PROMETHIUM CARBON

Sanlam: FY2023 Carbon Footprint Report

Prepared by Promethium Carbon for:

Sanlam

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Prepared by:

PROMETHIUM CARBON

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1 Introduction

Sanlam is a diversified financial services company founded in South Africa, with core operations including life insurance, long- and short-term insurance, personal finance, and asset management. The Group has consistently grown its local and international footprint and now has a presence in 33 African countries, as well as India, Malaysia, the United Kingdom and other selected countries.

This report outlines Sanlam Group's greenhouse gas (GHG) inventory[1] for the 2023 financial year ("FY2023")[2]. The inventory includes the company's material direct and indirect emissions and emission sources across Sanlam and Santam sites located predominantly within South Africa, with one site in the UK. The calculations, and respective inputs, emission factors and assumptions for the reported emissions are contained in an accompanying Excel spreadsheet. The emission categories have been presented in both the GHG Protocol and ISO 14064-1:2018 formats, which Sanlam can use for reporting purposes.

This report forms part of a series of climate-change-related deliverables that Promethium Carbon is developing for Sanlam. Currently in progress is an assessment of Sanlam's scope 3, category 15 emissions, which is being undertaken to enhance Sanlam's reporting of significant indirect emission sources related to the group's investments. In addition, this report will be followed by a gap analysis on the FY2023 GHG inventory, identifying and recommending where improvements can be made for the upcoming FY2024 GHG inventory.

2 Approach and Methodology

The Sanlam GHG inventory for FY2023 was compiled in accordance with the following standards:

- ISO 14064-1 (2018): 'Specification with guidance at the organization level for quantification and reporting of GHG emissions and removals'; and
- WRI/WBCSD GHG Protocol: A Corporate Accounting and Reporting Standard, 2004, and subsequent Amendments.

The standards above use different terminology to describe emission sources. A comparison of the emission categories for each of these standards is given Appendix 1.

2.1 Principles

The principles for GHG accounting and reporting that were adhered to in the accounting of this GHG inventory are detailed in the following table. These guidelines ensure the quality and integrity of emissions reporting is consistent and sound.

[1] A GHG inventory is a comprehensive report of GHG emissions by an organisation, industry sector, or country. A GHG inventory is used for measuring, tracking, and reporting emissions.

[2] Sanlam's financial year starts on January 1 and ends on December 31.

Table 1: Principles for GHG accounting and reporting

Principle	Description
Relevance	The GHG inventory should reflect the appropriate data and methodology of Sanlam's GHG emissions and serve the decision-making needs of users.
Completeness	The GHG inventory should account for all relevant GHG emission sources within Sanlam's chosen inventory boundary.
Consistency	Sanlam should use a consistent methodology to allow for meaningful comparisons of emissions over time.
Accuracy	Sanlam should ensure that all uncertainties in the quantification of GHG emissions are reduced as far as practical and that the emissions are neither overstated nor understated.
Transparency	Sanlam should disclose any relevant assumptions and make appropriate references to the accounting and calculation methodologies and data sources used.

2.2 Reporting boundary

Sanlam's FY2023 GHG inventory was calculated according to the *operational control*[3] approach. This included fourteen of the Group's South African facilities and one office in the UK. The facilities included within this reporting boundary represent approximately 85% of the Group's directly held subsidiaries. These are listed below, split between Santam and Sanlam premises:

Santam

1. Santam Head Office
2. Santam Auckland Park
3. Santam Alice Lane
4. Santam Glacier
5. Santam Hill on Empire
6. Santam West End A
7. Santam West End D

Sanlam

8. Sanlam Head Office
9. Sanlam Sky/Houghton
10. Sanlam Investments
11. Sanlam Investments UK
12. Sanlam Sanlynn
13. Sanlam Glacier
14. Sanlam Alice Lane
15. Sanlam West End

[3] Operational control, as per the GHG Protocol, defines the boundaries for a GHG inventory. It includes emissions sources from operations under Sanlam's full authority to implement policies. This approach excludes emissions from operations where Sanlam has ownership but not operational control.

2.3 Emissions boundary

The Sanlam Group reports on all its direct emission sources, as prescribed by ISO 14064-1:2018 and the GHG Protocol.

Sanlam further reports on a suite of significant indirect emissions, which have been determined in accordance with ISO 14064-1:2018.

