Carbon footprint: self-serve report (SAMPLE)

Demo Wine Estate (Pty) Ltd | FY2024 (2024-01-01 to 2024-12-31) | reference SAMPLE | generated automatically on 27 September 2026 from the answers submitted on 2026-09-27

Important. This report is an **indicative estimate** generated automatically from the data you entered, using default assumptions and emission factors selected by CDSA. No person at CDSA has reviewed it. "IFRS S2-aligned" means the report follows the metric headings of IFRS S2; it does **not** mean the report or any disclosure based on it complies with IFRS S2. It is not advice, an audit, an assurance opinion or a verification, and CDSA gives no warranty that it is fit to be filed or disclosed. You are solely responsible for the data and for any use you make of the report. CDSA's liability is limited to the fee you paid (clause 17 of the CDSA Platform Terms of Use).

1,243.5	116.7	398.5	728.3
Total tCO2e	Scope 1	Scope 2, location-based	Scope 3

Factor set: CDSA South Africa-specific factors. Data quality: **High** (within about 5%); 0% of the total rests on estimates.

1. Emissions under the IFRS S2 metric headings

"IFRS S2-aligned" means the figures below are set out under the metric headings of IFRS S2 paragraph 29(a). It does not mean this report, or any disclosure based on it, complies with IFRS S2.

Metric heading	tCO2e
29(a)(i)(1) Gross Scope 1 greenhouse gas emissions	116.7
29(a)(i)(2) Gross Scope 2 greenhouse gas emissions, location-based (29(a)(v))	398.5
Scope 2, market-based (information on contractual instruments, 29(a)(v))	398.5
29(a)(i)(3) Gross Scope 3 greenhouse gas emissions	728.3
Total gross emissions, Scope 1, 2 (location-based) and 3	1,243.5

Measurement approach: GHG Protocol Corporate Standard (2004), Scope 2 Guidance (2015) and Scope 3 Standard (2011); Operational control; 100-year GWPs as carried by each factor source.

2. All 15 Scope 3 categories

Category	tCO2e	Share	Status
1. Purchased goods and services	498.7	40.1%	Calculated
2. Capital goods	2.5	0.2%	Calculated
3. Fuel- and energy-related activities	57.6	4.6%	Calculated
4. Upstream transportation and distribution	8.4	0.7%	Calculated
5. Waste generated in operations	20.8	1.7%	Calculated
6. Business travel	14.0	1.1%	Calculated
7. Employee commuting	22.7	1.8%	Calculated
8. Upstream leased assets			Excluded: Not applicable, per your answer
9. Downstream transportation and distribution	93.1	7.5%	Calculated
10. Processing of sold products			Excluded: Not applicable, per your answer
11. Use of sold products			Excluded: Not applicable, per your answer
12. End-of-life treatment of sold products	10.4	0.8%	Calculated
13. Downstream leased assets			Excluded: Not applicable, per your answer
14. Franchises			Excluded: Not applicable, per your answer
15. Investments			Excluded: Not applicable, per your answer

3. Every activity line

Tonnes of CO2e per line, with its data quality and the source and vintage of the emission factor used. Factor values are CDSA's confidential intellectual property and are not shown.

