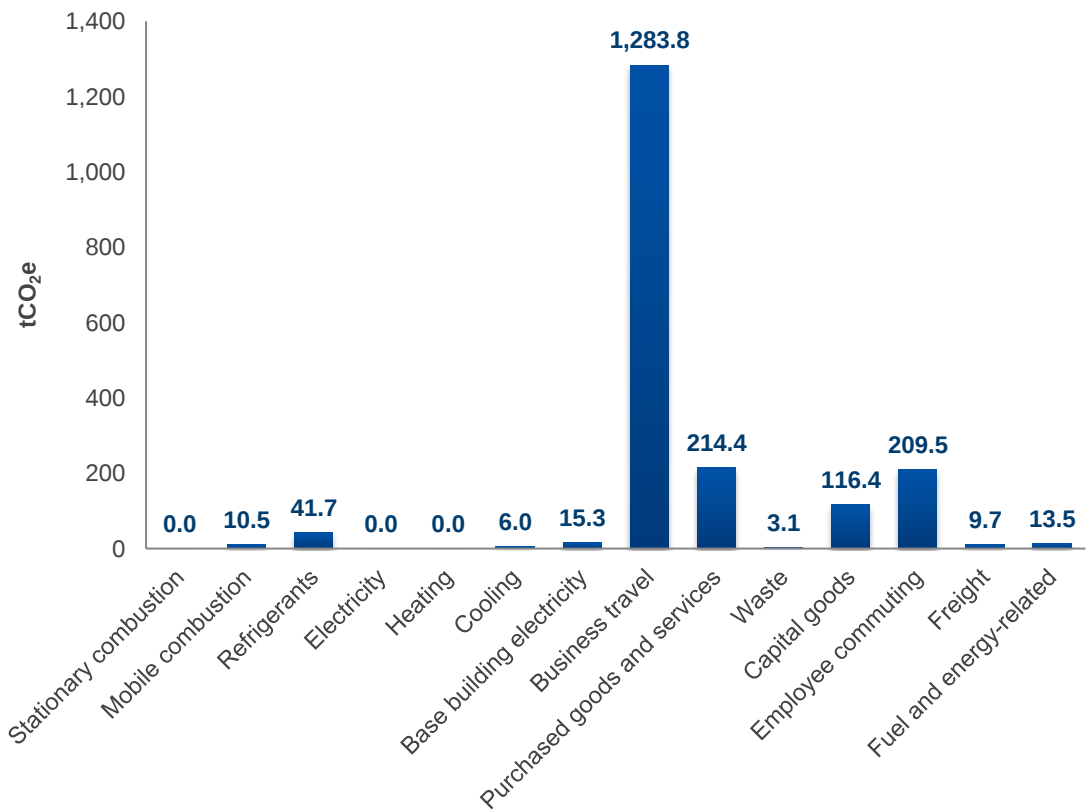


Figure 3: GHG emissions for 2019, by source

(Source: South Pole, 2020)

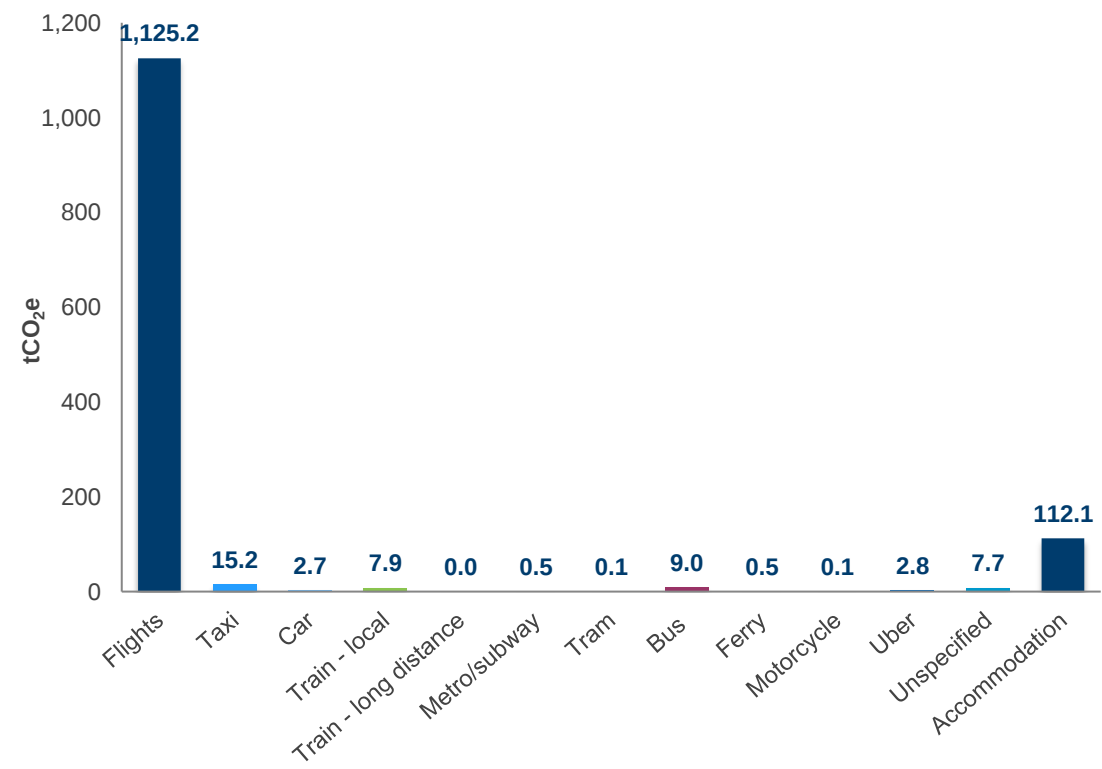


Figure 4: Sources of GHG emissions business travel

(Source: South Pole, 2020)

