CYBAGE
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30 YEARS

GREENHOUSE GAS EMISSION REPORT

YEAR - 2025

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1.1 Acknowledgement

Understanding the environmental impact of operational activities is of utmost importance to any industry. It holds significant value for organizations, particularly in the IT sector, where energy consumption and resource efficiency play a crucial role in sustainability efforts. Accounting for carbon footprint is the first step toward enhancing both ecological and economic performance.

It is commendable that the management of M/S Cybage Software Pvt Ltd., which operates seven sites across India, including its Head Office in Pune (WAD), is committed to tracking greenhouse gas (GHG) emissions resulting from its activities. The primary objective of this carbon accounting assessment was to establish a baseline by measuring the company's current emission levels under Scope 1, Scope 2, and Scope 3 categories.

I extend my gratitude to the management of Cybage Software Pvt Ltd. for entrusting ESGwithSK with this assessment. Additionally, I sincerely appreciate the cooperation of the team members during the data collection and fieldwork process.

Data Collection Period:

28th February to 28th March 2026

GHG Accounting Team:

Mangesh Bhise, GHG Lead Verifier, ESGwithSK

Sumeet Kirtishahi, ESGwithSK

1.2 Introduction to Cybage Software Pvt Ltd.:

Company Overview

Cybage Software Pvt Ltd. is a leading global technology consulting organization, specializing in outsourced product engineering and IT services. Established in 1995, Cybage has built a strong reputation for delivering cutting-edge solutions using data-driven decision-making and technology-driven business models. The company serves clients across various industries, including retail, healthcare, media & entertainment, travel & hospitality, and supply chain & logistics.

With a strong workforce of over 6444 employees, Cybage operates seven sites across India, with its Head Office in Pune (WAD) and multiple development center's in Pune, Hyderabad, and Gandhinagar.

Operational Sites in India

Cybage has strategically established seven operational sites in key technology hubs of India, enabling seamless delivery of IT solutions and software development services:

- **Pune (Headquarters) – 4 Sites:**
  - WAD (Head Office)
  - KCB1 & KCB2
  - WA
- **Hyderabad – 2 Sites**
  - Hyderabad Development Center 1
  - Hyderabad Development Center 1
- **Gandhinagar – 2 Sites:**
  - Info city
  - Gift City

Global Presence

Cybage has expanded its presence across multiple global technology and business hubs, enabling it to deliver end-to-end digital transformation services to clients worldwide. The company has established offices and operations in:

- **North America: USA & Canada**
- **Europe: United Kingdom, Netherlands**
- **Asia-Pacific: India, Singapore**
- **Middle East: UAE**

With a customer-centric approach and a focus on sustainable IT solutions, Cybage has consistently partnered with Fortune 500 companies, startups, and mid-sized enterprises to drive digital transformation and enhance operational efficiencies.

Abbreviations Used in the Report

Abbreviation	: Full Form
EF	: Emission Factor
GHG	: Greenhouse Gases
DEFRA	: Department of Environment, Food & Rural Affairs (UK)
GWP	: Global Warming Potential
CEA	: Central Electricity Authority (India)
EPA	: Environmental Protection Agency (USA)
LPG	: Liquefied Petroleum Gas
CNG	: Compressed Natural Gas

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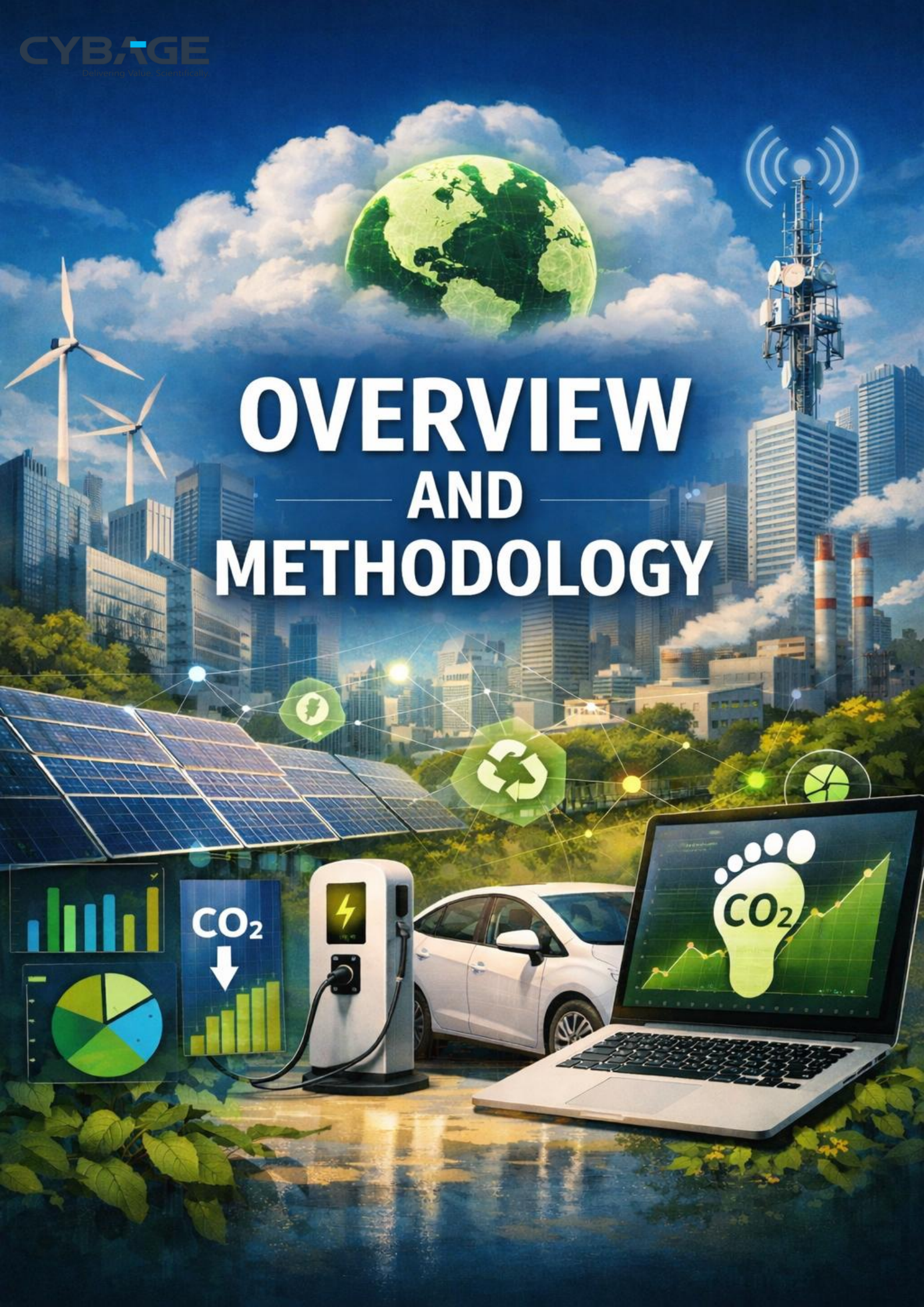
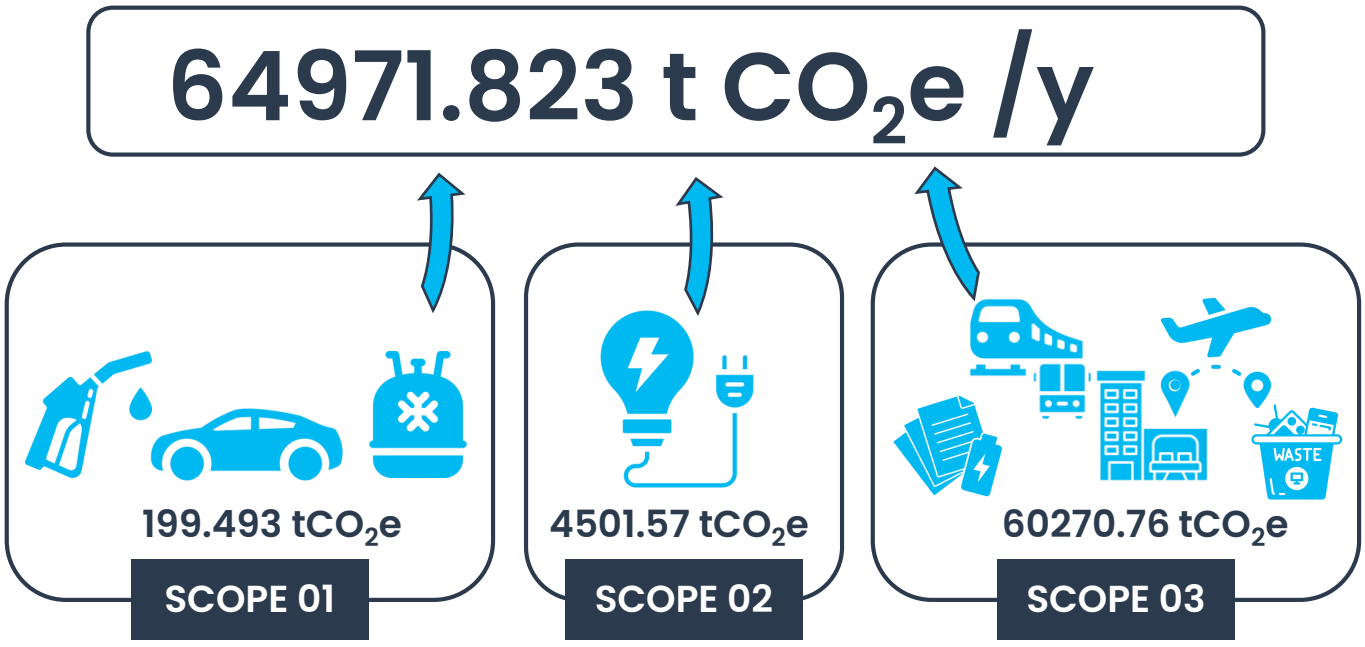
OVERVIEW AND METHODOLOGY

