

GREENHOUSE
GAS
INVENTORY

FY2023

ADCOCK INGRAM FY2023
CARBON FOOTPRINT REPORT
20 September 2023

Final Version 1.0



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KEY TERMS AND ABBREVIATIONS

Abatement	Measures companies take to avoid, reduce, or eliminate sources of GHG emissions within a company's value chain. Examples include reducing energy use, switching to renewables, and retiring high-emitting assets
Baseline year	A past year used as a baseline to compare year-on-year emissions
CDP	A non-profit organisation that supports companies and cities in the disclosure of their environmental impact to the international investor community (see www.cdp.net)
Climate positive / Carbon negative	The activity that goes beyond achieving net-zero carbon emissions to create an environmental benefit by removing additional carbon dioxide from the atmosphere
CO ₂ / CO ₂ e	Carbon dioxide / Carbon dioxide equivalent – conversion of all greenhouse gases to reflect their global warming potential relative to CO ₂
Decarbonisation	The process by which CO ₂ emissions are reduced or eliminated. Under the Net-Zero Standard, most companies are required to reduce emissions by at least 90% to reach net-zero
Defra	United Kingdom Department for Environment, Food and Rural Affairs
Direct emissions	Greenhouse gas emissions from facilities/sources – e.g., generators, fugitive emissions, vehicle fleets, etc. – owned or controlled by a reporting company
Downstream emissions	Greenhouse gas emissions related to manufactured and/or sold goods and services, e.g., end-of-life treatment of sold products, transportation, and distribution of sold products and franchises
Emission factors	Specific value used to convert activity data into greenhouse gas emission values, presented in specific units, e.g., kgCO ₂ e/km travelled
FTE	Full-time equivalent/employee
Fugitive emissions	Emissions from gases or vapours from pressurised equipment due to leaks and other unintended or irregular releases of gases e.g., air-conditioning gas leaks, refrigeration and fire-suppressant gas refills, or methane emissions from coal mining
FY	Financial year
GHG	Greenhouse gas – a gas that contributes to the greenhouse effect by absorbing infrared radiation. Carbon dioxide and chlorofluorocarbons are examples of greenhouse gases
GHG Protocol	Greenhouse Gas Protocol – International methodology used to calculate the carbon footprint of an organisation, developed by the World Business Council for Sustainable Development (WBCSD) and the World Resources Institute (WRI)
GWP	Global Warming Potential – an indication of the global warming effect of a greenhouse gas in comparison to the same weight of CO ₂
Indirect emissions	GHG 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, business travel, etc.
Intensity	A metric to compare CO ₂ e emissions, expressed in terms of another metric of activity, e.g., CO ₂ e per FTE, area, income, or tonnes of product





Kyoto Protocol	An international agreement linked to the United Nations Framework Convention on Climate Change, which commits its Parties by setting internationally binding emission reduction targets. The Protocol was adopted in Kyoto, Japan, in December 1997 and entered into force in February 2005
Market-based electricity	The emissions from electricity-generating sources that companies have purposefully chosen – for example, energy from a specific wind farm – which may be different from the electricity that is generated for the local grid, thus using a supplier-specific emission factor
Neutralisation	The removal and permanent storage of CO ₂ from the atmosphere to counterbalance the impact of emissions that remain unabated from either inside or outside of a company's value chain. This can take the form of technological removals (i.e., Direct Air Capture (DAC) with geological storage) and nature-based solutions (e.g. reforestation)
Off-road mobile fuel	Fuel emissions from vehicles used onsite, e.g., forklifts, tractors, but not used on public roads
On-road mobile fuel	Fuel emissions from vehicles used offsite, on public roads, e.g., passenger vehicles, delivery vehicles
Outside of Scopes	Emissions accounted for by the direct CO ₂ impact of burning biomass and biofuels where the Scope 1 impact of these fuels has been determined to be a net zero. This also includes non-Kyoto Protocol fugitive emissions outside of the GHG Protocol such as R22 Freon air-conditioning gas refills.
Science Based Target initiative (SBTi)	A partnership between CDP, United Nations Global Compact (UNGC), World Resources Institute (WRI) and World Wildlife Fund (WWF). The initiative enables leading companies to set targets that will hold global warming below 1.5°C or well below the 2°C threshold – as directed by science and promoted through the Paris Agreement
Scope 1 emissions	Emissions resulting from equipment owned or controlled by a reporting company (direct emissions)
Scope 2 emissions	Emissions resulting from consumption of electricity, steam or heat purchased by a reporting company (indirect emissions)
Scope 3 emissions	Emissions resulting from indirect activities, excluding Scope 2, of a reporting company, e.g., commuting travel, business travel, paper consumption (indirect emissions)
tCO ₂ e	Tonnes of Carbon Dioxide equivalent – conversion of all greenhouse gases to reflect their global warming potential relative to CO ₂ in metric tonnes
Transmission and Distribution (T&D) Losses	The energy losses that occur in the transfer of electricity from the power plant to the end user. Reporting the T&D emissions associated with purchased power helps represent the full impact of an organisation's activities and operations and is regarded as best practice. This does not apply for renewable energy generated onsite
Tank-to-wheel (TtW) emissions	Direct use emissions from fuel combustion in vehicles, generally reported as mobile fuel emissions.
Upstream emissions	Indirect GHG emissions that occur in the development of a material/product, up to the point of sale by the producer, sometimes referred to as cradle-to-gate emissions, e.g., manufacture and delivery of goods or raw materials, business travel, employee commuting and waste generated in operations
Verification/Assurance	The act of reviewing, inspecting, or testing by an independent third-party, to establish and document that a product, service, or system meets regulatory or technical standards
Well-to-Tank (WtT) emissions	Upstream third-party emissions related to the production and distribution of fuel for stationary and mobile equipment and for electricity generation. Generally reported under Scope 3, category 3.
Well-to-Wheel (WtW) emissions	The combination of TtW and WtT emissions.





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REVISION HISTORY

Date	Version	Amendments to previous version	Approved by	Prepared by
16.08.2023	Draft 0.1	First draft – tables only	N/A	Robyn Ferrar
13.09.2023	Draft 0.2	Second draft – full report	N/A	Robyn Ferrar
20.09.2023	Draft 0.3	<ul style="list-style-type: none"> ◆ Minor edits and corrections to commentary and footnotes ◆ Inclusion of borehole water in Table 10 	Trevor Wentworth	Robyn Ferrar
20.09.2023	Final 1.0	Finalisation of Report	Trevor Wentworth	Robyn Ferrar



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SECTION A

1. REPORT OVERVIEW – EXECUTIVE SUMMARY

Figure 1 is a summary of the emissions and company metrics reported by Adcock Ingram in financial year (FY) 2023.

The infographic displays the following data:

SCOPE 1	SCOPE 2	SCOPE 3
DIRECT OPERATIONAL EMISSIONS	PURCHASED ENERGY FOR OWN USE	UPSTREAM AND DOWNSTREAM EMISSIONS
Stationary Fuels: 14 707 tCO ₂ e Fugitive Emissions: 6 248 tCO ₂ e Mobile Fuels: 265 tCO ₂ e On-site Renewable Energy: 0 tCO ₂ e	Purchased Renewable Electricity: 0 tCO ₂ e Purchased Electricity: 52 477 tCO ₂ e	Purchased Goods & Services: 19 556 tCO ₂ e Fuel- & Energy-Related Activities: 9 041 tCO ₂ e Upstream Transportation & Distribution: 16 385 tCO ₂ e Waste: 1 063 tCO ₂ e Business travel: 4 075 tCO ₂ e Commuting: 3 161 tCO ₂ e
TOTAL SCOPE 1 21 221 tCO ₂ e	TOTAL SCOPE 2 52 477 tCO ₂ e	TOTAL SCOPE 3 53 280 tCO ₂ e
TOTAL SCOPES 1 & 2 73 698 tCO ₂ e		OUTSIDE OF SCOPES TOTAL 371 tCO ₂ e

COMPANY METRICS	INTENSITY METRICS
FTE: 2 549	tCO ₂ e/FTE: 28.913
m ² : 115 229	tCO ₂ e/m ² : 0.640
Revenue: R9 132m	tCO ₂ e/Rm: 8.070

WATER CONSUMPTION
394 450 kl

Figure 1: Summary of Adcock Ingram's FY2023 emissions and company metrics

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Table 1: Complete Overview of Adcock Ingram's FY2023 GHG Emissions

Scope 1 Direct Emissions		Metric tonnes of CO ₂ e	
Stationary fuel			14 707.04
Fugitive gas			6 248.29
Mobile fuel			265.49
Onsite renewable energy (emissions)			0.00
TOTAL SCOPE 1 EMISSIONS			21 220.82
Scope 2 Indirect Emissions		Location-based	Market-based
Purchased grid electricity		52 477.15	52 477.15
Purchased renewable electricity		1 502.80	0.00
TOTAL SCOPE 2 EMISSIONS		53 979.95	52 477.15¹
TOTAL SCOPE 1 & 2 EMISSIONS (MARKET-BASED)			73 697.97
Scope 3 Indirect Emissions			
1. Purchased goods and services			19 555.54
2. Capital goods			Not evaluated
3. Fuel- and energy-related activities			9 040.69
4. Upstream transportation and distribution			16 385.06
5. Waste generated in operations			1 062.84
6. Business travel			4 074.83
7. Employee commuting			3 161.23
8. Upstream leased assets			Not applicable
9. Downstream transportation and distribution			Not applicable
10. Processing of sold products			Not applicable
11. Use of sold products			Not evaluated
12. End-of-life treatment of sold products			Not evaluated
13. Downstream leased assets			Not applicable
14. Franchises			Not applicable
15. Investments			Not evaluated
TOTAL SCOPE 3 EMISSIONS			53 280.18
Outside of Scopes:			
Non-Kyoto Protocol GHG emissions			371.36

¹ In dual reporting (market-based and location-based methodologies), the Scope 2 total is for the selected methodology and not the combined totals of both methodologies.





