

Carbon Calculated Report: Qualified Greenhouse Gas Inventory



Client: SANLAM 2011 Carbon Footprint Report

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Overview of Sanlam's Carbon Dioxide Equivalent (CO₂e) Emissions

Reporting period:

Financial year 2011 (January 01 – December 31)

Carbon footprint calculation conducted on: Sanlam

Methodology:

Greenhouse Gas Protocol – Corporate Accounting and Reporting Standard

Total Sanlam employees covered by report:	4 934
Total Sanlam employees	7 256
Percentage Sanlam employees covered by report:	68%
Total square metreage of offices reported:	101 170

Scope 1 Direct Emissions	Metric tonnes of CO ₂ e
Equipment owned or controlled (e.g. generators):	57.25
Air conditioning and refrigeration gas refills:	43.49
Vehicle fleet	0
TOTAL SCOPE 1 EMISSIONS	100.74

Scope 2 Indirect Emissions	
Purchased electricity	39 488.70
TOTAL SCOPE 1 & 2 EMISSIONS	39 589.44

Scope 3 Indirect Emissions	
Business travel in rental cars	202.08
Business travel in commercial airlines	2 768.89
Business travel in hotel accommodation	185.36
Third-party vehicle fleet	61.26
Employee commuting	6 887.98
Consumption of office paper	392.93
Courier services	191.32
TOTAL SCOPE 3 EMISSIONS	10 689.82

TOTAL SCOPE 1, 2 & 3 EMISSIONS (GHG PROTOCOL)	50 279.26
Non-Kyoto Protocol GHG emissions ¹	510.09
TOTAL SANLAM 2011 EMISSIONS CO₂e (METRIC TONNES)	50 789.35
Scope 1&2 emissions per full-time employee (t/FTE)	8.02
Total emissions per full-time employee (t/FTE)	10.29
Scope 1&2 emissions per metre squared of office space (t/m ²)	0.391
Total emissions per meter squared of office space (t/m ²)	0.502

¹ Non-Kyoto Protocol GHG emissions are reported separately according to GHG Protocol.



Abbreviations and Glossary of Terms

A/C	Air conditioning
Baseline year	An historical year used to compare preceding year's emissions.
CO₂	Carbon dioxide
CO₂e	Carbon dioxide equivalent – standardisation of all greenhouse gases to reflect the global warming potential relative to carbon dioxide.
CDP	Carbon Disclosure Project
Defra	United Kingdom Department of Environment, Food and Rural Affairs.
Direct emissions	Greenhouse gas emissions from facilities/sources owned or controlled by a reporting company, e.g. generators, blowers, vehicle fleets.
Emission factors	Specific value used to convert activity data into greenhouse gas emission values. Presented in specific units, e.g. kgCO ₂ /km travelled.
FTEs	Full-time employees
GHG	Greenhouse gases
GHG Protocol	Greenhouse Gas Protocol – uniform methodology used to calculate the carbon footprint of an organisation.
GWP	Global Warming Potential – an indication of the global warming effect of a greenhouse gas in comparison to the same weight of carbon dioxide.
HCFC	Hydrochlorofluorocarbon
IPCC	International Panel on Climate Change
Indirect emissions	Greenhouse gas emissions from facilities/sources that are not owned or controlled by the reporting company, but for which the activities of the reporting company are responsible, e.g. purchasing of electricity.
Operational boundary	Determination of which facilities or sources of emissions will be included in a carbon footprint calculation.
Organisational boundary	Determination of which business units of an organisation will be included in a carbon footprint calculation.
Optional information	Information relating to emissions that are recommended but not compulsory under the GHG Protocol, e.g. emissions from air travel.
Relevant emissions	Emissions generated as a result of the business activities of the reporting company.
Required information	Information relating to emissions that are compulsory under the GHG Protocol, namely direct emissions and indirect emissions from purchased electricity.
Scope 1 emissions	Emissions resulting from equipment owned or controlled by a reporting company.
Scope 2 emissions	Emissions resulting from consumption of electricity purchased by a reporting company.
Scope 3 emissions	Emissions resulting from other activities of a reporting company, such as commuting travel, business air travel, paper consumption.
UNEP	United Nations Environment Programme
WBCSD	World Business Council for Sustainable Development
WRI	World Resources Institute



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Section A: Introduction

This 2011 report constitutes the fifth carbon footprint commissioned by Sanlam and should be compared against the company's previous carbon footprint calculations. All reports have been prepared using the Greenhouse Gas (GHG) Protocol Corporate Accounting and Reporting Standard methodology.