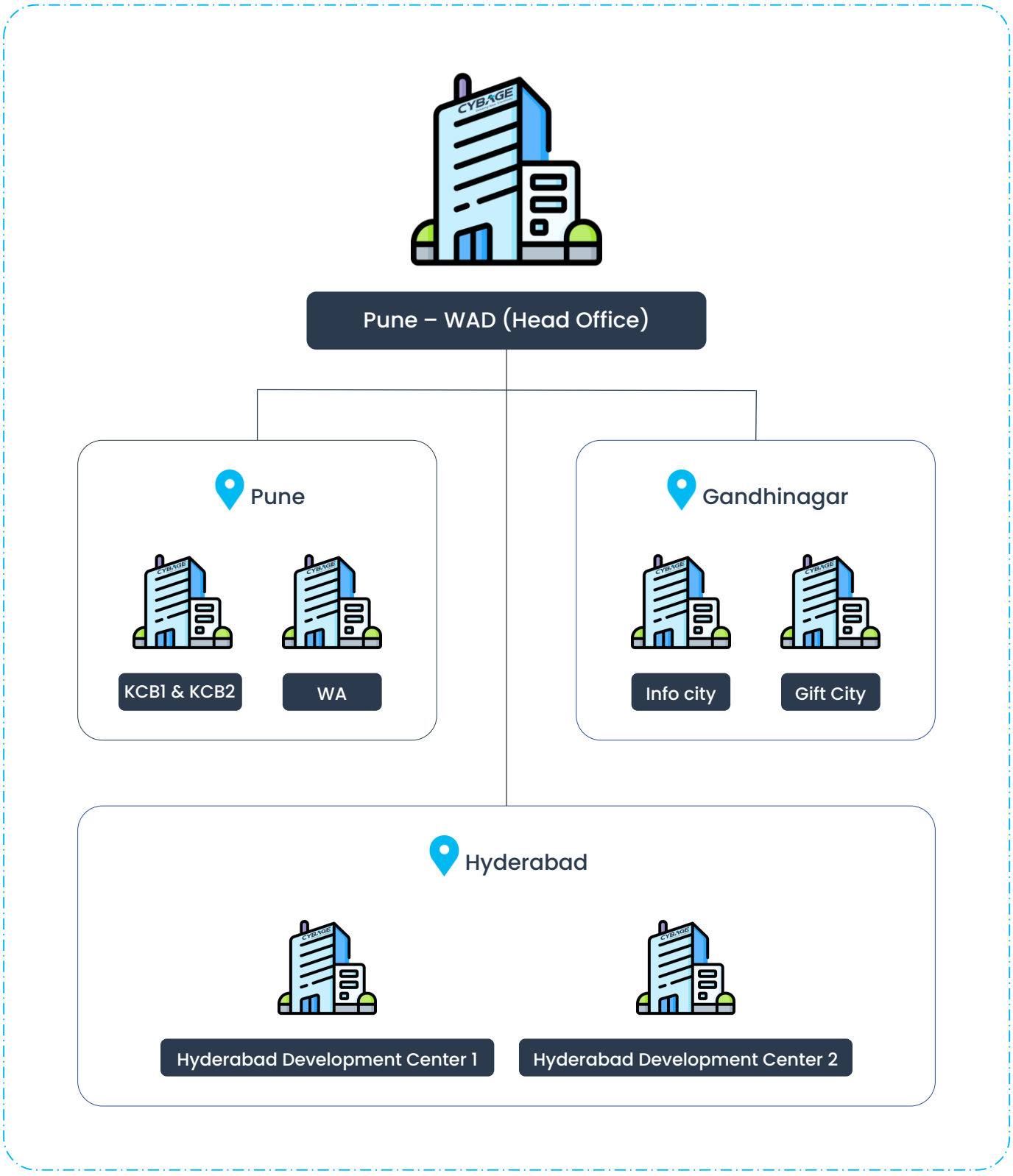


2.1 Executive summary:

Sr. No.	Scope	Activity	Category	Total t CO_2e/y
1	SCOPE -1	Fuel Consumption	Scope 1: Direct emissions from on-site fuel combustion	54.013
2		Company-Owned Vehicles	Scope 1: Direct emissions from fuel combustion in company-owned vehicles	32.17
3		Refrigerants	Scope 1: Direct emissions from refrigerant leaks in cooling systems	113.24
4	SCOPE -2	Grid Electricity Consumption	Indirect emissions from purchased electricity	4501.57
5	SCOPE -3	Material Use & Purchased Services	Category 1: Purchased Goods and Services	49428.04
6		Fuel- and Energy-Related Activities	Category 3: Fuel- and Energy-Related Activities	1690.04
7		Upstream Transportation & Distribution	Category 4: Upstream Transportation & Distribution	1.12
8		Material Disposal	Category 5: Waste Generated in Operations	7878.8
9		Business Travel	Category 6: Business Travel	183.31935
10		Employee Commute	Category 7: Employee Commuting	1089.44
			Total	**64971.823**



2.2 Organizational Boundary



Base year: 2024

Operational Boundary

The GHG emissions inventory covers direct and indirect emissions from the Pune head office (WAD) and seven operational sites across India, with 2024 as the base year.

2.3 Methodology

The report follows GHG protocol a corporate accounting standard and corporate value chain accounting standard.

2.4 Justification for Scope and Category Exclusion

Category	Description	Status	Justification
Category 02	Capital goods	Excluded	Cybage Software Private Limited confirms that there were no purchases or commissioning of capital goods during the 2024 calendar year. The company did not undertake any new capital investments in hardware, IT infrastructure, office construction, or equipment that would fall under the definition of capital goods as per Scope 3 –Category 2 of the GHG Protocol.
Category 08	Leased assets	Excluded	Cybage Software Pvt. Ltd. does not have any upstream leased assets (GHG Protocol Scope 3, Category 8) that fall under the reporting boundary for the current assessment period. As a software services company,
Category 9	Transportation beyond courier	Excluded	Cybage Software Pvt. Ltd., being a software services company, does not engage in the physical transportation or distribution of sold goods. Our business model primarily involves digital service delivery, which does not generate downstream transportation or distribution related emissions under GHG Protocol Scope 3.
Category 10	Processing of sold product	Excluded	As a pure play software services company, Cybage Software Pvt. Ltd. does not manufacture, process or sell any physical goods or intermediate products that would require downstream processing by customers. Our services consist entirely
Category 11	Use of sold product	Excluded	Cybage Software Pvt. Ltd. operates as a pure play IT services and software solutions provider, delivering digital products and services that do not require physical usage or energy consumption by end users. Our offerings include: • Custom software development • Cloud based solutions • AI/ML and data analytics services • Digital consulting

Table continued on next page

Category	Description	Status	Justification
Category 12	End of life of sold product	Excluded	Cybage's services are intangible and digital, meaning there are no physical products requiring disposal, recycling, or waste treatment at end of life.
Category 13	Leased assets	Excluded	Cybage does not lease any operational assets (e.g., buildings, vehicles, equipment) to third parties.
Category 14	Franchise	Excluded	Cybage operates as a single corporate entity without franchisees, licensees, or third party distributors.
Category 15	Investments	Excluded	Cybage maintains a conservative investment portfolio with no equity stakes in non consolidated entities requiring emissions reporting.

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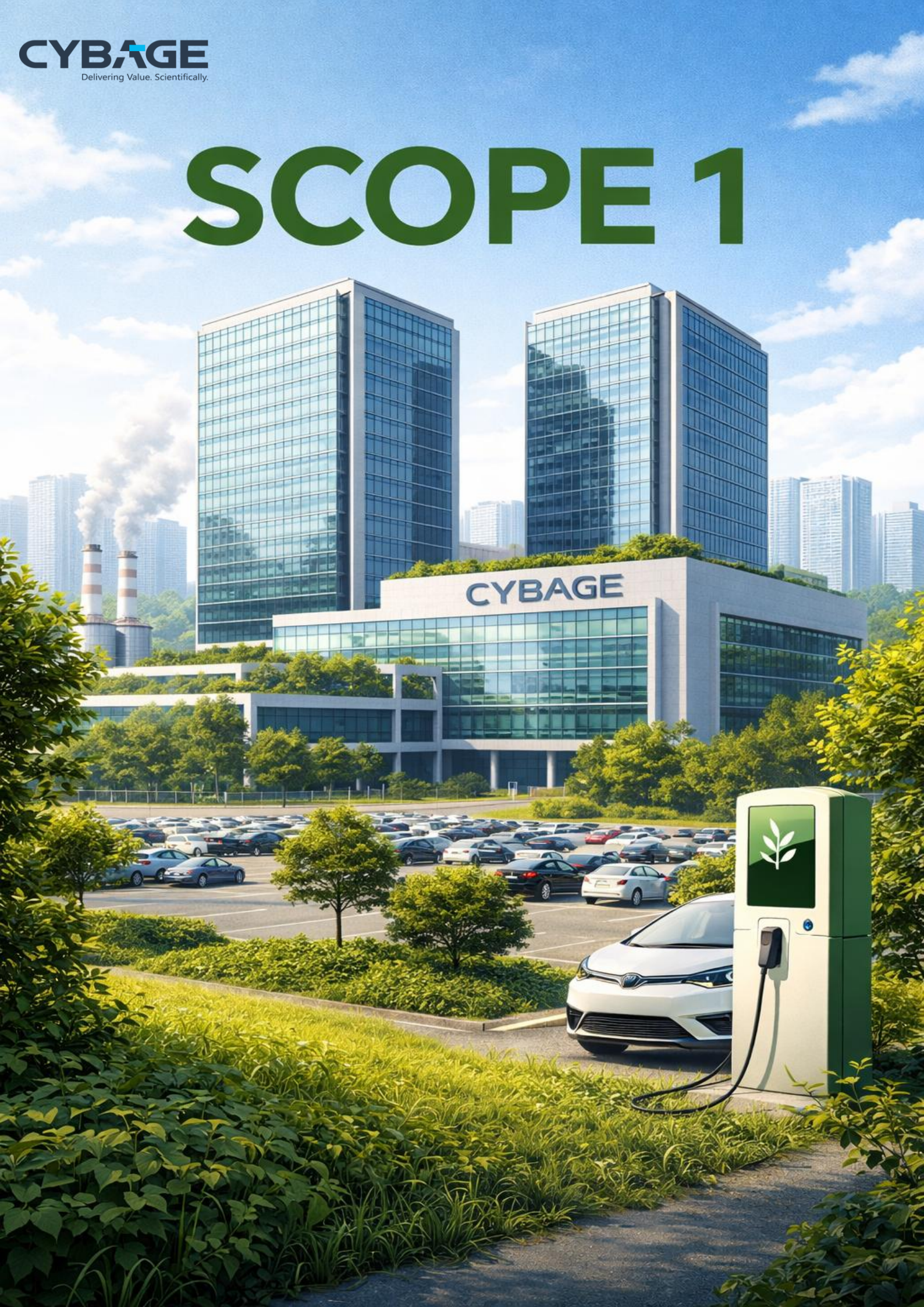
SCOPE 1