2.3.1 Significance assessment of indirect emissions

Reporting on other indirect (Scope 3) emissions is a voluntary process as per the GHG Protocol. However, the ISO 14064-1:2018 provides a significance framework that is used to identify criteria to distinguish which emission sources are significant for Sanlam Group, and which accordingly should be disclosed within the corporate GHG inventory.

The following table outlines the criteria selected by Sanlam to assess the significance of the Group's indirect emissions. These criteria are considered appropriate for the intended use of the GHG inventory, which is to report and compare annual emissions.

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	Description	Relevance and thresholds
1. Magnitude	The indirect emissions or removals that are assumed to be quantitatively substantial.	**Significant if** emissions >1% of Sanlam's total emissions.
2. Level of influence	The extent to which the organisation can monitor and reduce emissions and removals (e.g., energy efficiency, eco-design, customer engagement, terms of reference).	**Significant if** Sanlam can influence the emissions source by 2.5% per annum through supply chain agreements or similar mechanisms.
3. Outsourcing	The indirect emissions and removals resulting from outsourced activities that are typically core business activities.	**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	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).	**Significant if** employees' activities (e.g. travel/commuting) result in the influence of Sanlam's indirect emissions
5. Risk and opportunity	The indirect emissions or removals that contribute to the organisation's exposure to risk (e.g. climate-related risks such as financial, regulatory, supply chain, product and customer, litigation, reputational risks) or its	**Significant if** there are risks or opportunities that Sanlam is exposed to as a result of indirect emissions such as the markets Sanlam may invest in.

Significance criteria	Description	Relevance and thresholds
	opportunity for business (e.g. new market, new business model).	
6. Sector-specific guidance	The GHG emissions deemed as significant by the business sector, as provided by 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 framework above has been used to identify the emission sources reported in the Sanlam Group carbon footprint, related predominantly to the South African operations. A list of exclusions also follows.

2.3.2 Emission sources

The following table outlines the emission sources which Sanlam Group considers significant, as per the assessment framework developed using the ISO14064-1:2018 standard. The emission sources are presented according to the emission categories prescribed by both the ISO14064-1:2018 and GHG Protocol accounting standards.

Table 3: Emission Sources

ISO 14064:2018		GHG Protocol		Emission Sources	Inclusion in GHG Inventory
Category	**Description**	**Category**	**Description**		
1	Direct GHG emissions and removals	Scope 1	Energy direct emissions	Emissions that occur from sources that are controlled or owned by Sanlam such as: • Stationary diesel combustion • Mobile diesel combustion • Mobile petrol combustion • Stationary liquid petroleum gas (LPG) • Refrigerants	Included: As required by ISO14064-1:2018 and GHG Protocol.
.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	Emissions related to the production of fuels and energy purchased and consumed by Sanlam in the reporting year such as: • Upstream emissions of purchased fuels • Upstream emissions of purchased electricity • Transmission and distribution losses	
3	Indirect GHG emissions from transportation	Scope 3, category 4	Upstream Transportation and Distribution	Emissions from the transportation and distribution (freight) activities throughout the value chain: • Air transport • Rail transport • Road transport	Included based on significance assessment: Emissions related to business travel and employee commuting are significant due to Sanlam's ability to influence the methods of corporate logistics and business travel, as well as the opportunity to engage
		Scope 3, category 6	Business Travel	Emissions from employee business travel such as:	

ISO 14064:2018		GHG Protocol		Emission Sources	Inclusion in GHG Inventory
Category	Description	Category	Description		
				• Air travel • Automobile travel (e.g., business travel in rental cars or employee-owned vehicles other than employee commuting to and from work)	employees to reduce their emissions resulting from commuting. Road and Air Freight (Upstream transportation and distribution) are significant due to the magnitude of these emissions.
		Scope 3, category 7	Employee Commuting	Emissions from employee commuting such as: • Automobile travel • Bus travel • Rail travel • Air travel • Other modes of transportation (e.g., motorcycling, walking)	
		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: • Air transport • Road transport	Downstream Transportation and Distribution was excluded as no downstream transportation and distribution services were reported in this boundary of Sanlam's GHG emissions.
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: • 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: • Equipment	Not applicable as no capital goods were reported in this boundary of Sanlam's GHG emissions.