This report covers emissions emanating from the business activities of Sanlam's head office in Bellville, Cape Town, as well as buildings at SIM, Sanlynn, Sanlam Sky, Hyde Park and Glacier. This covers a staff complement of some 4 934 full-time employees (FTEs) and 101 170 meter squared (m²) of office space. Although Sanlam has operations in other parts of Africa, India, the United States of America and the United Kingdom, these were considered materially insubstantial in terms of number of employees and associated emissions. Sanlam's short-term insurance subsidiary, Santam, is responsible for its own carbon footprinting requirements.

The GHG-emitting activities covered by the report include direct emissions resulting from fuel used by Sanlam-owned or controlled equipment, fleet vehicles and air conditioning and refrigeration gas refills; indirect emissions from purchased electricity (referred to as Scope 1 and 2 emissions respectively); and indirect emissions resulting from Sanlam's business travel activities, third-party vehicle fleet, its employee commuting patterns, courier usage and the consumption of office paper (referred to as Scope 3 emissions). It is important to highlight that under the GHG Protocol, the reporting of both direct emissions and indirect emissions resulting from purchased electricity are compulsory. All other indirect emissions are reported on a voluntary basis.

Carbon Calculated has gone to all reasonable lengths to ensure that the primary information provided by Sanlam is correct but Carbon Calculated takes no responsibility for any inaccuracies that this information might contain. This report, in its entirety, is both material and complete and is intended for Sanlam's internal use only. Information may, however, be extracted for reporting purposes, such as for submission into international and/or national greenhouse gas registries and sustainability reporting. It is believed that Sanlam will present this report for third-party verification purposes.

The GHP Protocol

The GHG Protocol is a multiple-stakeholder partnership of business, NGOs and governments led by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). It is the best source of information about corporate GHG accounting and reporting, and draws on the expertise and contributions of individuals and organisations from around the world. The GHG Protocol is the most widely-used standard for mandatory and voluntary GHG Programmes and is compatible with other international GHG standards such as ISO 14064. It is also analogous to the generally-accepted financial accounting standards for the consistent accounting reporting purposes of companies.



Section B: Required Information

1. Company Description

The Sanlam Group was established in 1918 as a life insurance company and has, over the past 94 years, diversified to become a leading financial services group in South Africa. The head office is located in Bellville, Cape Town, with business interests located throughout South Africa, Africa, India, Australia, the USA and the UK. This carbon footprint report does not include Sanlam Group subsidiaries.

Sanlam's core operations lie in the life and long-term insurance sector and asset management sector. Through its subsidiary, Santam, Sanlam is also in the short-term insurance sector. Sanlam is listed on both the Johannesburg and Namibian Securities Exchanges.

In 2007, Sanlam was listed on the Socially Responsible Index (SRI) of the Johannesburg Securities Exchange. The company also participates in the Carbon Disclosure Project (CDP), and was ranked in the top ten percent of the CDP Leadership Index in 2011.

2. Inventory Boundaries

2.1 Organisational Boundary

Definition: Organisational Boundaries

Organisational boundaries determine which business units (core, subsidiaries, franchises, etc.), facilities, or physical places of operation, owned or controlled by the reporting company, are included in the carbon footprint. The more complex the company structure, the more important are the boundaries of an organisation for the clear definition and scope of the report.

Relevant emissions activity data is currently only available for the Sanlam Head Office, Sanlynn, SIM Glacier, Sanlam Sky and Hyde Park offices. As such, these operations constitute the organisational boundary for Scope 1&2 emissions and account for 68 per cent of all Sanlam Group South African FTEs. Total FTEs covered in this report is 4 934, exclusive of advisors or field staff. All Scope 3 emissions are reported for the Sanlam Group's entire South African operations and then extrapolated in Emissions Overview page to reflect the percentage of FTEs covered by this report (68%).