3.1.A Scope 1 - Fuel Consumption

Sr. No.	Site	Total Consumption (LTR)	Emission Factor	Carbon Emission ($KgCO_2e$ /kwh)	Carbon Emission (tCO_2e)	Fuel Type
1	GNR GIFT CITY	This category is not applicable within the current scope.				
2	GNR INFOCITY	1551.05	2.6593	4124.7073	4.124	Diesel (100% mineral diesel)
3	HYD 1	797.864	2.33969	1866.75	1.867	Petrol (100% mineral petrol)
4	HYD 2	This category is not applicable within the current scope.				
5	PUNE – KCB1	This category is not applicable within the current scope.				
6	PUNE - KCB2	This category is not applicable within the current scope.				
7	PUNE – WAD	4601	2.33969	10764.91	10.764	Petrol (100% mineral petrol)
8		5225	2.6593	13894.84	13.894	Diesel (100% mineral diesel)
9	PUNE – WA	4575.44	2.6593	12167.46	12.167	Diesel (100% mineral diesel)
10		4785.96	2.33969	11196.66	11.197	Petrol (100% mineral petrol)
Total		**21536.21**	**-**	**54012.3273**	**54.013**	**-**

Emission Factor Source:

https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023

https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2020

54.013 tCO_2e

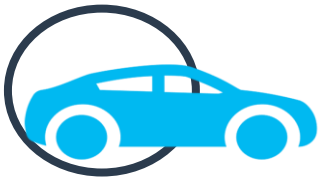
3.1.B Scope 1 - Owned Vehicles

Sr. No.	Site	Total Distance (Km)	Emission Factor	Carbon Emission ($KgCO_2e$ /kwh)	Carbon Emission (tCO_2e)	Vehicle Type
1	GNR GIFT CITY	No Company owned Vehicle				
2	GNR INFOCITY	17990	0.195	3508.05	3.50805	Large Car – Diesel
3	HYD 1	11533	0.197	2272.001	2.272	Large Car – Petrol
4	HYD 2	No Company owned Vehicle				
5	PUNE – KCB1	No Company owned Vehicle				
6	PUNE – KCB2	No Company owned Vehicle				
	PUNE - WA	No Company owned Vehicle				
7	PUNE - WAD	2148	0.37	794.76	0.79467	Large Car – EV
		10169	0.142	1443.998	1.443	Small Car – Petrol
		23628	0.142	3355.176	3.355	Medium Car – Petrol
		99880	0.195	19476.6	19.4766	Large Car – Diesel
		6483	0.197	1277.151	1.277	Large Car – Petrol
Total		**1,71,831.00**	**-**	**32127.736**	**32.1727**	**-**

Emission Factor Source:

INDIA GHG PROGRAM – India Specific Road Transport Emission Factors (Version 1.0)

Comparative life cycle GHG emission analysis of conventional and electric vehicles in India - https://doi.org/10.1007/s10668-021-01990-0



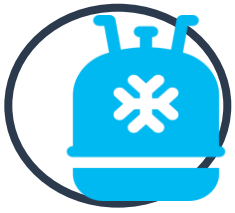
32.17 tCO_2e

3.1.C Scope 1 - Refrigerants

Sr. No.	Site	Total Gasses (Kg)	Emission Factor	Carbon Emission ($KgCO_2e$ /kwh)	Carbon Emission (tCO_2e)	Gas Type
1	GNR GIFT CITY	This category is not applicable within the current scope.				
2	GNR INFOCITY	This category is not applicable within the current scope.				
3	HYD 1	This category is not applicable within the current scope.				
4	HYD 2	This category is not applicable within the current scope.				
5	PUNE – KCB1	This category is not applicable within the current scope.				
8	PUNE – WAD	10	2088	20880	20.88	R410A
9	PUNE - WAD	50	1	50	0.05	Carbon Dioxide
10	PUNE - WAD	51	1810	92310	92.31	R22 (chlorodifluoromethane)
Total		**111**	**-**	**113240**	**113.24**	**-**

Emission Factor Source:

https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2020



113.24 tCO_2e

Total Scope 1

54.016 + 32.127 + 113.24 = 199.383 tCO_2e

SCOPE 2

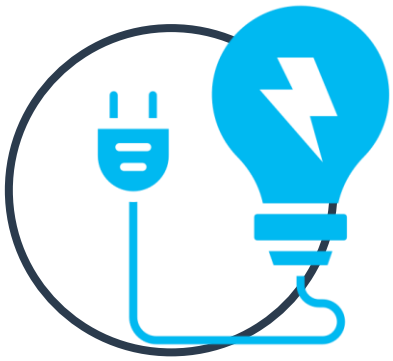
Indirect Energy-Related Emissions

3.2 Scope 2 – Electricity Consumption

Sr. No.	Site	Unit Consumption (Kwh)	Emission Factor	Carbon Emission ($KgCO_2e/kwh$)	Carbon Emission (tCO_2e)
1	GNR GIFT CITY	329928.96	0.716	236229.1354	236.229
2	GNR INFOCITY	219590	0.716	157226.44	157.226
3	HYD 1	175130	0.716	125393.08	125.393
4	HYD 2	94057	0.716	64344.812	67.344
5	PUNE – KCB1	21642	0.716	15495.672	15.495
6	PUNE – KCB2	205373	0.716	147047.068	147.047
7	PUNE – WA	1151394	0.716	824398.104	824.398
8	PUNE – WAD	4089996	0.716	2928437.136	2928.437
	Total	**628711.96**	**0.716**	**4501571.447**	**4501.71447**

Emission Factor Source:

https://cea.nic.in/wp-content/uploads/baseline/2024/01/User_Guide__Version_19.0.pdf



4501.72 tCO_2e

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Scope 3 – Indirect Emissions

3.3.A Scope 3 – Material Use

Sr. No.	Site	Total Consumption (Kg)	Emission Factor	Carbon Emission ($KgCO_2e$/ kwh)	Carbon Emission (tCO_2e)	Material Type
1	GIFT CITY	57.825	919.4	53164.305	53.164305	Paper and board: paper
2		157.12	881.19	138452.5728	138.4525728	Paper and board: mixed
3	INFO CITY	115.5	919.4	106190.7	106.1907	Paper and board: paper
4		270.6	881.19	238450.014	238.450014	Paper and board: mixed
5	HYD 1	31.38	24865.48	780278.7624	780.2787624	Electrical items - IT
6		87	919.4	79987.8	79.9878	Paper and board: paper
7		10.15	5647.95	57326.6925	57.3266925	Electrical items - small
8		988	881.19	870615.72	870.61572	Paper and board: mixed
9	HYD 2	21.8	919.4	20042.92	20.04292	Paper and board: paper
10		720	881.19	634456.8	634.4568	Paper and board: mixed
11		24.55	24865.48	610447.534	610.447534	Electrical items - IT
12	PUNE - KCB1	15.058	24865.48	374424.3978	374.4243978	Electrical items - IT
13		114	881.19	100455.66	100.45566	Paper and board: mixed
14		58	919.4	53325.2	53.3252	Paper and board: paper
15		4167.6	4633.48	19310491.25	19310.49125	Batteries - Alkaline
16	PUNE – KCB2	10800	881.19	9516852	9516.852	Paper and board: mixed

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3.3.A Scope 3 – Material Use

Sr. No.	Site	Total Consumption (Kg)	Emission Factor	Carbon Emission ($KgCO_2e$/ kwh)	Carbon Emission (tCO_2e)	Material Type
17	PUNE WA	11.6	24865.48	288439.568	288.439568	Electrical items - IT
18		2128	881.19	1875172.32	1875.17232	Paper and board: mixed
19	PUNE WAD	1473.38	919.4	1354625.572	1354.625572	Paper and board: paper
20		96.49	24865.48	2399270.165	2399.270165	Electrical items - IT
21		229.2	4633.48	1061993.616	1061.993616	Batteries - Alkaline
22		10374	881.19	9141465.06	9141.46506	Paper and board: mixed
TOTAL		**31951.253**	**-**	**49065928.63**	**49065928.63**	**-**

Emission Factor Source:

https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2020

49065928.63 tCO_2

3.3.A Scope 3 – Purchased Services

Sr. No.	Type of Services	Sum of PO Amount	Calculation constant	Emission Factor	Carbon Emission ($KgCO_2e$/ kwh)	Carbon Emission (tCO_2e)
1	Building Related Services	8137225.27	1000	8	65097.80216	65.09780216
2	Communication Expenses	36730779.55	1000	2	16274.45054	16.27445054
3	Consultancy Charges	2852860	1000	1	8137.22527	8.13722527
4	Employee Verification	1102063.36	1000	0.5	4068.612635	4.068612635
5	Event	479330	1000	10	81372.2527	81.3722527
6	Gardening Services	6820	1000	3	24411.67581	24.41167581
7	Housekeeping	1169950.58	1000	4	32548.90108	32.54890108
8	Seminars & Conferences	1290164	1000	15	122058.3791	122.0583791
9	Software Maintenance & Renewal	133596438.7	1000	1	8137.22527	8.13722527
TOTAL		**185365631.4**	-	-	**362106.5245**	**362.1065245**

Emission Factor Source:

https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2020

UK Department for Environment, Food & Rural Affairs (EEIO: Construction)

US Environmental Protection Agency (Telecom sector)

EXIOBASE Consortium (Business services)

US Environmental Protection Agency

UK Department for Environment, Food & Rural Affairs + EEIO hospitality sectors

UK Department for Environment, Food & Rural Affairs

195737.6 tCO_2

3.3.B Scope 3 – Fuel- and Energy-Related Activities (FERA)

