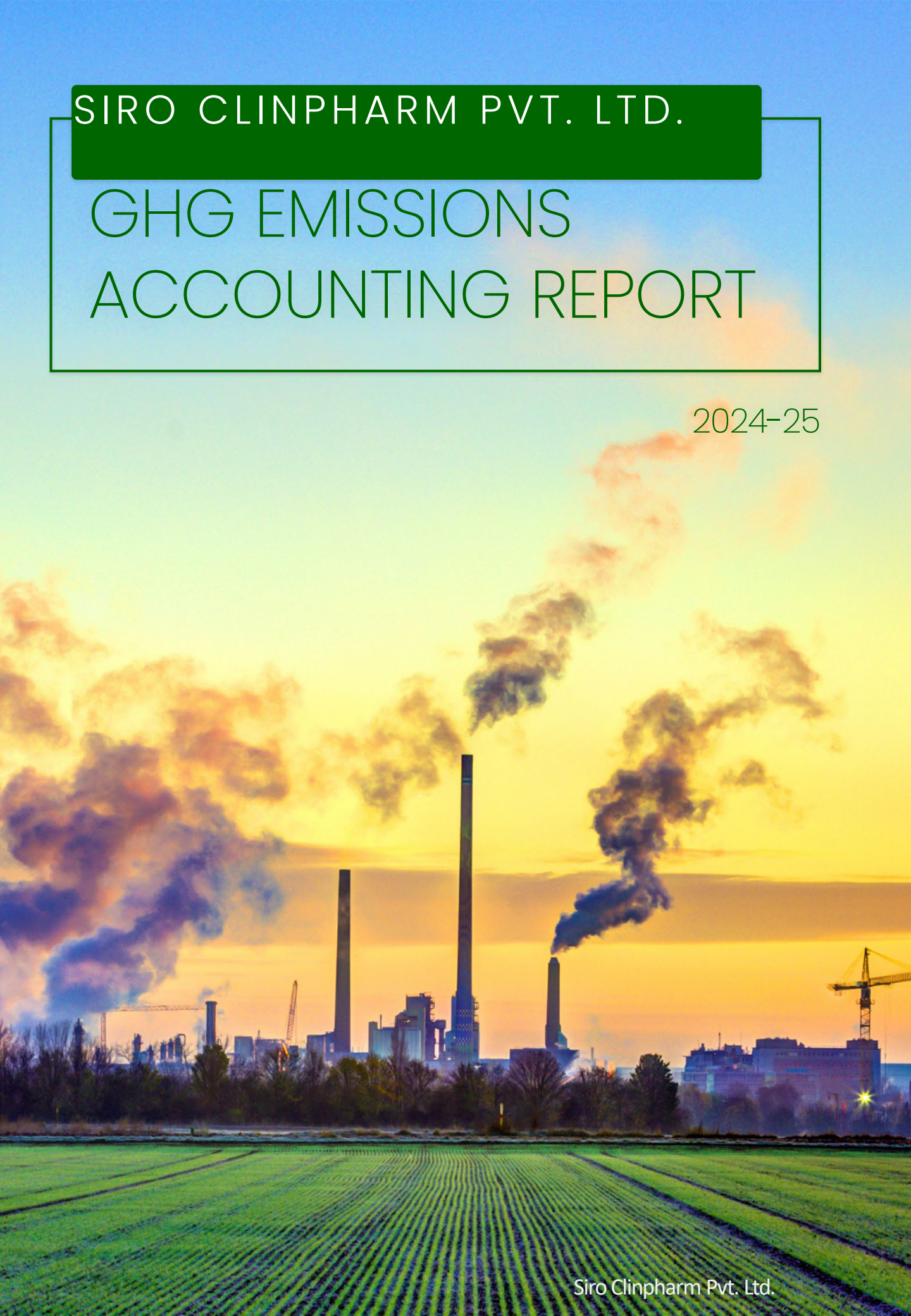
SIRO CLINPHARM PVT. LTD.

GHG EMISSIONS ACCOUNTING REPORT

2024-25



Siro Clinpharm Pvt. Ltd.

