CIB Carbon Footprint Report

For the year **2018**

Heliopolis, Nasr City, Down Town & Maadi, New Cairo, Canal & Industrial ports, Delta & Upper Egypt, Touristic, Alexandria and Giza zones.

Prepared by

environmental & energy services masader

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I. ABBREVIATIONS & ACRONYMS

AC	Air Conditioner
BTU	The British Thermal Unit
BUR	Biennial Update Report
CDD	Cooling Degree Days
CDM	Clean Development Mechanism
CDP	Carbon Disclosure Project
CH_4	Methane
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
DEFRA	Department for Environment, Food & Rural Affairs
EF	Emission Factor
EPA	Environmental Protection Agency
FTE	Full Time Equivalent
GHG	Greenhouse Gases
GWP	Global Warming Potential
HCWW	Holding Company for Water and Wastewater
HFO	High Density Fuel Oil
HVAC	Heating, Ventilation and Air Conditioning
IPCC	Intergovernmental Panel on Climate Change
IR	Infrared
kWh	Kilowatt hour
Mt	Metric Tons
NCV	Net Calorific Value
pKm	Passenger Kilometer
SDG	Sustainability Development Goal
WTT	Well to Tank

II. KEY DEFINITIONS

Baseline year	A historical year used to compare preceding year's emissions.
Carbon Footprint	The amount of Carbon Dioxide that an individual, group, or organization lets into the atmosphere in a certain time frame.
CO_2e	Carbon dioxide equivalent – standardization of all greenhouse gases to reflect the global warming potential relative to carbon dioxide.
Direct Emissions	Greenhouse gas emissions from facilities/sources owned or controlled by a reporting company, e.g. generators, blowers, vehicle fleets.
Indirect Emissions	Greenhouse gas 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.
Emission Factors	Specific value used to convert activity data into greenhouse gas emission values.
Refrigerant	A refrigerant is a substance or mixture, usually a fluid, used in a heat pump and refrigeration cycle

III. EXECUTIVE SUMMARY

Climate change has been classified as one of the major challenges facing nations, governments, businesses and citizens over future decades. It has implications for both human and natural systems and could lead to considerable changes in resource use, production and economic activity. Accordingly, international, regional, national and local initiatives are being developed and implemented to limit greenhouse gas (GHG) emissions and concentrations in the Earth's atmosphere. Such GHG initiatives rely on the quantification, monitoring, reporting and verification of GHG emissions and/or removals.

In these regards, Egypt has taken serious measures concluded by issuing its first Biennial Update Report (BUR) in 2018 which includes a complete inventory of the Country's GHG emissions together with a set of climate change mitigation and adaptation measures and indicating the fact that the country's GHG emissions in 2017 would have exceeded 300,000,000 $MtCO_2e$ with Cairo, Giza and Alexandria topping the governorates chart.

Stemming from its serious commitment to sustainability and transparency, and perfectly aligned with 2030 Sustainable Development Goals (SDGs) as well as Egypt's 2030 Vision, CIB has taken a significant initiative to produce its First Carbon Footprint report in 2017 for its Giza and Alexandria branches. The current report covers the remaining 182 branches, distributed all over the country. This complements the bank's four consecutive sustainability reports published for the years 2015, 2016, 2017 and 2018. The Carbon Footprint initiative places the Bank group at the upfront of the banking sector in Egypt with regards to comprehensive carbon footprint assessment and sets the standards for the sector. It also clearly and accurately defines the baseline and performance indicators allowing setting the future sustainability goals for the bank.

TOTAL FOOTPRINT

SCOPE 1

Direct Emissions	$MtCO_2e$	%
Owned Vehicles (Fuel burning):	2,293.41	
Refrigerants Leakage:	7,750.04	
Total Scope 1	**10,043.45**	**28 %**

SCOPE 2

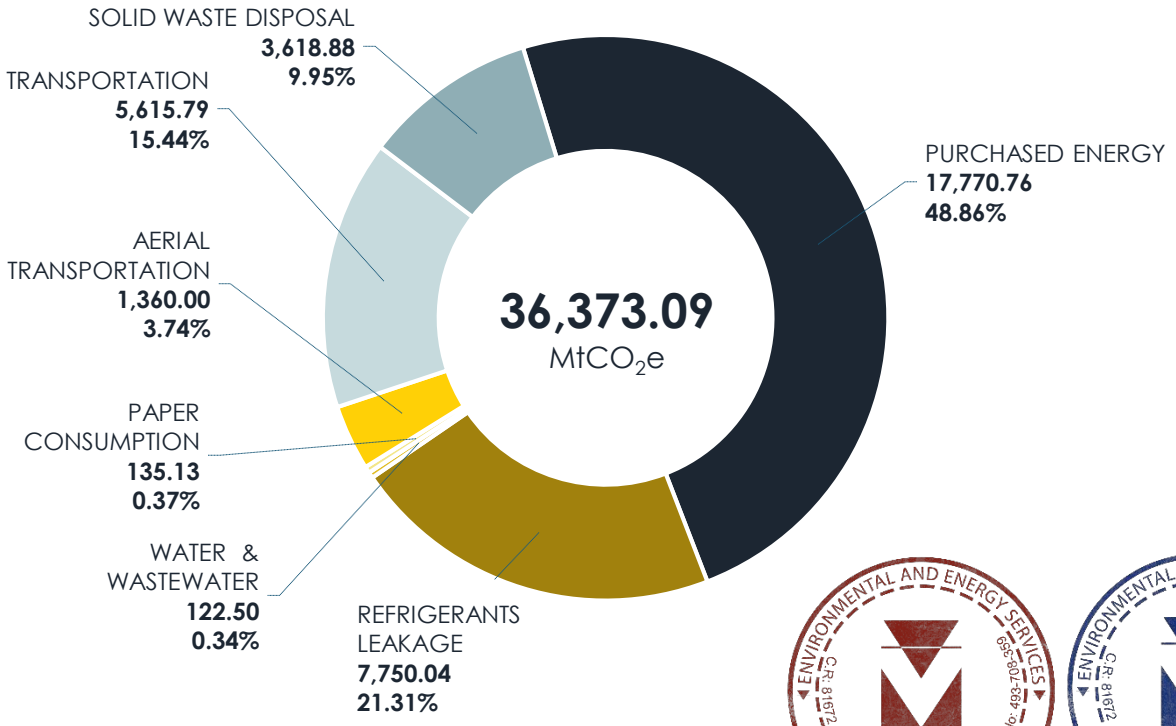
Indirect Emissions	$MtCO_2e$	%
Purchased Electricity:	17,770.76	
Total Scope 2	**17,770.76**	**49 %**

SCOPE 3

Indirect Emissions	$MtCO_2e$	%
Transportation:	3,322.38	
Aerial Transportation:	1,360.00	
Water & Wastewater:	122.50	
Paper Consumption:	135.13	
Solid Waste Disposal:	3,618.88	
Total Scope 3	**8,558.88**	**23%**

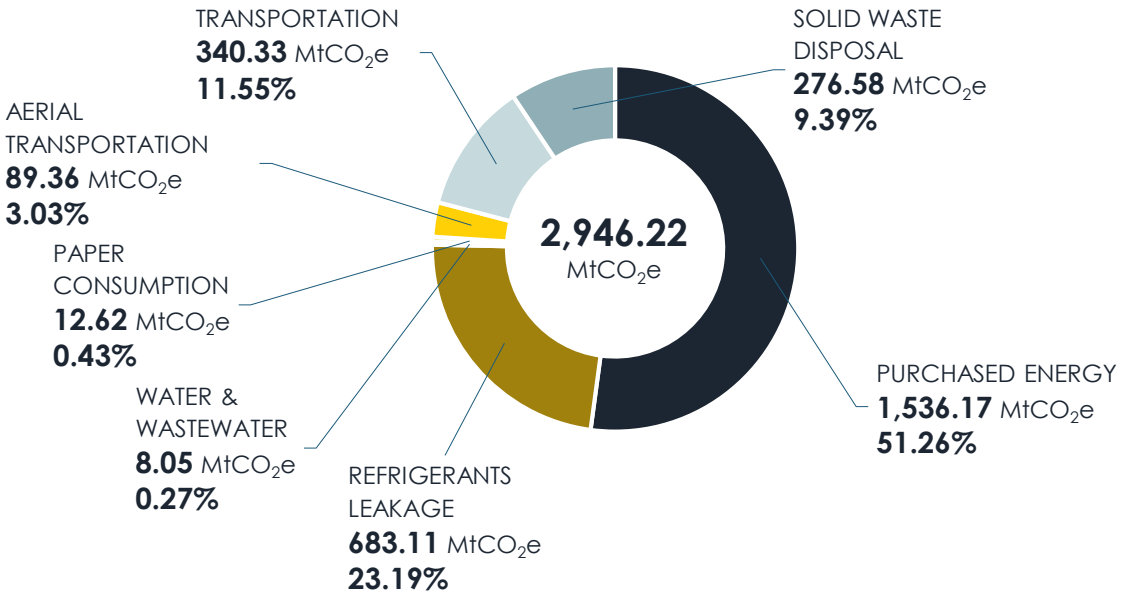
Total emissions $MtCO_2e$	**36,373.09**	**100%**

Emissions/ employee $MtCO_2e$	**8.60** $MtCO_2e$
Emissions/ employee $MtCO_2e$ (Scope 1 & 2)	**6.57** $MtCO_2e$



TOTAL EMISSIONS

HELIOPOLIS



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Heliopolis Branches

1	El Shams		•	
2	Sheraton Heliopolis		•	•
3	Triumph			
4	New Nozha			
5	Morabaa El Wozara	•	•	
6	Joseph Tito	•	•	
7	Heliopolis			
8	El Hegaz			
9	El Abbassia		•	•
10	El Khalifa El Maamoun	•	•	
11	Gesr El Suez			•
12	New Hegaz "X-Citi"	•	•	
13	Merryland			
14	El Thawra			
15	El Sawah			
16	Hadayek El Koba		•	
17	El Korba	•		
18	Marghany	•		•

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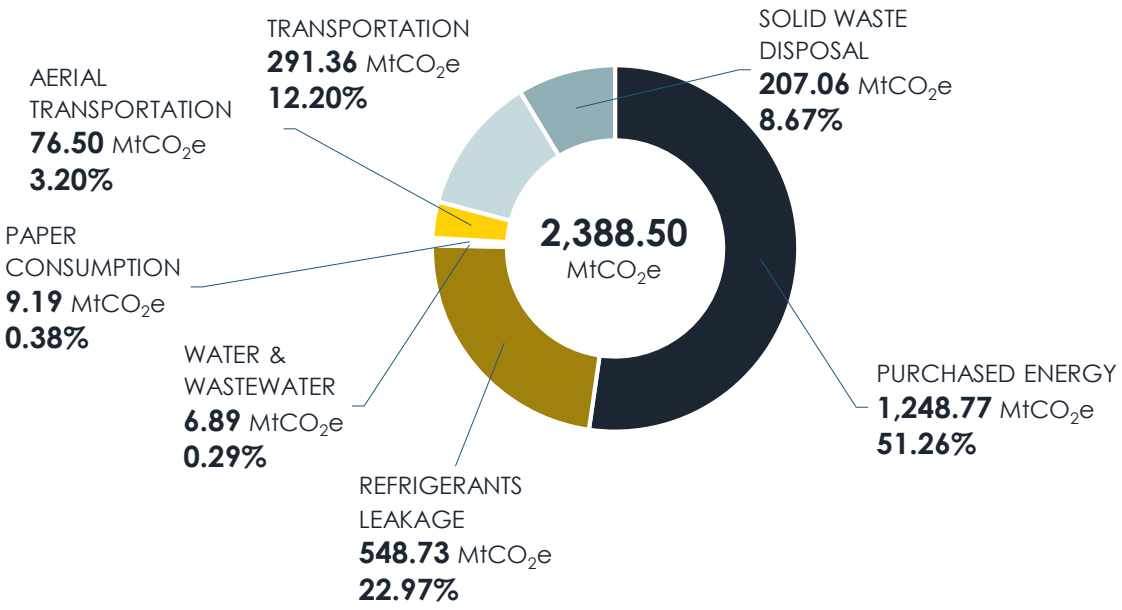
NASR CITY



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Nasr City Branches

1	Mokattam			•
2	Tayaran	•	•	
3	Obour Building - Salah Salem			
4	Abbas El-Akkad		•	
5	Nasr City/ El Zomor			
6	Abdel Razek El-Sanhoury			
7	Mostafa El Nahas		•	
8	Abou Dawod El-Zahery			•
9	City Stars			
10	El-Nasr	•	•	
11	Suncity	•		
12	Airport	•		

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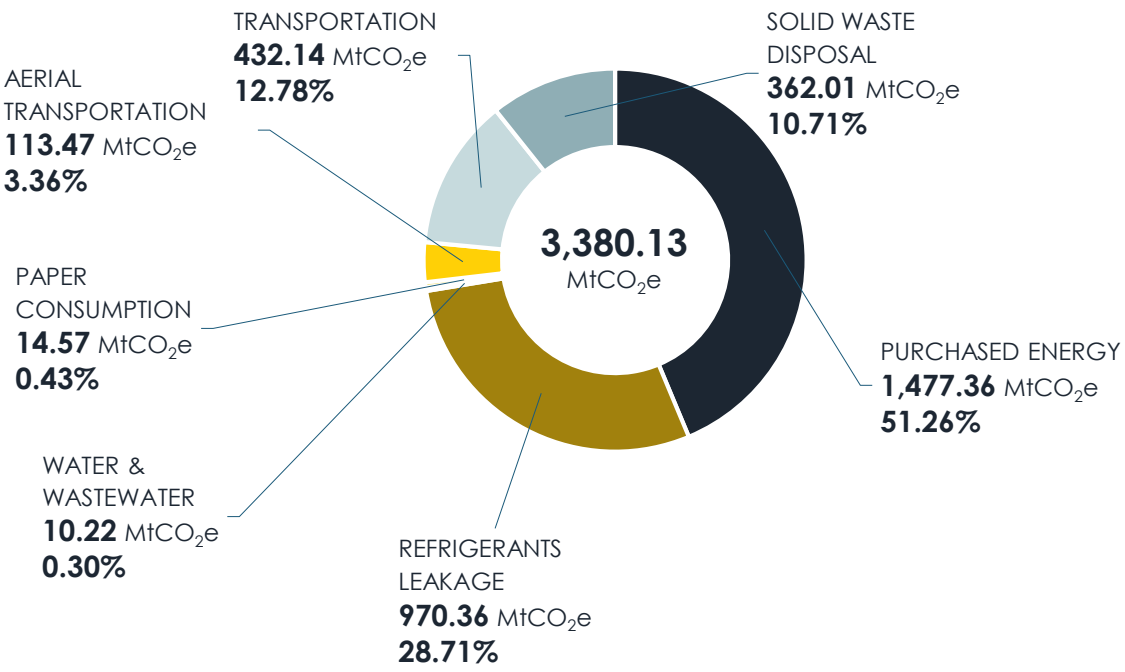
DOWN TOWN & MAADI



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Down Town & Maadi

1	Mobtdyan			
2	Semeramis		•	
3	Nova Park		•	
4	El Ashraf	•	•	
5	57357 Cancer Hospital	•	•	•
6	Down Town			•
7	Kasr El Nil		•	•
8	Ramsis		•	
9	El-Mosky		•	
10	Zamalek			
11	New Zamalek		•	
12	El Gezira (Citi)		•	
13	Mfa	•		
14	Maadi			
15	Saryat El Maadi			
16	Maadi Towers (Citi)		•	
17	Helwan	•		•
18	Cornich El Maadi	•		
19	Maadi Grand Mall			
20	New Maadi			
21	Laselki	•		
22	Zaharaa El Maadi			
23	Meraag	•	•	•

