



Sanlam Carbon Footprint

FY2021

10 March 2022

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1. Introduction

This report covers the Sanlam Group’s FY2021 greenhouse gas (GHG) inventory¹ of facilities based in South Africa. The inventory includes the company’s material direct and indirect emissions and emission sources. The calculations in this report are contained in an accompanying Excel spreadsheet which also contain inputs, assumptions and emission factors.

The purpose of this assessment is to compile Sanlam’s South African facility-based GHG emissions inventory, specifically for corporate reporting. The intended audience of this report includes company executives, shareholders, customers and other interested or affected parties.

2. Approach and Methodology

The Sanlam GHG inventory for FY2021 was compiled in accordance with:

- ISO 14064 Part 1 (2006): ‘Specification with guidance at the organization level for quantification and reporting of GHG emissions and removals’;
- ISO 14064-1 (2018): ‘Specification with guidance at the organization level for quantification and reporting of GHG emissions and removals’; and
- The GHG Protocol’s ‘A Corporate Accounting and Reporting Standard (Revised Edition)’.

2.1. Reporting Boundary

The first step in the quantification of a corporate GHG inventory is the selection of reporting boundaries. The Sanlam carbon footprint was calculated according to an operational control approach, related to the group’s South African facilities. The facilities that were included within the GHG footprint calculation are as followed:

Santam

1. Santam Head Office
2. Santam Auckland Park
3. Santam Alice Lane
4. Santam Glacier

Sanlam

5. Sanlam Head Office
6. Sanlam Sky/Houghton
7. Sanlam Investments
8. Sanlam Sanlynn

¹ A GHG inventory is the total amount of carbon dioxide and other GHG emissions (expressed in carbon dioxide equivalents, CO₂e) for which an organisation or site is responsible, or over which it has control.

9. Sanlam Glacier
10. Sanlam Alice Lane
11. Sanlam West End

There were some exclusions in this carbon footprint:

1. Only the 11 facilities located in South Africa are included within the reporting boundary as indicated above. All other facilities are excluded as they were outside the reporting boundary.
2. Total employees excluded international employees as they were outside the reporting boundary.
3. Emissions associated with Sanlam’s value chain, such as capital goods and investments, have not been included in the boundary of this report.

2.2. Methodology

The methodology used to calculate the GHG inventory is based on GHG activity data multiplied by an appropriate emission factor.

$$\text{Activity data} \times \text{Emission Factor} = \text{Quantity of GHG Emissions}$$

The appropriateness of emissions factors is discussed in Section **Error! Reference source not found.** below. Thereafter, the various quantities of GHG emissions (calculated according to the abovementioned equation, per activity data source) are then summed together to provide the total GHG emissions produced by Sanlam Group annually.

The ISO corporate standard for quantifying and reporting GHG emissions, ISO14064-1: 2006, was updated by the ISO in 2018 (ISO14064-1:2018). The latest edition of the ISO standard was adopted and published by the South African Bureau of Standards in 2021 as SANS 14064-1:2021. A comparison between the old standard, ISO14064-1:2006 (which is also aligned with the GHG Protocol’s standard) and the new ISO14064-1:2018 categories is outlined in Table 1 below.

Table 1: GHG reporting for both standards ISO 14064:2018 and ISO 14064:2006

ISO 14064:2018		ISO 14064:2006	
Category	Description	Scope and Category	Description
1	Direct GHG emissions and removals	Scope 1	Direct GHG emissions
2	Indirect GHG emissions from imported energy	Scope 2	Energy indirect emissions
		Scope 3, category 3	Fuel- And Energy-Related Activities
3	Indirect GHG emissions from transportation	Scope 3, category 4	Upstream Transportation and Distribution
		Scope 3, category 6	Business Travel
		Scope 3, category 7	Employee Commuting

		Scope 3, category 9	Downstream Transportation and Distribution
4	Indirect GHG emissions from products used by organization	Scope 3, category 1	Purchased Goods and Services
		Scope 3, category 2	Capital Goods
5	Indirect GHG emissions associated with the use of products from the organization	Scope 3, category 10	Processing of Sold Products
		Scope 3, category 11	Use of Sold Products
		Scope 3, category 12	End-Of-Life Treatment of Sold Products
6	Indirect GHG emissions from other sources	Scope 3, category 5	Waste Generated in Operations
		Scope 3, category 8	Upstream Leased Assets
		Scope 3, category 13	Downstream Leased Assets
		Scope 3, category 14	Franchises
		Scope 3, category 15	Investments

2.3. Data Sources

The activity data sets for the FY2021 GHG inventory related to South African facilities was provided by Sanlam. Apart from a high-level sanity check, no verification or assurance of the data sources or results was conducted by Promethium Carbon.

The following activity data sets were received from Sanlam for FY2021:

- Diesel consumed in company owned vehicles and machinery such as stationary back-up generators;
- Petrol consumed in company owned vehicles and machinery;
- Liquid petroleum gas (LPG) used in kitchens;
- Refrigerant gases;
- Electricity purchased from Eskom;
- Water readings;
- Paper and stationary consumed;
- Recyclable and landfill waste totals;
- Courier transportation distances;
- Number of full-time employees;
- Business travels in terms of method of transportation;
- Accommodation in terms of number of nights.