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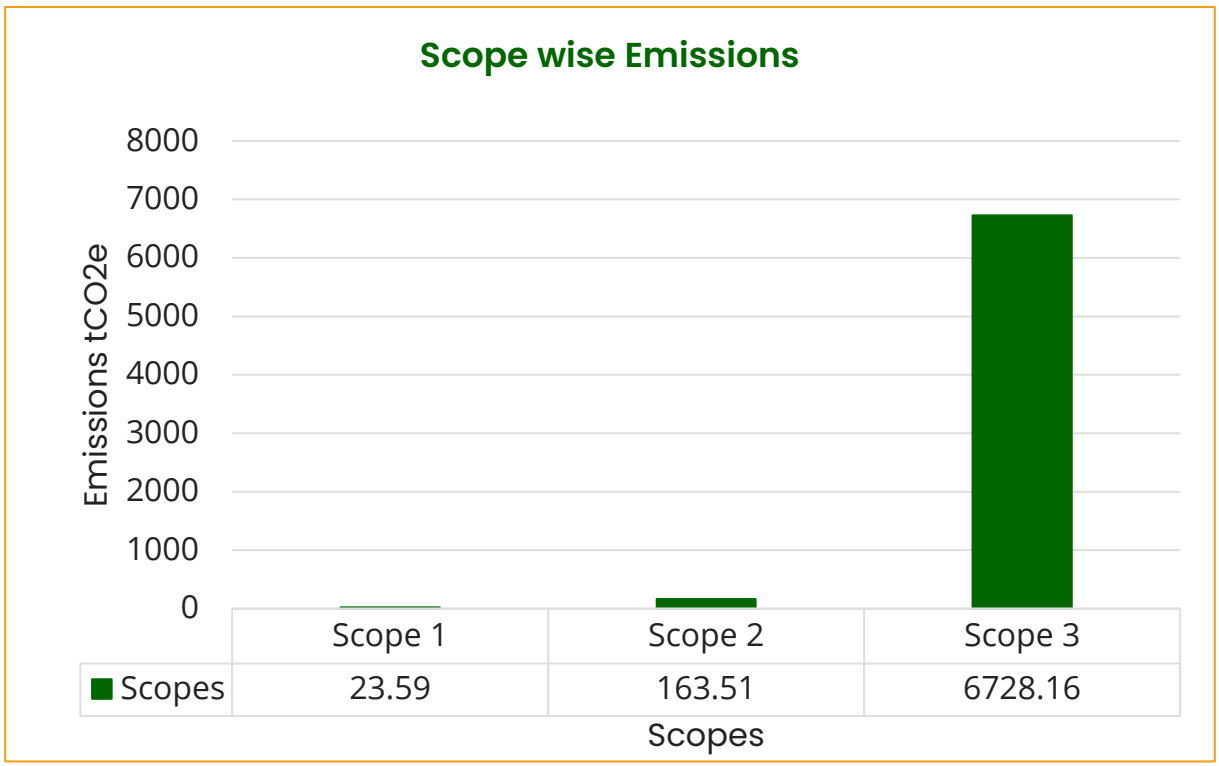
Executive summary

Component Gases

Component Greenhouse Gases		
Scope	Emission Sources	Total t CO_2e /y
Scope 01	DG Fuel	23.59
Scope 02	Purchased Electricity	163.51
Scope 03	Various (Categories 3-7)	6728.16
Total		**6915.26**

GHG inventory:

Emissions under	Description	Emissions t CO_2 e/y
Scope 03 [Category 02]	Capital Goods	9.23
Scope 03 [Category 03]	Fuel and Energy Related Activities	31.02
Scope 03 [Category 06]	Business Travel	6582.19
Scope 03 [Category 07]	Employee Commute	105.72
Total		**6728.16**