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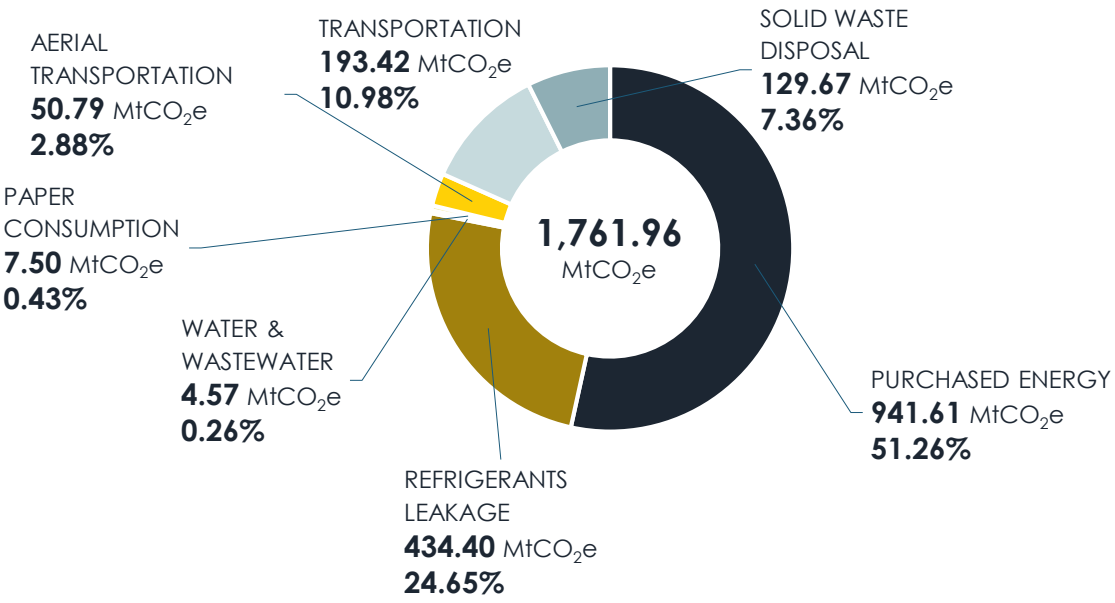
NEW CAIRO



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New Cairo Branches

1	JW MARRIOT			
2	EL HAMAD	•	•	
3	CAIRO FESTIVAL			
4	CONCORD PLAZA			
5	EL TAGAMOO EL KHAMES			
6	MIVIDA BRANCH	•	•	
7	MEDICARE BRANCH	•	•	
8	EL TAGAMOO EL AWAL, EMERALD			•
9	EL REHAB			
10	CITY SQUARE	•	•	
11	WATERWAY			
12	EL SHEROUK			•
13	MADINATY	•		

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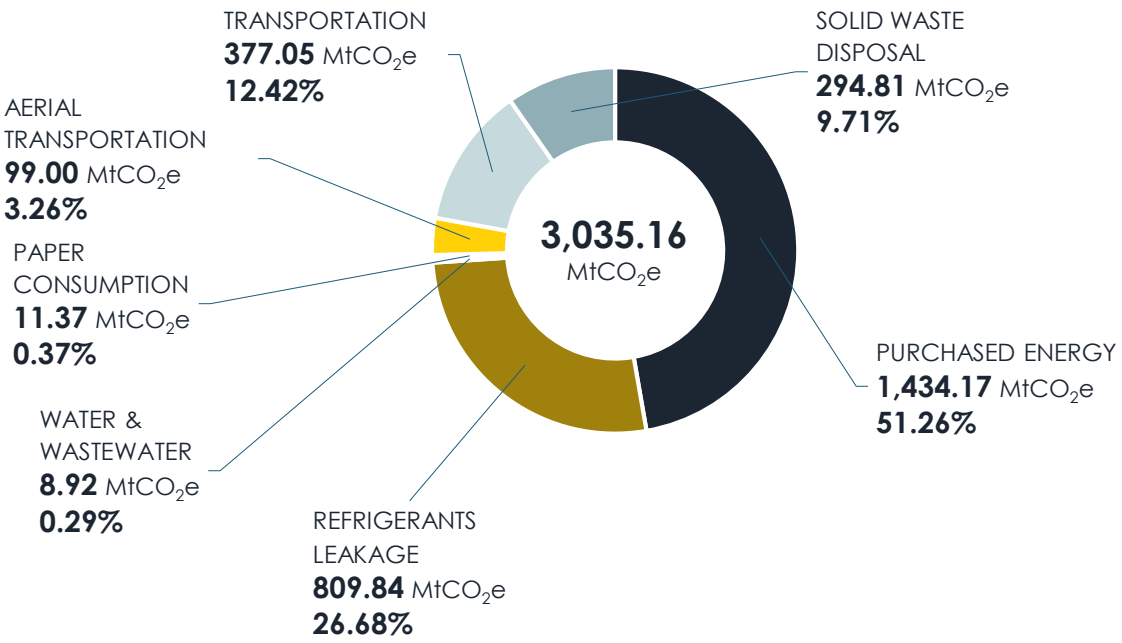
CANAL & INDUSTRIAL PORTS



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Canal & Ind. Ports Branches

1	New Obour City			
2	El-Obour			
3	Port Said			
4	Cornich Port Said	•	•	
5	Port Fouad	•		•
6	Damietta			
7	Damietta Port			•
8	New Damietta			
9	Suez			
10	Sokhna Port			
11	Teda Suez			
12	Badr Dry Port	•		
13	10th of Ramadan	•	•	
14	Ismailia	•		
15	El-Sadat			
16	Borg El-Arab	•	•	
17	Alex Port			•
18	Free Zone Branch		•	•

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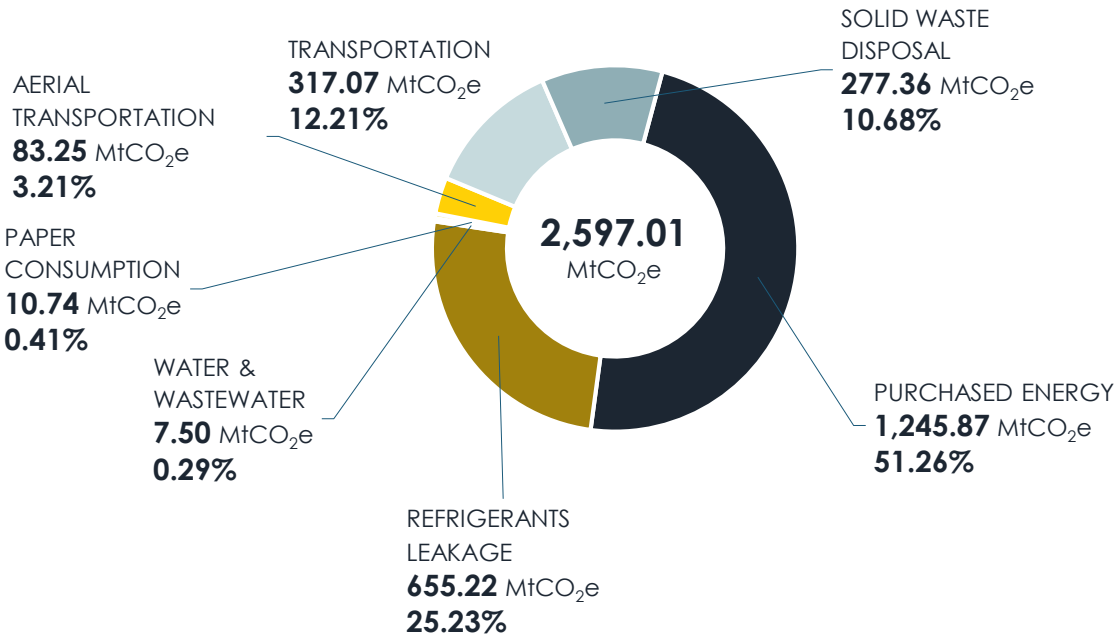
DELTA & UPPER EGYPT



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Delta & Upper Egypt Branches

1	Tanta			
2	Quesna		•	•
3	Zagazig		•	
4	Banha			•
5	Damanhour	•		
6	Kafr El Zayat	•		
7	Shebein El Kome			
8	Mansoura			
9	El Gomhoria		•	
10	El Mahalla			
11	Meet Ghamr	•		
12	Kafr El Sheikh	•		•
13	Ahmed Maher Branch	•	•	
14	Menia		•	
15	Assuit		•	
16	Sohag		•	
17	Bani Sweif	•		

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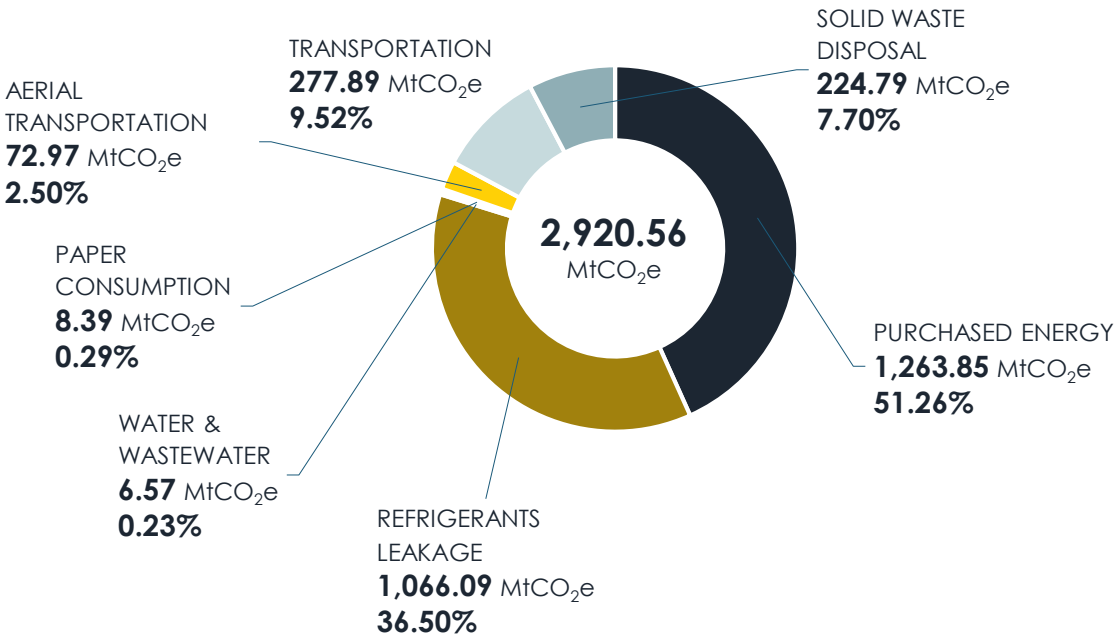
TOURISTIC



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Touristic Zone Branches

1	HURGHADA MAIN			
2	EL BASHA			
3	EL DAHHAR			
4	HURGHADA GRAND HOTEL		•	•
5	EL GOUNA			
6	MAKADY BAY			•
7	MARINA ABU TEIG	•	•	•
8	SUN RISE			
9	PORT GHALIB	•	•	•
10	LUXOR	•		
11	ASWAN	•	•	
12	SHARM EL SHEIKH			
13	GENENA CITY	•	•	
14	DAHAB	•	•	•
15	HADABA			
16	NABQ			
17	EL-TOR SINAI	•	•	
18	TABA	•	•	•

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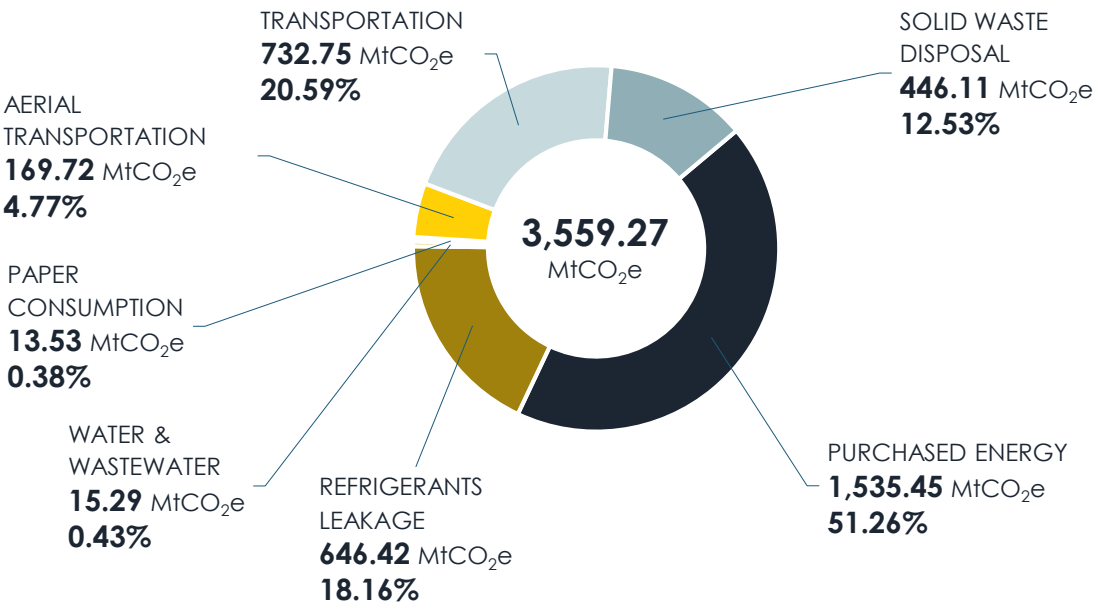
ALEXANDRIA



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Alexandria Zone Branches

1	El SULTAN HUSSEIN + NILE TWRS.			
2	LAGOON CLUB		•	
3	MARSA MATROUH	•	•	
4	EL AGAMY	•		•
5	PORTO MARINA		•	•
6	EL MANSHIA			
7	EL MANSHIA SQUARE		•	
8	SULTAN HUSSEIN II			
9	GREEN PLAZA		•	
10	PHAROS UNIVERSITY	•	•	•
11	AZARITA	•	•	•
12	FOUAD STREET	•		
13	KAFR ABDO - OLD A.B.			
14	SEMOUHA		•	
15	SPORTING	•		
16	SARAYAH SEMOUHA			
17	ROUSHDY		•	
18	ROUSHDY AFFLUENT (BOLKLY)			
19	LOURAN			
20	MIAMI			
21	SAN STEFANO			
22	EL MONTAZA	•	•	•
23	WABOUR EL MAYA	•	•	

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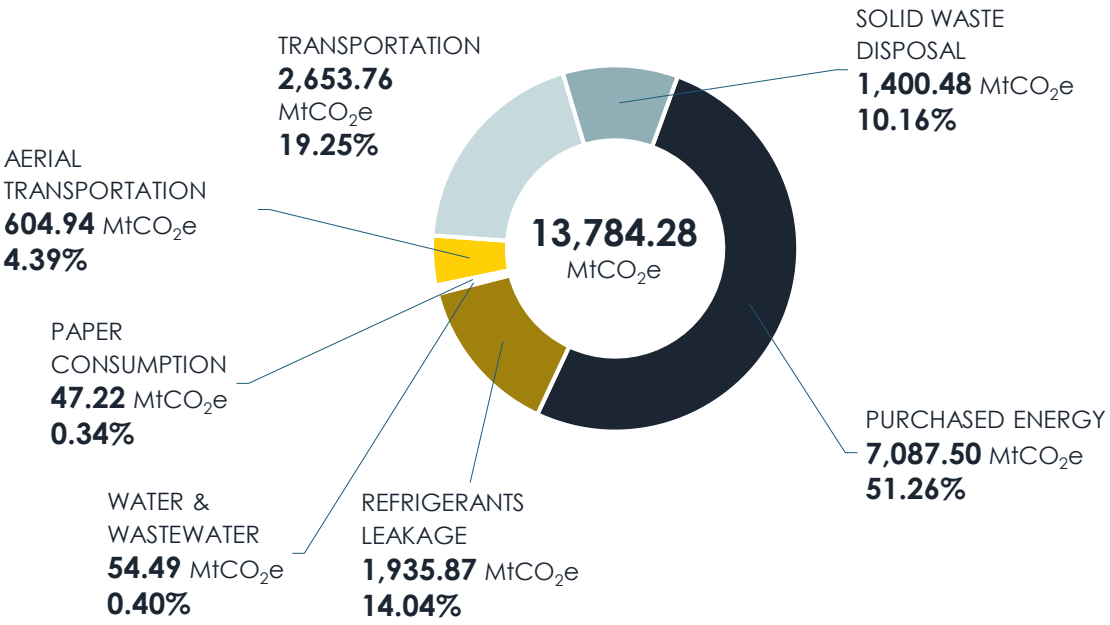
GIZA