Purchased Electricity – Upstream Emissions		
Parameter	**Value**	
Total electricity consumption	6,287,110.96 kWh	
Scope 2 emission factor (CEA v19)	0.716 kg CO_2/kWh	
T&D loss (India avg.)	20.10%	
Upstream emission factor	0.123 kg CO_2/kWh	
T&D Loss Emissions Calculation		
A. T&D Losses		
Calculation Step	**Value**	
Electricity loss (kWh)	1,263,709.20 kWh	
Emission factor used	0.716 kg CO_2/kWh	
Emissions (kg CO_2)	904,015.79 kg CO_2	
Emissions (t CO_2e)	904.02 t CO_2e	
B. Upstream Generation Emissions		
Calculation Step	**Value**	
Electricity consumption	6,287,110.96 kWh	
Emission factor used	0.123 kg CO_2/kWh	
Emissions (kg CO_2)	773,314.65 kg CO_2	
Emissions (t CO_2e)	773.31 t CO_2e	
C. Total Upstream Emissions (Electricity)		
Component	**t CO_2e**	
T&D Loss Emissions	904.02	
Upstream Generation	773.31	
Total Electricity	1,677.33	
Upstream Emissions from Purchased Fuel (Diesel)		
Parameter	**Value**	
Diesel consumption	21,536.31 litres	
Emission factor (Well-to-Tank)	0.59 kg CO_2e/litre	
Fuel Emissions Calculation		
Calculation Step	**Value**	
Emissions (kg CO_2)	12,706.42 kg CO_2	
Emissions (t CO_2e)	12.71 t CO_2e	
Summary of Category 3 (Upstream) Emissions		
Source	**Description**	**Quantity (t CO_2e)**
Electricity – T&D losses	20.1% loss on 6.29 million kWh	904.02
Electricity – Upstream generation	0.123 kg CO_2/kWh	773.31
Fuel – Upstream (Diesel)	0.59 kg CO_2e/litre	12.71
Total Category 3 Emissions	**Purchased energy-related**	**1,690.04**

Emission Factor Source:

https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting

https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2024

3.3.C Scope 3 – Upstream Distribution & Transportation

Sr. No.	Site	Vendor Type	Total Km	Vehicle Type	Emission Factor	Carbon Emission (Kg CO_2e)	Carbon Emission (t CO_2e)
1	GIFT CITY	Stationary	9.3	4 Wheeler Tempo / Diesel	0.307	2.8551	0.0028551
2		Stationary	9.3	4 Wheeler Tempo / Diesel	0.307	2.8551	0.0028551
3		Stationary	9.3	4 Wheeler Tempo / Diesel	0.307	2.8551	0.0028551
4		Stationary	9.3	4 Wheeler Tempo / CNG	0.1077	1.00161	0.00100161
5		Sanatory Items	40	4 Wheeler Tempo / CNG	0.1077	4.308	0.004308
6		Sanatory Items	40	4 Wheeler Tempo / CNG	0.1077	4.308	0.004308
7	INFO CITY	Sanatory Items	32.4	3 Wheeler Tempo / Diesel	0.1322	4.28328	0.00428328
8		Sanatory Items	32.4	2 Wheeler / Petrol	0.0319	1.03356	0.00103356
9		Sanatory Items	32.4	4 Wheeler Tempo / Diesel	0.307	9.9468	0.0099468
10		Sanatory Items	32.4	4 Wheeler Tempo / Diesel	0.307	9.9468	0.0099468
11		Sanatory Items	32.4	4 Wheeler Tempo / Diesel	0.307	9.9468	0.0099468
12		Stationary	0.45	2 Wheeler / Petrol	0.0319	0.014355	0.000014355
13		Stationary	0.45	4 Wheeler Tempo / Diesel	0.307	0.13815	0.00013815
14		Stationary	0.45	4 Wheeler Tempo / Diesel	0.307	0.13815	0.00013815
15	HYD 1	Stationary	14.3	4 Wheeler Tempo / CNG	0.1077	1.54011	0.00154011
16		Stationary	33.9	4 Wheeler Tempo / CNG	0.1077	3.65103	0.00365103

Table continued on next page

Sr. No.	Site	Vendor Type	Total Km	Vehicle Type	Emission Factor	Carbon Emission (Kg CO_2e)	Carbon Emission (t CO_2e)
17	HYD 1	Stationary	14.3	4 Wheeler Tempo / CNG	0.1077	1.54011	0.00154011
18		Stationary	14.3	4 Wheeler Tempo / CNG	0.1077	1.54011	0.00154011
19		IT Equipment's	19.9	4 Wheeler Tempo / CNG	0.1077	2.14323	0.00214323
20		IT Equipment's	19.9	4 Wheeler Tempo / CNG	0.1077	2.14323	0.00214323
21		IT Equipment's	19.9	4 Wheeler Tempo / Diesel	0.307	6.1093	0.0061093
22		IT Equipment's	19.9	4 Wheeler Tempo / Diesel	0.307	6.1093	0.0061093
23		IT Equipment's	19.9	4 Wheeler Tempo / Diesel	0.307	6.1093	0.0061093
24		IT Equipment's	19.9	4 Wheeler Tempo / Diesel	0.307	6.1093	0.0061093
25		IT Equipment's	19.9	4 Wheeler Tempo / Diesel	0.307	6.1093	0.0061093
26		Stationary	14.3	4 Wheeler Tempo / CNG	0.1077	1.54011	0.00154011
27		Stationary	14.3	4 Wheeler Tempo / CNG	0.1077	1.54011	0.00154011
28		IT Equipment's	19.9	4 Wheeler Tempo / Diesel	0.307	6.1093	0.0061093
29		IT Equipment's	16.6	2 Wheeler / Petrol	0.0319	0.52954	0.00052954
30		IT Equipment's	16.6	2 Wheeler / Petrol	0.0319	0.52954	0.00052954
31	HYD 2	Stationary	33.8	4 Wheeler Tempo / Diesel	0.307	10.3766	0.0103766
32		Stationary	14.2	4 Wheeler Tempo / Diesel	0.307	4.3594	0.0043594

Table continued on next page

Sr. No.	Site	Vendor Type	Total Km	Vehicle Type	Emission Factor	Carbon Emission (Kg CO_2e)	Carbon Emission (t CO_2e)
33	HYD 2	IT Equipment's	19.8	4 Wheeler Tempo / Diesel	0.307	6.0786	0.0060786
34		IT Equipment's	545	4 Wheeler Tempo / Diesel	0.307	167.315	0.167315
35		Stationary	14.2	4 Wheeler Tempo / Diesel	0.307	4.3594	0.0043594
36		Stationary	14.2	4 Wheeler Tempo / Diesel	0.307	4.3594	0.0043594
37		Stationary	14.2	4 Wheeler Tempo / Diesel	0.307	4.3594	0.0043594
38		Stationary	14.2	4 Wheeler Tempo / Diesel	0.307	4.3594	0.0043594
39		Stationary	33.8	4 Wheeler Tempo / Diesel	0.307	10.3766	0.0103766
40	PUNE KCB1	Repairs & Maintenance	25.8	3 wheeler Tempo/CNG	0.10768	2.778144	0.002778144
41		Repairs & Maintenance	25.8	3 wheeler Tempo/CNG	0.10768	2.778144	0.002778144
42		Repairs & Maintenance	25.8	3 wheeler Tempo/CNG	0.10768	2.778144	0.002778144
43		Repairs & Maintenance	25.8	3 wheeler Tempo/CNG	0.10768	2.778144	0.002778144
44		Electronics Items	170	4 Wheeler Tempo / Diesel	0.307	52.19	0.05219
45		Electronics Items	170	4 Wheeler Tempo / Diesel	0.307	52.19	0.05219
46		Electronics Items	170	4 Wheeler Tempo / Diesel	0.307	52.19	0.05219
47		Electronics Items	170	4 Wheeler Tempo / Diesel	0.307	52.19	0.05219
48	PUNE KCB2	Housekeeping	8.4	4 Wheeler Tempo / Diesel	0.307	2.5788	0.0025788

Table continued on next page

Sr. No.	Site	Vendor Type	Total Km	Vehicle Type	Emission Factor	Carbon Emission (Kg CO_2e)	Carbon Emission (t CO_2e)
49	PUNE KCB2	Housekeeping	8.4	4 Wheeler Tempo / Diesel	0.307	2.5788	0.0025788
50		Housekeeping	8.4	4 Wheeler Tempo / Diesel	0.307	2.5788	0.0025788
51		Housekeeping	8.4	4 Wheeler Tempo / Diesel	0.307	2.5788	0.0025788
52		Housekeeping	8.4	4 Wheeler Tempo / Diesel	0.307	2.5788	0.0025788
53		Housekeeping	8.4	4 Wheeler Tempo / Diesel	0.307	2.5788	0.0025788
54		Housekeeping	8.4	4 Wheeler Tempo / Diesel	0.307	2.5788	0.0025788
55	PUNE WA	Housekeeping	10.1	4 Wheeler Tempo / Diesel	0.307	3.1007	0.0031007
56		Housekeeping	10.1	4 Wheeler Tempo / Diesel	0.307	3.1007	0.0031007
57		Housekeeping	10.1	4 Wheeler Tempo / Diesel	0.307	3.1007	0.0031007
58		Housekeeping	10.1	3 wheeler Tempo/CNG	0.10768	1.087568	0.001087568
59		Housekeeping	10.1	3 wheeler Tempo/CNG	0.10768	1.087568	0.001087568
60		Housekeeping	10.1	3 wheeler Tempo/CNG	0.10768	1.087568	0.001087568
61		Housekeeping	10.1	3 wheeler Tempo/CNG	0.10768	1.087568	0.001087568
62		Housekeeping	10.1	3 wheeler Tempo/CNG	0.10768	1.087568	0.001087568
63		Office Expenses	162	3 wheeler Tempo/CNG	0.10768	17.44416	0.01744416
64		Office Expenses	162	3 wheeler Tempo/CNG	0.10768	17.44416	0.01744416

Table continued on next page

Sr. No.	Site	Vendor Type	Total Km	Vehicle Type	Emission Factor	Carbon Emission (Kg CO_2e)	Carbon Emission (t CO_2e)
65	PUNE WA	Office Expenses	162	3 wheeler Tempo/CNG	0.10768	17.44416	0.01744416
66	PUNE WAD	Housekeeping	7	4 Wheeler Tempo / Diesel	0.307	2.149	0.002149
67	PUNE WAD	Stationary	7.3	4 Wheeler Tempo / Diesel	0.307	2.2411	0.0022411
68	PUNE WAD	FA-CCTV	18.2	4 Wheeler Tempo / Diesel	0.307	5.5874	0.0055874
69	PUNE WAD	Stationary	7.3	4 Wheeler Tempo / Diesel	0.307	2.2411	0.0022411
70	PUNE WAD	Housekeeping	7	4 Wheeler Tempo / Diesel	0.307	2.149	0.002149
71	PUNE WAD	Stationary	7.3	4 Wheeler Tempo / Diesel	0.307	2.2411	0.0022411
72	PUNE WAD	Repairs & Maintenance	33.3	4 Wheeler Tempo / Diesel	0.307	10.2231	0.0102231
73	PUNE WAD	Repairs & Maintenance	33.3	3 Wheeler Tempo / Diesel	0.1322	4.40226	0.00440226
74	PUNE WAD	Repairs & Maintenance	33.3	3 Wheeler Tempo / Diesel	0.1322	4.40226	0.00440226
75	PUNE WAD	FA-Data Processing	6	3 Wheeler Tempo / Diesel	0.1322	0.7932	0.0007932
76	PUNE WAD	Office Expenses	6	3 Wheeler Tempo / Diesel	0.1322	0.7932	0.0007932
77	PUNE WAD	Housekeeping	7	3 Wheeler Tempo / Diesel	0.1322	0.9254	0.0009254
78	PUNE WAD	Stationary	7.3	3 Wheeler Tempo / Diesel	0.1322	0.96506	0.00096506
79	PUNE WAD	Stationary	7.3	3 Wheeler Tempo / Diesel	0.1322	0.96506	0.00096506
80	PUNE WAD	Office Expenses	3.9	3 Wheeler Tempo / Diesel	0.1322	0.51558	0.00051558
81	PUNE WAD	Office Expenses	164	3 Wheeler Tempo / Diesel	0.1322	21.6808	0.0216808