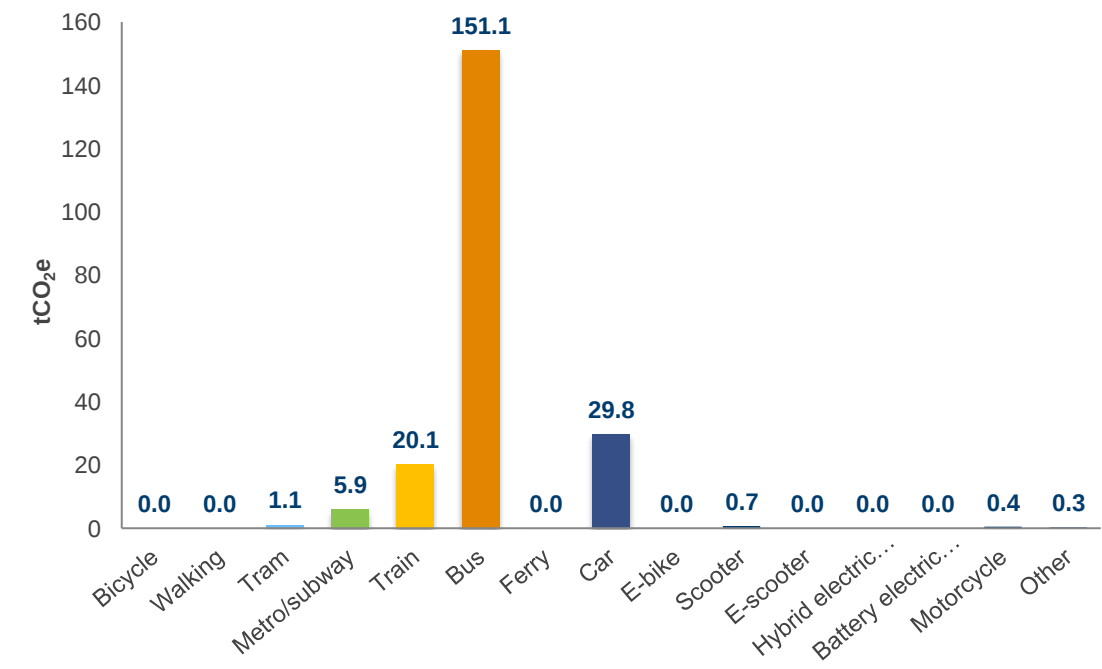


Figure 5: Sources of GHG emissions commuter travel

(Source: South Pole, 2020)

Figure 4 and Figure 5 display the breakdown of GHG emissions from business travel and commuter travel, respectively.

The detailed breakdown of GHG emissions by office is presented on Table 11 and

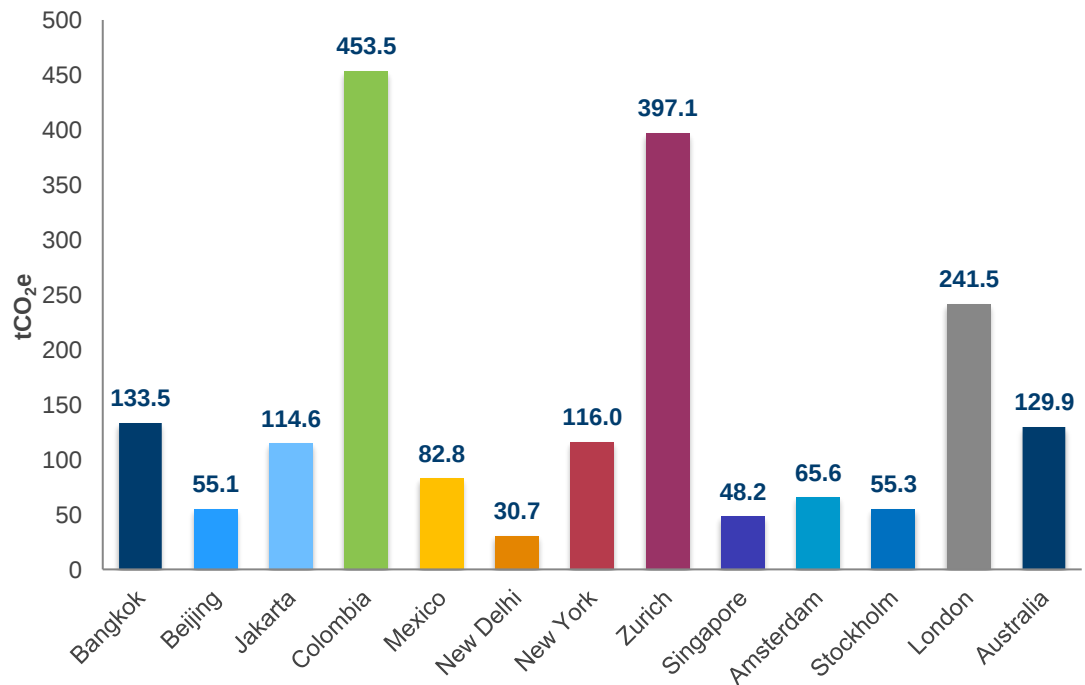


Figure 6. The emissions per employee in each office from 2018 to 2019 is displayed on Figure 7.