ISO 14064:2018		GHG Protocol		Emission Sources	Inclusion in GHG Inventory
Category	Description	Category	Description		
				• Machinery • Buildings • Vehicles	To enhance completeness, future assessment and possible reporting should consider encompassing emissions associated with capital goods.
5	Indirect GHG emissions associated with the use of products from the organization	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 finance.
		Scope 3, category 11	Use of Sold Products	Emissions from the use of goods and services sold by the company in the reporting year.	
		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: • Landfilling • Incineration • Recycling	
6	Indirect GHG emissions from other sources	Scope 3, category 5	Waste Generated in Operations	Waste treatment activities may include: • 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: • Vehicles • Equipment • Generator	Not applicable in this footprint as no leased assets were reported in this boundary of Sanlam's GHG emissions. However, this could be considered in the future.
		Scope 3, category 13	Downstream Leased	Assets that are owned by the reporting	

ISO 14064:2018		GHG Protocol		Emission Sources	Inclusion in GHG Inventory
Category	Description	Category	Description		
			Assets	company (acting as lessor) and leased to other entities in the reporting year such as: • 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: • Equity investments • Debt investments • Project finance • Managed investments and client services.	Not included at this stage. Sanlam is investigating the quantification of emissions associated with investments.

2.4 Exclusions

The following is a list of exclusions in the calculation of Sanlam Group's carbon footprint.

2.4.1 Facilities

In addition to the fifteen facilities listed above, Sanlam also operates numerous smaller offices around South Africa. However, due to data availability and the significant reporting burden relative to their GHG contribution, these sites were excluded from the reporting boundary.

2.4.2 Employee figures

International employees were excluded from the employee figures as the reporting boundary was confined to the Group's regional offices in South Africa and a small office in the UK. In addition, employees associated with the smaller offices in South Africa were excluded due to data constraints and their relatively low GHG contribution. As indicated above, these exclusions are considered acceptable as the employees from approximately 85% of the Group's directly controlled global operations are included in the GHG inventory.

2.4.3 Other indirect emissions

Emissions associated with Sanlam's value chain, such as capital goods, upstream leased assets and investments, have not been included in the boundary of this report. To enhance completeness, it is recommended that future reporting should consider expanding the Scope 3 boundary to encompass all significant emission sources, acknowledging the significance of such emission sources that will be determined by the Sanlam Group's significance assessment framework (section 2.3.1).

2.5 Assumptions, Emissions and Conversion Factors

The assumptions, emission and conversion factors applied in the calculation of Sanlam Group's FY2023 GHG inventory can be found in Appendix 2, which is accompanied by the Carbon Footprint excel spreadsheet already shared with Sanlam.

The chosen emission factors are in line with the 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 that were used to calculate direct emissions (Scope 1) were sourced from DEFRA (UK Department of Environment Food and Rural Affairs). This source was also used for transport of products, business travel and employee commuting.

The grid emission factor, used to calculate the indirect energy emissions (Scope 2) for operations in South Africa was sourced from Eskom's IAR2023.[4]

The majority of the emission factors that were used to calculate the indirect emissions (Scope 3) were taken from DEFRA. However, a few emission factors were extracted from reputable scientific articles. References to these sources are given in Appendix 2 and the accompanying Excel document.

2.6 Data sources

The activity data sets for the FY2023 GHG inventory related to the South African facilities, including Sanlam Investments UK, were 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. However, the data was externally verified by a third-party auditor.

The following activity data sets were received from Sanlam for FY2023:

- Diesel and petrol consumed in company owned vehicles, pool cars, and other machinery, such as stationary back-up generators;
- LPG used in kitchens;
- Refrigerant gases such R410A, R22 and 134A;
- Electricity purchased from Eskom;
- Acquired energy (Landlord Generator)
- Water readings;
- Paper and stationary consumed;
- Recyclable and landfill waste totals;
- Courier transportation distances;
- Number of full-time employees;
- Gross Leasable Area in m^2, including storage area and excluding balcony and parking area.
- Business travels in terms of method of transportation;
- Accommodation in terms of number of nights.

2.7 Calculation methodology

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

Activity data x Emission Factor = Quantity of GHG Emissions

[4] Eskom Integrated Report, 2023, p.170. Available at: https://www.eskom.co.za/wp-content/uploads/2023/10/Eskom_integrated_report_2023.pdf

An emission factor is a numerical value that represents the amount of a GHG emitted per unit of a certain activity, process, fuel consumption, or other relevant metric.

Emission factors are generally provided in the units of:

$$\frac{Carbon\ Dioxide\ Equivalent\ (CO2e)}{Unit\ of\ Measure\ (litre, kg, etc.)}$$

Thereafter, the various quantities of GHG emissions (calculated using the equation above, per activity data source) are summed for each category to provide the total GHG emissions produced by Sanlam Group in FY2023.