Table continued on next page

Sr. No.	Site	Vendor Type	Total Km	Vehicle Type	Emission Factor	Carbon Emission (Kg CO_2e)	Carbon Emission (t CO_2e)
82		FA-Data Processing	164	4 Wheeler Tempo / Diesel	0.307	50.348	0.050348
83		Office Expenses	4.2	4 Wheeler Tempo / Diesel	0.307	1.2894	0.0012894
84		Housekeeping	7	4 Wheeler Tempo / Diesel	0.307	2.149	0.002149
85		Office Expenses	3.9	4 Wheeler Tempo / Diesel	0.307	1.1973	0.0011973
86		Office Expenses	3.9	4 Wheeler Tempo / Diesel	0.307	1.1973	0.0011973
87		Housekeeping	7	4 Wheeler Tempo / Diesel	0.307	2.149	0.002149
88		Office Expenses	4.2	4 Wheeler Tempo / Diesel	0.307	1.2894	0.0012894
89		Office Expenses	164	4 Wheeler Tempo / Diesel	0.307	50.348	0.050348
90	PUNE WAD	FA-Data Processing	164	4 Wheeler Tempo / Diesel	0.307	50.348	0.050348
91		Stationary	7.3	4 Wheeler Tempo / Diesel	0.307	2.2411	0.0022411
92		FA-Data Processing	14	4 Wheeler Tempo / Diesel	0.307	4.298	0.004298
93		Housekeeping	7	4 Wheeler Tempo / Diesel	0.307	2.149	0.002149
94		Office Expenses	4.2	4 Wheeler Tempo / Diesel	0.307	1.2894	0.0012894
95		Housekeeping	7	4 Wheeler Tempo / Diesel	0.307	2.149	0.002149
96		FA-Data Processing	164	4 Wheeler Tempo / Diesel	0.307	50.348	0.050348
97		FA-Data Processing	164	4 Wheeler Tempo / Diesel	0.307	50.348	0.050348
98		FA-Data Processing	164	4 Wheeler Tempo / Diesel	0.307	50.348	0.050348

Table continued on next page

Sr. No.	Site	Vendor Type	Total Km	Vehicle Type	Emission Factor	Carbon Emission (Kg CO_2e)	Carbon Emission (t CO_2e)
99	PUNE WAD	FA-Data Processing	164	4 Wheeler Tempo / Diesel	0.307	50.348	0.050348
100		Office Expenses	164	4 Wheeler Tempo / Diesel	0.307	50.348	0.050348
101		Housekeeping	7	4 Wheeler Tempo / Diesel	0.307	2.149	0.002149
102		Stationary	7.3	4 Wheeler Tempo / Diesel	0.307	2.2411	0.0022411
103		Staff Welfare	3.9	4 Wheeler Tempo / Diesel	0.307	1.1973	0.0011973
TOTAL			**4444.95**	**-**	**-**	**1119.968041**	**1.119968041**

SOURCE:
1. India-Transportation-Reduction-Report
2. WRI-2015-India-Specific-Road-Transport-Emission-Factors
3. Emission factor of 2-wheeler < 125 CC = 0.0319 kg CO2 X 1 GWP = 0.0319 kg CO2e/km

1.112 tCo2e

3.3.D Scope 3 – Waste Disposal in Operations

Sr. No.	Site	Total Disposal (Kg)	Emission Factor	Carbon Emission ($KgCO_2e$/ kwh)	Carbon Emission (tCO_2e)	Material Type
1	GIFT CITY	6.7	8.9	59.63	0.05963	Metal: scrap metal
2		3	8.9	26.7	0.0267	Plastics: PP (incl. forming)
3		31.5	1041.8	32816.7	32.8167	Paper and board: paper
4		13	1041.8	13543.4	13.5434	Paper and board: board
5		1689.6	8.9	15037.44	15.03744	WEEE - mixed
6		6	8.9	53.4	0.0534	Metal: aluminium cans and foil (excl. forming)
7	INFOCITY	1881.6	8.9	16746.24	16.74624	Batteries
8		88.8	8.9	790.32	0.79032	Metal: scrap metal
9		110.1	8.9	979.89	0.97989	Plastics: average plastics
10		56.1	1041.8	58444.98	58.44498	Paper and board: board
11		73	8.9	649.7	0.6497	WEEE - large
12		1268.88	8.9	11293.032	11.293032	WEEE - mixed
13		70.6	1041.8	73551.08	73.55108	Paper and board: paper
14	HYD 1	622.2	8.9	5537.58	5.53758	WEEE - mixed
15		389	1041.8	405260.2	405.2602	Paper and board: mixed
16	PUNE KCB1 & B2	Data not Available				

Table continued on next page

Sr. No.	Site	Total Disposal (Kg)	Emission Factor	Carbon Emission ($KgCO_2e$/ kwh)	Carbon Emission (tCO_2e)	Material Type
17	PUNE WA	569	8.9	5064.1	5.0641	Metal: scrap metal
18		70	8.9	623	0.623	Paper and board: board
19		92	8.9	818.8	0.8188	Batteries
20		3	8.9	26.7	0.0267	WEEE - mixed
21		19	8.9	169.1	0.1691	WEEE - large
22		13.4	8.9	119.26	0.11926	Metal: aluminium cans and foil (excl. forming)
23		89	8.9	792.1	0.7921	Plastics: average plastics
24	PUNE WAD	1200	8.9	10680	10.68	Metal: steel cans
25		33	1041.8	34379.4	34.3794	Paper and board: paper
26		694	8.9	6176.6	6.1766	Plastics: average plastics
27		2303	8.9	20496.7	20.4967	Paper and board: board
28		14902	8.9	132627.8	132.6278	Metal: scrap metal
29		1255	8.9	11169.5	11.1695	Metal: aluminium cans and foil (excl. forming)
30		7453	8.9	66331.7	66.3317	Batteries
31		11070	626.87	6939450.9	6939.4509	Organic: food and drink waste
TOTAL		**46075.48**	**-**	**7863715.952**	**7863.715952**	**-**

Table continued on next page

Scope 3 – Waste Disposal (Sewage water treated on site STP)

Sr. No.	Parameter	Description
1	Source Type	Sewage Water Treated on Site STP
2	Total Sewage Water Treated (Annual)	25,200 kilolitres (KL) = 25,200 cubic metres (m^3)
3	Emission Factor Used	0.6 kg CO_2e/m^3
4	Emission Calculation Formula	Emissions (kg CO_2e) = Volume (m^3) × Emission Factor (kg CO_2e/m^3)
5	Emission Calculation	25,200 × 0.6 = 15,120 Kg CO_2e
6	Total Emissions (in kg CO_2e/Year)	15120 Kg Co_2e
7	Total Emissions (in tones CO_2e/Year)	15.12 t Co2e
TOTAL WASTE GENERATED IN t CO_2e		**7878.8359**

Emission Factor Source:

https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2020

https://www.epa.gov/climateleadership/ghg-emission-factors-hub

7878.8359 tCO_2

3.3.E Scope 3 – Business Travel

Sr. No.	Sector	Class	Single way/ Return	Distance	Carbon Emission ($KgCO_2e$)	Carbon Emission (tCO_2e)	No. of Trips
1	PNQ-DEL	Business	One Way	63580	5170	5.17	55
2	BOM-DXB/DXB-EDI	Economy	One Way	5778	399	0.399	3
3	AMD-BOM	Economy	One Way	11961	1296	1.296	27
4	AMD-PNQ	Economy	One Way	102883	9552	9.552	199
5	PNQ-BLR	Economy	One Way	33166	2760	2.76	46
6	PNQ-AMD	Economy	One Way	93577	8507	8.507	181
7	BOM-KUL/KUL-DPS/DPS-KUL/KUL-BOM	Economy	One Way	43452	3384	3.384	12
8	DEL-PNQ	Economy	One Way	64736	5376	5.376	56
9	BOM-AUH/AUH-CDG/CDG-AUH/AUH-BOM	Economy	Round Trip	1968	127	0.127	1
10	DXB-PNQ	Economy	One Way	8200	524	0.524	4
11	BOM-AUH/AUH-CDG/NCE-FCO/FCO-AUH/AUH-BOM	Economy	Round Trip	3936	254	0.254	2
12	AMD-DEL	Economy	One Way	755	72	0.072	1
13	DEL-AMD	Economy	One Way	6040	568	0.568	8
14	DEL-YVR	Economy	One Way	11133	558	0.558	1
15	LKO-DEL/DEL-YYZ	Economy	One Way	422	47	0.047	1
16	MUC-CDG	Economy	One Way	1362	158	0.158	2
17	AMS-MUC	Economy	One Way	2652	352	0.352	4
18	AMS-MUC/MUC-AMS	Economy	One Way	2652	352	0.352	1
19	BOM-MUC/MUC-BOS/EWR-MUC/MUC-BOM	Economy	Round Trip	14416	644	0.644	2
20	HYD-PNQ	Economy	One Way	74850	7050	7.05	150
21	PNQ-HYD	Economy	One Way	80698	7567	7.567	161
22	PNQ-DED	Economy	One Way	6800	470	0.47	5
23	YYZ-LHR/LHR-YYZ	Economy	One Way	5704	302	0.302	1
24	BOM-EWR/EWR-BOM	Economy	One Way	12540	611	0.611	1