Reporting on other indirect (scope 3) emissions is a voluntary process as per the GHG Protocol and the ISO 14064:2006 standards. The relevant scope 3 categories, related to Sanlam’s South African operations, include production of purchased fuels and products, the waste generated by the operations, upstream transportation and distribution, the commuting of Sanlam’s employees

and other business travel for company activities. With the publication of the new ISO 14064-1:2018 standard, these indirect emissions are reclassified according to four main categories. Sanlam’s significant indirect emissions are provided in Table 3 below.

2.4. Significance Criteria

During this carbon footprint exercise for the Sanlam Group, Promethium Carbon identified the most material sources of emissions arising from the facilities in South Africa, based on Sanlam's previous GHG inventories and also by applying the significance assessment as prescribed by the ISO14064-1:2018 standard. The identified emissions should be used as a guideline for what should be included in future carbon footprints for Sanlam.

Companies are required to define and explain their own pre-determined criteria for the significance of indirect emissions, considering the intended use of the GHG inventory.

The criteria for the selection of significant emissions include:

- **Magnitude:** The indirect emissions or removals that are assumed to be quantitatively substantial.
- **Level of influence:** The extent to which the organization has the ability to monitor and reduce emission and removals (e.g. energy efficiency, eco-design, customer engagement, terms of reference).
- **Risk or opportunity:** The indirect emissions or removals that contribute to the organization's exposure to risk (e.g. climate-related risks such as financial, regulatory, supply chain, product and customer, litigation, reputational risks) or its opportunity for business (e.g. new market, new business model).
- **Sector-specific guidance:** The GHG emissions deemed as significant by the business sector, as provided by sector-specific guidance.
- **Outsourcing:** The indirect emissions and removals resulting from outsourced activities that are typically core business activities.
- **Employee engagement:** The indirect emissions that could motivate employees to reduce energy use or that federate team spirit around climate change (e.g. energy conservation incentives, carpooling).

The respective framework for assessing significance, and therefore the inclusion of emissions sources in Sanlam’s GHG inventory, is detailed in the table below.

Table 2: Significance criteria and thresholds for inclusion

Significance criteria	Definition
1. Magnitude	Significant if emissions >1% of Sanlam’s total emissions.
2. Level of influence	Significant if Sanlam can influence the emissions source by 2.5% per annum.

3. Outsourcing	Significant if emissions associated with outsourcing are relevant for Sanlam. For example, working from home emissions (electricity consumption from computers, heaters and air conditioners)
4. Employee engagement	Significant if employees activities (e.g. travel/commuting) result in the influence of Sanlam’s indirect emissions
5. Risk and opportunity	Significant if there are risks or opportunities that Sanlam is exposed to as a result of indirect emissions.
6. Sector-specific guidance	Significant if there are sector-specific guidance, benchmarks or targets for indirect emissions that are relevant to Sanlam. Developments in Sanlam Group and related sector will be monitored, and the relevance of this significance criteria must be re-evaluated.

The significance criteria above are applied to the Sanlam emission sources in the following section of this report.

2.5. Emission Sources

The sources of emissions are presented in the following tables, according to the formats of both the ISO14064-1:2006 standard and the updated ISO14064-1:2018 standard.

The following table outlines the emission sources which are considered to be significant as per the ISO14064-1:2018 standard, based on whether the emissions meet on or more of the relevant criteria outlined in the table above.

Table 3: Emissions categories and sources in Sanlam’s FY2021 GHG inventory

ISO 14064:2018		ISO 14064:2006		Emission Sources	Inclusion in GHG Inventory
Category	Description	Category	Description		
1	Direct GHG emissions and removals	Scope 1	Energy direct emissions	<p>Emissions that occur from sources that are controlled or owned by Sanlam such as:</p> <ul style="list-style-type: none"> • Stationary Diesel Combustion • Mobile Diesel Combustion • Mobile Petrol Combustion • Stationary LPG • Refrigerants 	Included: as required by ISO14064-1:2018 and ISO14064-1:2006.
.2	Indirect GHG emissions from imported energy	Scope 2	Energy indirect emissions	Emissions associated with the purchase of electricity.	Included based on significance assessment: Indirect GHG emissions from electricity use and fuel production are significant due to the magnitude in Sanlam’s emissions
		Scope 3, category 3	Fuel- And Energy-Related Activities	<p>Emissions related to the production of fuels and energy purchased and consumed by Sanlam in the reporting year such as:</p> <ul style="list-style-type: none"> • Upstream emissions of purchased fuels • Upstream emissions of purchased electricity • Transmission and Distribution losses 	