3 Results

The following section presents the FY2023 GHG inventory for Sanlam Group's reported facilities, largely located in South Africa. The results are presented according to both the GHG Protocol standard and the ISO14064-1:2018 standard.

3.1 GHG inventory according to the GHG Protocol Corporate Standard

The following table shows the summary of Sanlam's FY2023 GHG inventory according to the GHG Protocol. The Scope 1 and 2 emissions amounted to 3 169 tCO_2e and 32 334 tCO_2e, respectively. The Scope 2 emissions (i.e., purchased electricity) are the greatest emission source in the GHG inventory, making up 51% of Sanlam's total emissions. Although it is a voluntary measure under the GHG Protocol, the Scope 3 emissions are also included, totalling 28 134 tCO_2e.

Table 4: Sanlam's FY2023 GHG inventory according to the GHG Protocol.

Scope	Description	Sanlam Emissions	Santam Emissions	Group FY2023 Emissions
SCOPE 1	Stationary Diesel Combustion	1 385 tCO_2e	227 tCO_2e	1 612 tCO_2e
	Mobile Diesel Combustion	0	212 tCO_2e	212 tCO_2e
	Diesel Pool Cars	1 tCO_2e	3 tCO_2e	4.5 tCO_2e
	Mobile Petrol Combustion	0	1 178 tCO_2e	1 178 tCO_2e
	Petrol Pool Cars	2 tCO_2e	2 tCO_2e	4 tCO_2e
	Stationary LPG	18 tCO_2e	11 tCO_2e	29 tCO_2e
	Refrigerants (R410A)	0	0	0
	Refrigerants (134A)	130 tCO_2e	0	130 tCO_2e
Total SCOPE 1		**1 536 tCO_2e**	**1 633 tCO_2e**	**3 169 tCO_2e**
SCOPE 2	Purchased Electricity	26 026 tCO_2e	6 229 tCO_2e	32 255 tCO_2e

	Acquired Energy (Landlord Generator)	58 tCO_2e	20 tCO_2e	79 tCO_2e
Total SCOPE 2		**26 084 tCO_2e**	**6 249 tCO_2e**	**32 334 tCO_2e**
SCOPE 3	Purchased Goods and Services	216 tCO_2e	35 tCO_2e	251 tCO_2e
	Upstream Transportation and Distribution	205 tCO_2e	49 tCO_2e	254 tCO_2e
	Fuel and Energy Related Activities	3 814 tCO_2e	1 246 tCO_2e	5 060 tCO_2e
	Waste Generated in Operations	160 tCO_2e	16 tCO_2e	176 tCO_2e
	Business Travel (Including Accommodation)	9 739 tCO_2e	2 284 tCO_2e	12 023 tCO_2e
	Employee Commuting and Working from Home	8 296 tCO_2e	2 074 tCO_2e	10 370 tCO_2e
SCOPE 3 Sub-Total		**22 429 tCO_2e**	**5 705 tCO_2e**	**28 134 tCO_2e**
Out of Scope[5]	R22 gas	97 tCO_2e		97 tCO_2e
TOTAL Scope 1, 2 and 3		50 050 tCO_2e	13 588 tCO_2e	63 637 tCO_2e
Total Emissions		**50 146 tCO2e**	**13 588 tCO_2e**	**63 734 tCO_2e**

Table 4 shows the changes in emission quantities across the last five years (2019-2023). It is noted that while Scope 1 and Scope 3 emissions have increased, Scope 2 emissions have gradually decreased since 2021. The decrease in Scope 2 emissions over the past three years can be attributed to reduced electricity usage due to increased loadshedding, as well as a 2.9% reduction in the grid emission factor. The increase in Scope 3 emissions in comparison to previous years is a result of increased business travel, employee commuting and office waste, as employees are required to work in the office more frequently since the COVID-19 pandemic in 2020/2021.

Table 5: Comparison of Scope 1, 2 and 3 emissions for 2019 to 2023.

Carbon Footprint	2019	2020	2021	2022	2023
Scope 1 emissions (tCO_2e)	2 391	1 644	1 684	2 821	3 169
Scope 2 emissions (tCO_2e)	41 353	34 221	35 460	33 605	32 334
Scope 3 emissions (tCO_2e)	41 086	16 858	14 442	22 984	28 134
Total Carbon Footprint (tCO_2e)	**84 830**	**51 652**	**52 130**	**59 410**	**63 734**

5 Non-Kyoto gases that have been reported.

3.2 GHG Inventory according to ISO14064-1:2018

Although the GHG Protocol remains popular for reporting purposes, the ISO14064-1:2018 represents the most up-to-date and internationally recognised methodology for corporate GHG inventory accounting.