Table 11: GHG emissions (tCO_{2e}) by office

Activity	Bangkok	Beijing	Jakarta	Colombia	Mexico	New Delhi	New York	Zurich	Singapore	Amsterdam	Stockholm	London	Australia
Scope 1: direct GHG emissions	26.4	0.0	1.5	21.5	0.1	0.0	0.0	0.9	0.0	0.3	0.6	0.9	0.0
Stationary combustion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mobile combustion	0.7	0.0	1.5	5.5	0.1	0.0	0.0	0.9	0.0	0.3	0.6	0.9	0.0
Refrigerants	25.7	0.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Scope 2: indirect GHG emissions from purchased electricity, heating, and cooling	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Heating	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cooling	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Scope 3: other indirect GHG emissions	101.2	55.1	113.0	432.0	82.7	30.7	116.0	396.2	48.2	65.3	54.7	240.6	129.9
Base building electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.3
Business travel	84.2	44.7	51.5	264.4	59.3	16.1	50.0	331.9	41.4	55.8	10.0	189.5	85.1
Flights	68.7	35.6	41.8	231.6	52.4	6.2	44.1	303.4	38.7	52.0	8.6	164.7	77.6
Ground transport	2.4	0.9	0.8	14.2	2.9	6.0	3.1	8.3	0.4	1.2	1.4	3.9	0.9
Accommodation	13.0	8.2	8.9	18.6	4.0	3.9	2.9	20.3	2.3	2.6	0.0	21.0	6.5
Purchased goods and services	7.5	4.0	10.9	40.8	6.6	6.3	33.1	25.4	5.5	4.7	22.5	26.6	23.4
Paper	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0

Greenhouse gas (GHG) accounting report

Activity	Bangkok	Beijing	Jakarta	Colombia	Mexico	New Delhi	New York	Zurich	Singapore	Amsterdam	Stockholm	London	Australia
Water	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.1
Food and drink products	5.9	3.2	5.6	33.2	6.0	5.9	26.8	20.9	4.0	3.2	18.2	21.2	14.8
Printing and publishing	0.2	0.0	0.1	0.1	0.0	0.0	0.5	0.9	0.1	0.0	0.2	0.4	2.4
Internet	0.4	0.0	0.1	0.1	0.0	0.0	0.2	0.1	0.0	0.0	0.3	0.3	0.1
Office supply	0.0	0.0	3.7	0.8	0.0	0.2	4.7	0.8	1.3	1.0	3.5	2.7	3.9
Telecommunications	0.7	0.7	1.2	3.0	0.2	0.0	0.4	2.2	0.2	0.3	0.2	1.5	0.8
Postage	0.0	0.0	0.1	0.2	0.0	0.1	0.4	0.0	0.0	0.0	0.2	0.1	0.4
Catering services	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.3	0.0	0.0	0.0	0.3	1.0
Capital goods	1.3	1.1	4.4	28.6	6.6	1.5	29.0	11.4	1.3	2.0	20.0	7.0	2.5
IT	1.3	1.1	4.4	28.6	6.6	1.5	29.0	11.4	1.3	2.0	20.0	7.0	2.5
Employee commuting	5.4	4.1	44.2	98.1	9.1	5.9	3.3	18.6	0.0	2.0	1.1	16.2	1.5
Freight	0.1	0.7	0.0	0.0	0.0	0.0	0.2	7.6	0.0	0.0	0.8	0.0	0.2
Waste	0.2	0.1	0.2	0.1	0.1	0.1	0.1	1.0	0.0	0.3	0.1	0.6	0.2
Fuel and energy-related activities	2.5	0.5	2.0	2.8	1.1	0.8	0.4	0.3	0.0	0.5	0.2	0.7	1.6
Total GHG emissions	133.5	55.1	114.6	453.5	82.8	30.7	116.0	397.1	48.2	65.6	55.3	241.5	129.9
No. of employees	19	6	26	84	20	4	7	59	2	16	8	43	9
Emissions per employee (tCO₂e/employee)	7.0	9.2	4.4	5.4	4.1	7.7	16.6	6.7	24.1	4.1	6.9	5.6	14.4