A total of 101 170 square metres of office space is covered by this report. This incorporates 84% (71 935m²) of Sanlam Head Office. The remaining 16% (13 702m²) is utilised by independent tenants such as Mugg and Bean.

Santam, an organisation in which Sanlam owns 51%, reports its carbon emissions independently.

2.2 Operational Boundary

Definition: Operational Boundaries

Operational boundaries determine the actual business activities of the reporting company that generate emissions, which of these activities should be included in the calculation, and how these activities should be classified (i.e. direct or indirect emissions).

Greenhouse Gas (GHG) emissions resulting from the following activities have been calculated:

Scope 1

- Equipment owned or controlled by Sanlam (e.g. generators)
- Operation of air-conditioning (A/C) units and refrigerators



- Operation of Sanlam-owned fleet vehicles

Scope 2

- Consumption of purchased electricity

Scope 3

- Business travel in rental cars
- Business travel in commercial airlines
- Business travel hotel accommodation
- Operation of third-party vehicle fleet
- Commuting of staff
- Consumption of office paper
- Consumption of policy paper
- Courier transportation

Scope 1&2 emissions have been calculated for the reporting buildings, i.e. head office, SIM, Sanlynn, Glacier, Hyde Park and Sanlam Sky.

Sanlam Head Office has tenants within the building. Sanlam is therefore responsible for 84% of emissions from the building. These have been accounted for on the Emissions Overview, on page 3 of this report.

All Scope 3 emissions have been calculated for all Sanlam Group South African operations, and then extrapolated on the Emissions Overview page according to percentage of FTEs covered by this report (68%). The exception to this is emissions relating to office and policy paper consumption, as the material majority of this is consumed by Sanlam activities operating out of the reported buildings.

2.3 Reporting Period

The reporting period of this report is for the financial year 2011(January 01 2011 to December 31 2011).

3. Information on Sanlam's Emissions

3.1 Total Scope 1 & 2 Emissions

The GHG Protocol requires carbon footprint calculations to include all direct emissions under Scope 1, and indirect emissions from purchased electricity under Scope 2, as compulsory reporting. Other activities under indirect emissions, Scope 3, are voluntarily reported. Refer to Appendix A for a diagram to illustrate direct and indirect emissions and the different scopes of reporting.

Definition: Scope 1 Emissions

Emissions from sources owned or controlled by the reporting company, e.g. generators, refrigeration, air-conditioning units.

Definition: Scope 2 Emissions

Emissions associated with the consumption of purchased electricity, heat or steam from a source that is not owned or controlled by the reporting company, e.g. an electricity utility such as Eskom.

Definition: Direct and Indirect Emissions

Under the GHG Protocol, emissions are categorised as 'direct' when they are generated from activities or sources within the reporting company's organisational boundary and which the company owns or controls. 'Indirect' sources are those emissions related to the company's activities that are emitted from sources owned or controlled by another company, e.g. purchased electricity, rental cars, commercial airlines or paper.



Emission Factors:

Emission factors convert activity data (e.g. amount of fuel used, kilometres driven, and kilowatt hours of purchased electricity) into a value indicating carbon dioxide equivalent (CO₂e) emissions generated by that particular activity.

Default values are used by the GHG Protocol to assist businesses that are unable to develop accurate customised values. These default values are representative averages based on the most extensive data sets available and are largely identical to those used by the Intergovernmental Panel on Climate Change (IPCC), the premier authority on greenhouse gas accounting practices at the global level.

The GHG Protocol recommends, however, that businesses should use customised values whenever possible, as industrial processes or the composition of fuels used by businesses may differ with time and by region. This report largely uses the latest emission factors provided by the UK government's Department of Environment, Food and Rural Activities (Defra), August 2011. These have been adopted by the GHG Protocol as *de facto* emission factors and are updated on a regular basis.