Scope	Activity	tCO2e	Share	Quality	Factor source (vintage)
Scope 1	Diesel (Tractors and farm vehicles)	66.82	5.4%	High	Kornelius et al. 2022, J. Energy in Southern Africa 33(3): SA measured fuel CO2 (2022)
Scope 1	Diesel (Standby generator and irrigation pumps)	20.90	1.7%	High	Kornelius et al. 2022, J. Energy in Southern Africa 33(3): SA measured fuel CO2 (2022)
Scope 1	Nitrous oxide from 4.54 t of pure n applied	18.91	1.5%	Good	IPCC 2006 Vol 4 Ch 11 (2019 refinement defaults), AR5 GWP (2019)
Scope 1	Petrol (Light vehicles)	7.79	0.6%	High	Kornelius et al. 2022, J. Energy in Southern Africa 33(3): SA measured fuel CO2 (2022)
Scope 1	Lpg (Forklift)	2.32	0.2%	High	Kornelius et al. 2022, J. Energy in Southern Africa 33(3): SA measured fuel CO2 (2022)
Scope 2	Grid electricity: Farm and cellar	398.47	32.0%	High	DFFE South Africa's 2023 Grid Emission Factors Report (GN 6454, Gazette 53079, 25 Jul 2025) (2023 (publ. Jul 2025))
Scope 3 cat 1	Glass bottles, new glass	406.80	32.7%	High	UK Government GHG Conversion Factors for Company Reporting 2026 (DESNZ, flat file v1.2, 31 Jul 2026) (2026)
Scope 3 cat 1	Nitrogen fertiliser (urea, LAN)	42.44	3.4%	Fair	Fertiliser production LCA (bioethanol GHG calculator, Table 2) (2022)
Scope 3 cat 1	Cardboard cartons and dividers	12.88	1.0%	Fair	PAMSA / SANEDI South African pulp and paper energy footprint (CDSA derivation) (2024)
Scope 3 cat 1	Screw caps	10.42	0.8%	Fair	Municipal procurement LCA database (Winnipeg 682-2012) (2012)
Scope 3 cat 1	Plastic film and pallet wrap	8.75	0.7%	High	UK Government GHG Conversion Factors 2025 (DESNZ) (2025/26)
Scope 3 cat 1	Wooden pallets	5.52	0.4%	High	UK Government GHG Conversion Factors 2025 (DESNZ) (2025/26)
Scope 3 cat 1	Natural corks	2.67	0.2%	Fair	International Wine Carbon Calculator Protocol v1.2/1.3 and OIV methodological GHG balance (v1.2)
Scope 3 cat 1	Paper and labels	2.50	0.2%	Fair	PAMSA / SANEDI South African pulp and paper energy footprint (CDSA derivation) (2024)
Scope 3 cat 1	Winery additives (yeast, tartaric acid, enzymes)	2.46	0.2%	Fair	CarbonCloud product LCAs (2024)
Scope 3 cat 1	Cleaning chemicals (caustic, nitric acid, peroxide)	2.32	0.2%	Fair	CarbonCloud product LCAs (2024)
Scope 3 cat 1	Capsules and foils	1.12	0.1%	Fair	International Wine Carbon Calculator Protocol v1.2/1.3 and OIV methodological GHG balance (v1.3)
Scope 3 cat 1	MAP fertiliser	0.42	0.0%	Fair	4C Carbon Footprint Add-On v2.0 (2023)
Scope 3 cat 1	Other mineral fertiliser	0.35	0.0%	Poor	OIV methodological GHG balance (2011)
Scope 3 cat 1	Sulphur dioxide	0.01	0.0%	Poor	Municipal procurement LCA database (Winnipeg 682-2012) (2012)
Scope 3 cat 2	Machinery and equipment purchased	1.52	0.1%	Poor est.	US EPA Supply Chain GHG Emission Factors v1.4.0 (Oct 2025), kg CO2e per 2024 USD, purchaser price, converted at R18.33/USD (v1.4.0 (2024 USD))
Scope 3 cat 2	Vehicles purchased	0.60	0.0%	Poor est.	US EPA Supply Chain GHG Emission Factors v1.4.0 (Oct 2025), kg CO2e per 2024 USD, purchaser price, converted at R18.33/USD (v1.4.0 (2024 USD))
Scope 3 cat 2	IT equipment purchased	0.37	0.0%	Poor est.	US EPA Supply Chain GHG Emission Factors v1.4.0 (Oct 2025), kg CO2e per 2024 USD, purchaser price, converted at R18.33/USD (v1.4.0 (2024 USD))
Scope 3 cat 3	Transmission and distribution losses: Farm and cellar	34.69	2.8%	High	DFFE South Africa's 2023 Grid Emission Factors Report (GN 6454, Gazette 53079, 25 Jul 2025) (2023)