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Giza Zone Branches

1	EL-DOKKI	•		
2	NADI EL SEID	•	•	
3	MESSAHA SQUARE			
4	MOSADAK	•	•	
5	ABDEL MONEIM REYAD	•	•	
6	MOHANDESSIN	•		•
7	GERMAN CHAMBER			
8	GEZIRET EL ARAB		•	
9	LEBANON		•	
10	EL GIZA			
11	EL MANYAL	•	•	•
12	EL HARAM			•
13	NEW HARAM			
14	6th OCTOBER	•		
15	MINA GARDEN CITY			
16	NEW OCTOBER			
17	GARDENIA	•	•	•
18	RAYA		•	
19	MALL OF EGYPT		•	
20	EL SHEIKH ZAYED		•	

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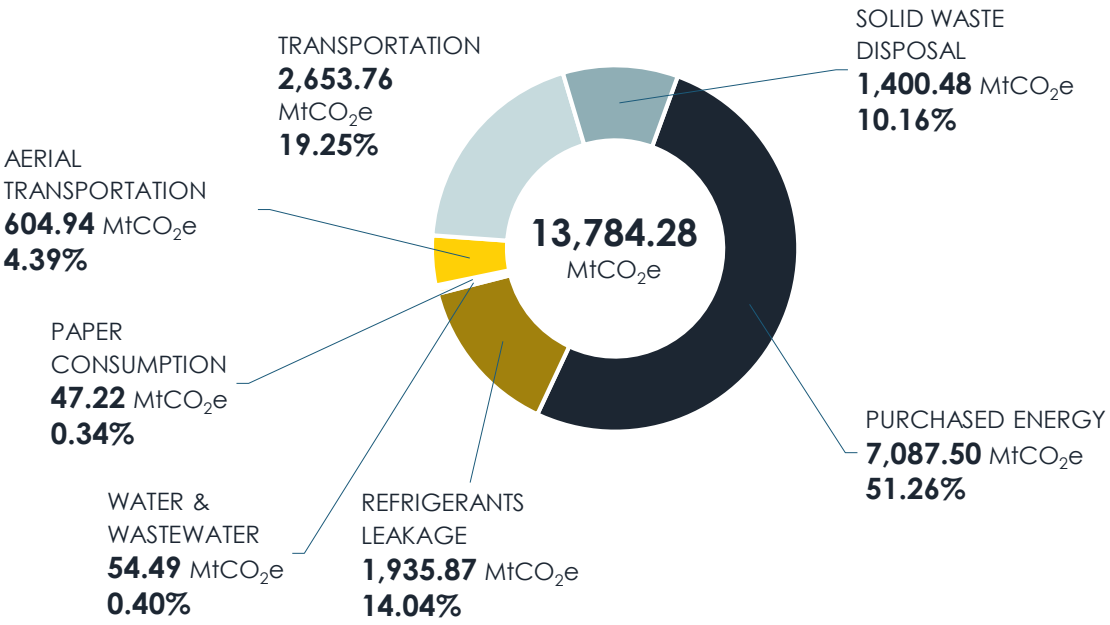
GIZA



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Giza Zone Branches

21	MALL OF ARABIA			
22	EL RABWA	•		•
23	SODIC POLYGON	•		
24	SODIC STRIP		•	•
25	AMERICANA PLAZA			
26	CITY VIEW	•	•	•
27	PALM HILLS	•		
28	DANDY MALL			
29	NEW GIZA	•	•	
30	SHOBRA			
31	SHOBRA AGHAKHAN		•	
32	ARKADIA MALL + CENTRAL VAULT		•	
33	EL-SABTEYA			
34	SMART VILLAGE			•
35	SMART VILLAGE 1			
36	SMART VILLAGE 2			
37	SMART VILLAGE 3			
38	SMART VILLAGE 4			
39	TIBA BUILDING			
40	6th OF OCTOBER STORE		•	

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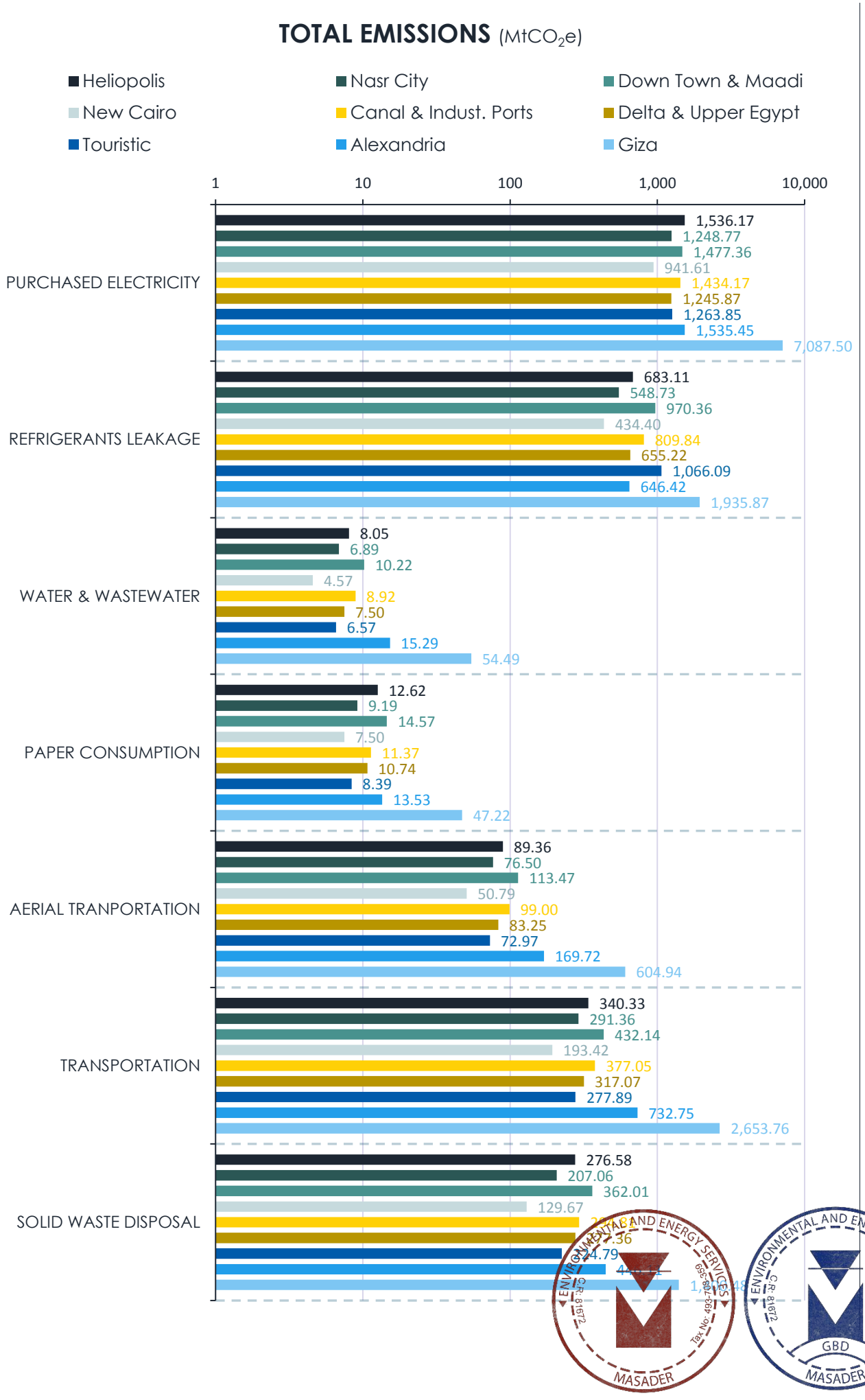
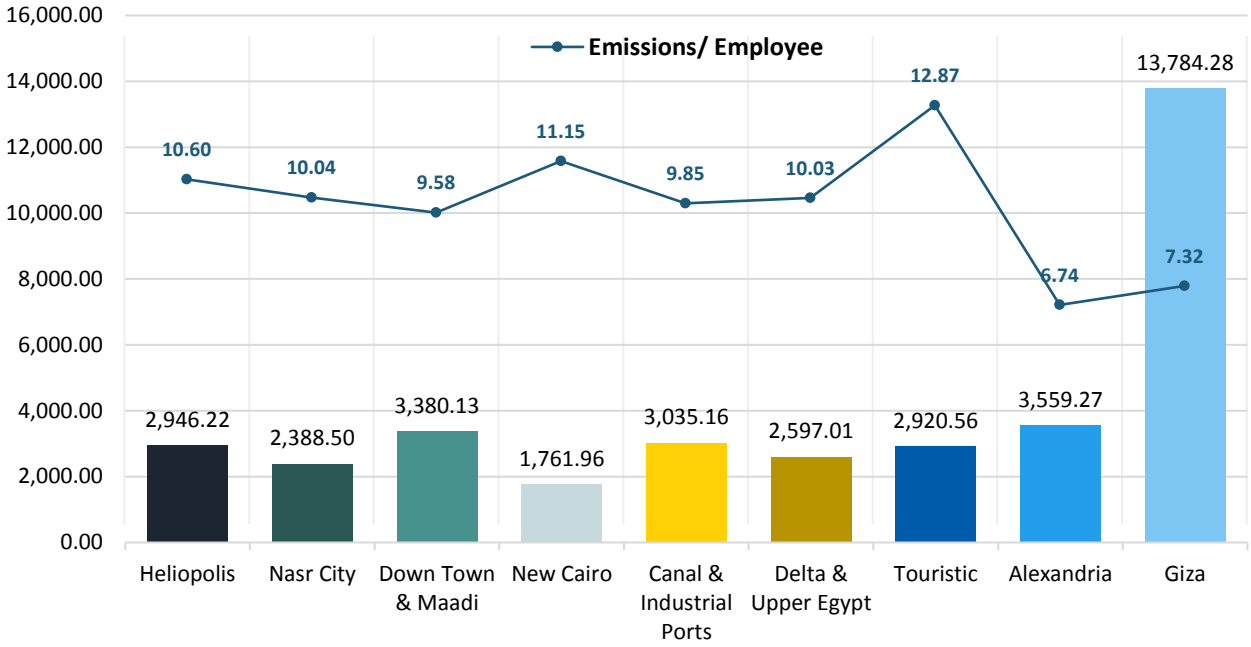
EMISSIONS / EMPLOYEE

TOTAL EMISSIONS ($MtCO_2e$)



EMISSIONS / ZONE & EMPLOYEE

Emissions $MtCO_2e$/ Zone



Heliopolis
10.60
$MtCO_2e$/Emp

Nasr City
10.04
$MtCO_2e$/Emp

Down Town & Maadi
9.58
$MtCO_2e$/Emp

New Cario
11.15
$MtCO_2e$/Emp

Canal & Indust. Ports
9.85
$MtCO_2e$/Emp

Delta & Upper Egypt
10.03
$MtCO_2e$/Emp

Touristic
12.87
$MtCO_2e$/Emp

Alexandria
6.74
$MtCO_2e$/Emp

Giza
7.32
$MtCO_2e$/Emp

TOTAL
8.60
$MtCO_2e$/Emp

ENVIRONMENTAL AND ENERGY SERVICES
MASADER
GBD

RECOMMENDATIONS

PURCHASED ELECRICITY

The carbon footprint internal benchmark for the energy consumption aspect is between 2.84 & 6.50 $MtCO_2e$/ employee/ year (equivalent to an energy consumption of 5,380 & 12,306 kWh/ employee/ year). The data analysis indicates that 63 branches across Egypt have exceeded this benchmark with branches emitting as high as 22.50 $MtCO_2e$/ employee/ year. CIB could therefore reduce its energy consumption by a total of 5,496,803 kWh per year making this target (i.e. reducing energy consumption) a priority for CIB.

Key steps proposed for reducing the energy consumption could be summarized as follows:

- Conducting an energy measurement campaign and constructing the energy baseline and energy performance indicators for the bank according to ISO50006.
- Implementing an energy management system according to ISO50001 to ensure continual improvement in energy consumption including:
    - Developing Resource-efficient Design guidelines for new CIB branches
    - Develop Resource-efficiency operational control guidelines
    - Develop Resource-efficiency procurement procedures
- Conducting sustainability training and awareness campaigns
- Conducting a technical energy audit to identify energy saving opportunity. In this regard and from the analysis of results so far, it could be concluded that the operational control and facility management work could be further improved.

WATER & WASTEWATER

The steps proposed for reducing the energy consumption could also serve well for reducing the water consumption.

RECOMMENDATIONS

PAPER CONSUMPTION

The carbon footprint internal benchmark for the paper consumption aspect is 0.041 $MtCO_2e$/ employee/ year (equivalent to consuming 7,838 A4 paper sheets per employee/ year). 40 branches across Egypt have exceeded this benchmark.

There is therefore a potential in reducing the paper consumption by a total of 1,390,690 A4 paper sheets per year, best achieved by adopting the measures indicated below:

- Conducting sustainability training and awareness campaigns
- Placing a cap on each employee and/or branch
- Finding alternatives means to paper media

WASTE DISPOSAL

The carbon footprint benchmark for the solid waste disposal aspect is set to zero emissions equivalent to virtually **zero-waste to landfill** according to international best practices. The potential reduction of emissions if the benchmark is achieved would be around 3,618.88 $MtCO_2e$/year.

REFRIGERANTS LEAKAGE

The steps to take for reducing the refrigerant leakage are mainly associated with checking the design of the existing HVAC systems and ensuring that they are properly designed. These measures are normally incorporated into the implementation of an energy management system and/or conducting a technical energy audit.

GHG REDUCTION TARGETS

By 2025

CIB aims to reduce their GHG emissions by **10%** (around 1,800 $MtCO_2e$) by the year **2025**. This target could be achieved by reducing:

Aspect	%	$MtCO_2e$	Absolute Value
	15%	2,665.61	5,048,511 kWh
	6%	465	257 kg – R22
	3%	3.68	19,887 m^3
	5%	6.76	1,291,326 A4 papers
	3%	40.80	Carbon Offsetting
	3%	168.47	76,472 Liters
	5%	180.94	576 tons
	10%	3,531	$MtCO_2e$

HOW BIG IS OUR FOOTPRINT

1. INTRODUCTION

The Earth continuously attempts to maintain a balance between the incoming and outgoing sun radiation. Only around 70% of sun's visible and Ultraviolet (UV) enters the atmosphere; part of this radiation is absorbed by water vapor, aerosols, and ozone, while the remaining part is absorbed by the Earth' surface then re-radiated as Infrared (IR) heat.