In reporting emissions generated by the consumption of electricity purchased from Eskom, the emissions factor provided by the utility's annual report (2011) has been used to give local context accuracy.

3.2 Emissions of each GHG

All emissions are calculated as carbon dioxide equivalent gases (CO₂e), as required by the GHG Protocol.

DIRECT EMISSIONS FROM Sanlam 2011				
Scope	Description	Emissions Factors	Total Consumption	Metric tonnes of CO ₂ e emissions
1	Equipment owned or controlled by Sanlam e.g. generators	2.6676 kg CO ₂ e/litre ²	16 222.25 litres of diesel ³	43.27
		2.3117 kg CO ₂ e/litre ²	633.22 litres of petrol	1.46 ⁴
		1.4918 kg CO ₂ e/litre ²	5 101.05 litres of LPG	7.61 ⁵
		2707.6 kg CO ₂ e/tonne ²	3.72 tonnes of natural gas	10.07
	Emissions from A/C and refrigerant gas refills (Kyoto protocol gases)	1430 kg CO ₂ e/kg ²	28 kg of HCFC134a	40.04
		1725 kg CO ₂ e/kg ²	2kg of R410a	3.45
	Vehicle fleet	Vehicles differ – it was not possible to calculate accurately	0 km	0
INDIRECT EMISSIONS FROM PURCHASED ELECTRICITY FOR Sanlam 2011				
Scope	Description	Emissions Factors	Total Consumption	Metric tonnes of CO ₂ e emissions
2	Purchased electricity	0.99 kg CO ₂ /kWh ⁶	45 555 033.96 kWh ⁷	45 099.48

² Emission factors provided by UK Government Department of Environment, Food and Rural Affairs (Defra), Guideline to Defra's GHG Conversion Factors for Company Reporting: Annexes Updated August 2011. Available from: <http://www.defra.gov.uk/environment/business/reporting/conversion-factors.htm>

³ Total diesel consumption at head office is 9 000 litres. Sanlam is responsible for 84% of head office diesel. This is represented in the Emissions Overview on page 3. All other buildings are responsible for 100% of their diesel usage.

⁴ Total petrol consumption at head office is 291.22 litres. Sanlam is responsible for 84% of head office diesel. This is represented in the Emissions Overview on page 3. All other buildings are responsible for 100% of their petrol usage.

⁵ Total LPG consumption at head office is 5 101.05 litres. Sanlam is responsible for 84% of head office diesel. This is represented in the Emissions Overview on page 3. All other buildings are responsible for 100% of their petrol usage.

⁶ Eskom emission figures per kWh of electricity generated in South Africa from the Eskom 2011 Annual Report. See: http://financialresults.co.za/2011/eskom_ar2011/add_info_tables.php

⁷ Total electricity consumption at head office is 35 421 600kWh. Sanlam is responsible for 84% of head office diesel. This is represented in the Emissions Overview on page 3. All other buildings are responsible for 100% of their electricity usage.



Carbon Dioxide Equivalent (CO₂e)

Due to the varying ability of greenhouse gases to trap heat in the atmosphere, some are more harmful to the climate than others. Each greenhouse gas has a “global warming potential” (GWP), which refers to its heat trapping potential relative to that of CO₂. Therefore, to provide a comparable final figure, all emissions are reported as a relative figure to CO₂, i.e. as CO₂e values.

The six main greenhouse gases covered by the GHG Protocol and reported as CO₂e are:

- Carbon dioxide (CO₂)
- Methane (CH₄)
- Nitrous Oxide (N₂O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulphur hexafluoride (SF₆)

3.3 Methodologies Used

This calculation was conducted in alignment with the GHG Protocol, using the following calculation tools.

- CO₂ emissions from business travel (GHG Protocol)
- CO₂ emissions from fuel-use combustion (GHG Protocol)
- CO₂ emissions from transport or mobile services (GHG Protocol)
- Individual CO₂ emissions from purchased electricity (GHG Protocol)
- CO₂ emissions from employee commuting (customised survey by Carbon Calculated. Calculations finalised using GHG Protocol's CO₂ emissions from business travel)
- CO₂ emissions resulting from the purchasing of office paper (customised by Carbon Calculated using paper manufacturers' environmental profiles and GHG Protocol's individual CO₂ emissions from purchased electricity, heat and steam)

3.4 Specific Exclusions

The following exclusions of emission sources (and their explanations) are described below:

Scope 1 - direct emissions:

- Business travel in corporate jets – no aircraft owned by Sanlam.