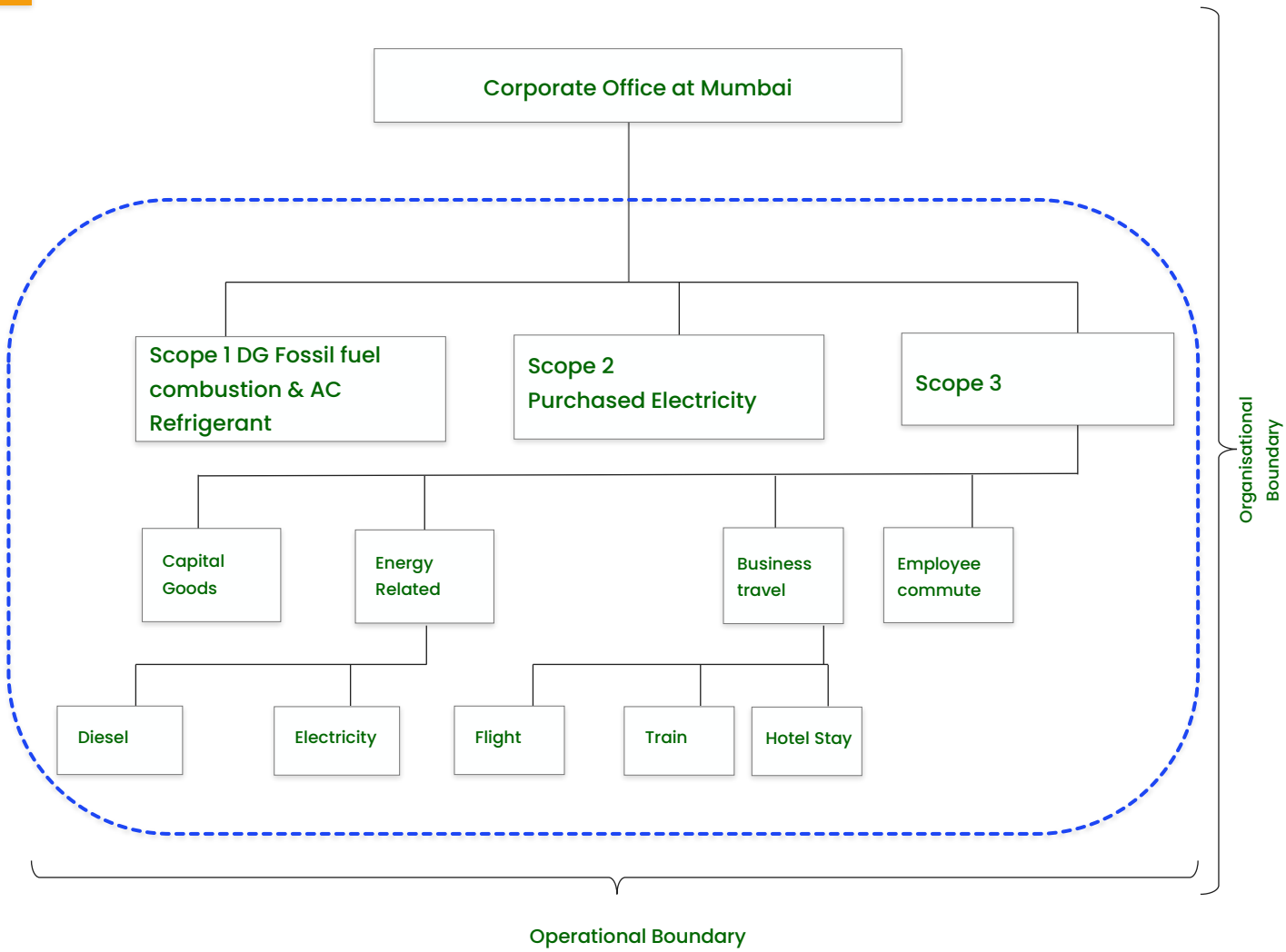


A. Organizational Boundary & Operational Boundary

SIRO Clinpharm Pvt. Ltd. is a global Clinical Research Organization (CRO) providing end-to-end clinical development, regulatory, pharmacovigilance, data management, and medical writing services to pharmaceutical and biotechnology companies worldwide. For the purpose of this GHG inventory, SIRO Clinpharm has defined its organizational boundary using the **operational control approach** in line with the GHG Protocol. The boundary includes the corporate headquarters and all offices and delivery centers operated and controlled by SIRO Clinpharm in India and overseas. The operational boundary covers emissions arising from office operations, electricity consumption, owned or leased vehicles, employee commuting, business travel, IT and data infrastructure, outsourced services, and other relevant value-chain activities associated with its service-based operations. All emission sources within Scope 1, Scope 2, and relevant Scope 3 categories that are material to SIRO Clinpharm's business activities are included in the GHG inventory.