Accordingly, the summary of the FY2023 GHG emissions inventory, in terms of to ISO14064-1:2018, is presented in Table 5 below.

Table 6: FY2023 GHG inventory according to ISO 14064-1:2018

Category	Description	Sanlam Emissions	Santam Emissions	Group FY2023 Emissions
Category 1: Direct GHG emissions and removals	Stationary Diesel Combustion	1 385 tCO_2e	227 tCO_2e	1 612 tCO_2e
	Mobile Diesel Combustion	0	212 tCO_2e	212 tCO_2e
	Pool Cars Diesel Combustion	1 tCO_2e	3 tCO_2e	5 tCO_2e
	Mobile Petrol Combustion	0	1 178 tCO_2e	1 178 tCO_2e
	Pool Cars Petrol Combustion	2 tCO_2e	2 tCO_2e	4 tCO_2e
	Stationary LPG	18 tCO_2e	11 tCO_2e	29 tCO_2e
	Refrigerants (R410A)	0	0	0
	Refrigerants (134A)	130 tCO_2e	0	130 tCO_2e
Total CATEGORY 1		**1 536 tCO_2e**	**1 633 tCO_2e**	**3 169 tCO_2e**
Category 2: Indirect GHG emissions from imported energy	Electricity and Fuel and Energy Related Activities[6]	29 898 tCO_2e	7 496 tCO_2e	37 394 tCO_2e
Total CATEGORY 2		**29 898 tCO_2e**	**7 496 tCO_2e**	**37 394 tCO_2e**
Category 3: Indirect GHG emissions from transportation	Upstream Transportation and Distribution	205 tCO_2e	49 tCO_2e	254 tCO_2e
	Business Travel (Excluding Accommodation)	8 657 tCO_2e	1 912 tCO_2e	10 569 tCO_2e
	Employee Commute	7 262 tCO_2e	1 763 tCO_2e	9 025 tCO_2e
Total CATEGORY 3		**16 124 tCO_2e**	**3 724 tCO_2e**	**19 848 tCO_2e**
Category 4: Indirect GHG emissions from products used by organisation	Purchased Goods and Services	216 tCO_2e	35 tCO_2e	251 tCO_2e

[6] 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 FY2023 Emissions
Total CATEGORY 4		**216 tCO_2e**	**35 tCO_2e**	**251 tCO_2e**
Category 6: Indirect GHG emissions from other sources	Waste Generated in Operations	160 tCO_2e	16 tCO_2e	176 tCO_2e
	Accommodation During Business Travel	1 082 tCO_2e	372 tCO_2e	1 454 tCO_2e
	Working from Home	1 033 tCO_2e	312 tCO_2e	1 345 tCO_2e
	R22 Refrigerant	97 tCO_2e	0	97 tCO_2e
TOTAL CATEGORY 6		**2 372 tCO_2e**	**700 tCO_2e**	**3 072 tCO_2e**
Total EMISSIONS (Category 1-6)		**50 146 tCO_2e**	**13 588 tCO_2e**	**63 734 tCO_2e**

Based on the table above, emission sources in Category 2, i.e., purchased electricity and fuel, and other energy related activities, account for 59% of Sanlam's total emissions. This is followed by transport related activities in Category 3, contributing to 31% of emissions.

3.3 Key emissions per facility

The emissions described above are the sum of the respective Sanlam and Santam facilities that have been assessed. A breakdown of the direct (Scope 1) and energy indirect (Scope 2) emissions are presented in the accompanying verified Carbon Footprint excel spreadsheet already provided to Sanlam. Distinguishing the emissions sources amongst facilities assists Sanlam to identify trends in emissions, which may also lead to identifying emission reduction opportunities according to the specific sites.

4 Recommendations and Conclusion

This report quantifies Sanlam Group's direct and indirect emissions for the 2023 financial year, related to the group's South African facilities and one UK facility, in accordance with both the GHG Protocol and ISO 14064-1:2018 standards.

4.1 Conclusions

Sanlam's FY2023 GHG inventory is summarised in Table 6 below, in accordance with the GHG Protocol standard.