Scope 3 - indirect emissions:

- Travel claims by employees using private vehicles for business purposes – information not available.
- Suppliers' activities – except for Sanlam's business travel services (air, car rental and accommodation), third party chaffeur, courier services and office paper.
- End-use of services sold by the reporting company – Sanlam's products are financial products and, by definition, are not responsible for directly generating greenhouse gas emissions.



Section C: Optional Information under the GHG Protocol

4. Relevant Scope 3 Emissions

The following table outlines Scope 3 emissions generated during Sanlam's 2011 financial year. Please refer to the footnotes below the table for further details.

Definition: Scope 3 Emissions

Scope 3 emissions are indirect emissions, other than purchased electricity, which can be described as relevant to the activities of the reporting company. Under the GHG Protocol it is not compulsory to report them. Certain GHG reporting registries, however, require that some Scope 3 emissions be reported under different circumstances.

INDIRECT EMISSIONS FROM Sanlam 2011					
Scope	Description	Variable	Emissions factor ⁸	Total consumption	Metric tonnes of CO ₂ e
3	Business travel - rental cars	Total kilometres travelled	0.20864 kgCO ₂ e/km ⁹	1 424 530km	297.19
	Business travel - commercial airlines	Less than 463km	0.16484 kgCO ₂ e/km	944 132.57km	169.64 ¹⁰
		463 – 3700km economy class	0.099229 kgCO ₂ e/km	23 360 027.96km	2 349.93 ⁹
		463 – 3700km business class	0,13843 kgCO ₂ e/km	3 112 377.02km	469.62 ⁹
		Greater than 3700km economy class	0.08137 kgCO ₂ e/km	4 060 180.31km	360.11 ⁹
		Greater than 3700km business class	0.23596 kgCO ₂ e/km	2 784 599.2km	716.19 ⁹
		Greater than 3700km business class	0.32546 kgCO ₂ e/km	18 087.96km	6.42 ⁹
			TOTAL FLIGHTS	34 279 405.02km	4 071.90 ⁹
	Business travel - hotel accommodation	Bed nights	19kg CO ₂ e/bed night ¹¹	14 347 nights	272.59
	Third party vehicle fleet	OnTime	0.20459 kgCO ₂ e/km	347 642km	71.12
		Kwathlano	0.20459 kgCO ₂ e/km	92 689km	18.96
			TOTAL FLEET	440 331km	90.09
	Employee commuting ¹²	Various	Various according to transportation mode	1.396 tCO ₂ e/FTE	10 129.38
	Third party production of office paper	Emissions to air at production – per tonne paper	992 kgCO ₂ e/t ¹³	126. 08 tonnes ¹⁴	125.07

⁸ Unless otherwise indicated, emission factors provided by UK Government Department of Environment, Food and Rural Affairs (Defra), Guideline to Defra's GHG Conversion Factors for Company Reporting: Annexes. Updated August 2011. Available at: <http://www.defra.gov.uk/environment/business/reporting/conversion-factors.htm>, unless stated otherwise.

⁹ Emissions factor based on average size petrol car. Car rental figures (Avis and P2P) provided by Sanlam.

¹⁰ A 9% uplift factor is included to take into account non-direct routes and delays/circling. This is in accordance with the IPCC Aviation and Global Atmosphere 8.2.2.3.

¹¹ Emission factors provided by Unep World Meteorological Organisation Climate Change And Tourism Report; A2.2.3 Accommodation; 9-Jul-08, Hotel data extracted from raw data sheet using total bed nights.

¹² A weighted average of the employee surveys from 2007-09 that was used in the 2010 carbon footprint report, has been replicated for this report. For further information refer to Appendix B.