ISO 14064:2018		ISO 14064:2006		Emission Sources	Inclusion in GHG Inventory
Category	Description	Category	Description		
3	Indirect GHG emissions from transportation	Scope 3, category 4	Upstream Transportation and Distribution	Emissions from the transportation and distribution activities throughout the value chain: <ul style="list-style-type: none"> • Air transport • Rail transport • Road transport 	<p>Included based on significance assessment: Emissions related to business travel and employee commuting are significant due to Sanlam having the ability to influence the methods of corporate logistics and business travel, as well as the opportunity to engage employees to reduce their emissions resulting from commuting.</p> <p>Road and Air Freight are significant due to the magnitude of these emissions.</p>
		Scope 3, category 6	Business Travel	Emissions from business travel such as: <ul style="list-style-type: none"> • Air travel • Rail travel • Bus travel • Automobile travel (e.g., business travel in rental cars or employee-owned vehicles other than employee commuting to and from work) • Other modes of travel 	
		Scope 3, category 7	Employee Commuting	Emissions from employee commuting such as: <ul style="list-style-type: none"> • Automobile travel • Bus travel • Rail travel • Air travel • Other modes of transportation (e.g., subway, bicycling, walking) 	

ISO 14064:2018		ISO 14064:2006		Emission Sources	Inclusion in GHG Inventory
Category	Description	Category	Description		
		Scope 3, category 9	Downstream Transportation and Distribution	Emissions from downstream transportation and distribution from transportation/storage of sold products in vehicles/facilities not owned by Sanlam, such as: <ul style="list-style-type: none"> • Air transport • Road transport 	
4	Indirect GHG emissions from products used by organization	Scope 3, category 1	Purchased Goods and Services	Products include both goods (tangible products) and services (intangible products) such as: <ul style="list-style-type: none"> • Water • Paper • Stationary 	Included based on significance assessment: Indirect GHG emissions relating to goods used by Sanlam are significant due to their magnitude , as well as Sanlam's level of influence over the type of goods that can be purchased.
		Scope 3, category 2	Capital Goods	Emissions from the use of capital goods by the company, such as: <ul style="list-style-type: none"> • Equipment • Machinery • Buildings • Vehicles 	Not applicable as no capital goods were reported in this boundary of Sanlam's GHG emissions
5	Indirect GHG emissions associated with the use of products	Scope 3, category 10	Processing of Sold Products	Emissions from processing of sold intermediate products by third parties (e.g., manufacturers) subsequent to sale by the company	Not applicable as Sanlam's operations are related to the provision of insurance services and

ISO 14064:2018		ISO 14064:2006		Emission Sources	Inclusion in GHG Inventory
Category	Description	Category	Description		
	from the organization	Scope 3, category 11	Use of Sold Products	Emissions from the use of goods and services sold by the company in the reporting year.	finance.
		Scope 3, category 12	End-Of-Life Treatment of Sold Products	Emissions from the waste disposal and treatment of products sold by the reporting company such as: <ul style="list-style-type: none"> • Landfilling • Incineration • Recycling 	
6	Indirect GHG emissions from other sources	Scope 3, category 5	Waste Generated in Operations	Waste treatment activities may include: <ul style="list-style-type: none"> • Disposal in a landfill • Recovery for recycling • Incineration • Composting (Food Waste) 	Included based on significance assessment: Indirect GHG emissions from waste generation are significant due to the level of influence Sanlam has over how much waste is sent to landfill compared to recycling.
		Scope 3, category 8	Upstream Leased Assets	Operation of assets that are leased by the reporting company in the reporting year such as: <ul style="list-style-type: none"> • Vehicles • Equipment • Generator 	Not applicable as no leased assets were reported in this boundary of Sanlam's GHG emissions

ISO 14064:2018		ISO 14064:2006		Emission Sources	Inclusion in GHG Inventory
Category	Description	Category	Description		
		Scope 3, category 13	Downstream Leased Assets	Assets that are owned by the reporting company (acting as lessor) and leased to other entities in the reporting year such as: <ul style="list-style-type: none"> • Vehicles • Equipment • Generator 	
		Scope 3, category 14	Franchises	Emissions from the operation of franchises not included in scope 1 or scope 2.	Not applicable as Sanlam does not utilise a franchise model
		Scope 3, category 15	Investments	Emissions associated with the reporting company's investments in the reporting year such as: <ul style="list-style-type: none"> • Equity investments • Debt investments • Project finance • Managed investments and client services. 	Not applicable as investments data is not readily available or the processes are not yet put in place to determine the emissions

2.6. Assumptions, Emissions and Conversion Factors

The assumptions, emission and conversion factors applied in the calculation of Sanlam's FY2021 GHG inventory, related to the facilities located in South Africa, can be found in the Excel spreadsheet accompanying this document, as well as in the Appendix 2 to this report.

The chosen emission factors are in line with guidance provided by ISO 14064 Part 1:2018, in that these factors:

- Are derived from a recognised origin;
- Are appropriate for the GHG source concerned;
- Are current at the time of quantification;
- Take account of quantification uncertainty and are calculated in a manner intended to yield accurate and reproducible results; and
- Are consistent with the intended use of the GHG inventory.