The bulk of Earth's atmosphere (Oxygen and Nitrogen) absorb this outgoing reflected radiation. However, there are other gases in the atmosphere namely carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O) and other gases which trap this outgoing reflected energy and radiate in all directions negatively impacting the energy balance. These gases are referred to as 'Greenhouse Gases' (GHG) and the impact is referred to as global warming resulting in climate change.

Egypt in particular is vulnerable to climate change including potential sea-level rise, which threatens the fertile Nile River Delta (the Nile Delta). This is in addition to potential changes in the average flow which could seriously threaten Egypt's water supplies. In addition to climate change impacts and needed mitigation measures, rising energy demands and prices in Egypt are placing increased pressure on businesses. Managing carbon emissions and protecting business from the risks associated with climate change became therefore fundamental in order to achieve sustainable development, greener corporate culture and stronger shareholder returns.

Carbon footprint is the heart of beginning such a journey. It's considered an essential foundation in identifying business behavior including energy consumption among others. It is important for any business to integrate emission management into its strategy to allow for sustainable change in operational behavior Determining the carbon footprint represents a critical step towards setting a baseline for monitoring practices for CIB group.

2. OVERALL METHODOLOGY

2.1. Overview

CIB's Carbon footprint analysis and calculations were based on a number of standards and guidelines, including but not necessarily limited to the following:

- The Greenhouse Gas Protocol recognized as the most widely used international accounting tool for government and business sector.
- ISO 14064-1:2006
- Intergovernmental Panel on Climate Change (IPPC) Guidelines

2.2. Activity Data

To calculate CIB's Carbon Footprint, all relevant GHG emissions from processes and activities occurring uniquely at CIB were identified. Activity data was collected. Explanation was provided whenever activity data has not been available, and recommendations made for future improvements in data recording.

2.3. Emission Factors

Emission factors convert activity data (e.g. amount of fuel used, kilometers driven, and kilowatt hours of purchased electricity) into a value indicating carbon dioxide equivalent (CO_2e) emissions generated by that activity. The emission factors where identified based on the default values adopted by the Department for Environment, Food & Rural Affairs UK (DEFRA) as well as individual researches.

2.4. Calculation Method

The Carbon footprint study accounted for all six Kyoto GHG emissions:

- Carbon Dioxide (CO_2)
- Methane (CH_4)
- Nitrous Oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulphur hexafluoride (SF_6)

Metric tons carbon dioxide equivalent ($MtCO_2e$) is the main unit of measurement which allows different greenhouse gases to be compared on a like for like basis relative to one unit of CO_2.

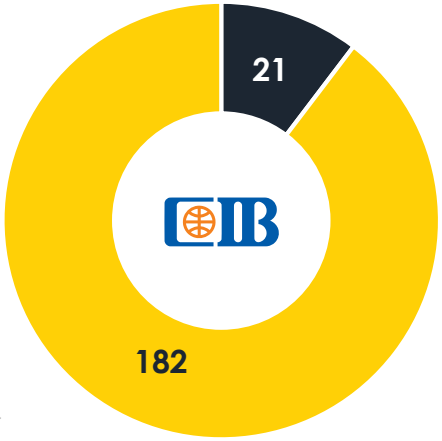
Main Formula

GHG Emission ($MtCO_2e$) = Activity (unit of activity) x Emission Factor ($MtCO_2e$/ unit of activity)

2.5. Scope & Boundaries

Carbon footprint calculations focus exclusively on 182 CIB branches located in Egypt. This represents 90% of total CIB branches located in Egypt.

CIB Branches



REPRESENTING

63%

OF THE TOTAL NUMBER OF EMPLOYEES IN CIB

	#	Branch Name		Address
HELIOPOLIS	1	El Shams	40	2 Abdel Hamid Badawi Street, Beside gate 2, El Shams Club.
	2	Sheraton Heliopolis	17	Khaled Ebn El Waleed St. Masaken Sheraton Heliopolis
	3	Triumph	20	101 Osman Ibn Affan Street
	4	New Nozha	11	22, Dr. Ahmed Mostafa st. New Nozha
	5	Morabaa El Wozaraa	7	6 Sayed Zakaria St.,1181 Square - Sheraton Heliopolis - El Nozha Section
	6	Joseph Tito	8	2 block 24 Badr division - joseph tito – EL Nozha.
	7	Heliopolis	28	24 El Marghany Street
	8	El Hegaz	15	91 El Hegaz Street
	9	El Abbassia	15	115, El Abbassia St.
	10	El Khalifa El Maamoun	8	47 El Khalifa El Maamoun Street
	11	Gesr El Suez	8	7 El Sebak St. beside Merryland
	12	New Hegaz "Xciti"	7	166 El Hegaz - in Front Of El Watanyia Hospital
	13	Merryland	25	2 El Hegaz St., Cedare Building – Merryland.
	14	El Thawra	26	4 Farid st., off El Thawra St.
	15	El Sawah	15	1 Petroleum Co. st., Mostorod
	16	Hadayek El Koba	12	18/24 Waly El Ahd st.
	17	El Korba	8	18 Nazih Khalifa St.
	18	Marghany	8	59 El Merghany St.

NASR CITY	19	Mokattam	23	106 Road # 9, El Mokattam
	20	Tayaran	8	no 2 Omar Zaafan st cross with Tayaran st.
	21	Obour Building	26	8, El-Obour Buildings - Salah Salem Street
	22	Abbas El-Akkad	30	53 Abbas El Akkad St. Nasr City
	23	Nasr City/ El Zomor	18	40 Ahmed El Zomor St. Nasr City
	24	Abdel Razek El-Sanhoury	28	23 Abdel Razik ELSanhoury street.
	25	Mostafa El Nahas	14	2 Abdel Hakim El-Rafei-Abbas El-Akkad
	26	Abou Dawod El-Zahery	17	71 Abou Dawood AlZahery street.
	27	City Stars	20	City stars mall, entrance # 6
	28	El-Nasr	39	14 Ramo Buildings, Across of El Nasr Road & Omar Ibn Khattab St.
	29	Suncity	7	Sun city Mall in front of Cairo Airport
	30	Airport	8	CIA - Amer International Center, Beside Logistic Center - 1st Floor

DOWN TOWN & MAADI	31	Mobtdyan	23	49 Mohamed Ezz El Arab St. From Kasr El Eini St.
	32	Semeramis	12	Medan Semon Bolivar- Semiramis Hotel.Down Town
	33	Nova Park	9	1089 Cornish El-Nil - Nile Plaza tower - Garden City
	34	El Ashraf	14	Al Ashraf building Al -Azhar p.o box 2430
	35	57357 Cancer Hospital	4	1 seket el emam - eslsyada zeinab - inside 57357 hospital
	36	Down Town	34	33 Abdel Khalek Tharwat st., in front of Dar Elmaaref - Down Town
	37	Kasr El Nil	17	41 kasr El Nil St. Moustafa Kamel Sq.
	38	Ramsis	15	40 Ramsis St., DOWN TOWN, Cairo
	39	El-Mosky	9	430 Portsaid st., El Moskey
	40	Zamalek	39	12 El Saleh Ayoub st. El Zamalek
	41	New Zamalek	10	44 Mohamed Mazher - El Zamalek
	42	El Gezira (Citi)	10	4 (A) El Geziera st., Zamalek
	43	Mfa	6	Ministry of Foreign Affairs building, Cournish el nil Maspiro,
	44	Maadi	32	67 St. # 9, Maadi
	45	Saryat El Maadi	16	25 St.#10, Sarayat El Maadi
	46	Maadi Towers (Citi)	9	1 (A) Houd El Geziera st., Maadi
	47	Helwan	8	4A Mohamed Sayed Ahmed St. Crossing with Youssef St.
	48	Cornich El Maadi	10	25 Corniche El Maadi - Ghadet El Maadi Tower- platform
	49	Maadi Grand Mall	29	El Nasr College Sq. Grand Mall
	50	New Maadi	16	8 St. # 257, New Maadi
	51	Laselki	12	1/1 Ahmed Kamed St., 4/5 Ta2sem Laselky
	52	Zaharaa El Maadi	12	8 Zahraa El-Maadi St.
	53	Meraag	7	El Megawra 10 - Meraag City - Maadi

NEW CAIRO	54	JW Marriot	6	Ring Road - Inside JW Marriott Hotel - Mirage City
	55	El Hamad	15	Elmahkama St., New cairo - El Tagamoaa El Khames
	56	Cairo festival	10	Cairo festival city mall - El Teseen St. - Infront of Downtown Mall
	57	Concord plaza	17	11,12 Concord plaza mall - south El Tesein St.- El Tagamoo El Khame
	58	El Tagamoo el Khames	29	Place 116/118 Down Town - 90 St. - El Tagamoo El Kahmes
	59	Mivida branch	7	Mivida Compund - End of El Tessein st. - Business Park - Building A2
	60	Medicare branch	6	Building 162 north El Teseen street - Cairo medical center
	61	El tagamoo el awal-Emerald	10	Twin plaza mall - in front of the Police academy - El Tagamoo El Awal
	62	El rehab	20	Banks Area - Rehab city

NEW CAIRO	63	City square	6	El Rehab City - City square Mall - Gate 6 - New Cairo
	64	Waterway	11	Plot 22, New Investors Area, New Cairo, Commercial Units AGS4 & ASFA
	65	El sherouk	10	El Sherouk City - Sky Plaza Mall
	66	Madinaty	11	Madinaty Banks area - Group 24 B2

CANAL & INDUST. PORTS	67	New Obour City	17	Obour City 2 - Avenue Mall - El Obour City
	68	El-Obour	16	Obour City - City Club Fence, El Golf, Shop 10,11
	69	Port Said	41	23 July & Abou El Fedda St.
	70	Cornich Port Said	12	No. (1) Atef El Sadat St. Taqseem El Amal Qoshalaq El Sawahel Port Said
	71	Port Fouad	7	El Camilia Tower - El Geish street and El shaheed Gawwad hosny
	72	Damietta	22	122- El Moderryya, Ellozy ST prevoiuslt., Frist District, Damietta
	73	Damietta Port	17	Damietta port Authority -investment building # A & B
	74	New Damietta	12	92 Central Area New Damietta
	75	Suez	25	1 El-Khedr Square - Macca Buliding - Suez
	76	Sokhna Port	14	Building 14 - DP World - Sokhna Port, Sokhna, Suez
	77	Teda Suez	7	TEDA SEZONE DEVELOPMENT Co, 3rd Sector, N.W. Gulf of Suez
	78	Badr Dry Port	7	Badr Dry Port - Shipping Agencies Building - Adabiya - Suez
	79	10th of Ramadan	27	Block N 8 Main City Center 10th of Ramadan
	80	Ismailia	18	34 El Thawra (Sultan Hussein) St., Ismailia
	81	El-Sadat	16	El- Sadat city - Talaat Harb street zone 7, P.O box 4 el sadat city
	82	Borg El-Arab	18	Borg El Arab - El Megawra 5 - Aly Ebn Aby Taleb st.
	83	Alex Port	13	Alexandria Port Branch –investment Complex –beside gate 14
	84	Free Zone Branch	19	Alex Cairo Desert Road-K30

DELTA & UPPER EGYPT	85	Tanta	35	55 El Geish St., Tanta
	86	Quesna	10	Moubarak Industrial City, 1st Zone, Quesna - El Menoufia Governorate
	87	Zagazig	17	Saad Zaghloul St. Zagazig Sharkia
	88	Banha	13	Street 3 & Kornesh St. - Villas Area -Banha
	89	Damanhour	13	Abdel Salam El Shazly St. In Front of Damanhour Soprt Medicine Center
	90	Kafr El Zayat	7	Gamal Abdel Naser St. - Kafr El Zayat - Gharbia
	91	Shebein El Kome	13	El Soroor Building – Gamal Abdel Nasser St. Shebeen El Kom, Monfeya.
	92	Mansoura	31	6 El Guish Front of El Dakahlya Governorate Building - El Mansoura
	93	El Gomhoria	14	Borg El Tawfik - El Gomhoria St.
	94	El Mahalla	15	14, 6 of October Road, Hashem Plaza Building, Mahalla
	95	Meet Ghamr	9	Meet Ghamr - Elbahr St., beside Misr Banque
	96	Kafr El Sheikh	9	Borg Vience 2 - Salah Salem St. - Kafr El Sheik
	97	Ahmed Maher Branch	8	Mansoura - 1 Osama Abn Zaid st, From Ahmed Maher St.
	98	Menia	20	195 Kornish El Nile - Menia City
	99	Assuit	23	107 Gomhoria St.
	100	Sohag	12	Alexandria Building. Sohag City
	101	Bani Sweif	10	El Safa Tower, Kornish El Nile-Bani Sweif City

TOURISTIC	102	HURGHADA MAIN	37	4 Airport Road - Banks Districts
	103	EL BASHA	13	Sheraton Road Aqua Fun Hotel Square
	104	EL DAHHAR	12	5 Nasr St. Stadium shops area
	105	HURGHADA GRAND HOTEL	6	4 Al Kora Street, Grand Hotel.

TOURISTIC	106	EL GOUNA	15	Down town FB A Admin 03
	107	MAKADY BAY	7	Makady Bay, Serenity Hotel, Safaga Road
	108	MARINA ABU TEIG	3	Marina Abo Teig El Gouna
	109	SUN RISE	8	Mamlouk Mall Kilo 17 Safaga Road
	110	PORT GHALIB	10	Port Ghaleb Resort - Tower village - K 60 Marsa Alam Elquseir road
	111	LUXOR	16	Khaled Ebn Elwaleed St. in front of STEIGENBERGER hotel
	112	ASWAN	18	1 Kornish El Nile - Aswan City
	113	SHARM EL SHEIKH	29	Ghazala Gardens Hotel, Neama Bay.
	114	GENENA CITY	8	Hallomy street,Genena city ,Neama Bay
	115	DAHAB	6	El mashraba, Dahab
	116	HADABA	16	banks Street, Hadaba, Sharm el sheikh
	117	NABQ	15	Rixos Seagate Hotel, Nabq Bay, Sharm El-Sheikh
	118	EL-TOR SINAI	6	6A, Commercial Area beside South Sinai Broadcast Station.
	119	TABA	2	Taba Heights, Taba

ALEXANDRIA	120	SULTAN HUSSEIN + NILE T	64	61 El Sultan Hussein St. + 4 floors central Vault
	121	LAGOON CLUB	16	Alex-Cairo Desert Road Beside Alexandria International Garden
	122	MARSA MATROUH	11	Allam El Room & Port Said Street intersection
	123	EL AGAMY	8	Unit S4 - Star Mall - Alex-Matrouh Desert Road
	124	PORTO MARINA	4	Porto Marina Project - North coast
	125	EL MANSHIA	28	10 Oraby Sq. - El Manshia
	126	EL MANSHIA SQUARE	26	12 El Manshia - Square
	127	SULTAN HUSSEIN II	78	55 Sultan Hussien St.
	128	GREEN PLAZA	18	15th of May Rd - Semouha – Green Plaza Mall
	129	PHAROS UNIVERSITY	3	15th of May Rd - Semouha – PHAROS UNI.
	130	AZARITA	8	94-95 26july Road from El Gesh Road Azarita
	131	FOUAD STREET	14	Fouad St. Alex
	132	KAFR ABDO - OLD A.B.	17	43 Qerdahy St. with Mina St. – Kafr Abdo - (Old Alex Bibliotheca).
	133	SEMOUHA	30	98 Fawzy Moaaz St. & Mohamed Bahaa St, Lotus Building.
	134	SPORTING	8	283 El Geish road, Sporting.
	135	SARAYAH SEMOUHA	24	74 A Fawzy Moaaze St. - Saraya Building
	136	ROUSHDY	36	33 / B Sorya Street - Roushdy
	137	ROUSHDY AFFLUENT	50	457 El Horreya st. Bolky
	138	LOURAN	23	649 El Horiaa Rd
	139	MIAMI	16	557 El Gaiesh Road
	140	SAN STEFANO	30	399 El Corniche Street - San Stefano
	141	EL MONTAZA	8	El Halawany Tower- Malak Hefny st. El Motaza
	142	WABOUR EL MAYA	8	2 Hafez El Ibrahim, Sigma tower, Wabour El Maya Square