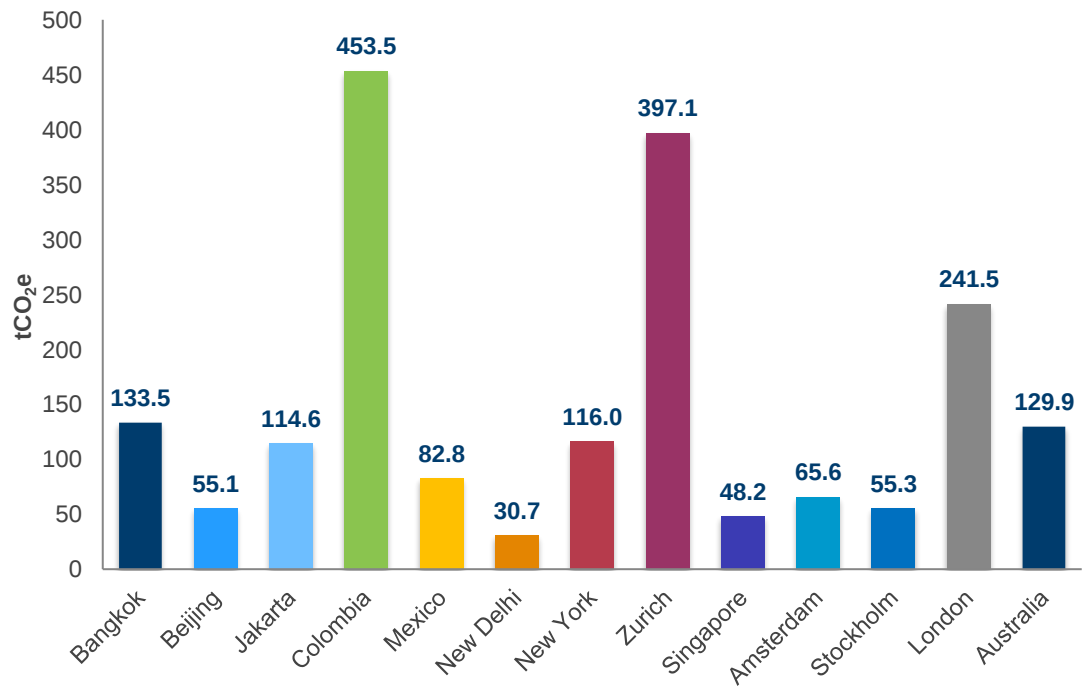


Figure 6: GHG emissions per office

(Source: South Pole, 2020)

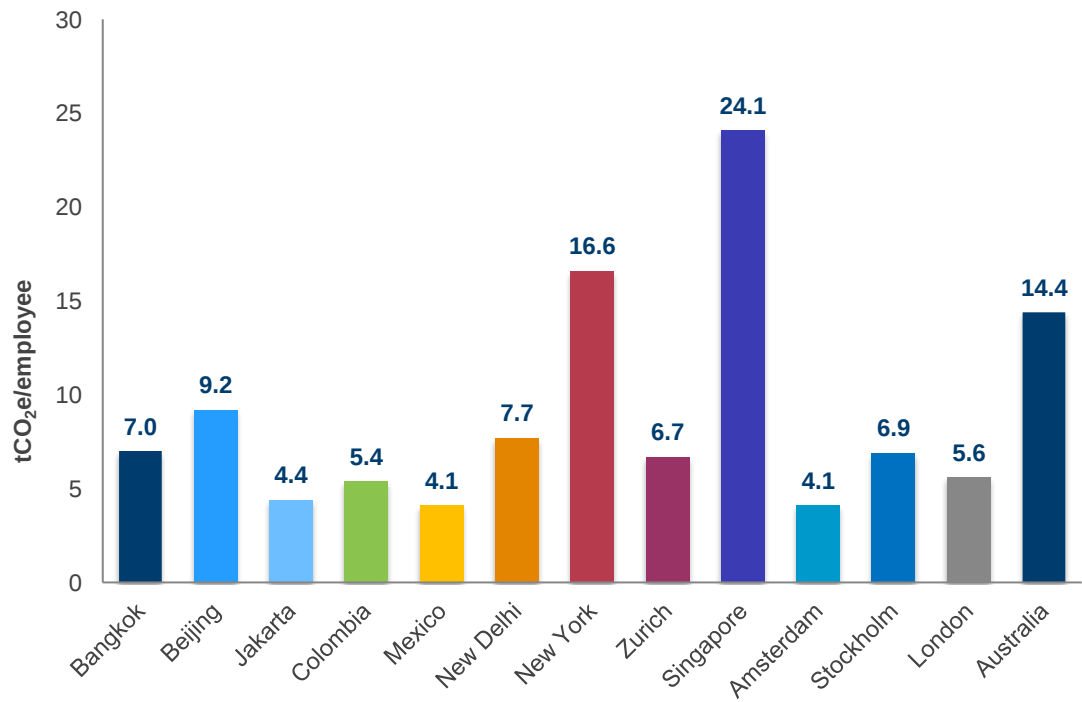


Figure 7: GHG emissions/employee per office

(Source: South Pole, 2020)

Table 12 below presents the difference between GHG emissions reported in 2018 and in 2019, including the percentage difference between the years. Figure 8 and Figure 9 display the breakdown of the differences in GHG emission by scope from 2018 to 2019.