2. INTRODUCTION

This FY2023 CFR has been prepared using the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard (GHG Protocol) methodology. Within the GHG Protocol, accounting and reporting are guided by five principles – relevance, completeness, consistency, transparency, and accuracy – to ensure that reported information represents a true and fair account of emissions. These principles are intended to underpin all aspects of greenhouse gas (GHG) accounting and reporting according to the GHG Protocol, and to which Carbon Calculated subscribes in the delivery of all its reports.

The GHG Protocol

The GHG Protocol is the most widely used standard for mandatory and voluntary corporate GHG reports and is compatible with other international GHG reporting standards such as ISO 14064. It is derived from a multiple-stakeholder partnership of businesses, NGOs and governments led by the World Resources Institute and The World Business Council for Sustainable Development.

It is important to highlight that under the GHG Protocol, the reporting of both Scope 1 direct emissions and Scope 2 indirect emissions is compulsory. All Scope 3 emissions, (i.e., those from supply chain activities), are reported at the discretion of the reporting company.

This FY2023 CFR should be compared against previous carbon footprint calculations to review changes in annual consumption, boundaries, and areas of improvement.

Carbon Calculated has gone to all reasonable lengths to ensure that the primary information provided by Adcock Ingram is correct. Carbon Calculated is not liable for any inaccuracies that this information might contain. This CFR, in its entirety, is both material and complete and is intended for Adcock Ingram internal use only. Information may, however, be extracted for reporting purposes, such as for submission into international and national GHG registries and for purposes of sustainability reporting. It may also be presented for third-party verification purposes. Figure 2 below shows the detailed breakdown of Scopes and emission categories.



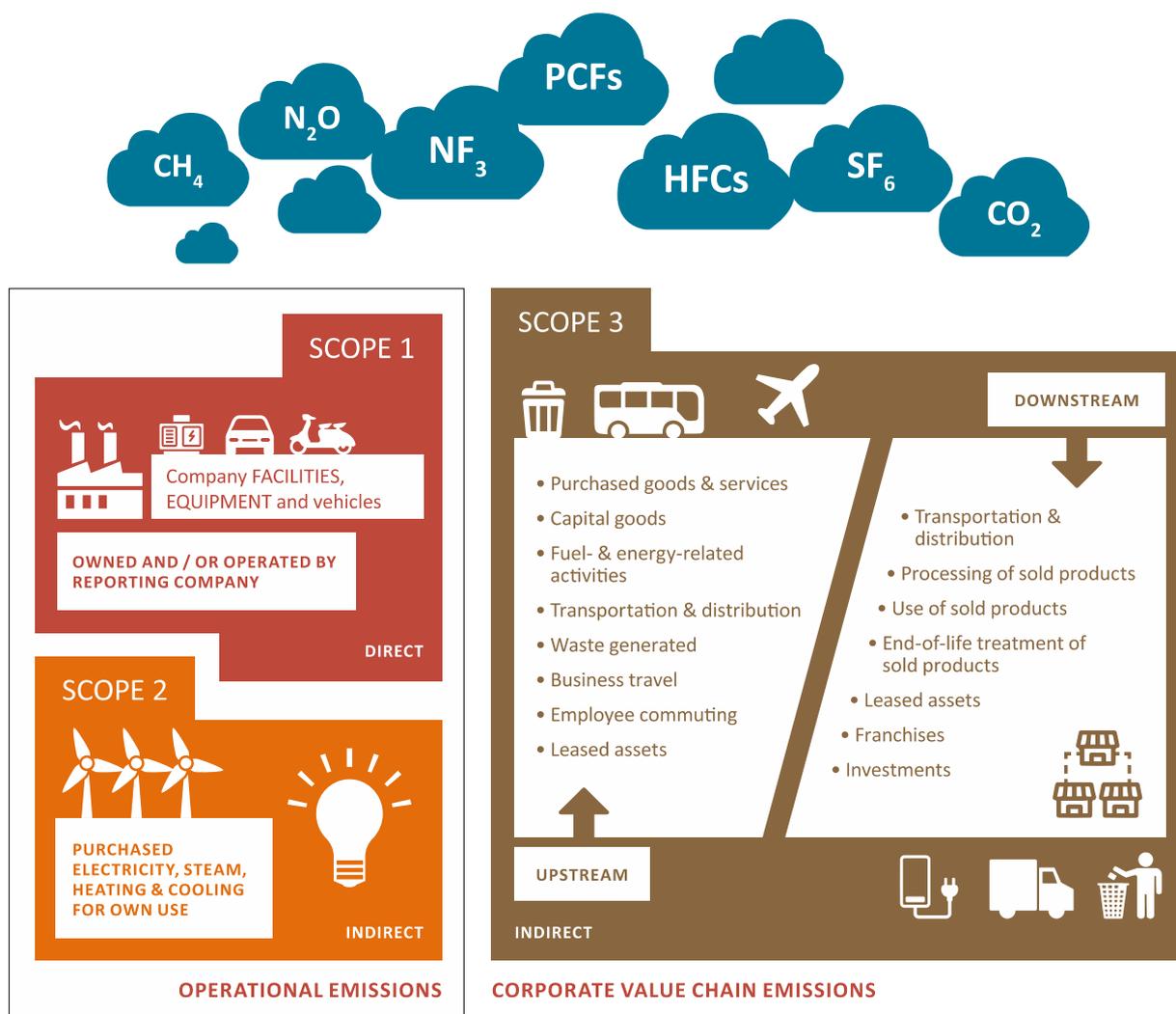


Figure 2: Illustration of Scopes and emission categories

3. NOTABLE YEAR-ON-YEAR CHANGES

Adcock Ingram's reporting and consumption has changed notably between years in the following ways:

- 1) Stationary fuel emissions increased by 18% due to increased diesel consumption in loadshedding, and Distribution reporting generator diesel for the first time. This resulted in a 632% increase in generator diesel reported between FY2022 and FY2023.
- 2) Emissions from mobile fuel increased by 60%, primarily due to an 87% increase in vehicle fuel reported by Genop. Note that the percentage increases to 64% if FY2022's LPG in forklifts is excluded as per FY2022 reporting.
- 3) Onsite renewable electricity (solar generated - 1 110 MWh) was reported by OTC for the first time in FY2023.





- 4) Emissions from Scope 2 grid electricity decreased by 6%. Although there was a slight decrease in the emission factor for FY2023, total grid consumption (kWh) decreased by 4%, due to a significant increase in purchased renewable electricity at Distribution. Note that there was also a 24% decrease in consumption at Plush and a significant increase in electricity from generators during the reporting year.
- 5) Well-to-Tank (WtT) emissions from the upstream lifecycle phase (mining, production, and transport) of Scope 1 fuels have been included for the first time under Scope 3 in addition to Tank-to-Wheel (TtW) emissions within Scope 1. Combined, this accounts for the full lifecycle of all fuels combusted by the company, including mobile fuel and stationary fuel, as is best practice. This inclusion added 2 780 tCO₂e to Adcock's total emissions.
- 6) Business travel emissions increased by 79% due in part to the inclusion of WtT emissions (full fuel lifecycle accounting increases emissions by 30-35%), but likely also due to a return to pre-COVID-19 travel. Note that prior year was restated (from 4 376 to 2 274 tCO₂e) after an error was discovered in flight calculations.
- 7) Emissions from transport and distribution increased by 9% due to inclusion of WtT emissions (2 664 tCO₂e) for the first time, as well as a 9% increase in RTT litres of fuel apportioned to Adcock, and a 4% overall increase in tonne km for import/export shipping. The increase was mitigated by a decrease in airfreight vs. sea and road freight. Note that FY2022 has been restated for more accurate year-on-year comparison, although WtT emissions (1 489 tCO₂e) were only included for RTT.
 Note: A calculation error in the prior year restatement, detected too late to be corrected (since Adcock's IR was due to be finalised), has resulted in emissions for this category being understated by 658 tCO₂e, which would have reflected an increase of only 5% in FY2023.
- 8) Although emissions from waste decreased significantly (36%), the total volume increased by 15%. The decrease in emissions is due to a change in the waste mix, with a large increase in recycling (58%) and compost (168%), a corresponding 37% decrease in waste to landfill and a 45% decrease in incinerated waste. Note that effluent increased by 20% in FY2023, although this does not impact emissions materially.
- 9) Municipal water consumption saw an overall increase of 7%, and borehole water consumption decreased by 18%.

4. REQUIRED INFORMATION

Table 2 below incorporates the fundamental information pertaining to Adcock Ingram for this CFR.