Table 7: Summary of the FY2023 GHG inventory according to the GHG Protocol standard

GHG Inventory according to the GHG Protocol	FY2023 Emissions
Scope 1: Direct GHG emissions and removals	3 169 tCO_2e
Scope 2: Indirect GHG emissions from imported energy	32 334 tCO_2e
Scope 3: Other indirect emissions that occur in the value chain	28 134 tCO_2e
Total emissions, excluding Out of Scope Emissions	**63 637 tCO_2e**
Out of Scope Emissions (R22)	**97 tCO_2e**
Total emissions, including Out of Scope Emissions	**63 734 tCO_2e**

Within Sanlam's Scope 1 (direct) emissions category, petrol combustion in company owned vehicles and stationary combustion of diesel in generators contributed to the majority of emissions. Overall, emissions associated with purchased electricity were the highest contributor to Sanlam's FY2023 GHG inventory (51%). Compared to emissions recorded for 2021 and 2022 (**Table 4**), Scope 1 and 3 emissions in FY2023 have increased as a result of higher fuel usage, increased business travel, employee commuting and production of office waste. Furthermore, there has been a slight decrease in Scope 2 emissions over the past three years as a result of reduced electricity usage. This decrease can be attributed to an increase in loadshedding and a slight reduction in the grid emission factor.

The GHG inventory, according to ISO 14064:2018, is summarised in Table 7 below.

Table 8: Summary of the FY2023 GHG inventory according to ISO 14064:2018

GHG Inventory according to ISO14064-1:2018	FY2023 Emissions
Category 1: Direct GHG emissions and removals	3 169 tCO_2e
Category 2: Indirect GHG emissions from imported energy	37 394 tCO_2e
Category 3: Indirect GHG emissions from transportation	19 848 tCO_2e
Category 4: Indirect GHG emissions from products used by organisation	251 tCO_2e
Category 6: Indirect GHG emissions from other sources[7]	3 072 tCO_2e
Total Emissions (Category 1-6)	**63 734 tCO_2e**

Similar to the inventory described in Table 6, Sanlam's largest Category 1 (direct) emissions were from petrol combustion in company owned vehicles, followed by diesel combustion of generators. The largest indirect emissions originated from Category 2, which includes emissions from purchased electricity, as well as fuel and energy related activities. The second largest source of indirect emissions were accounted for in Category 3, where employee commuting and business travel were greatest contributors to emissions in this category.

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

4.2 Recommendations

The following recommendations are structured around emission reduction opportunities and methods to quantifying the GHG inventory in future, based on the gaps identified in the FY2023 GHG inventory.

4.2.1 Potential emission reduction opportunities

This report highlighted that Sanlam Group's significantly higher emissions sources are purchased electricity (Scope 2), and transport relating to business travel and employee commuting (Scope 3). Potential initiatives to reduce emissions in these categories are described below:

- To reduce transport emissions, Sanlam can encourage employees to either work from home or implement lift clubs to reduce emissions from employees commuting.
- Sanlam can consider producing renewable energy on site e.g., through installing solar PV facilities, which will reduce reliance on purchased electricity, thereby lowering Scope 2 emissions. Similarly, Sanlam could enhance energy efficiency throughout its site by installing LED lighting and motion sensors.
- Sanlam may have limitations in terms of generating electricity on site, which may prompt the Group in considering the use of market-based instruments such as Power Purchase Agreement and/or Renewable Energy Certificates (RECs) to reduce its footprint. These contractual arrangements specify the emissions intensity of purchased renewable electricity, which has a zero or low-emission intensity, thereby reducing the Group's Scope 2 emissions. If suitably designed, environmental attributes like RECs or carbon credits from Sanlam's renewable energy facilities have the potential to be traded in the local carbon tax market.

4.2.2 Recommendations to quantify the Sanlam GHG inventory in future

In order to enhance Sanlam's GHG inventory for the upcoming financial year, it is advised that Sanlam endeavour to extend their reporting boundary to include additional indirect (Scope 3) emissions, and to put in measures to improve data collection management.

Regarding the reporting boundary, it is advised that Sanlam includes emissions related to the physical facilities of the company's local footprint. This includes additional Sanlam/Santam office facilities such as Milkwood, Tygerpark 5, Greenacres Boulevard, Rosestad, Wanderers and West End B. This year, Sanlam Investments UK was included, and Sanlam is encouraged to report on more facilities located across the Group's international footprint. The gap analysis that is currently a work-in-progress will assess this reporting boundary of Sanlam in more detail.

Regarding Scope 3 emissions, it is recommended that Sanlam includes all significant emissions sources, such as their Scope 3, Category 15 emissions associated with investments that owned or managed by Sanlam's insurance and asset management clusters. This recommendation forms the basis of the Scope 3, Category 15 work that is currently in development with Promethium.