¹³ Emission factors provided by Environmental Profiles for Mondi Rotatrim Business Paper, released April 2011.

¹⁴ Total paper purchases were 50 430 reams of Mondi Rotatrim office paper, totalling 126.08 tonnes of paper (400 reams = 1 tonne of paper).



	(Mondi Rotatrim)	Indirect emissions from purchased electricity by paper producer – per tonne of paper	$0.99 \text{ kg/kWh}^{15} \times 638 \text{ kWh/t}^{12}$	126.08 tonnes ¹³	79.63
	Third party production of policy paper (Mondi Rotatrim)	Emissions to air at production – per tonne paper	$992 \text{ kgCO}_2\text{e/t}^{12}$	116 tonnes ¹⁶	115.01
		Indirect emissions from purchased electricity by paper producer – per tonne of paper	$0.99 \text{ kg/kWh}^{14} \times 638 \text{ kWh/t}^{12}$	116 tonnes ¹⁵	73.23
		TOTAL OFFICE & POLICY PAPER		242.08 tonnes	392.93 ¹⁷
	Courier transport	Berco: Road	$0.51146 \text{ tCO}_2\text{e/t.km}^{18}$	51 245.14	26.21
		Berco: Air	$0.6142 \text{ tCO}_2\text{e/t.km}^{19}$	4 906.46	3.28
		Fedex: Air	$0.6142 \text{ tCO}_2\text{e/t.km}$	99 499.59	66.61
		UTI: Road	$0.51146 \text{ tCO}_2\text{e/t.km}^{15}$	362 207.00	185.25
		TOTAL COURIER		517 858.19	281.36

Air Travel and the Multiplier Effect

The GHG Protocol uses emissions factors for air travel based on size of aircraft, occupancy levels and fuel consumption proposed by the UK government's Defra paper. It should be highlighted that these assumptions do not cater for the increased global warming effects of aviation that are higher than the impact of CO₂ emissions alone - "due to water vapour, sulphate or soot particles, indirect effects of nitrogen oxide emissions on the concentration of ozone and methane, or through the induced formation of clouds".

As a result of excessive emissions during take-off and landing, different factors are used in calculating emissions of short-, medium- and long-haul flights, in accordance with the GHG Protocol. Many organisations then multiply these emissions by a multiplier factor to provide a more realistic quantification of the global warming effect of aviation emissions. To date there is no universally-accepted multiplier factor, although it is believed that between 2 and 5 would be accurate. WWF, the global conservation organisation, for example, uses a multiplier effect of 2.7. This report does not include a multiplier effect for air aviation emissions.

The IPCC Aviation and the global Atmosphere 8.2.2.3 states that 9-10% should be included to take into account non-direct routes (i.e. not along the straight line distances between destinations) and delays/circling. Airline industry representatives have indicated that the percentage uplift for short-haul flights should be higher and for long-haul flights will be lower; however specific data is not currently available to provide separate factors. A 9% uplift factor has been used for all flights in this report.

¹⁵ Eskom emission figures per kWh of electricity generated in South Africa from the Eskom 2011 Annual Report. See: http://financialresults.co.za/2011/eskom_ar2011/add_info_tables.php

¹⁶ Total policy paper purchases were 46 374 reams of Mondi Rotatrim office paper, totalling 116 tonnes of paper (400 reams = 1 tonne of paper).

¹⁷ As policy paper and office paper is mostly consumed in the buildings covered by this report, the paper carbon emissions are not extrapolated to 68% on the Overview page. They are reported 100%.

¹⁸ Freight emission factor for a delivery vehicle under 3.5tonnes, unknown fuel type, with an average loading of 40%.

¹⁹ Freight emission factor for air cargo, long haul, greater than 3 600km.



5. 'Base-Year' Information

This report constitutes the fifth carbon footprint commissioned by Sanlam.

Base-year Calculations

A base year is the historical year against which a reporting company's emissions are tracked and compared over time. It is typically the earliest relevant point in time for which a company has reliable data. The base year should be recalculated as additional or new and relevant data becomes available that would affect the baseline year figure and its comparability with future emission activities.