Table 2: Required Information for GHG Reporting in Adcock Ingram's FY2023 CFR

Required Information		Detail
Organisational boundary		Adcock Ingram's South African operations: <ul style="list-style-type: none"> ◆ Manufacturing: Prescription, OTC, AICC; Genop Healthcare (included with Midrand DC) ◆ Distribution Centres: Midrand; Gqeberha; Cape Town; Durban; Bloemfontein; Halfway House ◆ AIHC/Corporate (included with Midrand DC) ◆ Plush
Reporting period		01 July 2022 - 30 June 2023
Methodology		GHG Protocol – Corporate Accounting and Reporting Standard
GHG consolidation approach		Operational Control Approach
Baseline year		2015
Baseline year emissions		<ul style="list-style-type: none"> ◆ Scope 1: 18 082 tCO₂e ◆ Scope 2: 52 061 tCO₂e ◆ Scope 3: 44 083 tCO₂e ◆ Outside of Scopes: 2 424 tCO₂e
Operational boundary	Scope 1	<ul style="list-style-type: none"> ◆ Stationary fuel: generators; boilers ◆ Mobile fuel – on-road: fleet vehicles ◆ Mobile fuel – off-road: forklifts ◆ Fugitive gas: air-conditioning gas; refrigerants; fire suppressants; medical gas ◆ Onsite renewables: photovoltaic
	Scope 2	<ul style="list-style-type: none"> ◆ Purchased electricity: grid electricity; renewable electricity
	Scope 3	<ul style="list-style-type: none"> ◆ Purchased goods & services: water supply; paper; packaging ◆ Fuel- & energy-related activities: electricity T&D losses; WtT for Scope 1 fuels ◆ Upstream and downstream transportation & distribution (WtW): logistical services; freight transport ◆ Waste disposal: landfill; incineration; recycling; compost; wastewater ◆ Business travel (WtW): car hire; air travel; accommodation; travel claims ◆ Employee commuting: private commuting; public transport
	Outside of Scopes	<ul style="list-style-type: none"> ◆ Fugitive gas: non-Kyoto Protocol air-conditioning gas (R22)

4.1. COMPANY DESCRIPTION

Adcock Ingram is a leading South African healthcare, personal care and homecare manufacturing and distribution Group of companies and is listed on the Johannesburg Stock Exchange. It has three core areas of business, namely pharmaceutical, hospital products and fast-moving consumer goods. Its product portfolio includes branded and generic pharmaceutical medicines, intravenous solutions, blood collection products, renal dialysis systems, as well as over-the-counter healthcare products, personal care, and homecare products.

The company's primary operations are in South Africa, and the following manufacturing operations are covered by this report:





- ◆ Critical Care / Aero-ton – a critical-care facility that produces intravenous fluids, blood bags, renal dialysis products and large- and small-volume parenterals.
- ◆ OTC / Clayville – a highly-automated factory primarily producing liquids and effervescent formulations.
- ◆ Prescription / Wadeville – a tablet and capsule facility focused on the manufacture of anti-retroviral medicines that are supplied to the public sector.

RTT is appointed on a non-exclusive basis to provide the services for and on behalf of Adcock Ingram in respect of Adcock Ingram’s distribution requirements.

4.2. BASELINE YEAR

Baseline-year Calculations

A baseline 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. A baseline year can be a calendar year or a fiscal year.

Adcock Ingram has set FY2015 as the baseline year for carbon footprint calculations because this is the year that best represents the reporting boundaries, and where reliable and transparent data was available for reporting within the boundary incorporating only South African operations.

4.3. BASELINE-YEAR EMISSIONS RECALCULATION POLICY

Baseline-year emissions shall be retroactively recalculated to reflect changes in the company that would otherwise compromise the consistency and relevance of the reported GHG emissions information. Structural changes (e.g., change of ownership or control of emissions-generating activities; mergers; acquisitions; divestments; outsourcing or insourcing of emitting activities); changes in calculation methodology or emission factors; and discovery of significant errors or cumulative errors could trigger a baseline-year recalculation.

Adcock Ingram is advised to develop a baseline-year emissions recalculation policy, and clearly articulate the basis and context for any recalculations. Within this policy, a definition of the “significance threshold” should be articulated which will guide historic emissions recalculations. Generally, defining “significant” as a cumulative change of five percent or larger is recommended in a company’s total baseline-year emissions expressed in tonnes of CO₂e. Should this threshold be reached, this would trigger a recalculation of baseline-year emissions for the emissions inventory to align with a company’s latest company structure and emission sources.



4.4. EXCLUSIONS AND ASSUMPTIONS

The following exclusions and/or assumptions are noted in relation to the reporting boundary as well as the Scope 1, Scope 2 and Scope 3 emissions covered by the CFR:

4.4.1. ORGANISATIONAL BOUNDARY EXCLUSIONS

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 GHG inventory. The more complex the company structure, the more important are the boundaries of an organisation for the clear definition and scope of the report.

Emissions generated by the following facilities and/or entities are excluded from the reporting boundary:

- ◆ Excludes all operations outside of South Africa – Adcock Ingram have joint control over facilities in Bangalore, India.

4.4.2. OPERATIONAL BOUNDARY EXCLUSIONS AND ASSUMPTIONS

Operational Boundaries

Operational boundaries determine the actual operational 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).

Operational exclusions and assumptions are detailed in Table 3 below, where known, along with reasons and justifications.

Table 3: Exclusions and assumptions across Scopes for Adcock Ingram in FY2023

Category		Evaluation status	Assumptions
Scope 1	Stationary fuels	Relevant, reported with no known exclusions	No known assumptions
	Mobile fuels	Relevant, reported with no known exclusions	Fleet vehicle litre usage for head office and the distribution facilities is assumed to be either outsourced to RTT or included within AIHC mobile fuel data.
	Fugitive gas (incl. Outside of Scopes)	Relevant, reported with no known exclusions	No known assumptions
	Onsite renewable energy	Relevant, reported with no known exclusions	Solar equipment at OTC. Clayville is under Adcock Ingram's operational control.
Scope 2	Purchased grid electricity	Relevant, reported with no known exclusions	Electricity data for head office and Genop is included within the consumption for Midrand DC as they are housed within this facility.





	Purchased renewable electricity	Relevant, reported with no known exclusions	Solar equipment at Distribution facility under operational control of landlords.
Scope 3:			
1	Purchased goods & services	Relevant, partially reported: <ul style="list-style-type: none"> ◆ Paper ◆ Packaging ◆ Water 	Information on other “goods and services” not evaluated.
2	Capital goods	Relevant, not reported	Information not evaluated.
3	Fuel- & energy-related activities (Not included in Scope 1 or Scope 2)	Relevant, reported: <ul style="list-style-type: none"> ◆ Electricity T&D losses ◆ WtT for Scope 1 fuels 	WtT emissions for electricity and T&D losses have not been included.
4	Upstream transportation & distribution	Relevant, partially reported: <ul style="list-style-type: none"> ◆ Freight ◆ Third-party vehicle fleet 	Courier data is excluded due to limited data available and not material to the footprint - <1% of logistics data.
5	Waste generated in operations	Relevant, reported: <ul style="list-style-type: none"> ◆ Landfill waste ◆ Incineration ◆ Recycling ◆ Compost ◆ Wastewater 	Genop waste included within Distribution.
6	Business travel	Relevant, reported: <ul style="list-style-type: none"> ◆ Car hire ◆ Air travel ◆ Accommodation ◆ Travel claims 	Information on other business travel not available. Travel Logic flights data was not available so FY2022 data was used as a proxy.
7	Employee commuting	Relevant, reported	A survey was not completed for FY2023 so FY2021 survey results were used as a proxy.
8	Upstream leased assets	Not relevant, explanation provided	Adcock Ingram does not lease assets.
9	Downstream transportation & distribution	Not relevant, explanation provided	Included under category 4 (exports) or not applicable.
10	Processing of sold products	Not relevant, explanation provided	Adcock Ingram’s products do not get sold to third parties for further processing.
11	Use of sold products	Relevant, not reported	Information not evaluated or available.
12	End-of-life treatment of sold products	Relevant, not reported	Information not evaluated or available.
13	Downstream leased assets	Not Relevant, explanation provided	Information captured in Scope 1 and 2.
14	Franchises	Not relevant, explanation provided	Adcock Ingram does not operate any franchises.
15	Investments	Relevant, not reported	Information not evaluated.



SECTION C

5. INFORMATION ON ADCOCK INGRAM'S EMISSIONS

5.1. TOTAL SCOPE 1 & 2 EMISSIONS

The GHG Protocol requires carbon footprint calculations to include, as compulsory reporting, all direct emissions under Scope 1 and indirect emissions under Scope 2.

All emissions are calculated using emission factors and reported as metric tonnes of carbon dioxide equivalent (tCO₂e) gases as required by the GHG Protocol. Unless otherwise stated, emission factors are sourced from United Kingdom Department for Environment, Food and Rural Affairs (Defra)².

Emission Factors

Emission factors convert operational activity data (e.g., kilometres driven, kilowatt hours of purchased electricity) into a value indicating the GHG emissions generated by that activity – reported as carbon dioxide equivalent (CO₂e). Emission factor values can be sourced from a variety of different providers.

Carbon Dioxide Equivalent (CO₂e)

A standard unit for measuring emissions from various GHGs based on their global warming potential (GWP) in relation to that of carbon dioxide.

The GHGs covered by this calculation are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃). As described above, all these gases are amalgamated and reported in terms of their CO₂e.

5.2. SCOPE 1 EMISSIONS

Scope 1 emissions are from sources owned or controlled by the reporting company, e.g., generators, refrigeration, air-conditioning units.

² United Kingdom Department for Environment, Food and Rural Affairs (Defra). 2023. *Greenhouse gas reporting: conversion factors 2023*.





Table 4 provides a breakdown of Adcock Ingram's direct Scope 1 consumption and carbon emissions for FY2023. Please note that throughout the CFR, all consumption, and emissions in tonnes of CO₂e are rounded to two decimal places³ and intensity metrics are rounded to three decimal places.