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Scope	Activity	tCO2e	Share	Quality	Factor source (vintage)
Scope 3 cat 3	Well-to-tank: Diesel (Tractors and farm vehicles)	15.66	1.3%	High	UK Government GHG Conversion Factors 2025 (DESNZ) (2025/26)
Scope 3 cat 3	Well-to-tank: Diesel (Standby generator and irrigation pumps)	4.90	0.4%	High	UK Government GHG Conversion Factors 2025 (DESNZ) (2025/26)
Scope 3 cat 3	Well-to-tank: Petrol (Light vehicles)	2.08	0.2%	High	UK Government GHG Conversion Factors 2025 (DESNZ) (2025/26)
Scope 3 cat 3	Well-to-tank: Lpg (Forklift)	0.27	0.0%	High	UK Government GHG Conversion Factors for Company Reporting 2026 (DESNZ, flat file v1.2, 31 Jul 2026) (2026)
Scope 3 cat 4	Air freight: 0.9 t x 8000 km	6.48	0.5%	High	UK Government GHG Conversion Factors 2025 (DESNZ) (2025/26)
Scope 3 cat 4	Well-to-tank: Air freight: 0.9 t x 8000 km	0.97	0.1%	High	UK Government GHG Conversion Factors 2025 (DESNZ) (2025/26)
Scope 3 cat 4	Truck (dry): 47.8 t x 100 km	0.57	0.0%	Good	Simpson & Hosking 2022, SAJEMS: South African road-freight intensity (CDSA derivation) (2022)
Scope 3 cat 4	Sea container: 1.5 t x 10000 km	0.24	0.0%	High	UK Government GHG Conversion Factors for Company Reporting 2026 (DESNZ, flat file v1.2, 31 Jul 2026) (2026)
Scope 3 cat 4	Well-to-tank: Truck (dry): 47.8 t x 100 km	0.13	0.0%	High	UK Government GHG Conversion Factors 2025 (DESNZ) (2025/26)
Scope 3 cat 4	Well-to-tank: Sea container: 1.5 t x 10000 km	0.05	0.0%	High	UK Government GHG Conversion Factors 2025 (DESNZ) (2025/26)
Scope 3 cat 5	General mixed waste, Landfill	20.81	1.7%	Good	Friedrich & Trois 2013, Waste Management: GHG factors for SA municipal landfill (no gas capture), midpoint of 441-2532 (2013)
Scope 3 cat 5	General mixed waste, Recycled	0.01	0.0%	High	UK Government GHG Conversion Factors for Company Reporting 2026 (DESNZ, flat file v1.2, 31 Jul 2026) (2026)
Scope 3 cat 5	Electronic waste, Recycled	0.00	0.0%	High	UK Government GHG Conversion Factors for Company Reporting 2026 (DESNZ, flat file v1.2, 31 Jul 2026) (2026)
Scope 3 cat 6	Long-haul, economy (Europe, Asia, Americas): 3 return trips x 9700 km	8.30	0.7%	High	UK Government GHG Conversion Factors 2025 (DESNZ) (2025/26)
Scope 3 cat 6	Domestic (within South Africa): 7 return trips x 1270 km	4.35	0.3%	Good	UK Government GHG Conversion Factors 2025 (DESNZ), domestic flight as SA proxy (2025)
Scope 3 cat 6	Hotel nights, South Africa	0.93	0.1%	High	UK Government GHG Conversion Factors for Company Reporting 2026 (DESNZ, flat file v1.2, 31 Jul 2026) (2026)
Scope 3 cat 6	Hotel nights, Europe	0.13	0.0%	Fair	UK Government GHG Conversion Factors for Company Reporting 2026 (DESNZ, flat file v1.2, 31 Jul 2026) (2026)
Scope 3 cat 6	Hire cars	0.13	0.0%	Good	CDSA Carbon Footprint Calculator v3, Factor Derivations (SA) and SA EF Reference Library (2024)
Scope 3 cat 6	Hotel nights, United States	0.11	0.0%	High	UK Government GHG Conversion Factors for Company Reporting 2026 (DESNZ, flat file v1.2, 31 Jul 2026) (2026)
Scope 3 cat 6	Hotel nights, United Kingdom	0.05	0.0%	High	UK Government GHG Conversion Factors for Company Reporting 2026 (DESNZ, flat file v1.2, 31 Jul 2026) (2026)
Scope 3 cat 6	Well-to-tank: Hire cars	0.04	0.0%	High	UK Government GHG Conversion Factors 2025 (DESNZ) (2025/26)
Scope 3 cat 7	Commuting by bus (incl. farm bus)	12.09	1.0%	High	UK Government GHG Conversion Factors 2025 (DESNZ) (2025/26)
Scope 3 cat 7	Commuting by own car or lift club	6.42	0.5%	Good	ICCT / NAAMSA South African new-vehicle CO2 baseline (CDSA derivation) (2018 (update pending))
Scope 3 cat 7	Commuting by minibus taxi	2.42	0.2%	Good	Cape Town minibus-taxi study (MDPI 2025) (CDSA derivation) (2025)