Table continued on next page

3.3.E Scope 3 – Business Travel

Sr. No.	Sector	Class	Single way/ Return	Distance	Carbon Emission ($KgCO_2e$)	Carbon Emission (tCO_2e)	No. of Trips
25	ARN-AMS	Economy	One Way	1152	94	0.094	1
26	AMS-ARN	Economy	One Way	1152	94	0.094	1
27	BOM-DXB/DXB-SFO	First	One Way	3852	1658	1.658	2
28	BOM-HKG/HKG-SFO	Economy	One Way	4268	274	0.274	2
29	BOM-AUH/AUH-JFK/JFK-AUH/AUH-BOM	Economy	One Way	3936	254	0.254	2
30	BRU-MUC/MUC-BRU	Economy	One Way	6309	302	0.302	1
31	EWR-LAS	Economy	One Way	3574	231	0.231	1
32	AMS-BER/BER-AMS	Economy	Round Trip	594	69	0.069	1
33	BOM-DXB/DXB-LAX/BOS-DXB/DXB-BOM	First	One Way	1926	829	0.829	1
34	BOM-DXB/DXB-LAX	First	One Way	1926	829	0.829	1
35	BOM-FRA/FRA-RDU/RDU-FRA/FRA-BOM	Economy	Round Trip	78768	3504	3.504	12
36	LHR-YYZ	Economy	One Way	5704	301	0.301	1
37	EWR-AUS	Economy	One Way	2416	210	0.21	1
38	ROC-ATL	Economy	One Way	1205	131	0.131	1
39	MAA-PNQ	Economy	One Way	6377	490	0.49	1
40	PNQ-MAA	Economy	One Way	8199	630	0.63	9
41	BOM-JFK/SFO-BOM	First	One Way	25050	6892	6.892	2
42	SLC-PHX	Economy	One Way	2448	303	0.303	3
43	LAS-SLC	Economy	One Way	592	68	0.068	1
44	LAX-ORD	Economy	One Way	2800	200	0.2	1
45	LAX-EWR	Economy	One Way	7876	564	0.564	2
46	JFK-AUH/AUH-BOM	Economy	One Way	22052	1012	1.012	2
47	PNQ-DEL/DEL-PNQ	Economy	One Way	1156	92	0.092	1
48	BOM-LHR	Economy	One Way	108120	6508	6.508	15

Table continued on next page

3.3.E Scope 3 – Business Travel

Sr. No.	Sector	Class	Single way/ Return	Distance	Carbon Emission ($KgCO_2e$)	Carbon Emission (tCO_2e)	No. of Trips
49	PNQ-DXB	Economy	One Way	4100	262	0.262	2
50	BOM-AMD	Economy	One Way	15948	1728	1.728	36
51	YYZ-DEL/DEL-PNQ/PNQ-DEL/DEL-YYZ	Economy	Round Trip	23272	1066	1.066	2
52	HYD-DOH/DOH-FRA/FRA-DOH/DOH-HYD	Economy	Round Trip	2911	167	0.167	1
53	EDI-LHR/LHR-BOM	Economy	One Way	533	62	0.062	1
54	YYZ-DOH/DOH-BOM	Economy	One Way	32619	1473	1.473	3
55	BOM-DXB/DXB-JFK/BOS-DXB/DXB-BOM	First	One Way	1926	829	0.829	1
56	PNQ-DEL/DEL-AMS/AMS-DEL/DEL-PNQ	Economy	One Way	2312	184	0.184	2
57	BOM-DOH/DOH-ORD/ORD-ROC/ROC-ORD/ORD-DOH/DOH-BOM	Economy	Round Trip	2290	131	0.131	1
58	BOM-DXB/DXB-BOM	Economy	Round Trip	7704	532	0.532	4
59	PNQ-DEL/DEL-JFK/SFO-DEL/DEL-PNQ	Economy	One Way	2312	184	0.184	2
60	BOM-IST/IST-CDG	Economy	One Way	19332	932	0.932	4
61	BOM-DXB/DXB-CDG	Economy	One Way	3852	266	0.266	2
62	BOM-BKK	Economy	One Way	3027	202	0.202	1
63	BKK-DEL/DEL-PNQ	Business	One Way	2943	394	0.394	1
64	PNQ-DEL/DEL-MEL/SYD-DEL/DEL-PNQ	Economy	Round Trip	2312	184	0.184	1
65	EWR-ORD	Economy	One Way	1152	115	0.115	1
66	RDU-TPA	Economy	One Way	946	104	0.104	1
67	TPA-DFW	Economy	One Way	1490	140	0.14	1
68	ORD-CLT	Economy	One Way	964	110	0.11	1
69	DFW-SNA	Economy	One Way	1934	129	0.129	1
70	SFO-IST/IST-DEL/DEL-PNQ	Economy	One Way	43040	2428	2.428	4
71	BOM-DEL/DEL-SFO	Economy	One Way	1136	86	0.086	1
72	BDQ-PNQ	Economy	One Way	425	43	0.043	1

Table continued on next page

3.3.E Scope 3 – Business Travel

Sr. No.	Sector	Class	Single way/ Return	Distance	Carbon Emission ($KgCO_2e$)	Carbon Emission (tCO_2e)	No. of Trips
73	BOM-AMS/AMS-BOM	Business	One Way/Return	54856	2790	2.79	8
74	PNQ-DEL/DEL-JFK/SFO-BOM	Economy	One Way	2312	184	0.184	2
75	SNA-SFO	Economy	One Way	599	98	0.098	1
76	PNQ-SIN/SIN-PNQ	Business	Round Trip	576	184	0.184	1
77	PNQ-DEL/DEL-SYD/ADL-SYD/SYD-DEL/DEL-PNQ	Economy	Round Trip	1156	92	0.092	1
78	HKT-BKK	Economy	One Way	1348	152	0.152	2
79	AMD-HYD	Economy	One Way	7096	536	0.536	8
80	HYD-AMD	Economy	One Way	22286	1702	1.702	26
81	ADL-KUL/KUL-BOM	Economy	One Way	11352	616	0.616	2
82	PNQ-DEL/DEL-SYD	Economy	One Way	2312	184	0.184	2
83	DFW-DXB/DXB-BOM/BOM-DXB/DXB-DFW	Economy	Round Trip	12913	750	0.75	1
84	BOM-CDG/CDG-MSP/MSP-LHR/LHR-BOM	Economy	Round Trip	6991	338	0.338	1
85	YYZ-AUH/AUH-BOM/BOM-AUH/AUH-YYZ	Economy	Round Trip	11117	557	0.557	1
86	PNQ-BLR/BLR-AMS/TLL-AMS/AMS-BLR/BLR-PNQ	Economy	Round Trip	721	60	0.06	1
87	BOM-AMS/AMS-PDX/PDX-AMS/AMS-BOM	Economy	Round Trip	6857	279	0.279	1
88	AMS-DEL/DEL-BOM/BOM-DEL/DEL-AMS	Economy	Round Trip	6362	285	0.285	1
89	AMD-DXB/DXB-AMS/AMS-DXB/DXB-AMD	Economy	Round Trip	1767	108	0.108	1
90	EWR-DEL/DEL-PNQ/PNQ-DEL/DEL-EWR	Economy	One Way	23518	800	0.8	2
91	ORD-FRA/FRA-BOM/BOM-FRA/FRA-ORD	Economy	Round Trip	6968	359	0.359	1
92	SYD-BNE	Economy	One Way	2250	219	0.219	3
93	BNE-SYD	Economy	One Way	3750	365	0.365	5
94	SYD-MEL	Economy	One Way	705	69	0.069	1
95	ATL-MCO	Economy	One Way	1300	166	0.166	2
96	EWR-DEL/DEL-PNQ/BOM-DEL/DEL-EWR	Economy	One Way	11759	400	0.4	1

Table continued on next page

3.3.E Scope 3 – Business Travel

Sr. No.	Sector	Class	Single way/ Return	Distance	Carbon Emission ($KgCO_2e$)	Carbon Emission (tCO_2e)	No. of Trips
97	BLR-PNQ	Economy	One Way	20909	1711	1.711	29
98	EWR-BOM/PNQ-DEL/DEL-EWR	Economy	One Way	12540	611	0.611	1
99	EWR-BOM/BOM-DEL/DEL-EWR	Economy	One Way	12540	611	0.611	1
100	IAD-AUH/AUH-BOM/BOM-AUH/AUH-IAD	Economy	Round Trip	11383	552	0.552	1
101	IXR-PNQ	Economy	One Way	1294	87	0.087	1
102	CCU-PNQ	Economy	One Way	18912	1236	1.236	12
103	PNQ-CCU	Economy	One Way	18912	1236	1.236	12
104	BLR-AMD	Economy	One Way	1220	167	0.167	1
105	BOM-HYD	Economy	One Way	7452	648	0.648	12
106	DEL-MUC/MUC-JFK/JFK-MUC/MUC-DEL	Business	Round Trip	11794	1950	1.95	2
107	CDG-DOH/DOH-BOM/BOM-DOH/DOH-CDG	Economy	Round Trip	4966	330	0.33	1
108	PNQ-BLR/BLR-DPS/DPS-BLR/BLR-PNQ	Economy	Round Trip	1442	120	0.12	2
109	JFK-IAD/IAD-JFK	Economy	One Way	365	84	0.084	1
110	DEL-DXB/DXB-IAD/JFK-DXB/DXB-DEL	Business	Round Trip	2182	443	0.443	1
111	MSP-CDG/CDG-BOM/BOM-LHR/LHR-MSP	Economy	Round Trip	13544	780	0.78	2
112	MSP-AMS/AMS-BOM/BOM-AMS/AMS-MSP	Business	Round Trip	13364	2824	2.824	2
113	IAD-JFK	Economy	One Way	365	84	0.084	1
114	BOM-LHR/LHR-SAN/SAN-LHR/LHR-BOM	Economy	One Way	21624	966	0.966	3
115	EDI-DOH/DOH-BOM	Economy	One Way	11088	700	0.7	2
116	EWR-BOM/BOM-EWR	Economy	One Way	12540	611	0.611	1
117	BOM-SIN/SIN-BNE/BNE-SIN/SIN-BOM	Economy	Round Trip	3919	242	0.242	1
118	BLR-KLH	Economy	One Way	531	45	0.045	1
119	BOM-DEL/DEL-AMS/AMS-DEL/DEL-BOM	Economy	Round Trip	1136	86	0.086	1
120	BOM-DXB/DXB-SFO/DFW-DXB/DXB-BOM	First	Round Trip	1926	829	0.829	1