The emission factors to calculate direct emissions (scope 1) were taken from DEFRA (UK Department of Environment Food and Rural Affairs). Such source was also used for the emissions factors for diesel and petrol production, transport of products, business travel, and employee commuting.

The grid emission factor was taken from Eskom's IAR2021. This grid emission factor was used to calculate indirect energy emissions (scope 2) for operations in South Africa.

3. Results for Corporate Reporting

This section presents the FY2021 GHG inventory for Sanlam's South African facilities, which may be used for corporate reporting purposes. The results are presented according to the formats of both the ISO14064-1:2006 standard and the updated ISO14064-1:2018 standard.

3.1. Results as per GHG Protocol and ISO14064-1:2006

Table 4 shows the summary of Sanlam's FY2021 GHG inventory in terms the GHG Protocol and the 2006 version of ISO14064-1 standard.

The GHG inventory, reflecting emissions in both the Sanlam and Santam facilities in South Africa, includes scope 1 and 2 emissions. The scope 1 and 2 emissions amounted to 1 684 tCO₂e and 35 460 tCO₂e, respectively in FY2021. The calculation of scope 3 emissions is also included, even though it is a voluntary measure under the GHG Protocol and ISO14064-1:2006 standards. Total scope 3 emissions accounted for 14 442 tCO₂e in FY2021.

Table 4: FY2021 GHG inventory according to the GHG Protocol and ISO14064-1:2006

Scope	Description	Sanlam Emissions	Santam Emissions	Group FY2021 Emissions
SCOPE 1	Stationary Diesel Combustion	199 tCO ₂ e	44 tCO ₂ e	243 tCO ₂ e
	Mobile Diesel Combustion	2 tCO ₂ e	246 tCO ₂ e	248 tCO ₂ e
	Mobile Petrol Combustion	6 tCO ₂ e	1 066 tCO ₂ e	1072 tCO ₂ e
	Stationary LPG	3 tCO ₂ e	1 tCO ₂ e	4 tCO ₂ e
	Refrigerants		117 tCO ₂ e	117 tCO ₂ e
Total SCOPE 1		210 tCO₂e	1 474 tCO₂e	1 684 tCO₂e
SCOPE 2	Purchased Electricity	30 302 tCO ₂ e	5 147 tCO ₂ e	35 449 tCO ₂ e
	Acquired Energy (Landlord Generator)	8 tCO ₂ e	3 tCO ₂ e	11 tCO ₂ e
Total SCOPE 2		30 310 tCO₂e	5 150 tCO₂e	35 460 tCO₂e
SCOPE 3	Purchased Goods and Services	187 tCO ₂ e	25 tCO ₂ e	212 tCO ₂ e
	Upstream Transportation and Distribution	123 tCO ₂ e	32 tCO ₂ e	155 tCO ₂ e
	Fuel and Energy Related Activities	4 102 tCO ₂ e	1 031 tCO ₂ e	5 133 tCO ₂ e
	Waste Generated in Operations	134 tCO ₂ e	18 tCO ₂ e	152 tCO ₂ e
	Business Travel (Including Accommodation)	1 822 tCO ₂ e	569 tCO ₂ e	2 391 tCO ₂ e
	Employee Commuting and Working from Home	4 869 tCO ₂ e	1 530 tCO ₂ e	6 399 tCO ₂ e
SCOPE 3 Sub-Total		11 237 tCO₂e	3 205 tCO₂e	14 442 tCO₂e
Out of Scope ²	R22 Gas ³	544 tCO ₂ e	-	544 tCO ₂ e
TOTAL Scope 1, 2 and 3		41 757 tCO₂e	9 829 tCO₂e	51 586 tCO₂e
TOTAL Emissions, including Out of Scope Emissions		42 301 tCO₂e	9 829 tCO₂e	52 130 tCO₂e

In summary of the table above, it is noticed that Scope 2 accounts for the highest sources of emissions, with indirect emissions with regards to fuel and energy related activities, and employees commuting and working from home, following.

² Non-Kyoto gases that have been reported

³ R22 gas is commonly used in air conditioning systems and other refrigeration applications. The GHG Protocol and ISO14064-1:2006 require that this source of emissions be reported 'out of scope'.

Table 5: Scope 1 - 3 Emissions for 2019 to 2021.

Carbon Footprint	2019	2020	2021
Total Carbon Footprint (tCO ₂ e)	84 830	51 652	52 130
Scope 1 emissions (CO ₂ e)	2 391	1 644	1 684
Scope 2 emissions (CO ₂ e)	41 353	34 221	35 460
Scope 3 emissions (CO ₂ e)	41 086	16 858	14 442

If we compare emissions to previous years (Table 5), it is noted that Scope 2 emissions had a marginal increase compared to 2020. The significant decrease in Scope 3 emissions over the past two years was due to reduced business travel, employee commuting and office waste as a result of COVID 19 restrictions and working from home

3.2. Results as per ISO14064-1:2018

Whilst the GHG Protocol and the ISO14064-1:2006 standards are still widely used for reporting purposes, Promethium does advise that Sanlam start incorporating the new ISO14064-1:2018 standard into the Group's GHG reporting as it represents the latest, internationally approved approach to corporate GHG inventory accounting.