Table 12: GHG emissions over time from 2018 to 2019

Activity	2018 (tCO ₂ e)	2019 (tCO ₂ e)	Relative change (%)
Scope 1: direct GHG emissions	22.3	52.2	+134.0
Stationary combustion	n/a	0.0	n/a
Mobile combustion	6.3	10.5	+66.8
Refrigerants	16.0	41.7	+160.5
Scope 2: indirect GHG emissions from purchased electricity, heating, and cooling	32.6	6.0	-81.7
Electricity	32.5	0.0	-100.0
Heating	0.1	0.0	-100.0
Cooling	n/a	6.0	n/a
Scope 3: other indirect GHG emissions	1,770.2	1,894.8	+5.4
Base building electricity	19.0	15.3	-19.3
Business travel	1,414.4	1,283.8	-9.1
Flights	1,244.8	1,125.2	-9.6
Ground transport	38.5	46.5	+20.8
Accommodation	131.1	112.0	-14.5
Purchased goods and services	164.0	214.4	+30.69
Water	1.6	1.1	-32.0
Paper	0.3	0.4	+36.3
Food and drink products	85.5	168.8	+97.4
Printing and publishing	1.5	4.9	+223.7
Telecommunications	7.0	11.6	+66.0
Internet	0.9	1.6	+70.5
Office supply	28.4	22.7	-20.2
Phone	1.8	n/a	n/a
Postage	0.8	1.4	+71.8
Catering services	8.0	1.8	-76.8
Other, directly reported	28.1	n/a	n/a
Capital goods	85.1	116.3	+36.8
IT	85.1	116.3	+36.8
Employee commuting	59.5	209.5	+252.1
Freight	14.2	9.7	-31.8
Waste	0.9	3.1	+245.2
Fuel and energy-related activities	13.0	13.5	+4.1
Total GHG emissions	1,825.1	1,923.8	+5.4
No. of employees	180	318	+76.7
Emissions per employee (tCO₂e/employee)	10.7	6.0	-43.7

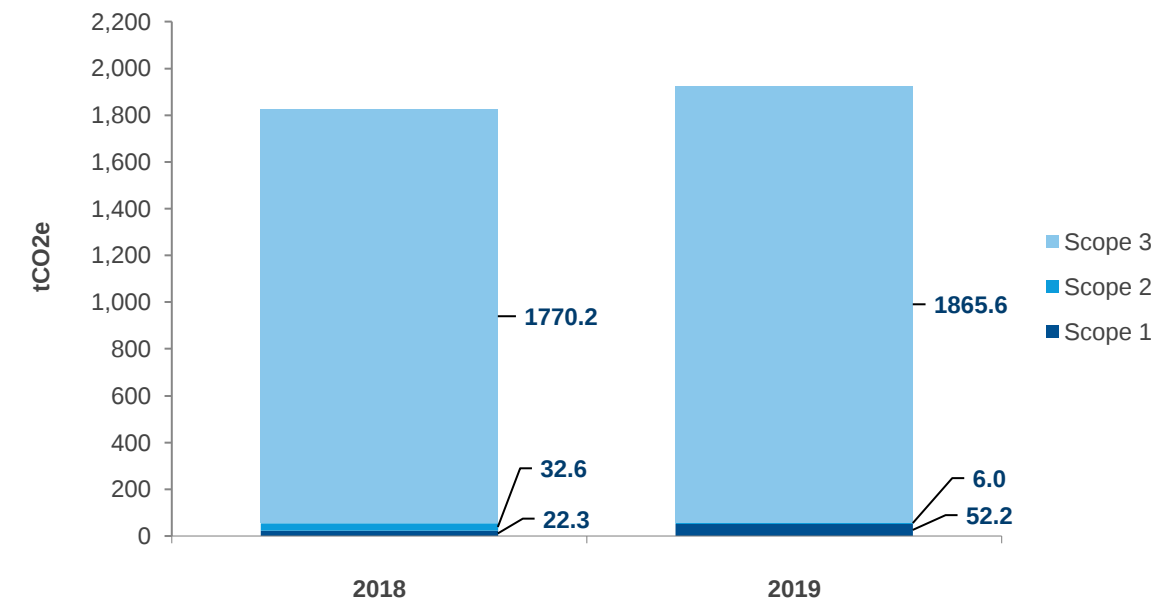


Figure 8: GHG emissions by scope from 2018 to 2019

(Source: South Pole, 2020)