Table 4: Adcock Ingram's direct Scope 1 emissions in FY2023

Category	Units/Type	Total consumption	Metric tonnes of CO ₂ e
Stationary fuel	Litres – diesel in equipment	1 097 380.91	2 918.34
	Tonnes – industrial coal	3 821.00	9 156.95
	Cubic metres – natural gas	1 281 386.00	2 631.75
	Total		14 707.04
Fugitive gas ⁴	Kilograms – HFC 134a	2 056.00	2 672.80
	Kilograms – R404a Gas	341.00	1 344.56
	Kilograms – R410a	414.00	796.54
	Kilograms – N ₂ O	5 407.00	1 432.86
	Kilograms – CO ₂	624.60	0.62
	Kilograms – Acetylene	271.00	0.92
	Total	9 113.60	6 248.29
Mobile fuel TtW – on-road	Litres – diesel	27 550.12	73.27
	Litres – petrol	78 040.00	183.01
	Total	105 590.12	256.27
Mobile fuel TtW – off-road	Litres – diesel	380.85	1.01
	Litres – petrol	1 508.45	3.54
	Tonnes – LPG ⁵	1.59	4.66
	Total		9.21
Onsite renewables	kWh – onsite solar electricity	1 110 000.00	0.00
Total Scope 1			21 220.82

5.3. SCOPE 2 EMISSIONS – MARKET-BASED AND LOCATION-BASED EMISSIONS

Scope 2 emissions are 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. Scope 2 emissions are reported according to either the location-based or market-based approach.

³ Should the figures in the breakdown of this CFR be summed manually, there may be variances of 0.01 (up or down) from the totals stated herein due to rounding of data to two decimal places.

⁴ The GWP for air-conditioning, fire suppressant and refrigeration gas refills are sourced from: Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. *Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. United Kingdom: Cambridge University Press.

⁵ LPG was historically reported under stationary fuel, but since it is used for forklifts, it has been recategorised as mobile fuel in FY2023.





Location-based electricity

The location-based method reflects the average emissions intensity of electricity grids on which energy consumption occurs, considering all electricity generation (renewable and non-renewable), thus using the grid average emission factor. An example is the national annual electricity emission factor provided by Eskom to South African electricity consumers.

Market-based electricity

The market-based method reflects the emissions from electricity-generating sources that companies have purposefully chosen – for example, energy from a specific wind farm – which may be different from the electricity that is generated for the local grid. Different electricity suppliers and contracts emit more or less GHGs depending on the energy source or technology, resulting in a supplier-specific emission factor.

Where relevant, this means reporting the specific emissions associated with the procurement of energy from a contracted supplier. Contracts with low-carbon electricity suppliers and renewable energy certificates (RECs) are examples of instruments that provide companies with an opportunity to account for emissions under the market-based approach. Regardless of whether supplier-specific emission factors are employed or not, dual reporting of location and market-based electricity is recommended as best practice.

Table 5 provides a breakdown of Adcock Ingram's indirect Scope 2 consumption and carbon emissions for FY2023.

Table 5: Adcock Ingram's indirect Scope 2 emissions from purchased electricity in FY2023

Category	Facility	Total consumption	Metric tonnes of CO ₂ e	
			Location-based	Market-based
Purchased grid electricity	Prescription	9 994 516	10 394.30	10 394.306
	OTC	20 297 000	21 108.88	21 108.88
	Critical Care	13 394 620	13 930.40	13 930.40
	Distribution ⁷	6 649 000	6 914.96	6 914.96
	Plush	123 662	128.61	128.61
Total grid electricity		50 458 798	52 477.15	52 477.15
Purchased renewable electricity	Distribution	1 445 000	1 502.80	0.00
Total purchased electricity		51 903 798	53 979.95	52 477.15

⁶ South African emission factor for purchased electricity sourced from: Eskom. 2022. *Eskom Integrated Report 2022*. Johannesburg, Eskom.

⁷ Includes electricity consumption by Genop, AIHC/Corporate and Consumer divisions as these are housed within the same facility.





Table 6: Comparison of Adcock Ingram's grid electricity in kilowatt hours between years

Division	FY2021	FY2022	FY2023	% Change
Prescription (Wadeville)	10 004 585	9 948 403	9 994 516	0%
OTC (Clayville)	20 005 612	20 805 912	20 297 000	-2%
Critical Care (Aeroton)	14 491 565	13 628 500	13 394 620	-2%
Distribution	7 566 439	8 019 633 ⁸	6 649 000	-17%
Plush	121 729	162 365	123 662	-24%
Total	52 189 931	52 564 812	50 458 798	-4%

SECTION D

6. ADDITIONAL INFORMATION UNDER THE GHG PROTOCOL

6.1. SCOPE 3 EMISSION CATEGORIES

Scope 3 emissions

Scope 3 emissions are indirect emissions (other than purchased electricity, heat, or steam) that can be described as relevant to the activities of the reporting company, e.g., business travel, and which are emitted by sources in the reporting company's supply chain. Scope 3 emissions are reported at the discretion of the reporting company.

It is widely accepted that reporting on a variety of Scope 3 categories (refer to Appendix A) allows companies to gain more meaningful and comprehensive information that provides input into their wider business strategy. Furthermore, reporting of Scope 3 categories is increasingly becoming a focus in management of corporate carbon emissions. Certain reporting platforms, such as CDP and the Science Based Targets initiative (SBTi), are steadily requiring greater and more detailed understanding of the entire supply chain of an organisation, making Scope 3 reporting increasingly important for companies.

If a company is reporting on Scope 3 emissions, they will first need to identify which Scope 3 categories are relevant to their operations. Once relevancy is established, the selection of Scope 3 activities is based on the availability, reliability, and accuracy of the relevant data within the organisation.

⁸ Includes 371 345 kWh purchased renewables (onsite solar purchased from landlord).



6.2. RELEVANT SCOPE 3 EMISSIONS

Table 7 outlines Scope 3 emissions generated during Adcock Ingram's reporting year from data that was available and deemed accurate. This Table indicates the consumption together with the calculated emissions. Please refer to relevant footnotes for further details.

Table 7: Adcock Ingram's Indirect Scope 3 emissions in FY2023

	Category	Units/Type	Total consumption	Metric tonnes of CO ₂ e
1	Purchased goods & services – office paper	Tonnes – paper (Mondi Rotatrim ⁹)	36.80	50.31
1	Purchased goods & services – packaging materials	Tonnes – glass	2 327.63	3 265.12
		Tonnes – plastic (PP) lids	225.94	698.34
		Tonnes – plastic (PS) shrinkwrap	8.89	33.45
		Tonnes – plastic (HDPE)	908.32	2 957.42
		Tonnes – plastic (LDPE) plastic bags	131.64	340.52
		Tonnes – plastic (PVC)	2 224.86	7 562.70
		Tonnes – plastic (PET)	169.84	682.51
		Tonnes – aluminium foil (75%)	70.84	645.25
		Tonnes – aluminium (25%) LDPE laminates	1.50	3.88
		Tonnes – paper labels	171.77	156.39
		Tonnes – paper leaflets	137.89	125.55
		Tonnes – paper	1.17	1.06
		Tonnes – cartons & shippers	3 328.75	2 668.06
		Total	9 709.04	19 140.27
1	Purchased goods & services – water supply	Kilolitres – municipal	379 377.00	364.96
3	Fuel- & energy-related activities	kWh – T&D losses from purchased electricity	50 458 798.00	6 260.52
		Various – WtT for Scope 1 fuels ¹⁰		2 780.17
		Total		9 040.69
4	Upstream transportation – third-party vehicle fleet	Litres – RTT Diesel ¹¹	2 551 950.09	8 379.23
		Tonne.km – RTT airfreight	65 963.23	277.68
		Tonne.km – RTT land-based airfreight	128 029.65	91.75
		Tonne.km – sea freight	110 865 640.93	2 192.16
		Tonne.km – airfreight	4 213 922.73	5 213.04
		Tonne.km – road freight	783 711.92	231.20
		Total		16 385.06

⁹ Emission factor for Mondi Rotatrim paper: Mondi. December 2022. Mondi Office Paper Environmental Parameters – Merebank Mill. (Unpublished).

¹⁰ WtT emissions included for 1 097 381 litres stationary diesel (685 tCO₂e); 3 821 tonnes coal (1 598 tCO₂e); 1 281 386 m³ natural gas (431 tCO₂e); 107 479 litres mobile petrol & diesel (66 tCO₂e); 1.59 tonnes mobile LPG (0.55 tCO₂e).

¹¹ Diesel calculation is based on Adcock's proportion of total tonnage moved by RTT and applied to the total fuel consumption by RTT.





Category		Units/Type	Total consumption	Metric tonnes of CO ₂ e
5	Waste generated	Tonnes – landfill	672.74	869.14 ¹²
		Tonnes – hazardous (incinerated)	240.27	132.15 ¹³
		Tonnes – recycling	2 803.75	59.67
		Tonnes – compost	0.73	0.01
		Tonnes – oil reused	11.34	0.00
		Tonnes – charcoal reused	600.10	0.00
		Kilolitres – effluent	9 293.04	1.87
		Total		
6	Business travel – car hire (WtW)	Km – diesel	655.00	0.16
		Km – petrol	92 903.00	20.62
		Km – avg. vehicle, unknown fuel	9 238.00	1.94
		Total	102 796.00	22.72
6	Business travel – travel claims (WtW)	Litres – diesel	220 155.01	722.87
		Litres – petrol	545 952.01	1 611.47
		Total	766 107.02	2 334.34
6	Business travel – air travel (WtW) ¹⁴	Km – domestic	207 203.34	62.05
		Km – short-haul	2 255 063.66	464.94
		Km – long-haul	2 494 997.86	975.27
		Total	4 957 264.86	1 502.26
6	Business travel – accommodation	Bed nights – Africa	4 109.00	211.20
		Bed nights – international	154.00	4.31
		Total	4 263.00	215.51
7	Employee commuting	FTE	2 542.00 ¹⁵	3 161.23
Total Scope 3				53 280.18

6.3. OUTSIDE OF SCOPES

The GHG Protocol methodology was developed to report on all GHGs that were identified under the Kyoto Protocol. Outside of Scopes emissions include, among others, GHGs that are not incorporated under this agreement, as they are presumed to have been phased out under the Montreal Protocol. In South Africa, certain GHGs which are not part of the Kyoto Protocol, such as HCFC22 (Freon or R22), and are therefore considered Outside of Scopes, continue to be used as gas refills in air-conditioning and refrigeration equipment.