In addition to quantifying Scope 1, Scope 2, and relevant Scope 3 greenhouse gas emissions, SIRO Clinpharm Pvt. Ltd. has undertaken voluntary tree plantation initiatives in Maharashtra as part of its environmental stewardship efforts. During the reporting period, the company supported plantation of 4,000 fruit-bearing trees (Jamun and Guava), resulting in an estimated ~3.0 tCO_2e of carbon sequestration, reported outside emission scopes and not deducted from total GHG emissions, in alignment with the GHG Protocol Corporate Accounting and Reporting Standard.

A. Organizational Boundary & Operational Boundary



B. Base Year

The company decided to make GHG emission inventory with base year 2024-25.
In subsequent years emissions will be tracked, compare and set reduction targets with reference to base year emissions.

C. Glossary

GHG : Green House Gas

EPA : Environmental Protection Agency

GWP : Global warming Potential

EF : Emission factor

DG : Diesel Generator

D. Emission Reduction Targets & Decarbonisation Roadmap

Using FY 2024–25 as the baseline year, SIRO Clinpharm Pvt. Ltd. has identified key emission sources across operational and value-chain activities and defined medium-term emission-reduction targets. These targets focus on emission hotspots identified in the GHG inventory and are designed to be achievable through operational efficiency, technology transition, and behavioral interventions. The targets are absolute reduction targets and do not rely on carbon offsetting or sequestration adjustments. Carbon sequestration initiatives are reported separately and are not netted against emissions, in alignment with the GHG Protocol.

Scope	Emission Sources	Base Year (FY 2024–25)	Target Year	Reduction Target	Key Levers
Scope 1	Refrigerant (R410A)	22.13 tCO_2e	FY 2028–29	35–40%	Shift to low-GWP refrigerants, leakage prevention
Scope 1	DG Diesel Consumption	1.46 tCO_2e	FY 2027–28	20%	Reduced DG usage, power reliability
Scope 2	Purchased Electricity	163.51 tCO_2e	FY 2028–29	40–50%	Renewable electricity, energy efficiency
Scope 3 – Cat 6	Air Travel	83.55 tCO_2e	FY 2028–29	25–30%	Virtual meetings, travel policy optimisation
Scope 3 – Cat 6	Hotel Stays	6,498.44 tCO_2e	FY 2028–29	20–25%	Preferred low-carbon hotels, stay rationalisation
Scope 3 – Cat 7	Employee Commute	105.72 tCO_2e	FY 2027–28	20%	EV adoption, shared & electric transport

FY 2024–25 has been established as the base year for GHG accounting, against which SIRO Clinpharm Pvt. Ltd. has defined phased emission-reduction targets across Scope 1, Scope 2, and priority Scope 3 categories.

Progress against emission-reduction targets shall be reviewed annually as part of the company's ESG and sustainability governance framework. Targets may be recalibrated to reflect material business changes, regulatory developments, or improvements in data quality.

E. Justification for Scope and Category Exclusion

Scope 3 Category	Category Name	Exclusion Justification
Scope 03 Upstream		
Category 01	Purchased Goods	The company's operation does not have any production related activities and any purchases.
Category 04	Upstream Transportation	Transportation is not a part of our operation.
Category 05	Waste Generated in Operations	No significant waste generation occurs in the process; any minimal waste is managed onsite.
Category 08	Upstream Leased Assets	No leased assets are involved in operations; the company owns all relevant facilities.
Scope 03 Downstream		
Category 09	Downstream Transportation	Transportation is not a part of our operation
Category 10	Processing of sold product	The products do not require additional processing by customers; they are delivered in final usable form.
Category 11	Use of sold product	The company's products do not emit GHG during their usage phase, making this category inapplicable.
Category 12	End of life of sold product	The products have a long lifecycle and are recyclable, with negligible GHG impact at the end of life.
Category 13	Downstream Leased Assets	No downstream leased assets are associated with the company's operations.
Category 14	Franchise	The company does not operate any franchises, making this category not applicable.
Category 15	Investments	The company does not hold investments that would require reporting under this category.