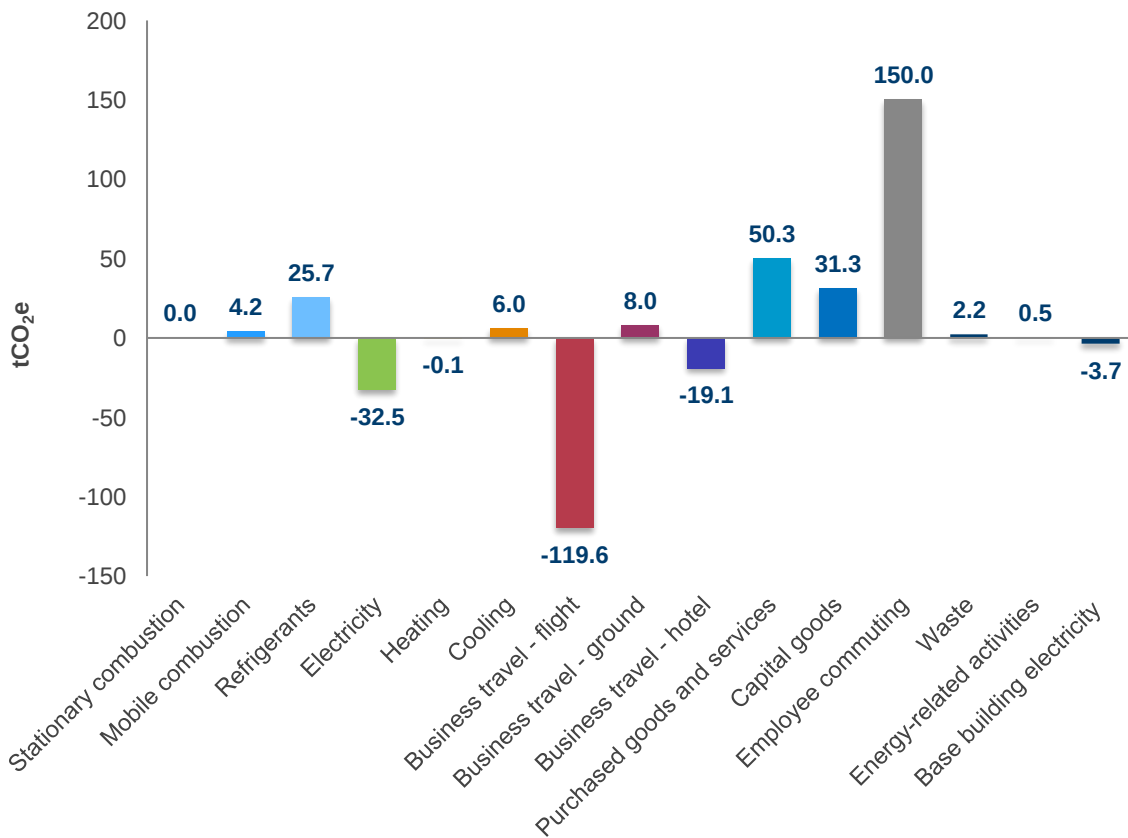


Figure 9: Absolute GHG emissions change from 2018 to 2019

(Source: South Pole, 2020)

3 South Pole's Climate Neutrality Labels

3.1 Approach and guiding principles

South Pole offers Climate Neutrality Labels for companies, products and events. The South Pole Climate Neutrality Labels are closely aligned with international standards such as PAS 2060¹⁵ – the leading international standard for demonstrating carbon neutrality, developed in 2014 by the British Standards Institution (BSI). The underlying GHG accounting must follow recognised international standards such as the 'GHG Protocol'¹⁶ or ISO 14064-1¹⁷.

The principles of relevance, completeness, consistency, transparency and accuracy of the 'GHG Protocol' provide the basis for achieving the Climate Neutrality Labels. In addition, and in reflection of South Pole's commitment to long-lasting impact, the South Pole labels include the principles of 'conservativeness' and 'continuity'.

To achieve the Climate Neutrality Labels, South Pole has outlined seven steps, which are presented in Figure 10. A detailed description of the steps and the aforementioned principles is provided in the [Climate Neutrality and Renewable Electricity Labels Technical Guidance](#) (available online).

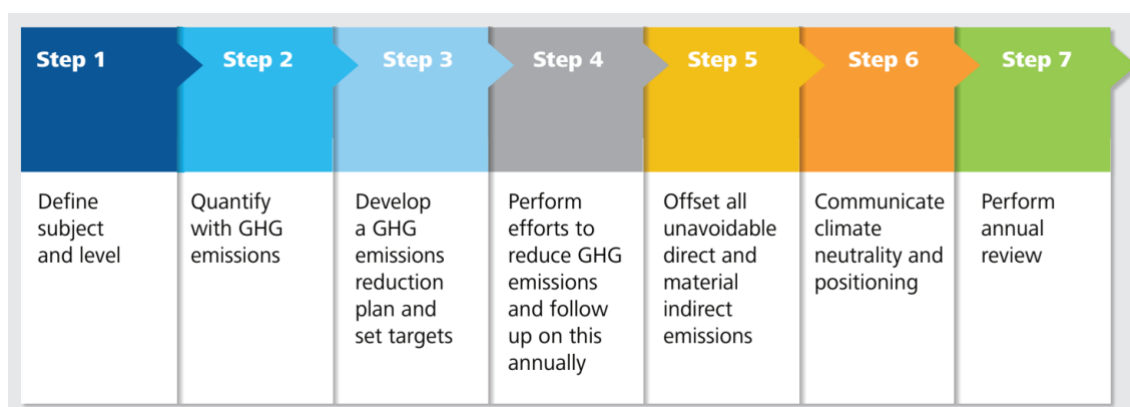


Figure 10: Seven steps to achieving South Pole's Climate Neutrality label

(Source: South Pole, 2018)

3.2 South Pole's emissions reduction plan and targets

In 2018, South Pole made great advances towards taking environmental responsibility for its operations through the development of its Sustainability Policy and Action Plan. It continuously measures its climate impact and encourages the development and diffusion of environmentally friendly technologies. The following Sustainability Targets and goals have been set for the year 2025 as seen in Table 13. The progress made against these targets will be measured, reported and communicated on a yearly basis.

¹⁵ PAS 2060 Standard for Carbon Neutrality (2014) British Standards Institution, Published by BSI Standards Limited.

¹⁶ Greenhouse Gas Protocol: a corporate reporting and accounting standard, developed by the World Business Council for Sustainable Development (WBCSD), Geneva, Switzerland and World Resources Institute (WRI), Washington D.C., 2004.

¹⁷ ISO 14064-1 International Standard for GHG Emissions Inventories and Verification (2006) International Organization for Standardization, Geneva, Switzerland.