Accordingly, the summary of the FY2021 GHG emissions inventory, according to the ISO14064-1:2018 standard, is presented in the table below.

Table 6: FY2021 GHG inventory according to ISO 14064-1:2018

Category	Description	Sanlam Emissions	Santam Emissions	Group FY2021 Emissions
Category 1: Direct GHG emissions and removals	Stationary Diesel Combustion	199 tCO ₂ e	44 tCO ₂ e	243 tCO ₂ e
	Mobile Diesel Combustion	2 tCO ₂ e	246 tCO ₂ e	248 tCO ₂ e
	Mobile Petrol Combustion	6 tCO ₂ e	1 066 tCO ₂ e	1 072 tCO ₂ e
	Stationary LPG	3 tCO ₂ e	1 tCO ₂ e	4 tCO ₂ e
	Refrigerants		117 tCO ₂ e	117 tCO ₂ e
Total CATEGORY 1		210 tCO₂e	1 474 tCO₂e	1 684 tCO₂e
Category 2: Indirect GHG	Electricity and Fuel and Energy Related Activities ⁴	34 405 tCO ₂ e	6 178 tCO ₂ e	40 583 tCO ₂ e

⁴ Value calculated is the sum of emissions from purchased electricity as well as the indirect emissions related to the production of fuels and energy purchased and consumed in the reporting year.

Category	Description	Sanlam Emissions	Santam Emissions	Group FY2021 Emissions
emissions from imported energy	Acquired Energy (Landlord Generator)	8 tCO ₂ e	3 tCO ₂ e	11 tCO ₂ e
Total CATEGORY 2		34 413 tCO₂e	6 181 tCO₂e	40 593 tCO₂e
Category 3: Indirect GHG emissions from transportation	Upstream Transportation and Distribution	123 tCO ₂ e	32 tCO ₂ e	155 tCO ₂ e
	Business Travel (Excluding Accommodation)	1 501 tCO ₂ e	428 tCO ₂ e	1 929 tCO ₂ e
	Employee Commute	2 986 tCO ₂ e	938 tCO ₂ e	3 924 tCO ₂ e
Total CATEGORY 3		4 610 tCO₂e	1 398 tCO₂e	6 008 tCO₂e
Category 4: Indirect GHG emissions from products used by organization	Purchased Goods and Services	187 tCO ₂ e	25 tCO ₂ e	212 tCO ₂ e
Total CATEGORY 4		187 tCO₂e	25 tCO₂e	212 tCO₂e
Category 6: Indirect GHG emissions from other sources	Waste Generated in Operations	133 tCO ₂ e	18 tCO ₂ e	152 tCO ₂ e
	Accommodation During Business Travel	321 tCO ₂ e	141 tCO ₂ e	462 tCO ₂ e
	Working from Home	1 883 tCO ₂ e	592 tCO ₂ e	2 475 tCO ₂ e
	R22 Refrigerant	544 tCO ₂ e	-	544 tCO ₂ e
TOTAL CATEGORY 6		2 881 tCO₂e	751 tCO₂e	3 632 tCO₂e
Total EMISSIONS (Category 1-6)		42 301 tCO₂e	9 829 tCO₂e	52 130 tCO₂e

In reference to the table above, it is seen that Category 2 contributes to the most emissions, specifically the purchased electricity and fuel and energy related activities, this is followed by Category 3 emissions in terms of business travel and employees commuting.

3.3. Key Emissions Per Facility

The emissions described above are the sum of the respective Sanlam and Santam facilities that have been analysed. The direct (Scope 1) and energy indirect (Scope 2) emissions are presented per facility, in Appendix 1 to this report, as well as the Excel sheet accompanying this document. Such information is useful as it allows for Sanlam to identify trends in emissions, which may also lead to an identification of reduction opportunities according to specific sites.

4. Conclusion and Recommendations

This report quantifies Sanlam’s direct and indirect emissions for the 2021 financial year, with respect to the group’s South African facilities, in accordance with both the ISO 14064-1:2006 and ISO 14064-1:2018 standards.

4.1. Conclusion

Sanlam’s FY2021 carbon footprint, related to the South African facilities, is summarised in Table 7 below according to the ISO 14064-1:2006 and GHG Protocol standards.

Table 7: Summary of FY2021 results according to ISO14064-1:2006 and GHG Protocol

GHG Inventory according to ISO14064-1:2006 and GHG Protocol	FY2021 Emissions
Scope 1: Direct GHG emissions and removals	1 684 tCO ₂ e
Scope 2: Indirect GHG emissions from imported energy	35 460 tCO ₂ e
Scope 3: Other indirect emissions that occur in the value chain	14 442 tCO ₂ e
Total emissions, excluding Out of Scope Emissions	51 586 tCO₂e
Out of Scope Emissions (R22)	544 tCO₂e
Total emissions, including Out of Scope Emissions	52 130 tCO₂e

Sanlam’s largest category 1 (direct) emissions were from petrol combustion in company owned vehicles. Scope 2 - Purchased electricity is responsible for the highest emissions within Sanlam’s FY2021 GHG footprint. Compared to emissions recorded for 2019 and 2020 (Table 5), Scope 1 and 2 emissions in FY2021 have increased slightly, as a result of higher petrol and electricity usage. Furthermore, there has been a significant decrease in Scope 3 emissions over the past two years as a result of reduced business travel, employee commuting and office waste due to COVID 19 restrictions and working from home.