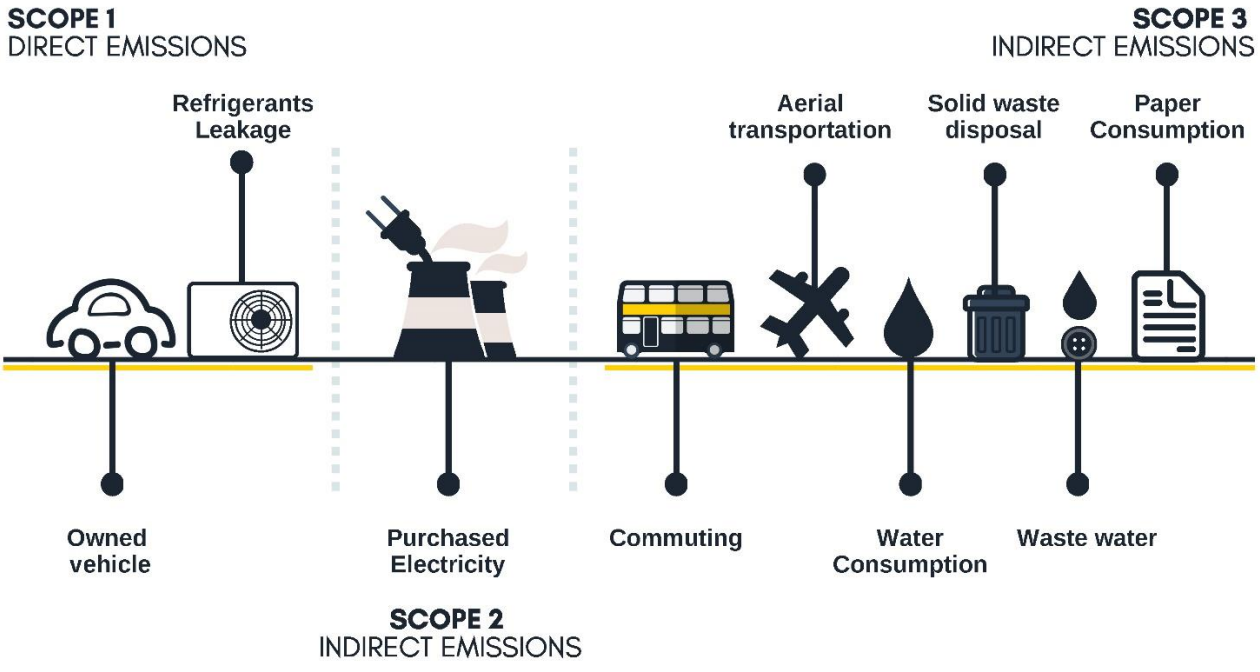
Giza	143	EL-DOKKI	19	94 El Tahreer Street - Dokki, Giza
	144	NADI EL SEID	28	66/68 Mohy El Din Abou El Ezz St. Dokki
	145	MESSAHA SQUARE	11	3 el Messaha Sq. Giza
	146	MOSADAK	10	27 Mohye El Dien Abou El Ezz - Mosadak
	147	ABDEL MONEIM REYAD	7	Abdel Monem Reyad St. El Mohandessen
	148	MOHANDESSIN	26	C113 Gamat El Dowal El Arabia, & El Hegaz St. - Zamalek Sports Club
	149	GERMAN CHAMBER	21	21 Soliman Abaza St. - Mohandeseen

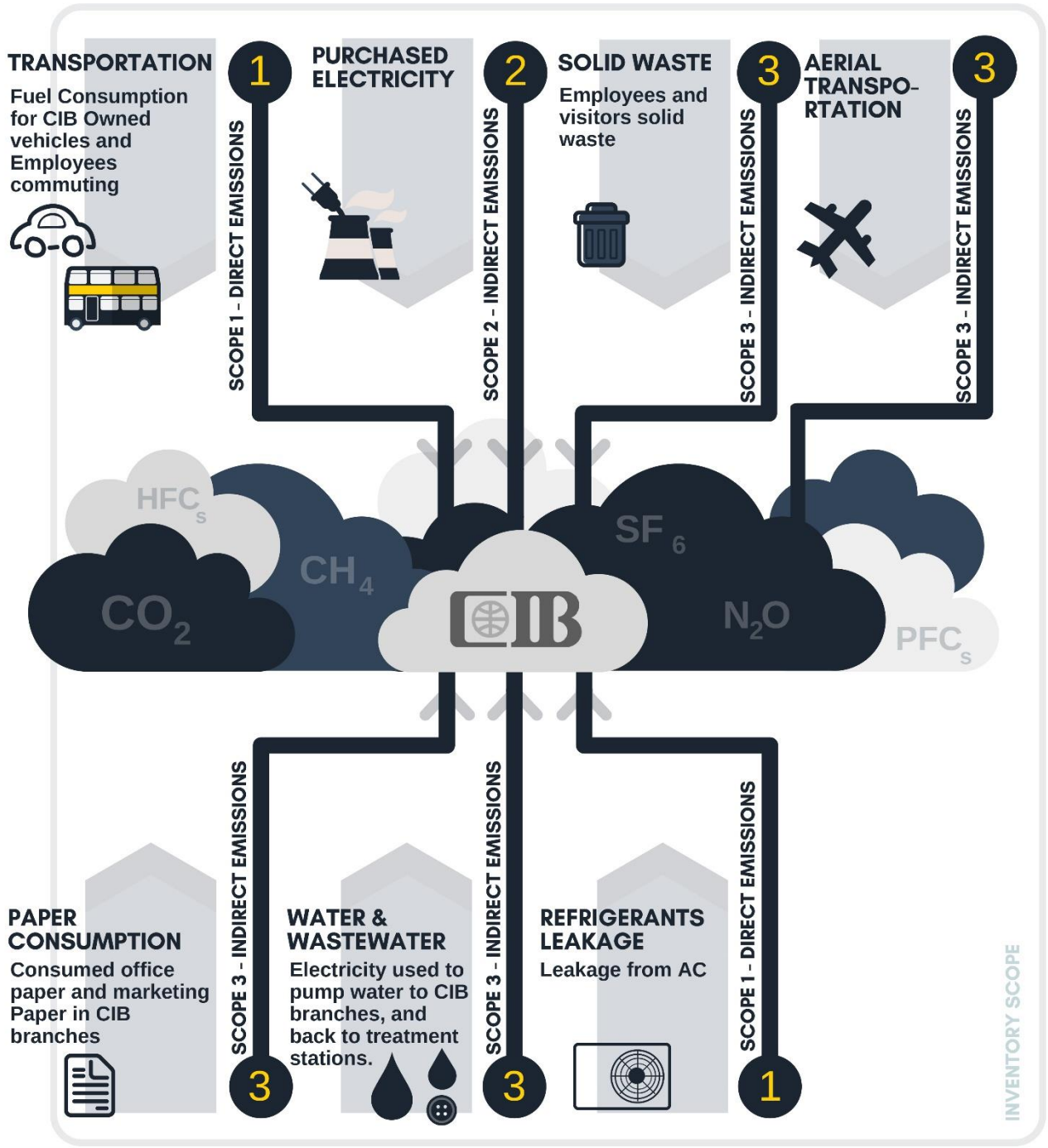
Giza	150	GEZIRET EL ARAB	14	41 Mohamed Hassan Helmy (prv. Gezerat El Arab) Mohandssen
	151	LEBANON	22	40 Lebonon St. El Mohandessen,
	152	EL GIZA	28	21/23 Nile Tower - Charles De Gaulle St. (Prv. El Giza ST.)
	153	EL MANYAL	10	53 El Manial
	154	EL HARAM	26	126 El Haram Street.Giza
	155	NEW HARAM	15	439 Haram St.
	156	6th OCTOBER	30	Plot No. 1/1 Banks Region.
	157	MINA GARDEN CITY	13	Garden City resort - behind El Fouad Hospital
	158	NEW OCTOBER	16	plot no. 9/1, central Spine - 6th October
	159	GARDENIA	2	Gadenia Compound El Sheikh zayed
	160	RAYA	3	Raya 6 October
	161	MALL OF EGYPT	9	Shop 147 G, First Floor, Mall of Egypt
	162	EL SHEIKH ZAYED	15	Landmark commercial center el sheikh Zayed
	163	MALL OF ARABIA	13	Mall of Arabia, 6th of October, Gate 4.
	164	EL RABWA	3	El Rabwa Compound El Shiekh Zaied - 6th October
	165	SODIC POLYGON	10	Sodic Strip Project, 6th of October Shop # 3
	166	SODIC STRIP	6	Sodic Polygon Project - Km 38 Cairo Alex Desert Rd, El Shiekh Zaied
	167	AMERICANA PLAZA	13	Central Spine Rd, Zayed Entrance # 1, Americana Plaza Mall
	168	CITY VIEW	3	City View Compound, El Shiekh Zaied - 6th October
	169	PALM HILLS	5	Palm Promenade Mall - Palm Hills - 1 District - 6 October - Giza
	170	DANDY MALL	18	Km 28, Cairo Alexandria Desert Rd -Dandy Mall
	171	NEW GIZA	4	Unit Number 3, Service Building, New Giza
	172	SHOBRA	22	53 shoubra St.
	173	SHOBRA AGHAKHAN	14	16 Dwletyan st, shoubra
	174	Arcadia Mall + CENTRAL VAULT	11	Hilton arcadia 4/4(1) el sekka el togariah -kornish el nile
	175	El-Sabteya	18	50 el sabtiea St.
	176	Smart Village	14	B219/F22 financial district smart village cairo-alex desert road
	177	Smart Village 1	363	Financial district smart village cairo-alex desert road
	178	Smart Village 2	463	Financial district smart village cairo-alex desert road
	179	Smart Village 3	257	Financial district smart village cairo-alex desert road
	180	Smart Village 4	147	Financial district smart village cairo-alex desert road
	181	Tiba Building	151	-
	182	6th of October Store	22	37 Industrial Zone - 6th of October

The emitting activities covered in this carbon footprint report for 2018 includes **direct emissions** resulting from CIB owned or controlled equipment and assets, also emissions from purchased electricity; and selected **indirect emissions** resulting from CIB's operation. It is important to highlight that under the GHG Protocol, the reporting of both direct emissions and indirect emissions, resulting from purchased electricity, are compulsory.

Listed In the table below the main activities contributing to CIB's 2018 Carbon Footprint classified according to the relevant scope.

Emission Scope	Sources	Units	Data Resolution
SCOPE 1	Transportation Owned Vehicles and Coasters	L	Fuel consumption/ month
	Refrigerants leakage	kg	Freon R22 in Kg / branch
SCOPE 2	Purchased Electricity	kWh	Consumption per month/ branch
SCOPE 3	Solid Waste Disposal	t	Waste/ customer, employee/ month /branch
	Paper Consumption	t	Consumption of paper and marketing materials per year/ branch
	Water & Wastewater	m^3	Consumption per month/ branch
	Transportation	L Km	Fuel consumption - Distance travelled/ month/ employee
	Aerial Transportation	Km	Total trips for all branches





- **Scope 1, Direct Emissions:** Emissions from sources owned or controlled by the company, e.g. owned vehicles (CIB private cars), refrigerants leakage.
- **Scope 2, Indirect Emissions:** Emissions associated with the consumption of purchased electricity, heat or steam from a source that is not owned or controlled by the company.
- **Scope 3, Indirect Emissions:** Emissions resulting from other activities of a reporting company, such as water supply and consumption, waste water treatment, employees commuting, solid waste disposal, paper consumption …etc.

2.6. Data quality and Completeness

Emission Sources	Data Quality	Resolution	Applied assumptions
Paper consumption		▸ A4 paper by branch, per year ▸ Marketing materials total CIB	80 g – Uncoated office paper
Transportation (Owned vehicles and Coasters)		Total CIB Fuel consumption/ month	None
Aerial transportation		Total CIB	None
Energy consumption		By branch, per month	None
Refrigerants Leakage		Refrigerants cylinders/ year/ branch	None
Water & Wastewater		-	Conversion factors for water: Supply 350 Wh/m³ Treatment 88 Wh/m³
Transportation (Commuting)		-	▸ Daily distance travelled multiplied by 240 working days per year. ▸ Employees commuting
Solid waste disposal		-	Quantities/ employees and visitors

Weak – Priority area for improvement

Satisfactory – Could be improved

Good – No changes recommended

2.7. Relevancy & Exclusions

The following exclusions of emission sources (and their explanations) are described below:

Scope 3, Indirect emissions:

- Emissions from embodied energy of buildings and other capital goods. – No available data.
- Transportation emissions from transporting products used in CIB's activities. (Office supplies, paper, food & drinks, …, etc. – No data
- Debit/ Credit cards quantities and their related emissions were excluded – No available data.
- Hazardous waste is excluded because there is insufficient information about its quantities, types, treatment to calculate its emissions.
- Emissions from transportation and distribution of debit/ credit cards, bank statements, …, etc. – No available data
- Emissions resulting from commercial loan activities or projects financed by CIB – No available data

2.8. Reporting Period

The reporting period covers from the 1st of January 2018 to the 31st of December 2018. This is the first report for the included branches, therefore it will be considered as a baseline report for all upcoming years.

3. METHODOLOGY & CALCULATIONS

3.1. ENERGY CONSUMPTION

3.1.1. Methodology

Scope & Assumptions

Energy consumption falls under Scope 2 (Indirect emissions). For the branches considered, energy consumption is mainly represented in purchased electricity from national grid, which is used for HVAC, lighting, equipment, among others.

Activity Data

Data on electricity consumption was obtained for all branches from CIB database, based on monthly readings, from January to December 2018, and any missing months were deduced using trend analysis and correlation based on single/multiple regression between Electricity consumption and:

- Cooling degree days (CDD)
- Geometric area of the branch (m^2)
- Number of employees per branch.