Table 13: South Pole's sustainability action plan: targets for 2025

Sustainability action plan	Baseline as of 2017 GHG Accounting	2019 performance	2025 target	Status
Goal 1: Reduce, compensate, and report our carbon emissions				
1.1 Power operations with renewable electricity	18% of electricity purchased is renewable	100% of electricity purchased is procured from renewable sources, in places where we have control	100% of electricity purchased is procured from renewable sources, in offices where we have control	Complete
1.2 Reduce GHG footprint of heat consumption	0% of purchased heat is renewable	100% of purchased heat is offset by the building owner	50% of purchased heat is procured from renewable sources	Complete
1.3 Reduce South Pole office energy consumption through energy efficiency measures	0.42 MWh/employee 71.9 MWh (total)	0.33 MWh/employee 104.7 MWh (total)	20% reduction in MWh/employee	Complete
1.4 Reduce carbon emissions from business travel	0.168 kgCO ₂ e/km (all transport modes) 0.172 kgCO ₂ e/km (flights) 21,962 km/employee (all transport modes) 19,752 km/employee (flights)	0.165 kgCO ₂ e/km (all transport modes) 0.169 kgCO ₂ e/km (flights) 22,306.6 km/employee (all transport modes) 20,948.9 km/employee (flights)	10% reduction in km/employee from business travel by all transport modes 15% reduction in km/employee from business travel by air	Ongoing
1.5 Report and publish South Pole's GHG emissions and offset report, verified by a third-party organisation	South Pole has published GHG emission and offset report that is verified by Climate Check under the ICROA audit	South Pole has published GHG emission and offset report that is verified by Climate Check under the ICROA audit	Maintain publishing verified GHG emissions and offset report that is verified	Ongoing

Greenhouse gas (GHG) accounting report

Sustainability action plan	Baseline as of 2017 GHG Accounting	2019 performance	2025 target	Status
1.6 Climate-neutral and climate-positive company	Climate neutral company	Climate neutral company	Maintain climate-positive status	Ongoing
Goal 2: Water consumption				
2.1 Reduce water consumption in South Pole operations	45.7 m³/employee	3.4 m³/employee	20% reduction in m³/employee in offices where we have control	Complete
Goal 3: Waste and recycling				
3.1 Reduce waste generation within South Pole offices	222.9 kg waste/employee	14.5 kg waste/employee	15% reduction in kg waste/employee	Ongoing
3.2 Recycle all possible materials produced within South Pole operations	6.3% of waste recycled (paper only)	35% of waste recycled (paper and co-mingled recycling)	20% of waste recycled	Complete
3.3 E-waste produced within South Pole is recycled responsibly by a certified e-waste recycler	n/a	n/a	90% e-waste recycled in countries where certified e-waste recycling is available	Ongoing
Goal 4: Sustainable sourcing/procurement				
4.1 Purchase sustainable office supplies and equipment, including IT equipment	n/a	n/a	25% supplies and equipment purchased is sustainable	Ongoing
Goal 5: Zero deforestation				
5.1 Paperless offices	789 paper sheets/employee	313 paper sheets/employee	50% reduction in paper sheets/employee	Complete

Sustainability action plan	Baseline as of 2017 GHG Accounting	2019 performance	2025 target	Status
5.2 Purchase of only recycled and certified paper	43% certified recycled paper purchased	89% certified recycled and carbon neutral paper purchased	75% certified recycled paper purchased	Complete
Goal 7: Community outreach and advocacy				
7.1 Annual local community days for all South Pole teams	n/a	n/a	Each office adopts a year-long sustainability-related community-outreach programme with numerous coordinated activities	Ongoing
Goal 8: Employee engagement				
8.1 Promote sustainable commuting practices	73% of South Pole employees commuting via public transport, rideshare, bicycle or walking	80% of South Pole employees commuting via public transport, rideshare, bicycle or walking	90% of South Pole employees commuting via public transport, rideshare, bicycle or walking	Ongoing
8.2 Implement onboarding training on sustainable practices at South Pole	n/a	n/a	80% of new employees completed the training 80% of new employees completed feedback form	Ongoing
8.3 Encourage green office spaces	n/a	n/a	Every office has at least 1 office plant per 10m ²	Ongoing

Annex I

Emission factors

Table 14: Emissions factors¹⁸

Activity	Emission factor reference ¹⁹
Fuel	UK Department for Business, Energy & Industrial Strategy (BEIS), 2019; Climate Active; 2019
Electricity	International Energy Agency, 2019; Climate Active Electricity Calculator, 2019
Heating	Hufvudstaden, 2018
Business travel	BEIS, 2019; Climate Active, 2019
Commuter travel	BEIS, 2019; Climate Active, 2019
Freight	BEIS, 2019; Climate Active, 2019
Accommodation	BEIS, 2019; Climate Active, 2019
Paper	BEIS, 2019; Climate Active, 2019
Waste	BEIS, 2019; Climate Active, 2019
IT equipment	IBM, 2016; Dell, 2010, 2011, 2013, 2014, 2016; LCA LED, 2016; Apple, 2012, 2013, 2016; Projector LCA, 2006; Lenovo, 2016
Transmission and distribution (T&D)	BEIS, 2019; Climate Active, 2019
Well-to-tank (WTT)	BEIS, 2019; Climate Active, 2019
Water	BEIS, 2019; Climate Active, 2019

¹⁸ Due to Climate Active requirements, emissions for the Australia office were based on the use of Climate Active emission factors where applicable

¹⁹ South Pole derives its emission factors from reliable and credible sources. South Pole is not responsible for inaccuracies in emission factors provided by third parties.