In order to streamline the data collection process, it is recommended that Sanlam collect and review emissions related data and supporting documentation on a regular basis (i.e., quarterly). This will allow for improved quality assurance of the data required for reporting.

Lastly, Sanlam is encouraged to periodically assess the significance criteria developed in accordance with the ISO14064-1: 2018 standard, to determine if any updates are required.

Appendix 1: Comparison between the ISO 14064-1:2018 and GHG Protocol Standards

ISO 14064:2018		GHG Protocol	
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

Appendix 2: Assumptions and Emission /Conversion Factors

	Value	Unit	Source	Notes
SCOPE 1 - EMISSION FACTORS				
Diesel- Stationary Fuel	0.00266	tonne CO_2e/litre	DEFRA 2023	
Diesel Mobile Combustion	0.00266	tonne CO_2e /litre	DEFRA 2023	
Petrol Mobile Combustion	0.00235	tonne CO_2e /litre	DEFRA 2023	
LPG - Stationary	2.94	tonne CO_2e /tonne	DEFRA 2023	
R134a	1.30	tonne CO_2e /kg	IPCC AR5– 100 year GWPs.	
R410A	1.92	tonne CO_2e /kg	IPCC AR5– 100 year GWPs.	
R22 GWP	1 760.00	tonne CO_2e /tonne	IPCC AR5– 100 year GWPs.	
Diesel Combustion	2.62600	kgCO_2/litre	DEFRA 2023	
Diesel Combustion	0.00029	kgCH_4/litre	DEFRA 2023	
Diesel Combustion	0.03	kgN_2O/litre	DEFRA 2023	
Petrol Combustion	2.33	kgCO_2/litre	DEFRA 2023	
Petrol Combustion	0.0082	kgCH_4/litre	DEFRA 2023	
Petrol Combustion	0.0060	kgN_2O/litre	DEFRA 2023	
LPG Combustion	2 935.18	kgCO_2/tonnes	DEFRA 2023	
LPG Combustion	2.5536	kgCH_4/tonnes	DEFRA 2023	
LPG Combustion	1.63	kgN_2O/tonnes	DEFRA 2023	
SCOPE 2 - EMISSION FACTORS				
South Africa - Grid	1.010000	t CO_2e /MWh	Eskom IAR2023 page 170	
SCOPE 3 - EMISSION FACTORS				
3.1 PURCHASED GOODS AND SERVICES				
Policy Paper	0.63	tonne CO_2e/tonne	Mondi IAR 2022 page 52	
Office Paper	1.37	tonne CO_2e/tonne	Mondi Paper Profile	
Water	1.42	tonne CO_2e/Million litres	Promethium Carbon Calculations	
Annual water production	0.63	tonne CO_2e/tonne	Mondi IAR 2022 page 52	
Water tariff rate	1.37	tonne CO_2e/tonne	Mondi Paper Profile	

	Value	Unit	Source	Notes
Annual Electricity Cost for Production of Water	1.42	tonne CO_2e/Million litres	Promethium Carbon Calculations	
Energy Consumed per ML Water Produced	1 611 110.00	Ml	Randwater annual report 2017	
South Africa Electricity Grid	0.85	R/kWh	Eskom Megaflex 2021	
3.3 FUEL AND ENERGY RELATED ACTIVITIES				
Diesel production	0.000624	tonne CO_2e/litre	DEFRA 2023	
Petrol production	0.000607	tonne CO_2e/litre	DEFRA 2023	
LPG Production	0.349293	tonne CO_2e/tonne	DEFRA 2023	
South Africa - Transmission and distribution losses	0.135125	tCO_2e/MWh	Calculated by Promethium using information from Eskom IAR 2023 in accordance with the GHG Protocol	
South Africa - Grid in terms of Transmission and distribution losses	0.118000	%	Eskom IAR2023 page 160	
3.4. UPSTREAM TRANSPORTATION AND DSITRIBUTION				
Heavy Goods Vehicle	0.000575	tonne CO_2e/tonne.km	DEFRA 2023	unknown fuel type for a 3.5tonne van from DEFRA 2023
Freight airline International	0.001099	tonne CO_2e/tonne.km	DEFRA 2023	with RF
Freight airline Short Haul	0.000575	tonne CO_2e/tonne.km	DEFRA 2023	with RF
3.5. WASTE GENERATED IN OPERATIONS				
Municipal Solid Waste	1.296720	tonne CO_2e/tonne	Email correspondence between Kerry from VerifyCO2 and Elena Friedrich (Author of: GHG emission factors developed for the collection, transport and landfilling of municipal waste in SA municipalities.)	
Recycled Municipal Waste	0.021281	tonne CO_2e/tonne	DEFRA 2023	Combustion commercial and industrial waste
Recycled Paper	0.085700	tonne CO_2e/tonne	Friedrich, E. and Trois, C., 2010. Greenhouse gases accounting and reporting for waste	