¹² South Africa waste to landfill emission factor is sourced from Friedrich, E., and Trois, C. 2013.

¹³ A supplier-specific waste incineration emission factor was sourced from A-thermal – emissions are calculated based on the supplier's Scope 1 and 2 emissions per tonne of waste incinerated.

¹⁴ An 8% uplift factor is included to consider non-direct routes and delays/circling. The impact of radiative forcing is also included.

¹⁵ Excludes 7 temporary contractors since the difference was not material.





Table 8: Adcock Ingram's direct emissions from Outside of Scope GHG's in FY2023

Category	Units/Type	Total consumption	Metric tonnes of CO ₂ e
Fugitive gas (non-Kyoto) ¹⁶	Kilograms – HCFC22 (Freon)	211.00	371.36
	Total	211.00	371.36

7. ILLUSTRATIVE SUMMARY

7.1. ILLUSTRATED OVERVIEW OF RESULTS OF EMISSIONS BY SCOPE FOR ADCOCK INGRAM IN FY2023

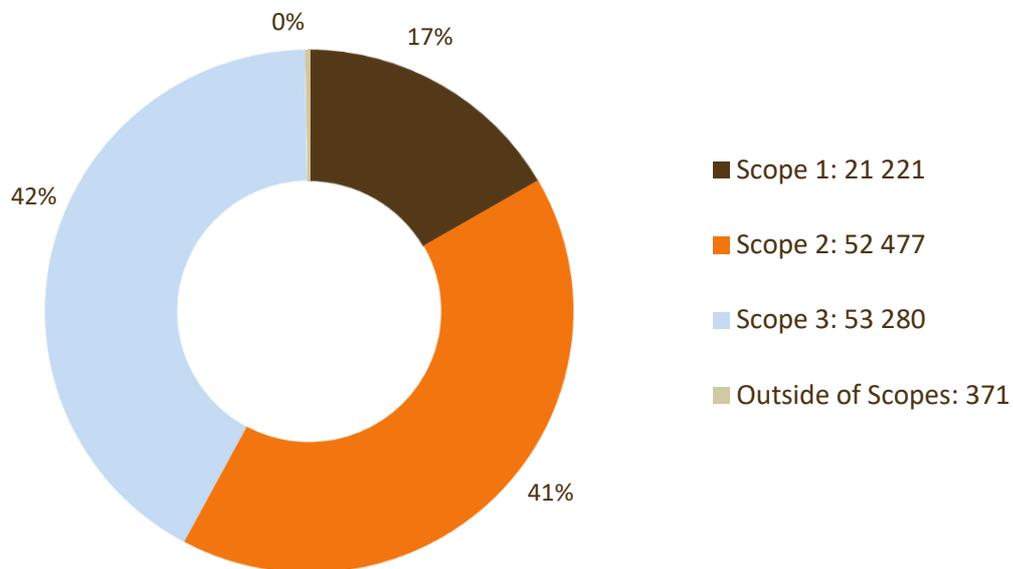


Figure 3: Adcock Ingram's emissions in tonnes of CO₂e by Scope in FY2023

¹⁶ The GWP for air-conditioning, fire suppressant and refrigeration gas refills are sourced from: Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. *Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. United Kingdom: Cambridge University Press.



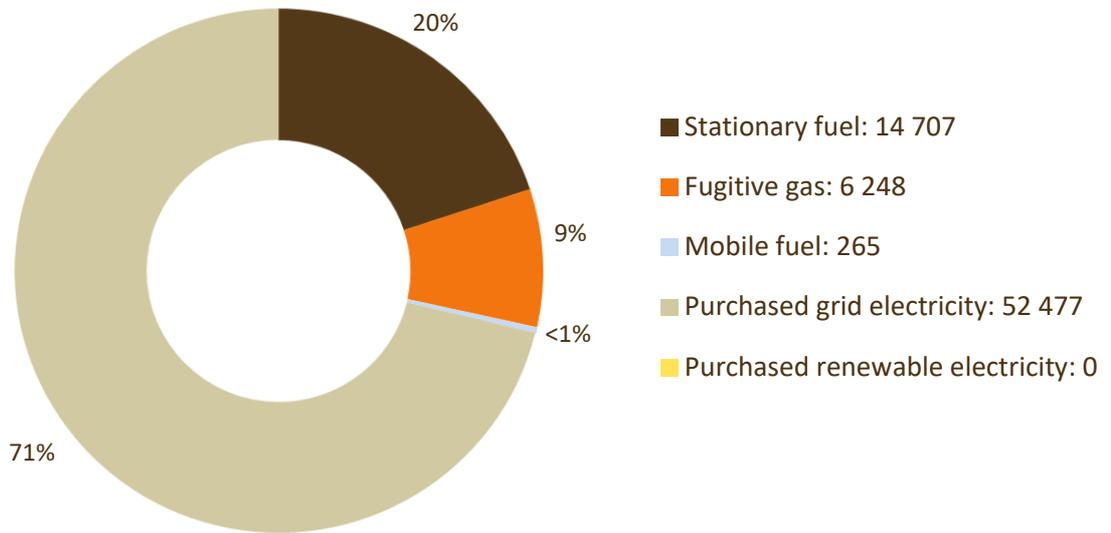


Figure 4: Adcock Ingram's Scope 1 and 2 emissions in tonnes of CO₂e in FY2023

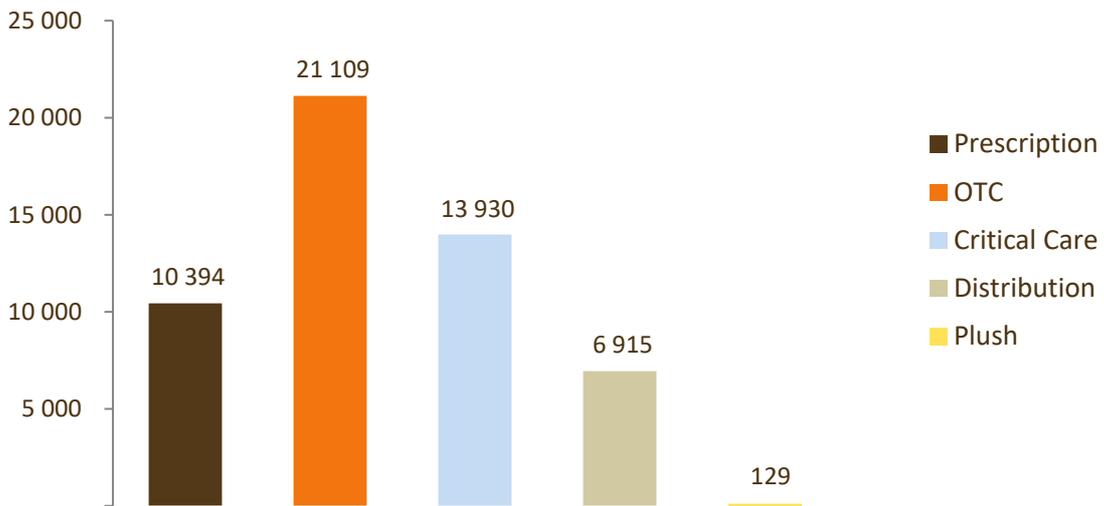


Figure 5: Adcock Ingram's Scope 2 market-based emissions by region in tonnes of CO₂e in FY2023



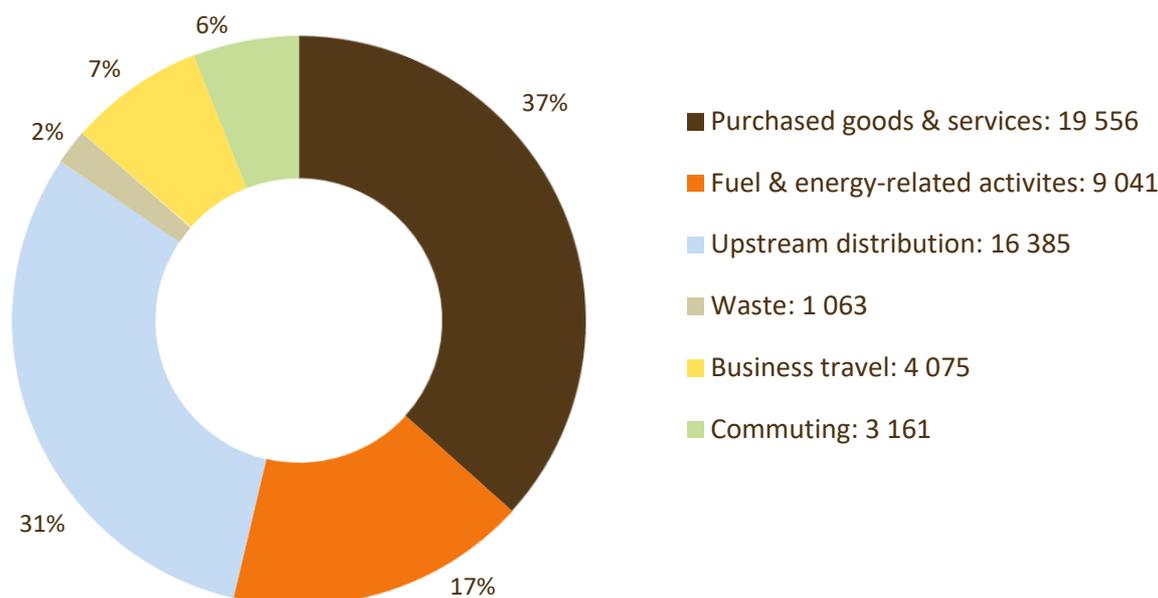


Figure 6: Adcock Ingram's Scope 3 emissions in tonnes of CO₂e in FY2023

8. COMPARISON OF EMISSIONS AND INTENSITY

The aim of completing a footprint each year is to collect the most detailed and accurate data possible and to further extend the operational and organisational boundaries with the goal to use the results to manage and reduce emissions. Table 9 provides a comparison of Adcock Ingram's carbon footprint as compared to the baseline year and Table 10 a comparison of water consumption between years.