COMPARISON OF EMISSIONS AND INTENSITY IN 2009, 2010 and 2011			
	2009	2010	2011
Organisational boundary	Head office; Hyde Park; Sanlynn; SIM; Glacier	Head office; Hyde Park; Sanlynn; SIM; Glacier; Sanlam Sky	Head office; Hyde Park; Sanlynn; SIM; Glacier; Sanlam Sky
Full time employees (FTE)	4 424	4 942	4 934
Total Group FTEs	5 906	7 293	7 256
Square metreage (m ²)	127 348	120 872	107 170
Activity			
Equipment owned or controlled	34	30	57
Air conditioning and refrigeration gas refills	0	0	43
Vehicle fleet	0	0	0
Purchased electricity	38 651	44 535	39 489
Business travel – rental cars	267	207	202
Business travel – commercial airlines	3 085	3 442	2 769
Business travel – hotel accommodation	168	173.39	185
Third party vehicle fleet	Not reported	57	61
Employee commuting	6 806	6 900	6 888
Consumption of office paper	323	698 ²⁰	394
Courier	Not reported	188	191
Non-Kyoto gas	1 184	1 926	510
Total Scope 1&2	38 687	44 565	39 589
Total Scope 1,2,3 & Non-Kyoto gases	50 520	58 167	50 789
Scope 1&2 Intensity: t CO ₂ e/FTE	8.75	9.02	8.02
Scope 1&2 Intensity: t CO ₂ e/m ²	0.304	0.369	0.391
Intensity: % t CO ₂ e from electricity	76%	77%	76%
Kilowatt hours/FTE	8 482	8 161	8 084

6. Emissions from GHGs not covered by the Kyoto Protocol

In South Africa, the greenhouse gas HCFC22 (Freon or R22) continues to be used as a gas refill in air-conditioning and refrigerant equipment. Freon, however, is not included among Kyoto Protocol GHG's as it and other HCFC gases are presumed to be being phased out under the international Montreal Protocol on Ozone Depleting Gases. While the GHG Protocol's Scope 1, 2 and 3 emissions are strictly for GHGs that fall under the Kyoto Protocol, provision is made for separate reporting on other GHGs that might be under consideration by international treaties such as the Montreal Protocol.

²⁰ A3 and paper consumption for policy printing incorporated for the 1st time.



Sanlam recorded usage of 293.6kg of Freon gas refills during the 2011 financial year. This totalled 531.42 tonnes of CO₂e.

DIRECT EMISSIONS FROM NON-KYOTO PROTOCOL GHG'S FOR Sanlam 2011					
Scope	Description	Units	Emissions Factor	Total Consumption	Metric tonnes of CO ₂ e emissions
1	Emissions from A/C refrigerants (Non-Kyoto Protocol)	Kilograms HCFC22/ R22 (Freon) ²¹	GWP 1 810	293.60	531.42

7. Water

The GHG Protocol does not require water usage to be recorded in a carbon inventory. The incorporation of water usage as a record of usage is recommended, however, as it can be used as an awareness-raising tool.

WATER CONSUMPTION BY BUILDING FOR SANLAM FOR 2011 (kilolitres)						
Head office	Sanlynn	SIM	Glacier	Sanlam Sky	Hyde Park	Total
146 094	3 685	9 155	3 977	20 316	7 242	190 469

8. Information on Offsets

Sanlam has not offset any of its GHG emissions through either the purchasing of renewable energy or any other appropriate offsetting mechanism.

9. Verification of GHG Inventory

An independent verification party has not verified this report. It is recommended that this Carbon Footprint Report be verified.