F. Source of Emissions Factors

Sr. No.	Activity / Material	Emission Factor	Source
01	Diesel	2.7 kgCO2/lit	https://ghgprotocol.org/sites/default/files/Emission_Factors_from_Cross_Sector_Tools_March_2017.xlsx
02	R410	2088 kg CO_2e per kg refrigerant leaked	U.S. EPA Center for Corporate Climate Leadership, Greenhouse Gas Inventory Guidance: Fugitive Emissions, Table 2 (GWPs for Refrigerant Blends) lists R-410A = 2,088 (100-year GWP).
03	Electricity	0.727 kgCO2/MWh	https://cea.nic.in/cdm-co2-baseline-database/?lang=en (Version 20)
04	Diesel (WTT)	0.013 kgCO2/lit	https://www.transportmeasures.org/en/wiki/manuals/16-technical-notations/tn-13-ntm-overview-of-diesel-emission-factors/
05	Electricity (Generation)	0.07 kgCO2/kWh	https://cea.nic.in/wp-content/uploads/2021/03/User_Guide_Version_20.0.pdf
06	Electricity (T & D loss)	0.7089 kgCO2/kWh	https://cea.nic.in/wp-content/uploads/2021/03/User_Guide_Version_20.0.pdf
07	Flight	0.09 kg CO_2 per passenger-km	Used in ICAO/State Action inventory reporting (ICAO)
08	Train	0.007837 kg CO_2 per passenger-km	https://indiaghgp.org/
09	Hotel Stay	58.9 kg CO_2 per room-night	https://www.climatiq.io/data/emission-factor/38d3c99a-cd0f-4590-ae38-5f1158fd88b0
10	7-Seater Van (Diesel)	0.18072 kgCO_2/km	UK Govt GHG Conversion Factors 2025, Passenger vehicles sheet → Cars (by market segment) → MPV (km) (Diesel, kgCO_2e). (GOV.UK)
11	17-Seater Bus (Diesel)	1.77 kg CO_2e / vehicle-km	Passenger-km factor as above ; UK Government conversion factors publication context (GOV.UK)
12	Laptop (purchased) (spend-based)	0.00196 kg CO_2e / INR	https://www.climatiq.io/data/explorer?data_version=%5E29&page=1&search=laptop

SCOPE 1

Generator Fuel Consumption

G. Scope 1

GHG Emissions For Generator Fuel Consumption

This report provides an analysis of greenhouse gas (GHG) emissions from generator fuel consumed during the year 2024-25 (April to March). The calculations are based on the activity data (fuel consumption) and standard emission factors for each type of fuel.

The GHG emissions are calculated based on mass basis using the following formula:
Emissions (tCO_2e) = (Fuel Consumption (l) × Emission Factor ($kgCO_2/l$)) / 1000

- Emission factor of Diesel (Litres) : 2.70 $kgCO_2/lit$

Month	Diesel (Litres)	Diesel Emissions (tCO_2e)
April	-	0
May	140	0.378
June	-	0
July	130	0.351
August	-	0
Sept	-	0
Oct	120	0.324
Nov	-	0
Dec	-	0
Jan	-	0
Feb	-	0
March	150	0.405
Total	**540**	**1.46**

G. Scope 1

GHG Emissions For Fugitive Emission

This report provides an analysis of greenhouse gas (GHG) emissions from fugitive emission for company's air conditioner's refrigerant (R410) refilling during the year 2024-25. The calculations are based on the activity data (fuel consumption) and standard emission factors for each type of fuel.