Emission Factor

Country specific grid electricity emission factor was calculated based on the Clean Development Mechanism (CDM) Methodological Tool; the tool is used to calculate the emission factor based on Egypt's fuel mix and power generation based on the country trend and strategies.

$$\textbf{Emission factor} = \frac{\Sigma\ (\text{Fuel amount} \times \text{EF fuel} \times \text{NCV fuel})}{\text{Electricity Generated}}$$

3.1.2. Calculations

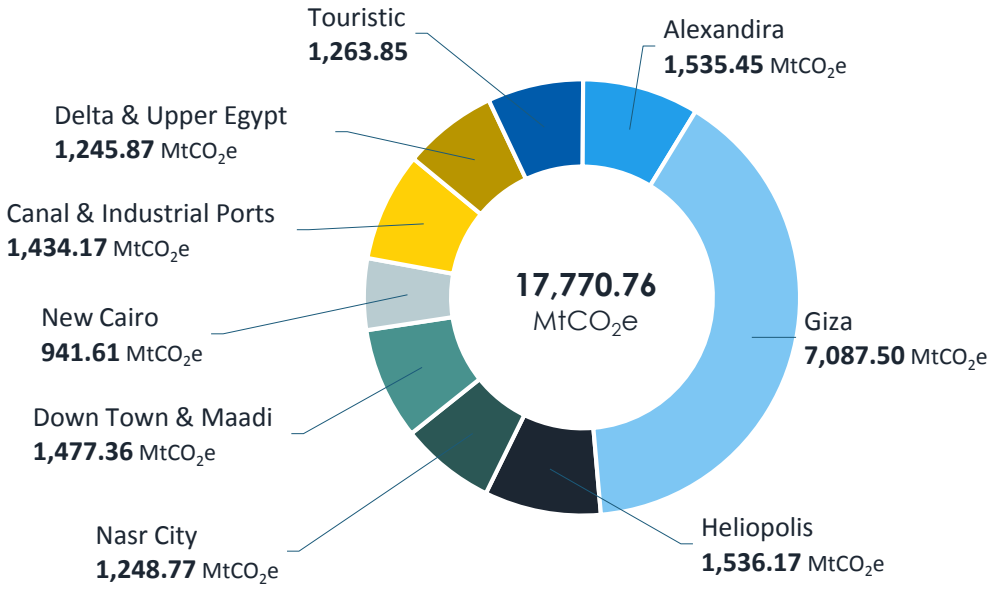
Emissions

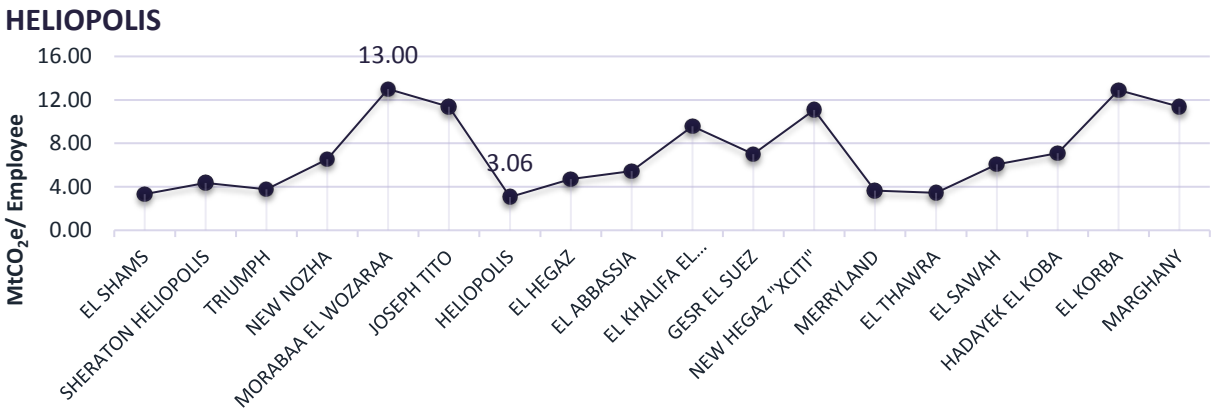
Emissions were calculated by multiplying the national grid emission factor by the total consumption of the branches.

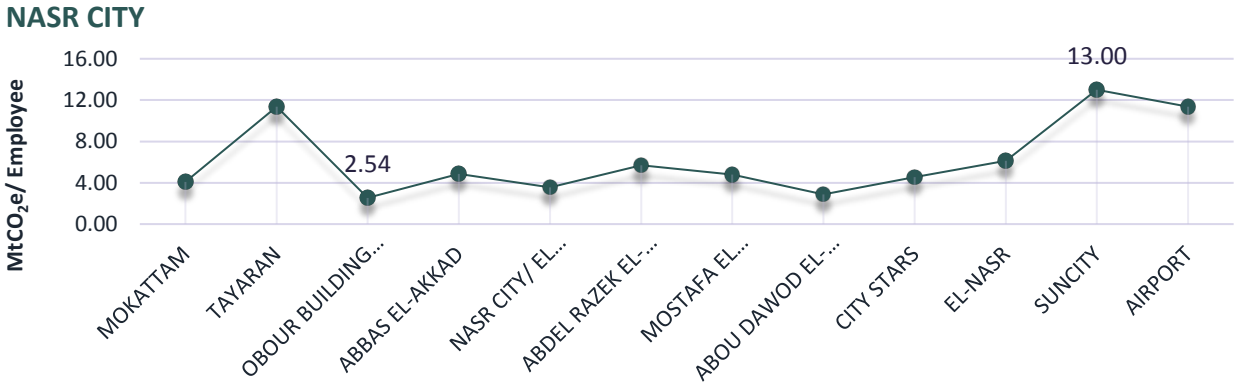
Energy Consumption Emissions ($MtCO_2e$) = Electricity Consumption (kWh) x EF ($MtCO_2e$/kWh)

The studied CIB branches consumed **33,656,743 kWh** for the year 2018, which resulted in **17,770.76 MtCO$_2$e**.

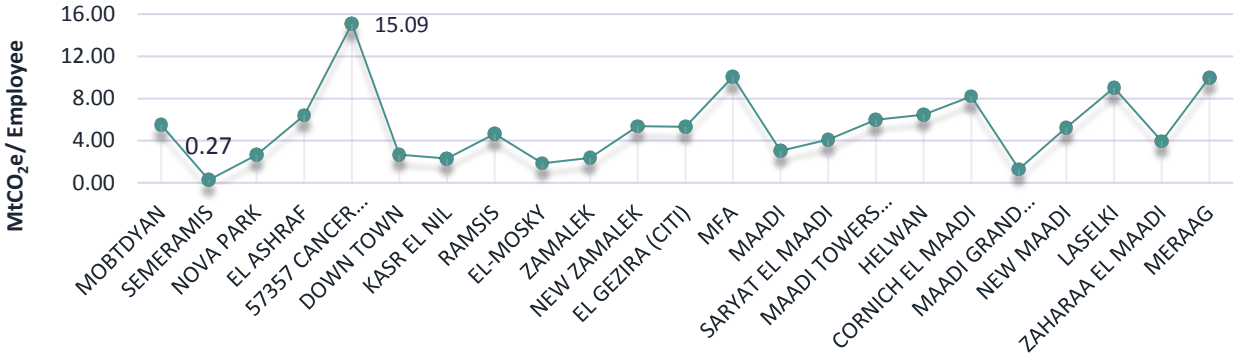
This accounts for **49%** of the total CIB emissions, and the largest contributor to the branches emissions.



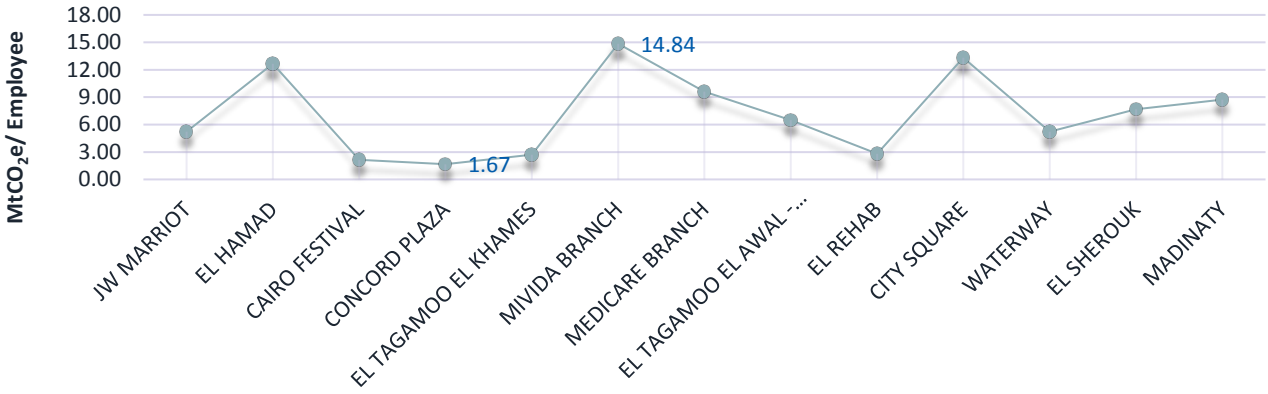




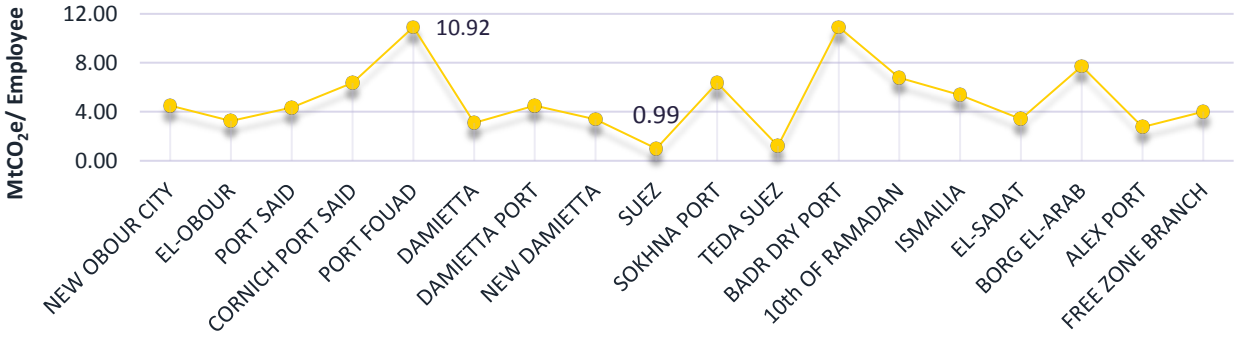
DOWN TOWN & MAADI



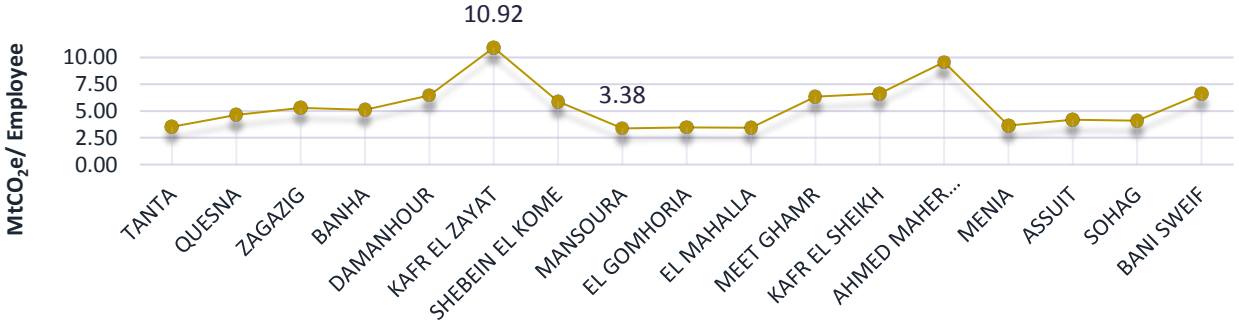
NEW CAIRO



CANAL & INDUSTRIAL PORTS

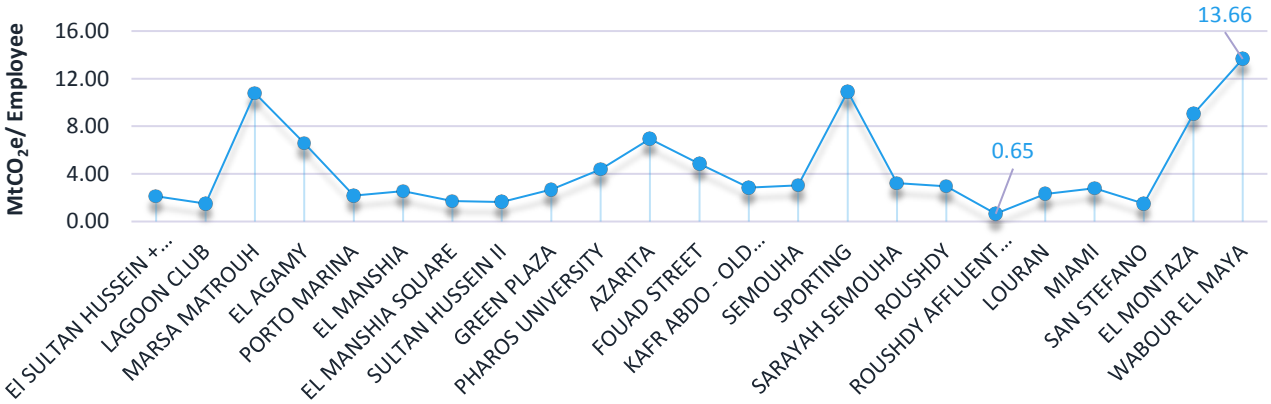


DELTA & UPPER EGYPT

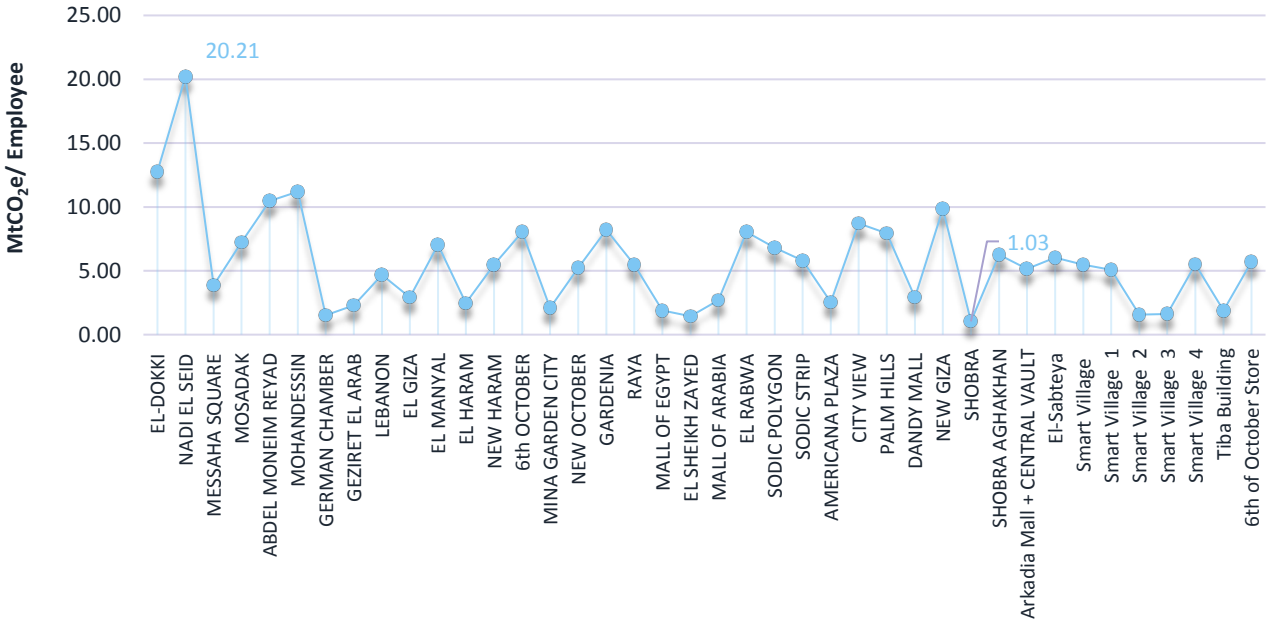


TOURISTIC

ALEXANDRIA



GIZA



3.2. WATER & WASTEWATER

3.2.1. Methodology

Scope & Assumptions

Water supply and wastewater treatment emissions are indirectly linked to energy emissions; therefore, they fall under scope 3 (indirect emissions). For CIB branches, only one type of water is supplied which is domestic water that comes to all branches through the municipality infrastructure system.

Activity Data

Data on water consumption was calculated based on the average water consumed per employee in a year, which was obtained from CIB database for Giza and Alexandria branches, based on water monthly bills (2017 Carbon Footprint Report).

Emission Factor

Emissions for water supply and treatment were calculated based on the amounts of energy consumed in both processes (supply and treatment), which was calculated by using a conversion formula[1]; for water supply **350 Wh/m³**, and for wastewater treatment **88 Wh/m³**. The emissions from water supply and wastewater treatment are then calculated by multiplying the energy consumption by the electricity emission factor.