10. Facilities covered by GHG Inventory

Sanlam offices covered in this report include:

- Sanlam Head Office, 2 Strand St, Bellville, Western Cape
- Hyde Park, Sanlam Campus, 3a Summit Rd, Dunkeld West, Western Cape
- Sanlynn, 35 Alkantrant Rd, Lynnwood Manor, Pretoria, Western Cape
- SIM, 55 Willie van Schoor Ave, Tyger Valley, Western Cape
- Glacier, Tuscan Park, Block A, Old Oak Rd, Durbanville, Western Cape
- Sanlam Sky, Sanlam Business Park, 13 West St, Houghton, Gauteng

11. Contact Persons

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²¹ The GWP for R22 is 1810, provided by UK Government Department of Environment, Food and Rural Affairs (Defra), [Guideline to Defra's GHG Conversion Factors for Company Reporting: Annexes Updated August 2011](http://www.defra.gov.uk/environment/business/reporting/conversion-factors.htm). Available at: <http://www.defra.gov.uk/environment/business/reporting/conversion-factors.htm>



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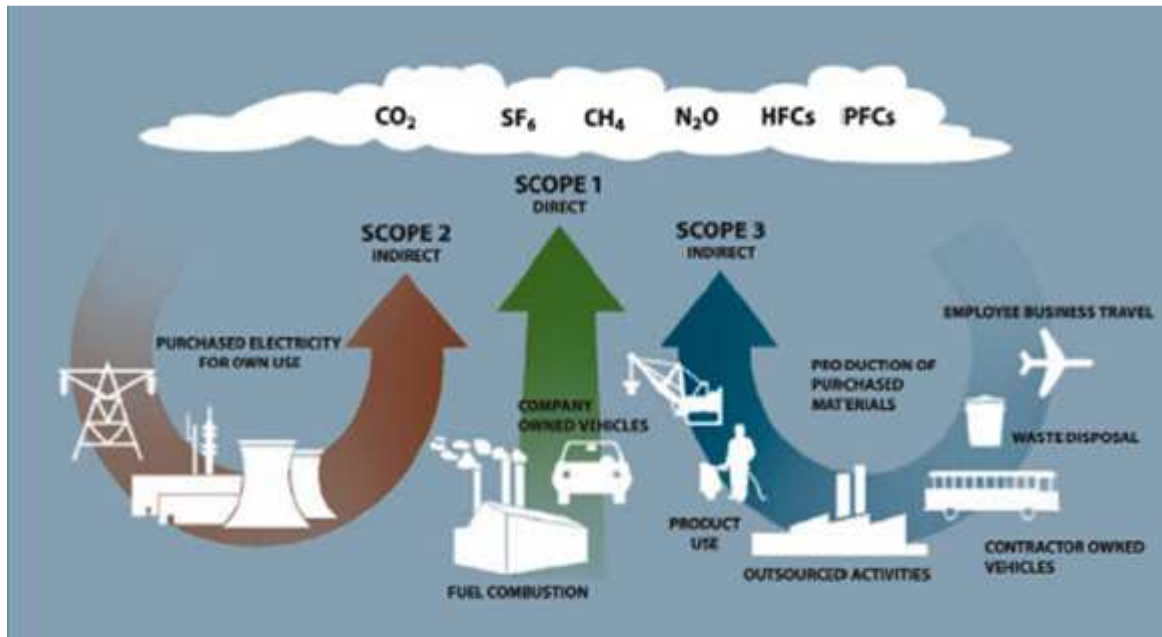
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Appendix A: Diagram illustrating Direct vs. Indirect Emissions²²



²² Source: GHG Protocol and SAP: https://cw.sdn.sap.com/cw/community/sustainabilityatsap/carbon_footprint/blog/2009/05/12/saps-approach-to-reducing-our-total-carbon-footprint



Appendix B: Detailed Results of Employee Commuting Survey

The weighted average of three years commuting surveys for Sanlam (2007-09) was again adopted as a proxy for commuting by employees in 2011. This model was used in 2010, where results from the 2009 commuting survey was given a 50% weighted bias as it was considered likely to be the most similar to that of 2010 commuting patterns. A weighting of 30% was then afforded to 2008 and a weighting of 20% afforded to the commuting results of 2007.

Year	Total commuting emissions	FTEs in reporting boundary	Emission/FTE	Weighting	Ave. weighted emission/FTE
2007	3 446.18	2 996	1.150	20%	1.396
2008	5 446.24	4 116	1.323	30%	
2009	6 805.61	4 424	1.538	50%	