Table 9: Comparison of Adcock Ingram's emissions between years

Category	FY2021	FY2022 restated	FY2023	% change
Stationary fuel	11 359	12 453	14 707	18% ¹⁷
Fugitive gas	1 348	6 344	6 248	-2%
Mobile fuel	1 855	161	265	65% ¹⁸
Onsite renewable electricity generation	N/R	N/R	0.00 ¹⁹	N/A
Total Scope 1	14 562	18 958	21 221	12%
Total Scope 2 (market-based)	53 234	55 325	52 477	-5% ²⁰
Total Scope 1 & 2	67 795	74 283	73 698	-1%
Paper consumption	66	67	50	-25%
Packaging materials	11 349	19 936 ²¹	19 140	-4%

¹⁷ Increase due to increased diesel consumption in loadshedding and Distribution reporting generator diesel for the first time.

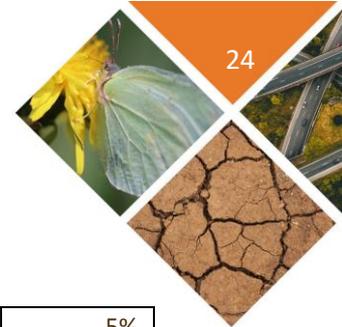
¹⁸ Increase primarily due to an 87% increase in vehicle fuel reported by Genop.

¹⁹ Onsite renewable electricity (solar - 1 110 MWh) was reported by OTC for the first time in FY2023.

²⁰ There was a slight decrease in emission factor for FY2023, but overall consumption decreased by 4%, due in part to a significant increase in renewable electricity at Distribution, but also due to a 24% decrease in consumption at Plush.

²¹ Restated from 17 590 tCO₂e due to correction to data submitted for prior year comparison.





Water supply	422	347	365	5%
Fuel & energy activities – T&D losses	5 270	6 528	6 261	-4%
Fuel & energy activities – WtT Scope 1 fuels	N/R	N/R	2 780 ²²	N/A
Upstream transport & distribution	20 518	15 009 ²³	16 385	9% ²⁴
Waste generation	2 171	1 657	1 063	-36% ²⁵
Business travel – car hire	12	18	23	28% ²⁶
Business travel – claims	105	1 663	2 334	40% ²⁷
Business travel – air travel	77	412 ²⁸	1 502	265% ²⁹
Business travel – accommodation	63	181	216	19%
Employee commuting	2 765	2 894 ³⁰	3 161	9%
Total Scope 3	42 817	48 712	53 280	9%
Outside of Scopes	1 091	619	371	-40%

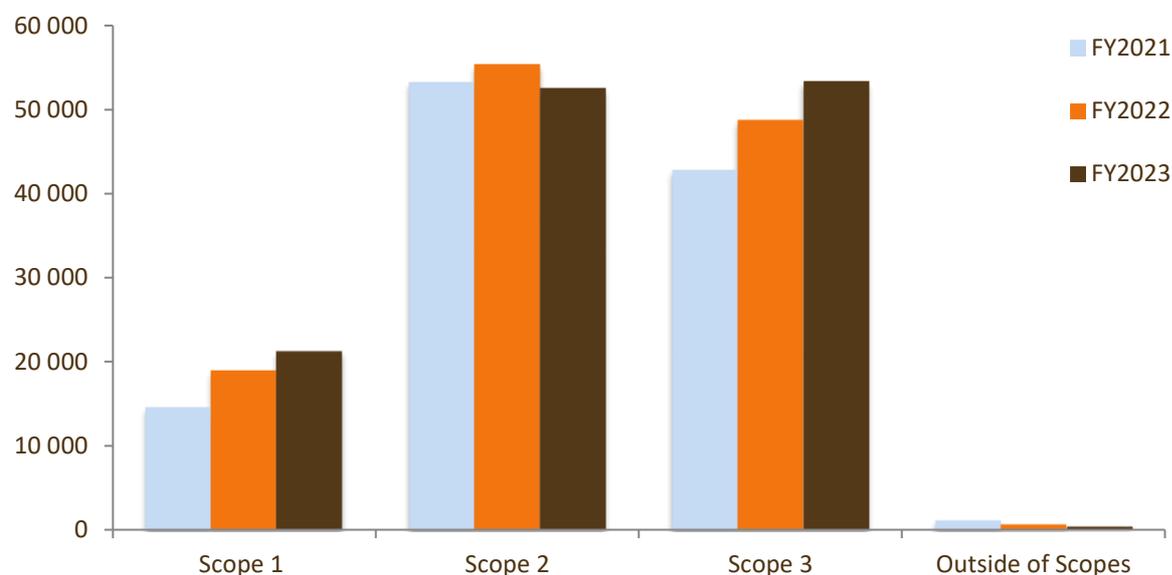


Figure 7: Adcock Ingram's comparative emissions between years (FY2021-FY2023) by Scope

²² Emissions from the upstream lifecycle phase (mining, production, and transport) of Scope 1 fuels are included for the first time.

²³ Restated in 2023 from 20 015 tCO₂e due to incorrect third-party data for prior year and change to calculation methodology for FY2023, although WtT emissions (1 489 tCO₂e) only included for RTT. Total should be 15 667 tCO₂e due to a late detected calculation error, but since Adcock's IR was due to be finalised, and the difference not material, emissions data was not adjusted.

²⁴ Increase due to inclusion of WtT emissions (2 664 tCO₂e) for the first time, as well as a 9% increase in RTT litres of fuel for Adcock, and a 4% increase in t.km for import/export shipping. Increases were mitigated by a decrease in air freight vs. sea and road freight.

²⁵ Although emissions from waste decreased significantly, the total volume increased by 15%. Decrease in emissions due to a change in the waste mix with a significant increase in recycling and compost and a corresponding 37% decrease in waste to landfill. Effluent increased by 20% in FY2023, although this does not impact emissions materially.

²⁶ Increase due to inclusion of WtT emissions (5 tCO₂e) for the first time.

²⁷ Increase in emissions from travel claims due in part to the inclusion of WtT emissions (469 tCO₂e), as well as a 12% increase in kilometres claimed in FY2023.

²⁸ Restated in 2023 from 2 515 tCO₂e error found in calculation during prior year comparison.

²⁹ Increase in emissions from flights due in part to significant increases in aviation emission factors in 2022 and the inclusion of WtT emissions (117 tCO₂e), however flight kilometres also increased by 102% in FY2023.

³⁰ Commuting for FY2022 would normally have been restated to account for updated FTE numbers (should be 3 053 tCO₂e), however, since the Adcock IR had been due to be finalised, and the difference was not material, emissions data was not adjusted.





Total water consumed by Adcock Ingram in FY2023 was 379 377 kilolitres of municipal water and 15 073 kilolitres of borehole water. Table 10 provides a comparison of Adcock Ingram's water consumption over three years of reporting (FY2021–FY2023)³¹ and compared to the baseline year (2015).

Table 10: Adcock Ingram's water consumption in kilolitres, FY2015–FY2023

Division	FY2015 Baseline year	FY2021	FY2022	FY2023	% change FY22 vs FY23
Critical Care (AICC)	195 327	173 891	178 093	184 481 ³²	4%
OTC (Clayville)	95 738	132 240	131 589	151 531 ³³	15%
Prescription (Wadeville)	37 722	41 125	48 205	42 024	-13%
Distribution ³⁴	6 549	11 043	13 096	15 618	19%
Genop ³⁵	N/A	51	N/A	N/A	N/A
Plush	N/A	632	1 381	796	-42%
Total	335 336	358 983	372 364	394 450	6%

N/A = Not applicable

8.1. COMPANY INTENSITY METRICS

Intensity metrics are indicators that provide a comparison of the amount of CO₂e relevant to an operational indicator. Typically, the indicator is a factor that is comparable across years and sectors. Examples include FTEs, area in square metres (m²), volumes of production, and/or a monetary factor such as EBITDA, revenue, or turnover.

For the purposes of benchmarking with other companies in the relevant sector intensity figures are generally based on Scope 1 and Scope 2 emissions only. This is because these scopes are compulsory for reporting, while Scope 3 categories are reported at the discretion of the reporting company. However, it is important to note that emission intensity values are highly sensitive to changes in the intensity indicators over time and may not sufficiently demonstrate emission reduction efforts by Adcock Ingram.

³¹ Water data for earlier years can be viewed in previous carbon footprint reports.

³² Includes 7 242 kilolitres of borehole water.

³³ Includes 7 831 kilolitres of borehole water.

³⁴ Includes Genop (from FY2022) and the following Distribution Centres (DCs): Cape Town, Gqeberha, Durban, Midrand, Bloemfontein, and Halfway House.