The GHG emissions are calculated based on mass basis using the following formula:

Emissions (tCO_2e) = (Fuel Consumption (kg) × Emission Factor ($kgCO_2/kg$)) / 1000

- Emission factor of R410: 2088 $kgCO_2/kg$

Month	Refrigerant use	Quantity Refilled (kg)	Emissions Coal (tCO_2e)
April	Gas refill	3.2	6.6816
May	-	-	-
June	Gas refill	1.3	2.7144
July	-	-	-
August	Gas refill	6.1	12.7368
Sept	-	-	-
Oct	-	-	-
Nov	-	-	-
Dec	-	-	-
Jan	-	-	-
Feb	-	-	-
March	-	-	-
Total (kg)		**10.6**	**22.1328**

G. Scope 1

Therefore, overall Scope 1 emissions for fossil fuel consumption is as follows:

- Emission from Diesel: 1.46 tCO_2e
- Emission from Refrigerant refilling: 22.13 tCO_2e

Total Scope 1 emission = 1.46 22.13 tCO_2e

= 23.59 tCO_2 e.

= 23.59 t CO_2e

SCOPE 01 :

23.59 t CO_2e

SCOPE 2

Purchased Electricity

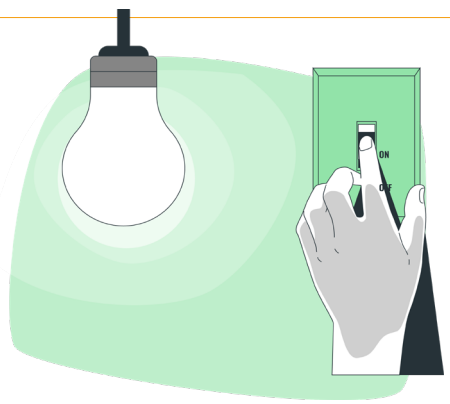
H. Scope 2

Activity data of base year purchased electricity by SIRO Clinpharm (Location-Based)

SIRO Clinpharm has a 3 units in the same location.
The emissions factor used for the calculation is 0.727 kgCO_2/MWh, which is a standard value for the grid electricity in the region.

Month	Electricity Consumption (kWh) (Ground floor unit)	Electricity Consumption (kWh) (2nd Floor unit)	Electricity Consumption (kWh) (3rd Floor unit)	Total Electricity Consumption (kWh)
Apr-24	9857	3458	8146	21461
May-24	10019	3463	7917	21399
Jun-24	9924	3131	7268	20323
Jul-24	9827	2670	6785	19282
Aug-24	10213	2795	7094	20102
Sep-24	9601	2614	6671	18886
Oct-24	10363	3239	7381	20983
Nov-24	8416	2413	6861	17690
Dec-24	7877	2105	6538	16520
Jan-25	6891	2398	6563	15852
Feb-25	6063	2352	6345	14760
Mar-25	7468	2907	7274	17649
Total	**106519**	**33545**	**84843**	**224907**

- Total purchased electricity in year 2024-2025 = 224907 kWh i.e., 224.91 MWh
- Emission under scope 2 = 0.727 t CO_2 X 224.91 MWh
  = **163.51 t CO_2 e**



SCOPE 02 :

163.51 t CO_2e

SCOPE 3

Category 02, Category 03 ,Category 06, Category 07

I. Scope 3

Category 2 Capital Goods

- The company purchases IT equipment such as Laptops & desktops for its operations. The complete emissions data for the purchase is mentioned below.
- Capital Goods purchased in Y 24-25

S.no.	Name of capital item	No. of items	Purchase price ₹	EF tCO2e/₹ revenue	Emissions kgCO2e
1	IT Equipment (Laptops & desktop)	118	47,11,648.84	0.00196	9,234.83
Total Emissions					**9.23**

Total Emissions Of category 2 are 9.23 tCO2e.