Table continued on next page

3.3.E Scope 3 – Business Travel

Sr. No.	Sector	Class	Single way/ Return	Distance	Carbon Emission ($KgCO_2e$)	Carbon Emission (tCO_2e)	No. of Trips
121	DFW-IAH	Economy	One Way	359	62	0.062	1
122	EWR-DFW	Economy	One Way	2203	185	0.185	1
123	AMD-CCU	Economy	One Way	1617	109	0.109	1
124	CCU-AMD	Economy	One Way	3234	218	0.218	2
125	MUC-AMS	Economy	One Way	663	88	0.088	1
126	DEN-DFW	Economy	One Way	1132	111	0.111	1
127	ORD-EWR	Economy	One Way	1152	114	0.114	1
128	DCA-DFW	Economy	One Way	1914	163	0.163	1
129	DFW-SLC	Economy	One Way	7860	453	0.453	1
130	SLC-DEN	Economy	One Way	626	86	0.086	1
131	BOM-LHR/LHR-BOM	Business	One Way	28832	5192	5.192	4
132	YOW-CDG/CDG-BOM	Economy	One Way	84810	5820	5.82	15
133	HYD-GAU	Economy	One Way	5037	321	0.321	3
134	CDG-DEL/DEL-BOM	Business	One Way	6564	1141	1.141	1
135	JFK-DEN/SEA-JFK	Economy	One Way	2609	205	0.205	1
136	JFK-DEN/SEA-SFO	Economy	One Way	2609	205	0.205	1
137	DEL-BOM	Economy	One Way	2272	172	0.172	2
138	BNE-MEL	Economy	One-way	5516	432	0.432	4
139	BOM-CDG	Economy	Return	6991	338	0.338	1
140	PNQ-BKK	Economy	One-way	2910	167	0.167	1
141	MAA-AMD	Economy	One-way	4119	273	0.273	3
142	UDR-DEL	Economy	One-Way	2705	265	0.265	5
143	DEL-UDR	Economy	One-Way	2705	265	0.265	5
144	MUC-BOS	Economy	One-Way	6178	378	0.378	1

Table continued on next page

3.3.E Scope 3 – Business Travel

Sr. No.	Sector	Class	Single way/ Return	Distance	Carbon Emission ($KgCO_2e$)	Carbon Emission (tCO_2e)	No. of Trips
145	BOS-LHR	Business	One-Way	5238	1198	1.198	1
146	BOM-JFK	Economy	Return	62625	11560	11.56	5
147	DFW-MYR	Economy	One-Way	1683	185	0.185	1
148	EWR-ATL	Economy	One-Way	1197	125	0.125	1
149	ATL-EWR	Economy	One-Way	1197	125	0.125	1
150	LHR-BOM	Economy	One-Way	28832	1288	1.288	4
151	PHX-DFW	Economy	One-Way	1392	119	0.119	1
152	MYR-ROC	Economy	One-Way	1056	157	0.157	1
153	AUS-SFO	Economy	One-Way	2416	212	0.212	1
154	PNQ-GOX	Economy	One-Way	3780	480	0.48	12
155	GOX-PNQ	Economy	One-Way	4095	520	0.52	13
156	BOM-NAG	Economy	One-Way	681	68	0.068	1
157	HYD-DEL	Economy	One-Way	5068	352	0.352	4
158	DEL-HYD	Economy	One-Way	3468	276	0.276	3
159	CDG-AMS	Economy	One-Way	796	104	0.104	2
160	DFW-ROC	Economy	One-Way	488	92	0.092	1
161	LKO-PNQ	Economy	One-Way	1156	96	0.096	1
162	PNQ-LKO	Economy	One-Way	1156	96	0.096	1
163	JDH-PNQ	Economy	One-Way	858	65	0.065	1
164	PNQ-JDH	Economy	One-Way	858	65	0.065	1
165	ATL-BOS	Economy	One-Way	1519	141	0.141	1
166	LHR-CDG	Business	One-Way	1384	470	0.47	4
167	BOS-EWR	Economy	One-Way	322	61	0.061	1
168	MUC-BOM	Business	One-Way	6309	930	0.93	1

Table continued on next page

3.3.E Scope 3 – Business Travel

Sr. No.	Sector	Class	Single way/ Return	Distance	Carbon Emission ($KgCO_2e$)	Carbon Emission (tCO_2e)	No. of Trips
169	DXB-AMD	Economy	One-Way	1767	108	0.108	1
170	GOI-PNQ	Economy	One-way	1780	260	0.26	5
171	AGP-HEL	Economy	One-way	3349	236	0.236	1
172	HEL-TLL	Economy	One-way	101	16	0.016	1
173	STV-DEL	Economy	One-way	937	79	0.079	1
174	DEL-STV	Economy	One-way	937	78	0.078	1
175	GOX-BOM	Economy	One-way	315	40	0.04	1
176	OMA-SFO	Economy	One-way	2300	250	0.25	1
177	SLC-OMA	Economy	One-way	1347	186	0.186	1
178	DED-PNQ	Economy	One-way	2720	188	0.188	2
179	MSP-ATL	Economy	One-way	1458	139	0.139	1
180	SFO-MSP	Economy	One-way	2551	220	0.22	1
181	BKK-PNQ	Economy	One-way	2910	167	0.167	1
182	DEL-CCU	Economy	One-way	1156	92	0.092	1
183	CCU-DEL	Economy	One-way	1310	95	0.095	1
184	YYZ-LHR	Economy	Return	11408	604	0.604	2
185	FRA-BOM	Business	One-way	6564	920	0.92	1
186	SXR-BOM	Economy	One-way	6664	472	0.472	4
187	BOM-SXR	Economy	One-way	6664	472	0.472	4
188	IST-BOM	Business	One-way	4833	833	0.833	1
189	DED-AMD	Economy	One-way	962	73	0.073	1
190	IAD-SFO	Economy	One-way	3882	253	0.253	1
191	BOM-ARN	Economy	Return	3027	202	0.202	1
192	SXR-IXC	Economy	One-way	828	88	0.088	2

Table continued on next page

3.3.E Scope 3 – Business Travel

Sr. No.	Sector	Class	Single way/ Return	Distance	Carbon Emission ($KgCO_2e$)	Carbon Emission (tCO_2e)	No. of Trips
193	IXC-BOM	Economy	One-way	2690	212	0.212	2
194	BOM-IXC	Economy	One-way	2690	206	0.206	2
195	BOM-EWR	Economy	Return	12540	611	0.611	1
196	BOM-AMS	Economy	Return/One Way	34285	4899	4.899	5
197	DEL-AMS	Economy	Return	6362	285	0.285	1
198	ATQ-DEL	Economy	One-way	414	50	0.05	1
199	DEL-ATQ	Economy	One-way	414	51	0.051	1
200	ORD-DEL	Economy	One-way	12017	591	0.591	1
201	SFO-DEN	Economy	One-way	1553	118	0.118	1
202	MEL-BNE	Economy	One-way	2758	214	0.214	2
203	MAA-BOM	Economy	One-way	5160	405	0.405	2
204	IAD-ATL	Economy	One-way	856	107	0.107	1
205	DFW-IAD	Economy	One-way	1881	174	0.174	1
206	ATL-JFK	Economy	One-way	1220	117	0.117	1
207	LAS-EWR	Economy	One-way	3574	228	0.228	1
208	RDU-BOS	Economy	One-way	983	114	0.114	1
209	EWR-IAD	Economy	One-way	340	44	0.044	1
210	ATL-SAT	Economy	One-way	1403	138	0.138	1
211	BOS-ATL	Economy	One-way	1519	141	0.141	1
212	LGA-YYZ	Economy	One-way	1142	194	0.194	2
213	LAX-LAS	Economy	One-way	378	54	0.054	1
214	LAS-LAX	Economy	One-way	378	54	0.054	1
215	DEN-SEA	Economy	One-way	1643	141	0.141	1
216	DEL-JFK	Business	Return	29375	4462.5	4.4625	3

Table continued on next page

3.3.E Scope 3 – Business Travel Travel

Sr. No.	Sector	Class	Single way/ Return	Distance	Carbon Emission ($KgCO_2e$)	Carbon Emission (tCO_2e)	No. Of Trips
217	MCO-LAS	Economy	One way	3275	229	0.229	1
218	PHL-ATL	Economy	One way	1070	122	0.122	1
219	JFK-SFO	Business	One way	8300	1828	1.828	2
220	BOM-JSA	Economy	One way	3560	276	0.276	4
221	JSA-BOM	Economy	One way	2670	207	0.207	3
222	BRS-EDI	Economy	One way	510	64	0.064	1
223	BOM-DOH	Economy	One way	2290	131	0.131	1
224	BLR-HYD	Economy	One way	721	59	0.059	1
225	SIN-BOM	Economy	One way	3919	242	0.242	1
226	BOM-SIN	Economy	One Way/Return	7838	1017	1.017	2
227	BOM-SGN	Economy	One way	7468	496	0.496	2
228	SGN-DAD	Economy	One way	1204	132	0.132	2
229	DAD-HAN	Economy	One way	2512	272	0.272	4
230	DAC-BOM	Economy	Return	1885	127	0.127	1
231	BOM-MAA	Economy	One way	5160	405	0.405	5
232	HYD-BOM	Economy	One way	7452	648	0.648	12
233	HSR-HYD	Economy	One way	961	73	0.073	1
			TOTAL	2118343	183193.5	183.31935	1468

Emission Factor Source:

https://icec.icao.int/calculator

183.31935 tCO_2e

3.3.F Scope 3 – Employee Commute

Site		GANDHINAGAR – GIFT CITY			
Sr. No.	Vehicle Type	Total Traveling (Km/Day)	Total Traveling in Km (Yearly)	Carbon Emission ($KgCO_2e$/ kwh)	Carbon Emission (tCO_2e)
1	2 Wheeler - EV	85	9880	494	0.494
2	2 Wheeler - Petrol (<150 CC)	2107.5	338208	20292.48	20.29248
3	4 Wheeler - CNG	287	42692	6830.72	6.83072
4	4 Wheeler - Diesel (<1200 CC)	566	79924	13587.08	13.58708
5	4 Wheeler - Petrol (<1200 CC)	1869	279266	50267.88	50.26788
6	4 Wheeler - Petrol (<2200 CC)	152	26936	6734	6.734
7	Auto (Petrol)	99	16068	1606.8	1.6068
8	Bus (Diesel)	771.2	141658.4	16999.008	16.999008
9	Metro	36	4888	195.52	0.19552
10	Walking	25.8	4440.8	0	0
TOTAL		**5998.5**	**943961.2**	**117007.488**	**117.007488**