Energy Consumption (Wh) = Water supply/ wastewater (m^3) x Conversion formula (Wh/m^3)

[1] Holding Company for Water and Wastewater (HCWW)

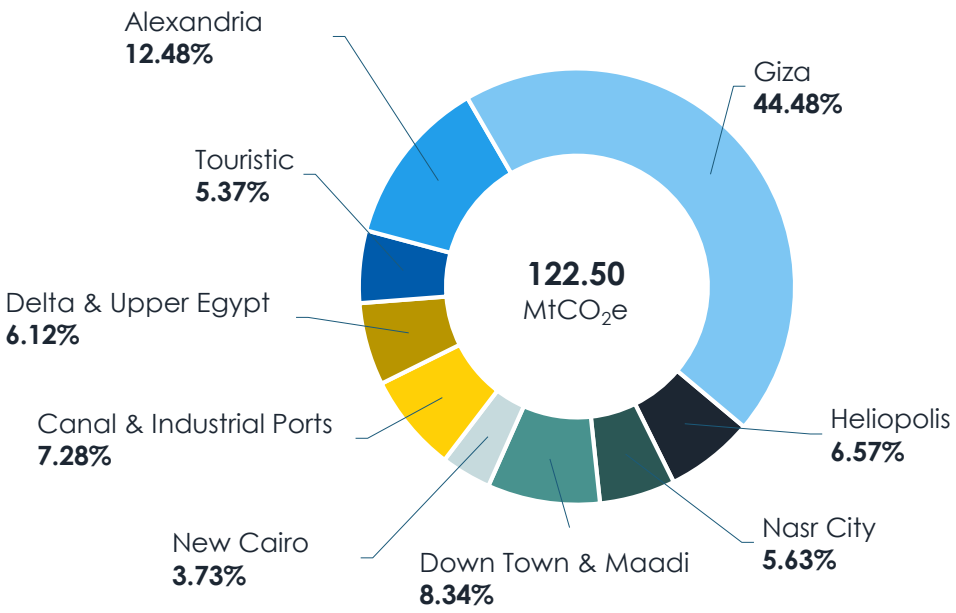
3.2.2. Calculations

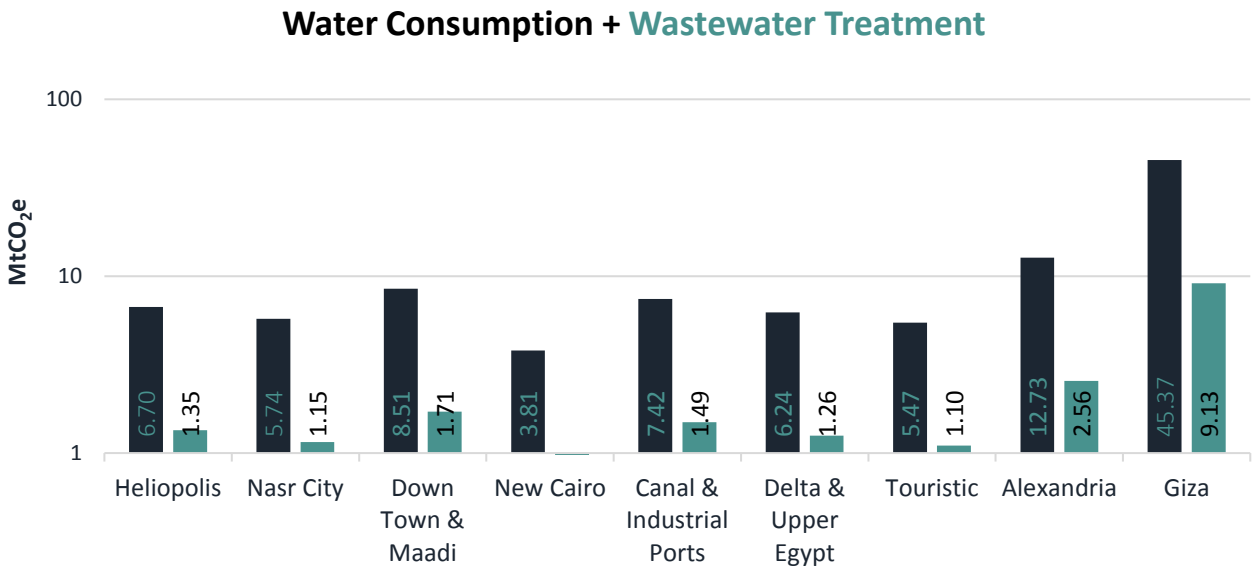
Emissions

CIB branches have approximately consumed **551,892 m³** of water for the year 2018. Wastewater quantities were assumed to be **441,513 m³,** representing 80% of the water consumption.

Water Supply and Treatment ($MtCO_2e$) = Energy Consumption (kWh) x EF ($MtCO_2e$/kWh)

The amount of water consumed by CIB branches and its treatment resulted in **122.50 $MtCO_2e$** emissions. Water supply and wastewater treatment accounted for **0.34%** of total emissions.





3.3. PAPER CONSUMPTION

3.3.1. Methodology

Scope & Assumptions

Office consumed paper and marketing materials (i.e. Flyers, applications, posters, … etc.) falls under scope 3 (indirect emissions).

A4 Paper Consumption

For all CIB branches, one type of office paper has been consumed in the reporting year 2018. Office paper type and specs have been assumed, as follows:

- Paper weight 80 g.
- Paper type: Uncoated.
- Paper end of life was included.
- 100% Raw materials, 0% Recycled.
- All paper used is imported.
- Paper size: A4 paper.

Marketing Materials

The following assumptions were made for the paper used in marketing materials:

- 100% Raw materials, 0% Recycled.
- All paper used is imported.
- Paper size: A4 paper.
- Paper end of life was included.

No emission factor was found for laminated or glossy, therefore the same emission factor of A4 paper has been used to calculate the emissions of marketing materials.

Activity Data

A4 Paper Consumption

Information was obtained from CIB database, and data regarding paper quantities was gathered per branch for the year 2018. The CIB group purchased **28,010,990 A4** paper in the year 2018, this is equivalent to **140.05 tons** of paper.

Marketing Materials

The total amount of marketing materials was provided by CIB, and the weight of each type of paper was calculated in respect to its size (flyers, posters, …etc.). CIB issued the equivalent of **2.13** tons of paper in marketing materials

Emission Factor

Emission factor boundaries are cradle to gate and usage, which includes the extraction of raw material and transport of raw material to the factory gate, product manufacturing and product transportation to retail. Emissions associated with landfill disposal were not considered since consumed paper is 100% recycled.

3.3.2. Calculations

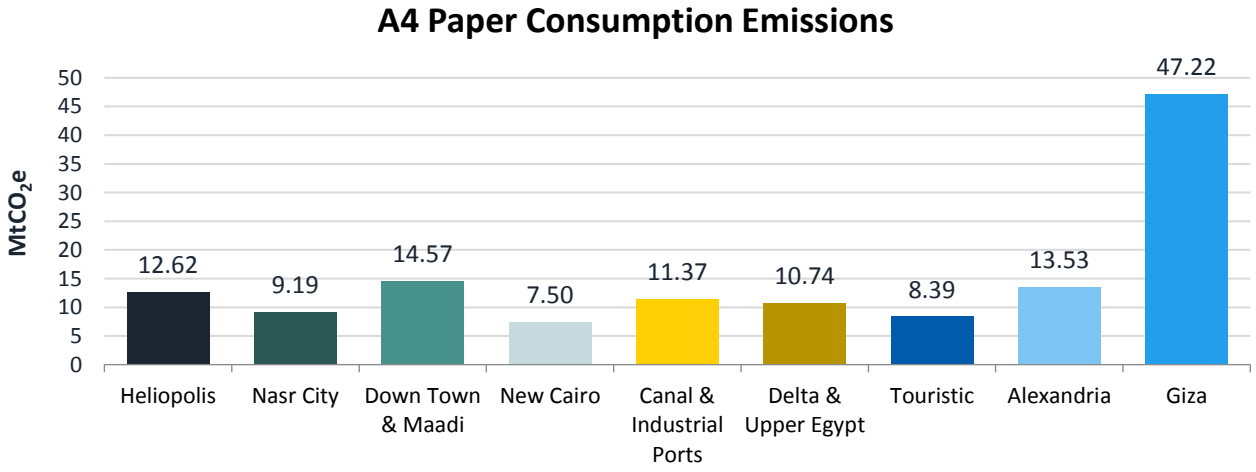
Emissions

A4 paper consumption emissions were calculated by multiplying the weight (Kg) of paper used per branch (for 182 branches) in the year 2018 by the corresponding emission factor[2]. The emissions of marketing materials were calculated using the same emission factor and the total emissions were divided by the number of CIB employees, and then multiplied by the number of employees working in the included branches (182 branches) to find the contribution of these branches to the total marketing materials GHG emissions.

Paper Consumption Emissions ($MtCO_2e$) = Weight of paper used (Mt) x EF ($MtCO_2e$/ Mt)

The emissions from A4 paper purchase, for included CIB branches totaled **133.84 MtCO2e,** and the emissions per zone are shown in the below graphs:

All waste paper is recycled, this would have added emissions of **12.08 $MtCO_2e$** if disposed in landfills.



[2] Emission factor from DEFRA, cross-validated against multiple sources

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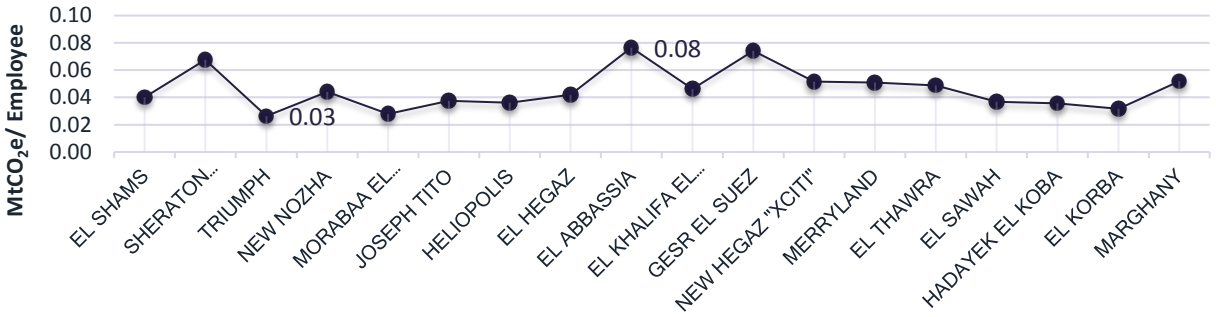
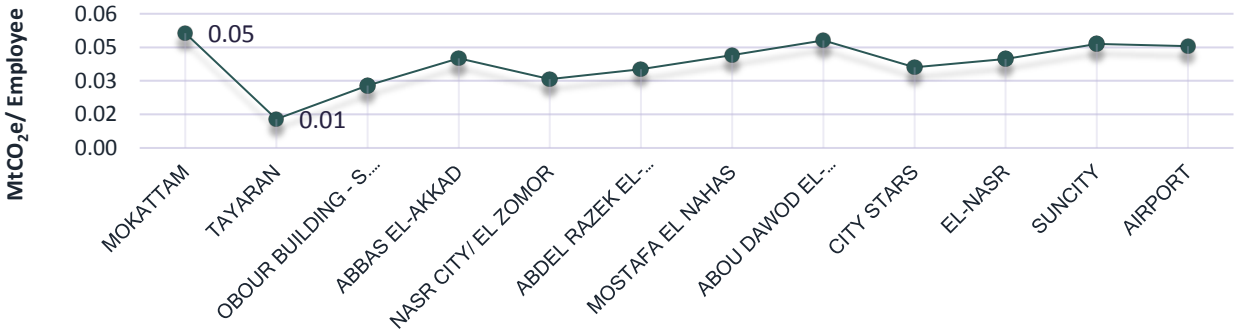
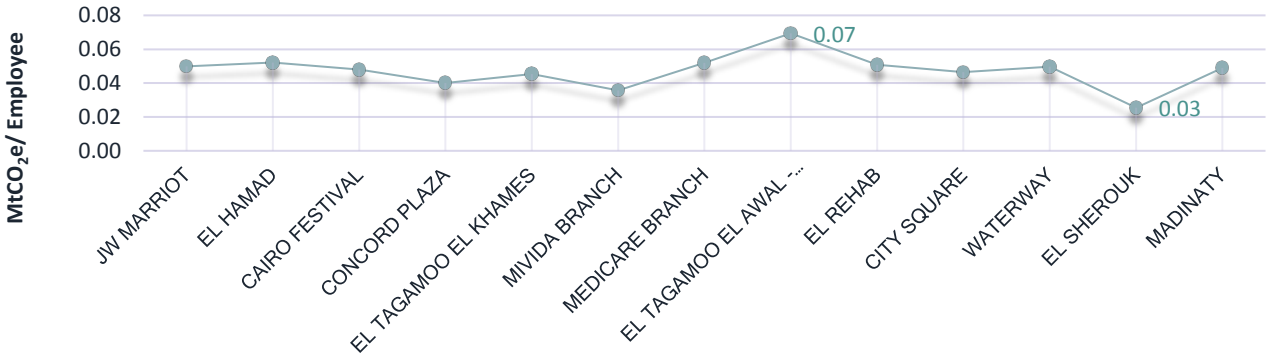