J. Scope 3

Category 3 Fuel & Energy related activities

a. Activity & Emissions data

Sr No.	Month	Diesel (Liters)	Electricity consumption kWH
1	April	-	21461
2	May	140	21399
3	June	-	20323
4	July	130	19282
5	August	-	20102
6	Sept	-	18886
7	Oct	120	20983
8	Nov	-	17690
9	Dec	-	16520
10	Jan	-	15852
11	Feb	-	14760
12	March	150	17649
Total		540	224907

Diesel

- Average diesel manufacturing process emission factor i.e., Well-To-Tank (WTT) is 13 gCO2e/MJ of diesel energy from Network for Transport Measures (NTM).
- Diesel purchased = 540 lit
- Density of Diesel = 0.86
- Quantity of Diesel purchased = 0.86 x 540 = 464.4 kg
- Calorific Value of fuel = 41.84 MJ/kg
- Total Diesel Energy = 464.4 x 41.84

  = 19430.5 MJ
- Emissions = Emissions factor (WTT) (gCO2e/MJ) X Energy MJ/10^6

  = 13 X 19430.5/10^6

  = 2.53 tCO2e

J. Scope 3

Category 3 Fuel & Energy related activities

Electricity

Energy Used	Usage (kWh)	CO2 Emission Factor ($kgCO_2/kg$)	Emissions (tCO_2e)	T & D Losses (8%)	Emission Factor [T&D Loss] (kg CO_2e/kWh)	Emission (tCO_2e)
Electricity	224907	0.07	15.74	17992.56	0.7089	12.75
			(A) 15.74			(B) 12.75
				Total Emissions (A+B)	28.50	

Total Emissions Of category 3 are 31.02 tCO2e (Electricity & Diesel).

K. Scope 3

Category 6: Business travel

- **Activity data**
- **Flights**
- No. of flights taken = 765
- Total Distance travelled = 928324.9 kms
- Emissions factor for flight travel = 0.09 kg CO_2 per passenger-km
- Total Emission (tCO2e) = E.F. x Total Distance travelled (kms)

  = 928324.9 x 0.09

  = 83549.24

  = 83549.24 x GWP 1/1000

  = 83.55 tCO2e

- **Train**
- No. of Train taken = 45
- Total Distance travelled = 25787 kms
- Emissions factor for train travel = 0.007837 kg CO_2 per passenger-km
- Total Emission (tCO2e) = E.F. x Total Distance travelled (kms)

  = 25787 x 0.007837

  = 202.09

  = 202.09 x GWP 1/1000

  = 0.20 tCO2e

K. Scope 3

Category 6: Business travel

Hotel Stay Emissions

- This report provides an analysis of greenhouse gas (GHG) emissions associated with hotel stays. The activity data reflects emissions based on the number of nights stayed, the number of people, and the associated emissions calculated using the average emission factor for a 5-star hotel stay.
- Emissions factor for Hotel Stay = 58.9 kg CO_2 per room-night

Month	Bookings	Guests	Nights	Rooms	EMISSION FACTORS kgCO2e/room-night	Emissions
Apr-24	10	10	11	10	58.9	6479
May-24	13	14	19	14	58.9	15667.4
Jun-24	12	16	14	14	58.9	11544.4
Jul-24	23	26	28	26	58.9	42879.2
Aug-24	23	27	41	25	58.9	60372.5
Sep-24	18	23	22	23	58.9	29803.4
Oct-24	13	13	19	13	58.9	14548.3
Nov-24	39	44	69	44	58.9	178820.4
Dec-24	28	35	44	35	58.9	90706
Jan-25	31	42	40	39	58.9	91884
Feb-25	25	32	39	29	58.9	66615.9
Mar-25	22	27	28	23	58.9	37931.6
Emissions for the Business travel						**6498437**

- **Total Hotel Stay Emissions:** 6498437 kgCO2e i.e., 6498.44 tCO2e

K. Scope 3

Category 6: Business travel

- Total Emissions

S.No.	Category	Total Emissions (tCO2e)
1	Flights	83.55
3	Train	0.20
4	Hotel Stay	6498.44
	Overall Total	**6582.19**

Total Emissions Of category 6 are 6582.19 tCO2e.

L. Scope 3

Category 7: Employee commute

This report provides an analysis of greenhouse gas (GHG) emissions from employee commutes during the specified period. The calculations are based on commute activity data and emission factors provided by the India GHG Program for Indian conditions.