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Scope	Activity	tCO2e	Share	Quality	Factor source (vintage)
Scope 3 cat 7	Well-to-tank: commuting by car	1.82	0.1%	High	UK Government GHG Conversion Factors 2025 (DESNZ) (2025/26)
Scope 3 cat 9	Sea container: 390 t x 11500 km	72.30	5.8%	High	UK Government GHG Conversion Factors for Company Reporting 2026 (DESNZ, flat file v1.2, 31 Jul 2026) (2026)
Scope 3 cat 9	Well-to-tank: Sea container: 390 t x 11500 km	16.37	1.3%	High	UK Government GHG Conversion Factors 2025 (DESNZ) (2025/26)
Scope 3 cat 9	Truck (dry): 50 t x 600 km	3.60	0.3%	Good	Simpson & Hosking 2022, SAJEMS: South African road-freight intensity (CDSA derivation) (2022)
Scope 3 cat 9	Well-to-tank: Truck (dry): 50 t x 600 km	0.82	0.1%	High	UK Government GHG Conversion Factors 2025 (DESNZ) (2025/26)
Scope 3 cat 9	Rail: 0.05 t x 1400 km	0.00	0.0%	High	UK Government GHG Conversion Factors 2025 (DESNZ) (2025/26)
Scope 3 cat 9	Well-to-tank: Rail: 0.05 t x 1400 km	0.00	0.0%	High	UK Government GHG Conversion Factors 2025 (DESNZ) (2025/26)
Scope 3 cat 12	Cardboard and paper packaging to landfill (35%)	8.38	0.7%	Fair	Friedrich & Trois 2013, Waste Management: GHG factors for SA municipal landfill (no gas capture), midpoint of 441-2532 (2013)
Scope 3 cat 12	Glass packaging to landfill (50%)	1.31	0.1%	High	UK Government GHG Conversion Factors for Company Reporting 2026 (DESNZ, flat file v1.2, 31 Jul 2026) (2026)
Scope 3 cat 12	Glass packaging recycled (50%)	0.67	0.1%	High	UK Government GHG Conversion Factors for Company Reporting 2026 (DESNZ, flat file v1.2, 31 Jul 2026) (2026)
Scope 3 cat 12	Cardboard and paper packaging recycled (65%)	0.05	0.0%	High	UK Government GHG Conversion Factors for Company Reporting 2026 (DESNZ, flat file v1.2, 31 Jul 2026) (2026)
Outside scopes	Solar electricity generated and used on site (72,900 kWh, zero emissions, disclosed)	0.00	outside	High	GHG Protocol Scope 2 Guidance (2015)

4. Hotspots and what to do about them

1. Scope 3 cat 1: Purchased goods and services (498.7 tCO2e, 40%). Packaging is the lever: lighter glass, recycled-content glass and fewer secondary layers move this line more than any other purchasing change. Ask your three largest suppliers for product footprints.

2. Scope 2: Purchased electricity (location-based) (398.5 tCO2e, 32%). Electricity is usually the cheapest tonne to cut in South Africa: an energy audit, LED and motor upgrades, and rooftop solar with a documented wheeling or self-consumption record. Solar also lets you report a lower market-based Scope 2.

3. Scope 3 cat 9: Downstream transportation and distribution (93.1 tCO2e, 7%). Export shipping: consolidate loads, prefer sea over air, and ask importers which port and mode they use. Lighter bottles cut this line too.

4. Scope 1: Mobile combustion (76.9 tCO2e, 6%). Fleet fuel: telematics, route planning, tyre pressure and driver training typically save 5 to 10 percent; the carbon component of the fuel levy rises every April.

5. Scope 3 cat 3: Fuel- and energy-related activities (57.6 tCO2e, 5%). Moves with electricity and fuel: every kWh saved also removes its grid-loss share.

6. Scope 3 cat 7: Employee commuting (22.7 tCO2e, 2%). A staff transport survey turns an estimate into a measured line and usually lowers it; a farm bus or lift club is already the low-carbon option.

7. Scope 1: Stationary combustion (20.9 tCO2e, 2%). Generator and boiler fuel: check load-shedding run hours against a battery or solar-plus-storage option; keep the installed thermal capacity register for the carbon-tax threshold test.

8. Scope 3 cat 5: Waste generated in operations (20.8 tCO2e, 2%). Divert organics from landfill: composting pomace and prunings removes most of this line under South African landfill conditions.

9. Scope 1: Land: fertiliser N2O (18.9 tCO2e, 2%). Match nitrogen to leaf and soil analysis and split applications; every tonne of N not applied saves both the soil N2O and the fertiliser's production footprint.

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10. Scope 3 cat 6: Business travel (14.0 tCO2e, 1%). A travel policy (economy class, fewer long-haul trips, video for routine meetings) is the fastest cut.