Annex II

Data assumptions and extrapolations

Fuels

Data on fuel consumption was provided both directly by office managers and indirectly through distance travelled and expense reports. Distance travelled was converted into litres of fuel based on the average fuel efficiency of the vehicle model provided. All expenses related to fuel were assumed to be petrol for conservativeness and converted into litres based on the average cost of petrol in the respective location as sourced from [Global Petrol Prices, 2020](#).

Electricity

Data on electricity consumption was not available for the Singapore, Amsterdam, Stockholm, and London offices. An extrapolation was made based on the average electricity consumption per employee in other offices and applied to the Singapore, Amsterdam, Stockholm, and London offices.

Data on electricity consumption was only partially available for the Sydney and Melbourne offices. For the Sydney office, an extrapolation was made based on the average cost of electricity per kWh for the months of May – December and applied to the months of January – April where only spend-based data was available. For the Melbourne office, an extrapolation was made based on the average electricity consumption per employee for the months of January – May and July and applied to the months of June and August – December where data was not available.

Base building electricity

Data on base building electricity was only partially available for the Melbourne office. Data on base building electricity consumption was not available for the months of September to December during which the Melbourne office moved buildings. An estimate was made using the Climate Active Building Energy Use Calculator based on 3.5 NABERS rating and area of 67.5 m².

Heating

Data on heating was not available for any of the offices. In the previous year, the Stockholm office reported the use of district heating. An extrapolation was made based on the previous year's consumption per employee and assumed to be completely offset as reported last year.

Refrigerants

Data on the use of refrigerants was reported by the Bangkok and Columbia offices. The Columbia office did not report the type of refrigerant used and specified only the use of an air conditioner (AC) and a model of refrigerator. The type of refrigerants used were assumed to be R410A and R600A based on the most commonly used refrigerant for ACs and refrigerator manufacturer respectively.

Business travel

Land travel

Data on land travel was provided both directly by office managers and indirectly through expense reports. The EUR spent on car, taxi, uber, metro, tram, bus, ferry, train, and motorcycle was converted into a distance based on the average fare per km as sourced from [iCarHireInsurance, 2018](#), [Price of Travel, 2017](#), [Price of Travel, 2015](#), [Price of Travel, 2017](#), [NSW Transport, 2019](#), [Direct Ferries, 2019](#), [Rome2Rio, 2019](#), [BC Ferries Connector, 2019](#), [Rick Steve's Europe, 2019](#), [GoEuro, 2018](#), [Bangkok Post, 2015](#), [South China Post, 2019](#), and [WikiTravel, 2019](#). All unspecified forms of land travel were assumed to be bus for conservativeness.

Emissions from the use of biofuel taxis²⁰ were assumed to be negligible compared to other forms of land travel and excluded from the calculations.

Air travel

Data on air travel was provided directly through employees and indirectly through expense reports. Where the origin and destination of flights were not provided, distances of 347 km, 2275 km, and 11250 km were assumed if the amount spent was less than 100 EUR, between 100-250 EUR, and above 250 EUR respectively. All flights were assumed to be economy class, unless otherwise specified.

Employee commuting

Data on employee commuting was provided directly through an employee commuting survey. An extrapolation was completed based on the average weekly distance travelled using each form of transportation for each office and an assumed working period of 46 weeks per year. The Beijing office did not complete the employee commuting survey and an extrapolation based on the global average was applied.

All unspecified forms of employee commute were conservatively assumed to be bus. Emissions from the use of E-bikes were assumed to be negligible compared to other forms of land travel and excluded from the calculations.

Accommodation

Data on accommodation was provided both directly through office managers and indirectly through expense reports. Where the location of stay and number of nights were not provided, the location of stay was inferred based on the currency of payment and average price of a hotel room in the respective location as sourced from [Trivago, 2018](#).

Freight

Data on freight was provided both directly through office managers and indirectly through expense reports. Data on freight provided through expense reports did not indicate the type of transportation used so the mode was conservatively assumed to be air freight.

Paper

Data on paper consumption was not available for the Beijing, New York, Singapore, and Melbourne offices. An extrapolation was made based on the average paper consumption per employee.

Water

Data on water consumption was not available for the Beijing, Singapore, Amsterdam, Stockholm, London, and Melbourne offices. An extrapolation was made based on the average water consumption per employee and applied to the Beijing, Singapore, Amsterdam, Stockholm, and London offices. The water consumption of the Melbourne office was based on average consumption per employee in 2018.

Waste

The Bangkok, Mexico, Zurich, and London offices reported the amount of waste produced in m³. These figures were converted into a mass by applying an assumed density of 138 lb/y³ for general waste, 135 lbs/y³ for paper waste, and 420 lb/y³ for food waste as sourced from [EPA, 2016](#).

Data on waste was not available for the Beijing, Amsterdam, Stockholm, and Melbourne offices. An extrapolation was made based on the average weight of general waste, food waste, paper waste, non-recyclable plastic, and recyclable plastic waste produced per employee in other offices.

²⁰ Only applicable for the Stockholm office

For offices with abnormally high reporting of certain waste streams, extrapolations were applied instead of using reported data. This was undertaken for: general waste reported by the Bangkok and New York offices; general, food, and paper waste reported by the London office; and food waste reported by the Sydney office.