Table continued on next page

3.3.F Scope 3 – Employee Commute

Site		GANDHINAGAR – INFO CITY			
Sr. No.	Vehicle Type	Total Traveling (Km/Day)	Total Traveling in Km (Yearly)	Carbon Emission ($KgCO_2e$/ kwh)	Carbon Emission (tCO_2e)
1	2 Wheeler - Petrol (<150 CC)	566.5	89674	5380.44	5.38044
2	4 Wheeler - CNG	219	27560	4409.6	4.4096
3	4 Wheeler - Diesel (<1200 CC)	96	14976	2545.92	2.54592
4	4 Wheeler - EV (Small Car)	140	21840	1092	1.092
5	4 Wheeler - Petrol (<1200 CC)	627	84656	15238.08	15.23808
6	Bus (Diesel)	280	60320	7238.4	7.2384
7	PWFH	0	0	0	0
8	Walking	38.4	6489.6	0	0
TOTAL		**1996.9**	**305515.6**	**35904.44**	**35.90444**

Table continued on next page

3.3.F Scope 3 – Employee Commute

Site		HYDERABAD – HYD 1			
Sr. No.	Vehicle Type	Total Traveling (Km/Day)	Total Traveling in Km (Yearly)	Carbon Emission ($KgCO_2e$/ kwh)	Carbon Emission (tCO_2e)
1	2 Wheeler - Petrol (<150 CC)	1299	187512	11250.72	11.25072
2	4 Wheeler - Diesel (<1200 CC)	180	28080	4773.6	4.7736
3	4 Wheeler - Diesel (<2200 CC)	60	4680	1029.6	1.0296
4	4 Wheeler - Petrol (<1200 CC)	264	38220	6879.6	6.8796
5	Auto (CNG)	103.5	16926	2538.9	2.5389
6	Auto (Petrol)	108	16848	1684.8	1.6848
7	Bus (Diesel)	69	10764	1291.68	1.29168
8	Metro	225	35100	1404	1.404
9	PWFH	0	0	0	0
10	Walking	52	8985.6	0	0
TOTAL		**2360.5**	**347115.6**	**30852.9**	**30.8529**

Table continued on next page

3.3.F Scope 3 – Employee Commute

Site		HYDERABAD – HYD 2			
Sr. No.	Vehicle Type	Total Traveling (Km/Day)	Total Traveling in Km (Yearly)	Carbon Emission ($KgCO_2e$/ kwh)	Carbon Emission (tCO_2e)
1	2 Wheeler - EV	200	25116	1255.8	1.2558
2	2 Wheeler - Petrol (<150 CC)	2949	432614	25956.84	25.95684
3	4 Wheeler - Diesel (<1200 CC)	210	32760	5569.2	5.5692
4	4 Wheeler - Diesel (<2200 CC)	549	31512	6932.64	6.93264
5	4 Wheeler - Petrol (<1200 CC)	527	42042	7567.56	7.56756
6	4 Wheeler - Petrol (<2200 CC)	120	21840	5460	5.46
7	Auto (CNG)	246	40872	6130.8	6.1308
8	Auto (Petrol)	20	4160	416	0.416
9	Bus (Diesel)	489	76284	9154.08	9.15408
10	Metro	704	110760	4430.4	4.4304
11	PWFH	0	0	0	0
12	Walking	32	5408	0	0
TOTAL		**6046**	**823368**	**72873.32**	**72.87332**

Table continued on next page

3.3.F Scope 3 – Employee Commute

Site		PUNE – KCB1			
Sr. No.	Vehicle Type	Total Traveling (Km/Day)	Total Traveling in Km (Yearly)	Carbon Emission ($KgCO_2e$/ kwh)	Carbon Emission (tCO_2e)
1	2 Wheeler - EV	135	21060	1053	1.053
2	2 Wheeler - Petrol (<150 CC)	1925	296868	17812.08	17.81208
3	4 Wheeler - CNG	166	21528	3444.48	3.44448
4	4 Wheeler - Petrol (<1200 CC)	222	25116	4520.88	4.52088
5	4 Wheeler - Petrol (<2200 CC)	155	14586	3646.5	3.6465
6	Auto (CNG)	54	5616	842.4	0.8424
7	Metro	354	53508	2140.32	2.14032
8	Walking	84.3	14086.8	0	0
TOTAL		**3095.3**	**452368.8**	**33459.66**	**33.45966**

Table continued on next page

3.3.F Scope 3 – Employee Commute

Site		PUNE – KCB2			
Sr. No.	Vehicle Type	Total Traveling (Km/Day)	Total Traveling in Km (Yearly)	Carbon Emission ($KgCO_2e$/ kwh)	Carbon Emission (tCO_2e)
1	2 Wheeler - EV	15	2340	117	0.117
2	2 Wheeler - Petrol (<150 CC)	401.7	59155.2	3549.312	3.549312
3	4 Wheeler - CNG	32	4992	798.72	0.79872
4	4 Wheeler - Diesel (<1200 CC)	10	1560	265.2	0.2652
5	4 Wheeler - Diesel (<2200 CC)	15	1170	257.4	0.2574
6	4 Wheeler - EV (Large Car)	18	1404	84.24	0.08424
7	4 Wheeler - EV (Small Car)	3	468	23.4	0.0234
8	4 Wheeler - Petrol (<1200 CC)	23	2418	435.24	0.43524
9	4 Wheeler - Petrol (<2200 CC)	31	3198	799.5	0.7995
10	Auto (Petrol)	47	6656	665.6	0.6656
11	Bus (Electric)	15	2340	93.6	0.0936
12	Metro	75	11700	468	0.468
13	PWFH	0	0	0	0
14	Walking	330	56362.8	0	0
TOTAL		**1015.7**	**153764**	**7557.212**	**7.557212**

Table continued on next page

3.3.F Scope 3 – Employee Commute

Site		PUNE – WA			
Sr. No.	Vehicle Type	Total Traveling (Km/Day)	Total Traveling in Km (Yearly)	Carbon Emission ($KgCO_2e$/ kwh)	Carbon Emission (tCO_2e)
1	2 Wheeler - EV	298	37128	1856.4	1.8564
2	2 Wheeler - Petrol (<150 CC)	5212.3	782043.6	46922.616	46.922616
3	4 Wheeler - CNG	172	18096	2895.36	2.89536
4	4 Wheeler - Diesel (<1200 CC)	115	16172	2749.24	2.74924
5	4 Wheeler - Diesel (<2200 CC)	147	22932	5045.04	5.04504
6	4 Wheeler - Petrol (<1200 CC)	711	98956	17812.08	17.81208
7	4 Wheeler - Petrol (<2200 CC)	157.8	23810.8	5952.7	5.9527
8	Auto (CNG)	98	15288	2293.2	2.2932
9	Auto (Petrol)	11	2236	223.6	0.2236
10	Bus (Diesel)	4	624	74.88	0.07488
11	Bus (Electric)	480	74880	2995.2	2.9952
12	Metro	240	37440	1497.6	1.4976
13	PWFH	0	0	0	0
14	Walking	270.4	46342.4	0	0
TOTAL		**7916.5**	**1175948.8**	**90317.916**	**90.317916**

Table continued on next page

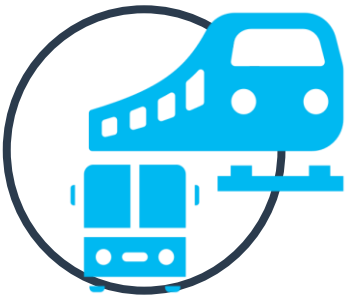
3.3.F Scope 3 – Employee Commute

Site		PUNE – WAD			
Sr. No.	Vehicle Type	Total Traveling (Km/Day)	Total Traveling in Km (Yearly)	Carbon Emission ($KgCO_2e$/ kwh)	Carbon Emission (tCO_2e)
1	2 Wheeler - EV	1878	243464	12173.2	12.1732
2	2 Wheeler - Petrol (<150 CC)	37112	5490014.4	329400.864	329.400864
3	4 Wheeler - CNG	1226	144664	23146.24	23.14624
4	4 Wheeler - Diesel (<1200 CC)	599.5	92391	15706.47	15.70647
5	4 Wheeler - Diesel (<2200 CC)	941	123474	27164.28	27.16428
6	4 Wheeler - EV (Large Car)	105	12870	772.2	0.7722
7	4 Wheeler - EV (Small Car)	18	1404	70.2	0.0702
8	4 Wheeler - Petrol (<1200 CC)	6519.8	839880.6	151178.508	151.178508
9	4 Wheeler - Petrol (<2200 CC)	1600.33	190522.28	47630.57	47.63057
10	Auto (CNG)	899	128596	19289.4	19.2894
11	Auto (Petrol)	1165.9	161119.4	16111.94	16.11194
12	Bus (Diesel)	14	2184	262.08	0.26208
13	Bus (Electric)	2245.9	341738.8	13669.552	13.669552
14	Metro	7215.4	1122201.6	44888.064	44.888064
15	PWFH	0	0	0	0
16	Walking	140.4	23587.2	0	0
TOTAL		**61680.23**	**8918111.28**	**701463.568**	**701.463568**

Table continued on next page

Employee Commute- Emission Factor Summary

Sr. No.	Vehicle Type	Emission Factor	Emission Factor Source Link
1	2 Wheeler - EV	0.05	https://indiaghgp.org/transport-emission-factors India specific road transport emission factors https://www.gov.uk/government/publications/greenhouse--gasgas--reportingreporting--conversionconversion--factorsfactors--20202020
2	2 Wheeler - Petrol (<150 CC)	0.06	
3	4 Wheeler - CNG	0.16	
4	4 Wheeler - Diesel (<1200 CC)	0.17	
5	4 Wheeler - Diesel (<2200 CC)	0.22	
6	4 Wheeler - EV (Large Car)	0.06	
7	4 Wheeler - EV (Small Car)	0.05	
8	4 Wheeler - Petrol (<1200 CC)	0.18	
9	4 Wheeler - Petrol (<2200 CC)	0.25	
10	Auto (CNG)	0.15	
11	Auto (Petrol)	0.1	
12	Bus (Diesel)	0.12	
13	Bus (Electric)	0.04	
14	Metro	0.04	



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