11. Scope 3 cat 12: End-of-life treatment of sold products (10.4 tCO2e, 1%). Lighter and recyclable packaging, and supporting glass collection schemes, reduce the landfill share.

12. Scope 3 cat 4: Upstream transportation and distribution (8.4 tCO2e, 1%). Look for the largest single activity in this group and ask its supplier for a lower-carbon option.

13. Scope 3 cat 2: Capital goods (2.5 tCO2e, 0%). A one-off spike in the year of purchase. Keep supplier footprints for major assets; a solar plant pays back its embodied carbon in under two years on the South African grid.

5. Intensity, Scope 2 and sensitivity

30.33 tCO2e per employee; 73.58 tCO2e per R1 million revenue; 0.07 kg CO2e per rand; 2.86 kg CO2e per litre of wine; 2.14 kg CO2e per 750 ml bottle

Scope 2 location-based 398.5 t; market-based 398.5 t.

Factor-set sensitivity: international default set 1,225.5 t; CDSA South Africa-specific set 1,243.5 t (+1.5%).

6. Carbon tax exposure

Carbon component of the fuel levy in your fuel: about **R8,230** a year (April 2026 rates). Direct carbon tax at R308/tCO2e applies only above the Schedule 2 thresholds (10 MW(th) for combustion). If it applied, your stationary, process and fugitive Scope 1 of 20.9 t would attract roughly R2,574 after the 60% basic allowance. This is not a carbon tax computation; use the free screener at /screener to test the thresholds.

7. Science-based target summary

Demo Wine Estate (Pty) Ltd commits to reduce absolute scope 1 and 2 GHG emissions 42% by 2030 from a 2023 base year. Demo Wine Estate (Pty) Ltd also commits to measure and reduce its scope 3 emissions.

8. Exclusions and notes

Excluded or not applicable	Reason
Refrigerant leaks	Not applicable: no refrigerant added in the year
Process emissions	Not applicable: no chemical-reaction sources
Purchased steam, heat or cooling	Not applicable
Scope 3 category 8: Upstream leased assets	Not applicable, per your answer
Scope 3 category 10: Processing of sold products	Not applicable, per your answer
Scope 3 category 11: Use of sold products	Not applicable, per your answer
Scope 3 category 13: Downstream leased assets	Not applicable, per your answer
Scope 3 category 14: Franchises	Not applicable, per your answer
Scope 3 category 15: Investments	Not applicable, per your answer

Sources and vintages used: DFFE South Africa's 2023 Grid Emission Factors Report (GN 6454, Gazette 53079, 25 Jul 2025) (2023 (publ. Jul 2025)); Kornelius et al. 2022, J. Energy in Southern Africa 33(3): SA measured fuel CO2 (2022); Friedrich & Trois 2013, Waste Management: GHG factors for SA municipal landfill (no gas capture), midpoint of 441-2532 (2013); PAMSA / SANEDI South African pulp and paper energy footprint (CDSA derivation) (2024); ICCT / NAAMSA South African new-vehicle CO2 baseline (CDSA derivation) (2018 (update pending)); Simpson & Hosking 2022, SAJEMS: South African road-freight intensity (CDSA derivation) (2022); Cape Town minibus-taxi study (MDPI 2025) (CDSA derivation) (2025); CDSA Carbon Footprint Calculator v3, Factor Derivations (SA) and SA EF Reference Library (2024); UK Government GHG Conversion Factors for Company Reporting 2026 (DESNZ, flat file v1.2, 31 Jul 2026) (2026); UK Government GHG Conversion Factors 2025 (DESNZ) (2025/26); Fertiliser production LCA (bioethanol GHG calculator, Table 2) (2022); IPCC 2006 Vol 4 Ch 11 (2019 refinement defaults), AR5 GWP (2019); Municipal procurement LCA database (Winnipeg 682-2012) (2012); CarbonCloud product LCAs (2024); UK Government GHG Conversion Factors 2025 (DESNZ), domestic flight as SA proxy (2025); International Wine Carbon Calculator Protocol v1.2/1.3 and OIV methodological GHG balance (v1.2); US EPA Supply Chain GHG Emission Factors v1.4.0 (Oct 2025), kg CO2e per 2024 USD, purchaser price, converted at R18.33/USD (v1.4.0 (2024 USD)); 4C Carbon Footprint Add-On v2.0 (2023); OIV methodological GHG balance (2011)

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