The carbon footprint, according to ISO 14064:2018, is summarised in Table 8 below.

Table 8: Summary of FY2021 results according to ISO 14064:2018

GHG Inventory according to ISO14064-1:2018	FY2021 Emissions
Category 1: Direct GHG emissions and removals	1 684 tCO ₂ e
Category 2: Indirect GHG emissions from imported energy	40 593 tCO ₂ e
Category 3: Indirect GHG emissions from transportation	6 008 tCO ₂ e
Category 4: Indirect GHG emissions from products used by organization	212 tCO ₂ e
Category 6: Indirect GHG emissions from other sources ⁵	3 632 tCO ₂ e
Total Emissions (Category 1-6)	52 130 tCO₂e

⁵ Category consists of Sanlam’s emissions for waste generated in operations, accommodation during business travel, R22 gas consumption and working from home activity.

Similarly to the inventory described in Table 7, which is presented according to the ISO 14064-1:2006 and GHG Protocol standards, Sanlam’s largest category 1 (direct) emissions were from petrol combustion in company owned vehicles. The largest indirect emissions originated from category 2, indirect emissions from electricity and fuel and energy related activities. In contrast to the inventory in Table 7, the category 2 emissions under ISO 14064-1:2018 include emissions from purchased electricity as well as the upstream and downstream energy emissions associated with the Sanlam value chain. The second largest source of indirect emissions were accounted for in category 3: employee commuting and business travel.

4.2. Recommendations

The following recommendations are discussed under two categories:

Emission reduction opportunities:

To reduce emissions calculated in the FY2021 inventory, it is recommended that Sanlam considers:

- Developing renewable energy measures or purchasing renewable energy certificates to offset the group’s Scope 2/Category 2 emissions: these measures could serve to decrease the group’s energy emissions and if suitably designed, carbon credits from the renewable energy facilities that are owned by Sanlam could potentially be sold into the local carbon tax market.
- Encourage employees to either work from home or implement lift clubs to reduce emissions from employees commuting.

Approach to quantifying the Sanlam carbon footprint in future:

We encourage Sanlam to:

- Extend the boundary of the carbon footprint to include emissions related to the:
 - Physical facilities located across the group’s international footprint; and
 - Investments owned or managed by Sanlam’s insurance and asset management clusters.
- Align future carbon footprints to the ISO14064-1: 2018 standard:
 - The significance criteria will need to be applied to each emission source recorded in the footprint boundary.
 - Periodically reassess the significance of emission sources, against the criteria in the ISO14064-1: 2018 standard .

Appendix 1: Scope 1 and 2 Emissions per Sanlam Facility in South Africa

Operations	Sanlam Glacier	Sanlam Alice Lane	Sanlam Auckland	Sanlam HO	Sanlam West End	Sanlam Alice Lane	Sanlam Glacier	Sanlam Sanlynn	Sanlam Investments	Sanlam Sky	Sanlam HO	Total Santam	Total Sanlam
	tCO ₂ e	tCO ₂ e	tCO ₂ e	tCO ₂ e	tCO ₂ e	tCO ₂ e	tCO ₂ e	tCO ₂ e	tCO ₂ e	tCO ₂ e	tCO ₂ e	tCO ₂ e	tCO ₂ e
Scope 1 Emissions													
Diesel - Stationary	-	-	30	15	1	17	-	-	10	4	168	44	199
Diesel - Mobile	-	-	-	243	-	-	-	-	-	-	-	243	-
Diesel - Pool cars	-	-	-	3	-	-	-	-	2	-	-	3	2
Petrol - Mobile	-	-	-	1 064	-	-	-	-	5	-	-	1 064	5
Petrol - Pool cars	-	-	-	2	-	-	-	-	-	-	1	2	1
LPG - Stationary	-	0.2	0.00	1	-	0.4	-	-	3	-	0.1	1	3
Aircon Gas (R410A)	-	-	117	-	-	-	-	-	-	-	-	117	-
Air Gas (134A)	-	-	-	-	-	-	-	-	-	-	-	-	-
Scope 2 Emissions													
Purchased Electricity	191	986	2 280	1 690	494	1 959	407	576	2 118	625	24 123	5 147	30 302
Acquired Energy (Landlord Generator)	3	-	-	-	-	-	8	-	-	-	-	3	8