³⁵ Water consumption included within Distribution.





Table 11: Comparison of Adcock Ingram's emissions and intensity over 3 years

Intensity indicators	FY2021	FY2022 restated	FY2023	% change
Full-time employees (FTEs)	2 223	2 455 ³⁶	2 549	4%
Square metreage (m ²)	149 428	115 229 ³⁷	115 229	0%
Revenue (Rm)	7 776.85	8 705.82	9 131.90	5%
Trading profit (Rm)	914.61	1 112.29	1 180.48	6%
Scope 1 & 2 emissions	67 795.36	74 283.30	73 697.97	-1%
Scope 1 & 2 tCO ₂ e/FTE	30.497	30.258	28.913	-4%
Scope 1 & 2 tCO ₂ e/m ²	0.454	0.645	0.640	1%
Scope 1 & 2 tCO ₂ e/Rm Revenue	8.718	8.533	8.070	-5%
Scope 1 & 2 tCO ₂ e/trading profit	74.125	66.784	62.431	-7%
Total emissions	111 894	123 614.07 ³⁸	127 349.52	3%
kWh of electricity (incl. renewables)	52 189 931	52 564 812	53 013 798	1%
kWh/FTE	23 477	22 589	20 798	-8%

9. ADCOCK INGRAM INTEGRATED INFORMATION

9.1. INFORMATION ON OFFSETS AND RENEWABLE ENERGY

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

Adcock Ingram has generated 1 110 megawatt hours of onsite renewable energy in owned equipment installed at the OTC facility in South Africa. This equates to a carbon saving of 1 154 tCO₂e. Adcock Ingram has also purchased 1 445 megawatt hours of onsite solar electricity from the landlord (Growthpoint) of their Distribution facility in Midrand, saving a further 1 503 tCO₂e.

³⁶ Restated in FY2023 to include fixed term contractors (since they are equivalent to FTE) and to align comparatively with FTE reporting in FY2023.

³⁷ Restated from 149 428 m² due to corrections to OTC area (previously outside space was also included) and Genop moving into Distribution facility before financial year-end.

³⁸ Restated in FY2023: Packaging materials; upstream transport & distribution; business travel (flights) and employee commuting – see Table 9 for detailed explanations.





9.2. VERIFICATION OF GHG INVENTORY

An independent verification party has not verified this report. It is recommended that the CFR be verified by an external third party.

9.3. REPORTING IMPROVEMENTS

Adcock Ingram has improved its reporting from FY2022 to FY2023 by implementing the following measures:

- ◆ Adcock Ingram reported renewable solar energy for the first time, thereby reducing Scope 2 emissions.
- ◆ Distribution reported generator diesel for the first time.
- ◆ LPG was recategorised as mobile fuel, since this is used in forklifts and not in stationary equipment.
- ◆ FTE numbers were changed to include temporary contractors as these are equivalent to full time employees. This was backdated to FY2022 for comparability.
- ◆ Due to historical data challenges, a new methodology was used to calculate RTT emissions, which is likely more accurate and more complete.
- ◆ FY2022 emissions restatements were made to business travel and upstream transport and distribution to correct data errors and account for new methodologies used, so that year-on-year comparability is more accurate.
- ◆ Prior year data was included within the Hyperion database to assist with highlighting data anomalies and inconsistencies.
- ◆ Plush reported waste to landfill for the first time.

9.4. REPORTING RECOMMENDATIONS

It is recommended that the following actions are taken to improve the relevance, completeness, consistency, transparency, and accuracy (i.e., the five principles of the GHG Protocol) of Adcock Ingram's emissions:

- ◆ Upon doing a comparative analysis against prior year data, errors were picked up and corrected within the Hyperion data. It is therefore recommended that further awareness is created with data holders to correctly report consumption within the correct categories (e.g. stationary versus mobile fuel), fuel types (diesel versus petrol), including all relevant consumption data (e.g. Distribution reported diesel in generators separately) and reconciling to source data.
- ◆ The reporting of waste and packaging volumes within Hyperion should reconcile with source data and be verifiable, especially considering the materiality of packaging emissions.





- ◆ Hyperion should be updated to accommodate accurate and separate reporting of solar electricity (in kilowatt hours rather than megawatt hours) generated in owned equipment (Scope 1), and solar/renewable electricity purchased from a third party such as a landlord or IPP (Scope 2), since these must be reported separately according to the GHG Protocol. A certificate of origin must be provided for purchased renewable electricity to prove that double counting of solar electricity (e.g. by the landlord) has not occurred. Without this certificate, a grid emission factor may need to be used for renewable electricity in future reporting.
- ◆ Consideration should be given to restating the baseline year with the addition of Plush and Genop and the changes to logistics.
- ◆ Travel Logic should be incorporated into business travel reporting with more detailed data provided.
- ◆ A consolidated file format should be provided and kept consistent for shipping data, to include all data sources/holders as this would allow for easier reconciliation and reduce errors, queries, and the need for assumptions.
- ◆ Commuting emissions were calculated using a survey carried out during COVID-19 travel restrictions, it is highly recommended that an updated survey is carried out for the FY2024 reporting cycle.
- ◆ Engage with Carbon Calculated on Scope 3 categories not currently reported on, and that may or may not be relevant to Adcock, to gain a greater understanding of relevance, materiality, and data requirements. A high-level gap analysis may highlight some low hanging fruits for inclusion within the Scope 3 inventory and an improved Scope 3 emissions coverage.

9.5. STRATEGIC RECOMMENDATIONS

It is recommended that the following actions are taken to improve the Adcock's emissions profile, emissions reduction strategy and perception around climate change risks and opportunities for future reporting:

- ◆ Investigate and transition to fugitive gas alternatives with lower GWP to reduce Scope 1 emissions.
- ◆ Increasing the proportion of purchased renewable energy, or the installation of further renewable energy systems in owned facilities, would significantly reduce the carbon footprint of Adcock Ingram.
- ◆ Report to CDP in 2024 to answer to stakeholder requirements.
- ◆ Start discussions around the recommendations set by the Taskforce for Climate-Related Financial Disclosure (TCFDs).
- ◆ Identify entities located outside of South Africa (such as Bangalore) that are under Adcock's operational control and bring them within the boundary of Adcock's carbon footprint calculations.
- ◆ Set internal and/or publicly disclosed climate targets to align with Paris Agreement





SECTION E

10. CURRENT AND FUTURE TRENDS, OPPORTUNITIES, AND CHALLENGES FOR EMISSIONS MANAGEMENT

10.1. SETTING AMBITIOUS NEAR-TERM EMISSION REDUCTION TARGETS

We are less than eight years away from 2030, by which time emissions need to be halved. In order to achieve this, business has a key role to play. A central lever to reduce emissions that is both ambitious and based on credible climate science, is to set near-term science-based targets in line with the SBTi's criteria and best practice. Science-based targets specify how quickly and by how much companies need to reduce their GHG emissions to achieve net-zero. There is now a global movement in science-based target setting whereby SBTi companies make up approximately one fifth of total global companies in terms of market capitalisation.³⁹

10.2. SETTING NET-ZERO TARGETS BY 2050

It is important for corporates to have a credible and robust net-zero target and strategy. Many companies have publicly committed to set net-zero targets without robust strategic plans or a science-based approach of how net-zero is defined and their pathway to reach it. This year, the focus will increasingly be on having credible net-zero commitments and targets. The gold standard is to align with the Net-Zero Standard developed by the SBTi. The standard provides companies with the guidance, criteria, tools, and recommendations required to set science-based, net-zero targets which are consistent with a 1.5°C future and make strides toward a global transition to net-zero.

10.3. FOCUS ON VALUE CHAIN EMISSIONS (SCOPE 3)

According to a recent article by the World Economic Forum⁴⁰, indirect (Scope 3) emissions account for 70% of a business's carbon footprint and CDP states that supply chain emissions are on average 11.4 times higher than operational emissions.⁴¹ Despite this, most business tend to focus on measuring and managing their direct emissions (Scope 1 and Scope 2). To meaningfully slow climate change and meet commitments set under the Paris Agreement, a focus on Scope 3 emissions is crucial. In 2023, an increasing number of companies, particularly those who have their sights set on achieving net zero by 2050, will begin to focus

³⁹ Science Based Targets initiative. 2021. *From Ambition to Impact: How Companies are Reducing Emissions at Scale with Science-Based Targets*.

⁴⁰ <https://www.weforum.org/agenda/2023/01/climate-change-emissions-scope-3-companies-esg/>

⁴¹ https://cdn.cdp.net/cdp-production/cms/reports/documents/000/005/554/original/CDP_SC_Report_2020.pdf?1614160765





their efforts on measuring and reporting Scope 3 emissions across all relevant emission sources, and couple this with supply chain engagement to lever emissions reductions.

Companies are beginning to better understand climate risks and opportunities presented by rising temperatures, climate-related policy, and emerging technologies in our changing world. There is also an increasing recognition that climate change poses a key financial risk to business and the global economy. The Financial Stability Board (FSB) created the Task Force on Climate-related Financial Disclosures⁴² (TCFD) in 2017 to improve and increase reporting of climate-related financial information.

Since their release, the TCFD recommendations have gained significant momentum, with numerous organisations globally endorsing or adopting them. Numerous sustainability reporting frameworks have incorporated the recommendations into their own reporting frameworks. For example, in 2018, the United Nations Principles for Responsible Investing (PRI) incorporated TCFD-aligned indicators into its framework. Going a further step further, in its 2021 reporting cycle the PRI set indicators within its framework relating to the TCFD's Governance and Strategy recommendations as mandatory to report. The PRI has indicated that the remaining TCFD-aligned indicators, which are currently voluntary to report and disclose, may be very well become mandatory in the near future. This action by the PRI, as well as similar actions by other notable sustainability reporting frameworks such as the CDP, is a clear indication of the TCFD recommendation disclosure becoming mandatory. Indeed, this point is further underscored by the fact that many countries, including New Zealand, United Kingdom and Japan, have announced commitments to introduce the mandatory reporting of climate risks in key economic sectors.