	Value	Unit	Source	Notes
			management–A South African perspective. Waste Management, 30(11), pp.2347-2353.	
Food compost	0.008912	tonne CO_2e/tonne	DEFRA 2023	
3.6 BUSINESS TRAVEL				
Average petrol car	0.000164	tonne CO_2e/km	DEFRA 2023	
Average diesel car	0.000170	tonne CO_2e/km	DEFRA 2023	
Domestic Flight - Average passenger	0.272580	kgCO_2e/passenger.km	DEFRA 2023	Emission factors used include a radiative forcing uplift.
Short-haul - Average passenger	0.185920	kgCO_2e/passenger.km	DEFRA 2023	Emission factors used include a radiative forcing uplift.
Short - haul - Economy	0.182870	kgCO_2e/passenger.km	DEFRA 2023	Emission factors used include a radiative forcing uplift.
Short-Haul - Business	0.274300	kgCO_2e/passenger.km	DEFRA 2023	Emission factors used include a radiative forcing uplift.
Long-Haul - Average Passenger	0.261280	kgCO_2e/passenger.km	DEFRA 2023	Emission factors used include a radiative forcing uplift.
Long-Haul - Economy Class	0.200110	kgCO_2e/passenger.km	DEFRA 2023	Emission factors used include a radiative forcing uplift.
Long-Haul - Premium Class	0.320160	kgCO_2e/passenger.km	DEFRA 2023	Emission factors used include a radiative forcing uplift.
Long-Haul - Business Class	0.580290	kgCO_2e/passenger.km	DEFRA 2023	Emission factors used include a radiative forcing uplift.
Long-Haul - First Class	0.800400	kgCO_2e/passenger.km	DEFRA 2023	Emission factors used include a radiative forcing uplift.
Accommodation	0.051400	tonne CO_2e/bed.night	DEFRA 2023	
3.7 EMPLOYEE COMMUTING				
Average petrol car	0.000164	tonne CO_2e/km	DEFRA 2023	
Average diesel car	0.000170	tonne CO_2e/km	DEFRA 2023	
Bus	0.000102	tonne CO_2e/passenger.km	DEFRA 2023	Average local bus

	Value	Unit	Source	Notes
SA Taxi	0.000021	tonne CO_2e/passenger.km	Toyota Quantum specifications	Assuming a 16 seater taxi with 339g/km emissions
National Rail	0.000035	tonne CO_2e/passenger.km	DEFRA 2023	
Mixed (Train and bus)	0.000069	tonne CO_2e/passenger.km	calculated	
Mixed (bus and taxi)	0.000062	tonne CO_2e/passenger.km	calculated	
Motorcycle	0.000114	tonne CO_2e/km	DEFRA 2023	
Working from home	0.150000	kWh/FTE/annum		
Conversion factors and assumptions				
Sanlam employees	10 859	No. of people	Provided by Sanlam Group	
Santam employees	3 277	No. of people	Provided by Sanlam Group	
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		
Diesel Calorific Value	0.0381	GJ/litre	SA Methodological Guidelines Annexure A	Table A.1 at page 206
Petrol Calorific Value	0.0443	GJ/litre	SA Methodological Guidelines Annexure A	Table A.1 at page 206
LPG Calorific Value	0.0473	GJ/kg	SA Methodological Guidelines Annexure A	Table A.1 at page 206
Global Warming Potential of CH4	25	$kgCO_2e/kgCH_4$	IPCC AR5– 100 year GWPs.	
Global Warming Potential of N2O	298	$kgCO_2e/kgN_2O$	IPCC AR5– 100 year GWPs.	
Average travel time - car	0.75	hours	Assumption	
Average travel speed - car	30.00	km/hour	Assumption	
Average travel time - bus/tax	1.00	hours	Assumption	
Average travel time - train	0.50	hours	Assumption	
Diesel Density	0.826	kg/litre	SA Methodological Guidelines Annexure D	Table D.1. at page 221
Petrol Density	0.7405	kg/litre	SA Methodological Guidelines Annexure D	Table D.1. at page 221