Appendix 2: Assumptions and Emission /Conversion Factors

	Value	Unit	Source	Notes
SCOPE 1 - EMISSION FACTORS				
Diesel- Stationary Fuel	0.00271	tonne CO2e/litre	DEFRA 2021	
Diesel Mobile Combustion	0.00271	tonne CO2e/litre	DEFRA 2021	
Petrol Mobile Combustion	0.00234	tonne CO2e/litre	DEFRA 2021	
LPG - Stationary	2.94	tonne CO2e/tonne	DEFRA 2021	
R134a	1.43	tonne CO2e/kg	IPCC AR4– 100 year GWPs.	
R410A	2.09	tonne CO2e/kg	IPCC AR4– 100 year GWPs.	
R22 GWP	1 810.00	tonne CO2e/tonne	IPCC AR4– 100 year GWPs.	
Diesel Combustion	2.66807	kgCO2/litre	DEFRA 2021	
Diesel Combustion	0.00026	kgCH4/litre	DEFRA 2021	
Diesel Combustion	0.04	kgN2O/litre	DEFRA 2021	
Petrol Combustion	2.33	kgCO2/litre	DEFRA 2021	
Petrol Combustion	0.0073	kgCH4/litre	DEFRA 2021	
Petrol Combustion	0.0067	kgN2O/litre	DEFRA 2021	
LPG Combustion	2 935.18	kgCO2/tonnes	DEFRA 2021	
LPG Combustion	2.2800	kgCH4/tonnes	DEFRA 2021	
LPG Combustion	1.83	kgN2O/tonnes	DEFRA 2021	
SCOPE 2 - EMISSION FACTORS				
South Africa - Grid	1.06	tCO ₂ e/MWh	Eskom IAR2021 ⁶	
SCOPE 3 - EMISSION FACTORS				
3.1 PURCHASED GOODS AND SERVICES				
Paper	0.93	tonne CO2e/tonne	Calculated using SAPPI information from their annual report (SAPPI IAR20 pg 25)	
SAPPI 2020 Annual report	5.28	million tCO ₂ e	SAPPI IAR20 pg 25	
SAPPI 2020 Annual report	5.70	million tonne paper	SAPPI IAR20 pg 25	
Water	1.38	tonne CO2e/Million litres	Promethium carbon calculations by use of information below.	
Annual water production	1 611 110.00	MI	Randwater annual report 2017 ⁷	
Water tariff rate	0.85	R/kWh	Eskom Megaflex 2021 ⁸	

⁶ Eskom Integrated Report, 2021, p.127. Available at: <https://www.eskom.co.za/wp-content/uploads/2021/08/2021IntegratedReport.pdf>

⁷ Rand Water, 2017. Annual Report. Available at: <https://www.randwater.co.za/Annual%20Reports/Annual%20Reports/2016-2017%20Annual%20Report/Final%20Annual%20Report%2014Nov2017.pdf>

⁸ Eskom, 2020. Tariffs & Charges Booklet. Available at: <https://www.eskom.co.za/distribution/wp-content/uploads/2021/07/2020-21.pdf>

	Value	Unit	Source	Notes
Annual Electricity Cost for Production of Water	1 931 425 000.00	R	Randwater annual report 2017 (assumed all energy is from electricity)	
Energy Consumed per ML Water Produced	1.41	MWh/ML	Assumed by calculation	
South Africa Electricity Grid	0.98	tonnes CO ₂ e per MWh	Data from the Eskom 2017 IAR (pg 61).Factor 2 - Total energy generated (*Note this EF is calculated by Eskom from April2016 to March2017)	
3.3 FUEL AND ENERGY RELATED ACTIVITIES				
Diesel production	0.00063	tonne CO ₂ e/litre	DEFRA 2021	
Petrol production	0.00060	tonne CO ₂ e/litre	DEFRA 2021	
LPG Production	0.347	tonne CO ₂ e/tonne	DEFRA 2021	
South Africa - Transmission and distribution losses	0.118	%	Eskom IAR2021 ⁹	
South Africa - Grid in terms of Transmission and distribution losses	0.142	tonne CO ₂ e/MWh	Calculated by Promethium using information from Eskom IAR 2021 in accordance with the GHG Protocol	
3.4. UPSTREAM TRANSPORTATION AND DISTRIBUTION				
Heavy Goods Vehicle	0.000208	tonne CO ₂ e/tonne.km	DEFRA 2021	Average laden. All Rigids
Freight airline International	0.001019	tonne CO ₂ e/tonne.km	DEFRA 2021	Average laden. International
Freight airline Domestic	0.004494	tonne CO ₂ e/tonne.km	DEFRA 2021	Average laden. Domestic
Freight airline Short Haul	0.002302	tonne CO ₂ e/tonne.km	DEFRA 2021	Average laden. Short Haul
3.5. WASTE GENERATED IN OPERATIONS				
Municipal Solid Waste	1.296720	tonne CO ₂ e/tonne	Email correspondence between Kerry from VerifyCO ₂ and Elena Friedrich (Author of: GHG emission factors developed for the collection, transport and landfilling of municipal waste in SA municipalities.)	
Recycled Municipal Waste	0.021294	tonne CO ₂ e/tonne	DEFRA 2021	Open loop municipal waste
Recycled Paper	0.085700	tonne CO ₂ e/tonne	Article by Friedrich, E. and Trois, C., 2010. ¹⁰	
Food compost	0.008951	tonne CO ₂ e/tonne	DEFRA 2021	
3.6 BUSINESS TRAVEL				
Average petrol car	0.000174	tonne CO ₂ e/km	DEFRA 2021	
Average diesel car	0.000168	tonne CO ₂ e/km	DEFRA 2021	
Local Flight - Economy	0.000246	tonne CO ₂ e/passenger.km	DEFRA 2021	Emission factors used include a radiative forcing uplift.