10.4. SOUTH AFRICA'S JUST ENERGY TRANSITION INVESTMENT PLAN

South Africa launched its Just Energy Transition Plan (JET IP) at last year's 27th Conference of the Parties (COP27) in November 2022. The JET IP outlines the total investments required in electricity, green hydrogen, and new-energy vehicles and preferred terms of condition. The plan aims to support the decarbonisation commitments made by the South African Government in its updated NDCs, while simultaneously ensuring that this transition is just. The implementation of JET IP will start in February 2023 for an initial period of 5 years (2023-2027).

⁴² Financial Stability Board contributors. 2022. *Task Force on Climate-related Financial Disclosures*.





The JET-IP has set an impressive financing target of ZAR1.48 trillion. Although the JET-IP calls upon a variety of stakeholders in its financing arrangements it has been acknowledged that private sector investment will be paramount to achieving this target and the ultimate success of the plan.

10.5. BIODIVERSITY DISCLOSURES ON THE HORIZON

In December 2022, the United Nations Biodiversity Conference (COP15) was held in Montreal, Canada. A key outcome from this event was the finalisation and adoption of the Kunming-Montreal Global Biodiversity Framework (GBF). The Framework, which seeks to address biodiversity loss, restore natural ecosystems and protect indigenous rights, comprises four goals and 23 targets for achievement by 2030. The South African Government has welcomed this Framework and has stated that it is ready to align with it through the adoption of national priorities on biodiversity.

Most businesses are, regardless of sector, reliant on biodiversity and nature and, as such, will play a key role in ensuring that the GBF's targets and goals are met. This was underscored at the World Biodiversity Summit, held in parallel with COP15, where discussions among key stakeholders indicated the inevitability of advanced biodiversity disclosures for business. The CDP has acted ahead of the curve in this regard by incorporating a new biodiversity module within their climate questionnaire for the first time in 2022. In 2023, the onset of more advanced and comprehensive biodiversity disclosures will be set in motion by the publication of the Taskforce on Nature-related Financial Disclosures (TNFD) recommendations.

It is imperative that businesses act ahead of time and prepare for the inevitability of biodiversity disclosures.

10.6. REGULATORY ALIGNMENT OF REPORTING

Historically there has been discontent among the private sector regarding the lack of co-ordination and streamlining of sustainability reporting. CDP addressed this at COP27 by announcing its intention to incorporate the International Sustainable Standards Board's climate standard in its questionnaires from 2024. Similarly, to the CDP's alignment with the TCFD's recommendations in 2018, this decision will ensure that companies are able to report data which is in line with a global baseline for climate disclosure.





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REFERENCE LIST

Bernoville, T. 2021. *What is the difference between carbon-neutral, net-zero and climate positive?* Available from: <https://plana.earth/academy/what-is-difference-between-carbon-neutral-net-zero-climate-positive/> [August, 2023].

Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. 2007. *Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. United Kingdom: Cambridge University Press.

Energy Research Centre. 2015. Technical background information to support the development of the mitigation component of South Africa's intended nationally determined contribution, including support required for mitigation. Energy Research Centre, University of Cape Town, Cape Town, South Africa.

Eskom. 2022. *Eskom Integrated Report 2022*. Johannesburg, Eskom. Available from: <https://www.eskom.co.za/investors/integrated-results/> [August, 2023].

Financial Stability Board contributors. 2022. *Task Force on Climate-related Financial Disclosures*. Available from: <https://www.fsb-tcfd.org/> [August, 2023].

Friedrich, E., Pillay, S., and Buckley, C.A. 2007. The use of LCA in the water industry and the case for an environmental performance indicator. *Water SA*. 33(4): 443-452.

Friedrich, E., and Trois, C. 2013. GHG emission factors developed for the collection, transport and landfilling of municipal waste in South Africa municipalities. *Waste Management*. 33(11): 1013-1026.

Intergovernmental Panel on Climate Change. 1996. The science of climate change - contribution of Working Group I to the second assessment of the Intergovernmental Panel on Climate Change. *Working Group I to the Second Assessment Report of the IPCC*.

Intergovernmental Panel on Climate Change. 2021. *Climate change widespread, rapid, and intensifying*. Available from: <https://www.ipcc.ch/2021/08/09/ar6-wg1-20210809-pr/> [August, 2023].

McCain, M., Dowd, A, Salzer, D., Toothaker, E and Xu, S. 2021. Business Travel GHG Emissions Analysis: Factors, Tools, and Cases for Calculating GHG Emissions and Setting Science-Based Targets for Organizations. Working Paper. Washington, DC: World Resources Institute. Available from: doi.org/10.46830/wriwp.20.00086.

Mondi. February 2022. Mondi Office Paper Environmental Parameters – Merebank Mill. (Unpublished).

National Environmental Management: Air Quality Act, No. 39 of 2004. National Greenhouse Gas Emission Reporting Regulations. 2017. Government gazette. 622(40762). 3 April 2017. Government notice no. 275. Pretoria: Government Printer.

Science Based Targets initiative. 2021. *From Ambition to Impact: How Companies are Reducing Emissions at Scale with Science-Based Targets*. Available from: <https://sciencebasedtargets.org/resources/files/SBTiProgressReport2020.pdf> [August, 2023].

United Kingdom Department for Environment, Food and Rural Affairs (Defra). 2022. *Greenhouse gas reporting: conversion factors 2022*. Available from: <https://www.gov.uk/government/publications/greenhouse-gas->





reporting-conversion-factors-2022 [August, 2023].

World Resources Institute. 2015. *The Greenhouse Gas Protocol: Scope 2 Guidance – An Amendment to the GHG Corporate Standard*. Available from: http://www.ghgprotocol.org/scope_2_guidance [August, 2023].

World Resources Institute and World Business Council for Sustainable Development. 2004. *The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard*. Available from: <http://www.ghgprotocol.org/sites/default/files/ghgp/standards/ghg-protocol-revised.pdf> [August, 2023].

World Resources Institute and World Business Council for Sustainable Development. 2007. *Measuring to Manage: A Guide to Designing GHG Accounting and Reporting Programs*. Available from: [pdf.wri.org/measuring-to-manage.pdf](http://www.wri.org/measuring-to-manage.pdf) [August, 2023].

World Resources Institute and World Business Council for Sustainable Development. 2013. *Technical Guidance for Calculating Scope 3 emissions (Version 1.0)*. Available from: http://www.ghgprotocol.org/sites/default/files/ghgp/standards/Scope3_Calculation_Guidance_0.pdf [August, 2023].





APPENDIX A: GHG PROTOCOL'S SCOPE 3 CATEGORIES

Emissions-generating activities of the Scope 3 categories

Category	Scope 3 category	Description
1	Purchased goods and services	Emissions from the production of goods (consumables) and services, purchased or acquired by the reporting company.
2	Capital goods	Emissions from the production of capital goods (assets) purchased or acquired by the reporting company.
3	Fuel- and energy-related activities	Emissions from the indirect consumption of fuels and energy not already accounted for in Scope 1 or Scope 2, specifically fuel or energy consumed by third parties because of the operations of the reporting company. Examples include emissions released during the transmission and distribution of electricity from utility to consumer.
4	Upstream transportation and distribution	Emissions from the transportation and distribution of products or services commissioned and paid for by the reporting company in vehicles not owned or controlled by the reporting company. This includes logistics, courier services and shipping.
5	Waste generated in operations	Emissions from the disposal and treatment by a third party of waste generated by the reporting company's operations and employees.
6	Business travel	Emissions from the transportation of employees for business-related activities in vehicles or aircraft not owned or operated by the reporting company. Also included is travel accommodation incurred during employee travel.
7	Employee commuting	Emissions from the commuting between residence and place of work by employees for business-related activities in vehicles not owned or operated by the reporting company.
8	Upstream leased assets	Emissions from the operation of assets leased by the reporting company and not accounted for in Scope 1 and Scope 2. This category is applicable only to companies that operate leased assets.
9	Downstream transportation and distribution	Emissions from the transportation and distribution of products or services sold by the reporting company but where the transportation is commissioned and paid for by the end-user and operated in vehicles not owned or controlled by the reporting company. This includes logistics, retail deliveries and courier services.
10	Processing of sold products	Emissions from the processing of products sold by the reporting company but used in the manufacture of downstream products, pertaining to the Scope 1 and Scope 2 emissions of downstream companies (e.g., manufacturers).
11	Use of sold products	Emissions from the end-use of goods and services sold by the reporting company, pertaining to fuels, feedstocks and products that directly consume energy (fuels or electricity) during use and for the expected lifetime.
12	End-of-life treatment of sold products	Emissions from the end-of-life waste disposal and treatment of products sold by the reporting company.
13	Downstream leased assets	Emissions from the operation of assets owned by the reporting company and leased to other entities, not included in Scope 1 and Scope 2.
14	Franchises	Emissions from the operations of franchises not accounted for in Scope 1 and Scope 2 of the reporting company. This category is only applicable to franchisors accounting for the Scope 1 and Scope 2 emissions of franchisees.
15	Investments	Emissions from the operation of investments (including equity, debt investments and project finance) not accounted for in Scope 1 or Scope 2. This category is applicable to investors (i.e., investing for profit) and companies that provide financial services.