Methodology

- Emissions (tCO_2) = (Two-Way Distance (km) × Emission Factor ($kgCO_2/km$)) / 1000
- The emission factors used for this calculation are:
- 7-Seater Van (Diesel): 0.18072 $kgCO_2/km$
- 17-Seater Bus (Diesell): 1.77 kg CO_2e / vehicle-km

Activity data and emissions

- **Employee Commute by 7-Seater Van:**

Annual Distance travelled	= 13423 (2-way distance in km)
Emission Factor	= 0.18072 kgCO2/km
Total Emissions	= Distance travelled x Emission factor x GWP /1000
	= 13423 x 0.18072 x 1/1000
	= 2.43 tCO2e

- **Employee Commute by 17-Seater Bus:**

Annual Distance travelled	= 58504 (2-way distance in km)
Emission Factor	= 1.77 kgCO2/km
Total Emissions	= Distance travelled x Emission factor x GWP /1000
	= 58504 x 1.77 x 1/1000
	= 103.29 tCO2e

L. Scope 3

Category 7: Employee commute

- Total Emission for 7-Seater Van : 2.43 tCO_2
- Total Emission for 17-Seater Buses : 103.29 tCO_2

Total Emissions Of category 7 are 105.72 tCO2e.

Climate Mitigation Initiatives

M. Carbon Sequestration & Nature-Based Climate Initiatives

- SIRO Clinpharm Pvt. Ltd. has undertaken voluntary tree plantation initiatives as part of its broader environmental stewardship and climate action strategy. During the reporting period, the company supported plantation of fruit-bearing tree species in Maharashtra with the objective of contributing to long-term carbon sequestration, biodiversity enhancement, and local environmental improvement.
- Carbon sequestration from tree plantation has been estimated using a **conservative, age-based per-tree carbon uptake method**, suitable for **internal ESG reporting**. The methodology considers plantation year, fraction of year under growth, and an assumed survival rate. The estimates are indicative in nature and are **not treated as carbon offsets** and **not adjusted against Scope 1, Scope 2, or Scope 3 emissions**, in line with the GHG Protocol Corporate Accounting and Reporting Standard.

Plantation Data

Particulars	Jamun	Guava
Number Of trees Planted	2000	2000
Location	Maharashtra	Maharashtra
Planting Period	July 2024	January 2025
Assumed Survival rate	85%	85%
Effective number of trees	1700	1700
Annual CO_2 uptake – Year 1 (kg/tree/year)	0.5	0.5
Annual CO_2 uptake – Year 2 (kg/tree/year)	1.5	Not applicable
Fraction of growth period considered	1.5 years (Jul 2024–Dec 2025)	1.0 year (Jan–Dec 2025)
Estimated CO_2 sequestration (tCO_2e)	2.13	0.85

Total Estimated Carbon Sequestration (Outside Scopes)

Description	Estimated Sequestration (tCO_2e)
Jamun plantation	2.13
Guava plantation	0.85
Total	2.98

Recommendations

N. Recommendations

Recommendations to reduce emissions in scope 1

- The company should consider switching the fuel used for generator to reduce the Scope 1 emissions.
- The company must look to switch AC with refrigerant with a lower GWP.

Recommendations to reduce emissions in scope 2

- **Procure Renewable Energy :** Shift to renewable energy sources by entering into Power Purchase Agreements (PPAs) for solar or wind power or investing in captive renewable energy installations.

- **Energy Efficiency Measures :** Implement energy audits to identify and reduce electricity waste. Install energy-efficient motors, lighting (LEDs), and Variable Frequency Drives (VFDs) in plant operations.

Recommendations to reduce emissions in scope 3

Business Travel (Category 6):

- **Virtual Meetings :** Replace non-essential travel with virtual meetings and collaboration tools.

- **Sustainable Travel Policies :** Encourage the use of economy class for flights and sustainable accommodation options.

Employee Commute (Category 7):

- **Promote EV for commuting :** Encourage employees to buy and use EVs for daily commuting.

- **Use of EV bus:** Explore the possibility to deploy EV bus for daily commute.

GHG inventory report by
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