⁹ Eskom Integrated Report, 2021, p.127. Available at: <https://www.eskom.co.za/wp-content/uploads/2021/08/2021IntegratedReport.pdf>

¹⁰ Friedrich, E. and Trois, C., 2010. Greenhouse gases accounting and reporting for waste management–A South African perspective. Waste Management, 30(11), pp.2347-2353.

	Value	Unit	Source	Notes
Short Flight - Economy	0.000151	tonne CO2e/passenger.km	DEFRA 2021	Emission factors used include a radiative forcing uplift.
Long Flight - Economy	0.000148	tonne CO2e/passenger.km	DEFRA 2021	Emission factors used include a radiative forcing uplift.
Local Flight - Business	0.000246	tonne CO2e/passenger.km	DEFRA 2021	Emission factors used include a radiative forcing uplift.
Short Flight - Business	0.000227	tonne CO2e/passenger.km	DEFRA 2021	Emission factors used include a radiative forcing uplift.
Long Flight - Business	0.000429	tonne CO2e/passenger.km	DEFRA 2021	Emission factors used include a radiative forcing uplift.
Local Flight - First Class	0.000246	tonne CO2e/passenger.km	DEFRA 2021	Emission factors used include a radiative forcing uplift.
Short Flight - First Class	0.000227	tonne CO2e/passenger.km	DEFRA 2021	Emission factors used include a radiative forcing uplift.
Long Flight - First Class	0.000591	tonne CO2e/passenger.km	DEFRA 2021	Emission factors used include a radiative forcing uplift.
Accommodation	0.061000	tonne CO2e/bed.night	DEFRA 2021	
3.7 EMPLOYEE COMMUTING				
Average petrol car	0.000174	tonne CO2e/km	DEFRA 2021	
Average diesel car	0.000168	tonne CO2e/km	DEFRA 2021	
Bus	0.000102	tonne CO2e/passenger.km	DEFRA 2021	Average local bus
SA Taxi	0.000021	tonne CO2e/passenger.km	Toyota Quantum specifications	Assuming a 16 seater taxi with 339g/km emissions
National Rail	0.000035	tonne CO2e/passenger.km	DEFRA 2021	
Conversion factors and assumptions				
Sanlam employees	8 925	No. of people	Provided by Sanlam Group for the 9 buildings in the 2021 boundary	Numbers based mostly on 2020 (adjusted for openings & closures) as no information available for updated headcount no.s /building for 2021. (Sanlam WestEnd was added to boundary & Santam Garsfontein closed)
Santam employees	2 804	No. of people	Provided by Sanlam Group for the 9 buildings in the 2021 boundary	
Employees travelling by train	0.04	%	Assumption made according to Sanlam's 2018 transport survey	Gautrain
Employees travelling by bus	0.03	%	Assumption made according to Sanlam's 2018 transport survey	Bus
Employees travelling by taxi	0.05	%	Assumption made according to Sanlam's 2018 transport survey	Taxi
Employees travelling by car	0.78	%	Assumption made according to Sanlam's 2018 transport survey	Private Transport
Employees travelling by share car	0.10	%	Assumption made according to Sanlam's 2018 transport survey	Driver plus one passenger
Distance commuted by private car - one way	22.50	km	Assumption	
Distance commuted by bus -one way	30.00	km	Assumption	

	Value	Unit	Source	Notes
Distance commuted by taxi - one way	30.00	km	Assumption	
Distance commuted by train - one way	15.00	km	Assumption	
Average travel time - car	0.75	hours	Assumption	
Average travel speed - car	30.00	km/hour	Assumption	
Average travel time - bus/taxi	1.00	hours	Assumption	
Average travel time - train	0.50	hours	Assumption	
Average workdays per month (covid)	3.36	days	Assumption	Assumption based on average daily occupancy stats for 2021 from I.Erlank (22Feb 2022).
Average workdays per year (covid)	35.34	days	Assumption	
Weight of A4 paper ream	0.0025	tonne/ream	http://paperlink.co.za/paper_rotatrim.htm	
Weight of A3 paper ream	0.005	tonne/ream	http://paperlink.co.za/paper_rotatrim.htm	
Convert GJ to MWh	0.277778	MWh/GJ		
Global Warming Potential of CH4	25	kgCO2e/kgCH4	IPCC AR4	AR4
Global Warming Potential of N2O	298	kgCO2e/kgN2O	IPCC AR4	AR4