NASR CITY

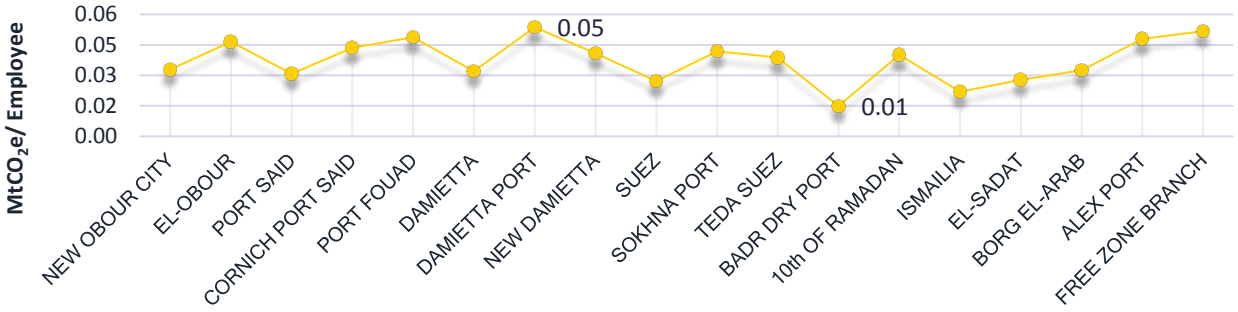


DOWN TOWN & MAADI

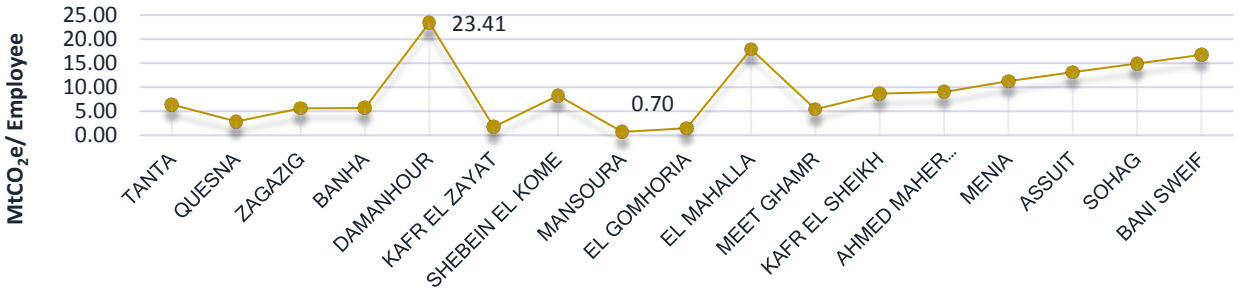
NEW CAIRO



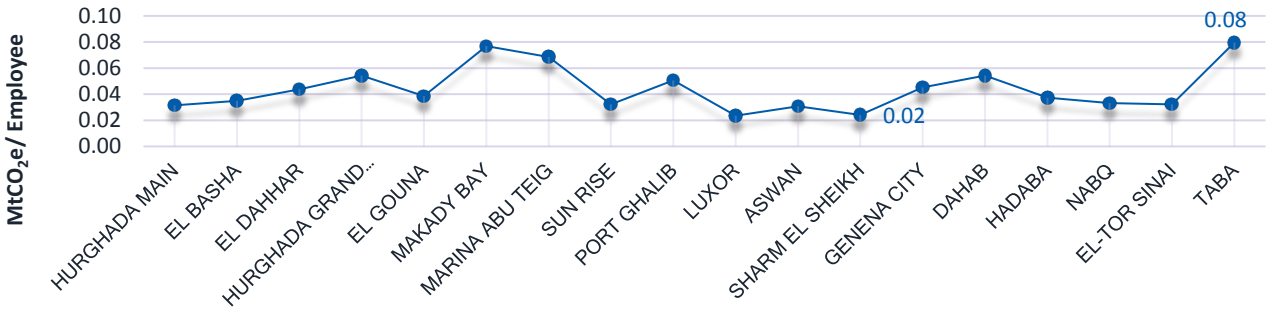
CANAL & INDUSTRIAL PORTS



DELTA & UPPER EGYPT

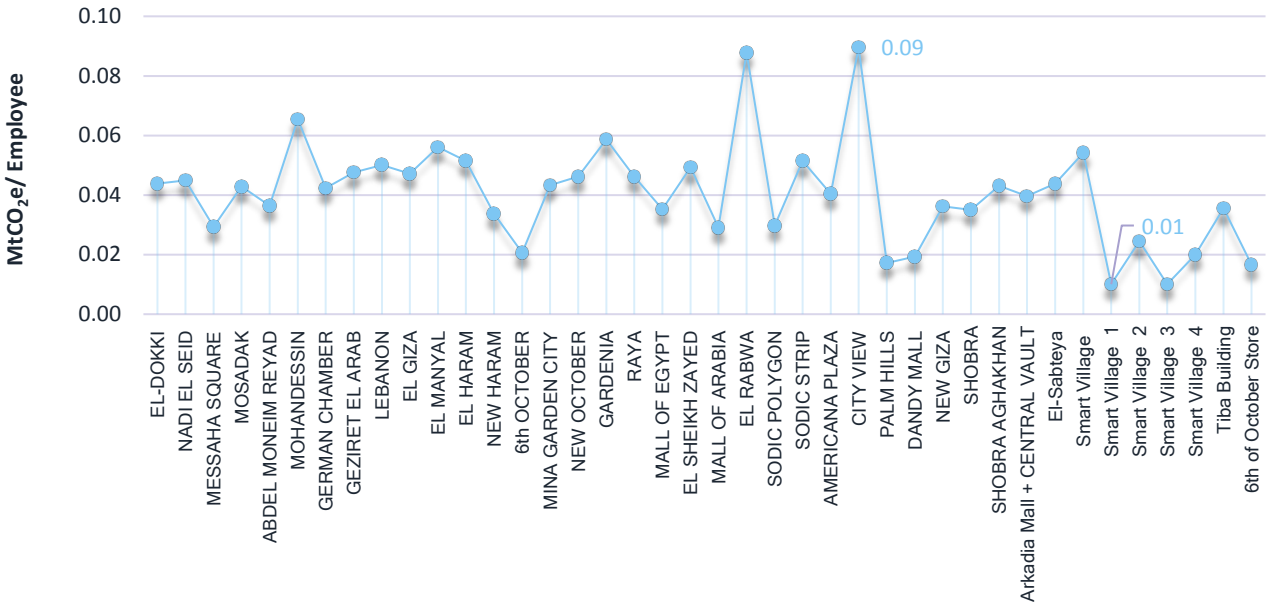


TOURISTIC

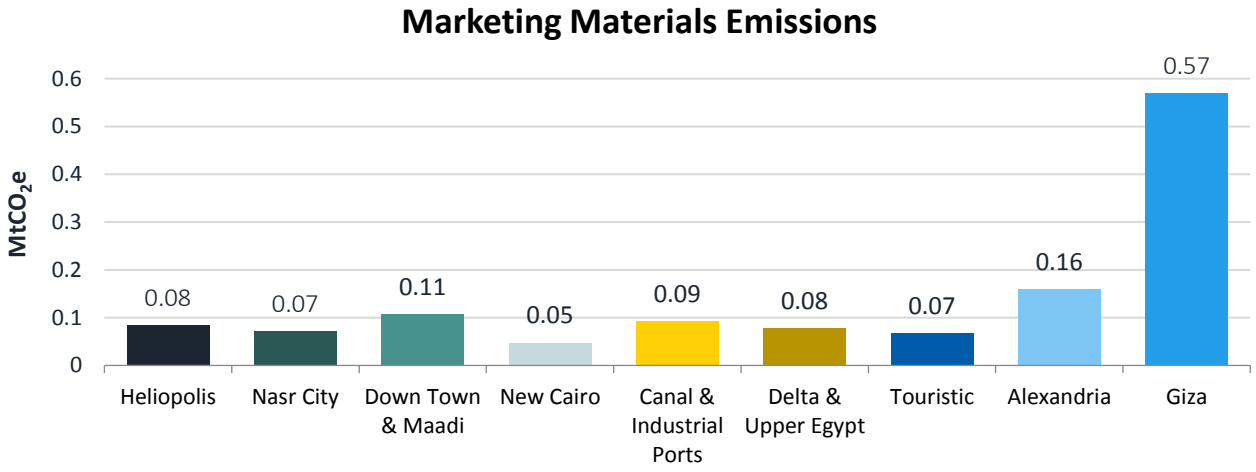


ALEXANDRIA

GIZA



Emissions from 182 included CIB branches were around **2.04 MTCO₂e**, and the emissions per zone are shown in the below graph:



3.4. TRANSPORTATION

3.4.1. Methodology

Scope & Assumptions

- Owned Vehicles

Fuel burning for owned vehicles falls under scope 1, as it is a direct emission from an asset owned and controlled by CIB. The emissions considered in this scope are from CIB owned vehicles and operated coasters.

- Employees Commuting

Emissions from employees commuting/ carpooling in their own vehicles (assumed to be an average type of car) are from transportation between their homes and work-site (CIB Branches), which falls under scope 3 (indirect emissions).

- Well to Tank (WTT)

To capture the maximum climate impacts of transportation, the Well-To-Tank emissions which falls under scope 3 (indirect emissions) were also calculated as part of CIB emissions.

Activity Data

- Owned Vehicles

The number of coasters, their destinations, and the number of trips per day were obtained from the CIB database. The trip length travelled per coaster was approximated from Google Maps, and the fuel consumption each year was then calculated by assuming that the average coasters consume 13-15 liters of diesel to travel 100 Km.

As per CIB owned vehicles, the consumption of petrol was calculated by the share of each employee from the monthly bills for the reporting year 2018.

- Employees Commuting

The number of employees commuting in private cars is around 2,721 employees. It was assumed that the type of vehicles used for transportation is average cars. Data were calculated by estimating the distance travelled by the employees, based on the branch's geographical locations and surveys on the average distance between the employees' homes and their work-sites. The travelling distance percentages for commuting were estimated for 11 different distances from 5 Km to 55+ Km, and then multiplied by the number of working days in a year to get the total distance travelled.

Emission Factors

Emission factor boundaries for transportation included fuel used in vehicles in addition to WTT, which includes activities from resource extraction through fuel production to delivery of the fuel to vehicle. Different emissions were used based on the vehicle type (Cars, coasters, …etc.) and data available for these types, either the total distance travelled, or the total fuel consumed.

3.4.2. Calculations

Emissions

- Owned Vehicles

The total fuel consumed by CIB's owned vehicles was multiplied by the corresponding emission factor to either calculate direct emissions or indirect emissions (WTT).

Owned Vehicles Emissions[3] ($MtCO_2e$) = Fuel consumption (L) x EF ($MtCO_2e$/ L)
Owned Vehicles WTT Emissions ($MtCO_2e$) = Fuel consumption (L) x WTT-EF ($MtCO_2e$/ L)

The total fuel consumption of owned cars was **462,661 liters** of petrol which corresponds to **1,019.28 $MtCO_2e$**, while the total consumption of the coasters was **487,870 liters** of diesel for the year 2018, which corresponds to **1,274.13 $MtCO_2e$**. As per the total WTT emissions for CIB branches from petrol operated cars and coasters were **276.05** and **270.44 $MtCO_2e$** respectively.

- Employees Commuting

The distance travelled per employee per year was computed and the total distance travelled by all employees was then multiplied by the corresponding emission factor to calculate indirect emissions from the total distance travelled by CIB employees and WTT emissions.

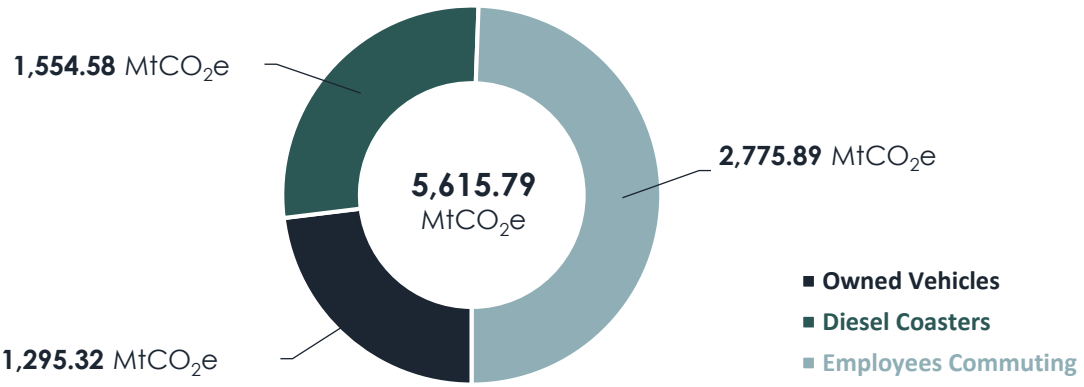
Employees Commuting Emissions ($MtCO_2e$) = Travelled distance (Km) x EF ($MtCO_2e$/ Km)
Commuting WTT Emissions ($MtCO_2e$) = Travelled distance (Km) x WTT-EF ($MtCO_2e$/ Km)

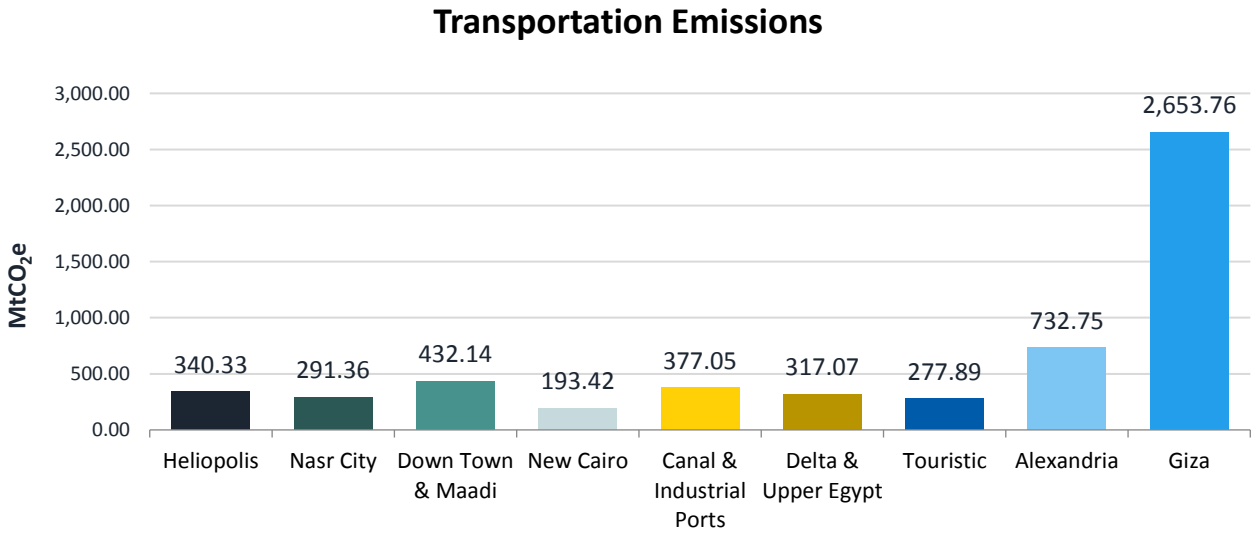
The total distance travelled by all employees was **11,886,638 Km**. which resulted in **2,183.34 $MtCO_2e$.** While the total WTT emissions from employees commuting were **592.55 $MtCO_2e$.**

[3] Emission factors from DEFRA

FUEL BURNING	182 CIB Branches	Scope
CIB Owned Vehicles:	1,019.28	1
Diesel Coasters:	1,274.13	1
Employees commuting	2,183.34	3
Total $MtCO_2e$	**4,476.75**	$MtCO_2e$

WELL TO TANK	182 CIB Branches	Scope
CIB Owned Vehicles:	276.05	3
Diesel Coasters:	270.44	3
Employees commuting	592.55	3
Total $MTCO_2e$	**1,139.04**	$MtCO_2e$
TOTAL	**5,615.79**	$MtCO_2e$





3.5. AERIAL TRANSPORTATION

3.5.1. Methodology

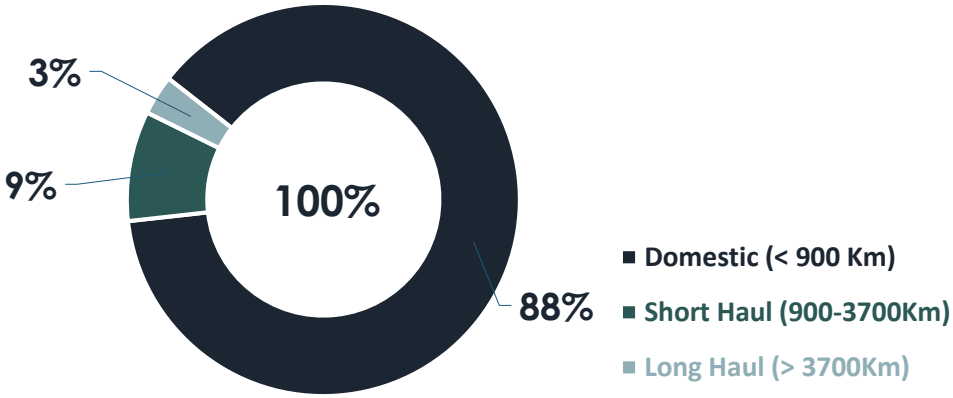
Scope & Assumptions

Aerial transportation emissions fall under scope 3 (indirect emissions). The flights were classified into 3 categories. Domestic (less than 900 Km), short-haul (between 900 and 3,700 Km), and long-haul flights (over 3,700 Km).

Activity Data

The details about all business flights for CIB employees for the year 2018 were obtained from the CIB database. Flight distances were obtained from online travel agencies.

Business Air Travel by type for all branches, year 2018



Total trips

4,970

Emission Factors

Travelling was classified into 3 flight categories (Domestic, short-haul and long-haul). Therefore, three different emission factors related to fuel burning were used to calculate the emissions per passenger for each category of flights. Emission factors used for Air travel included Well to Tank (WTT) and radiative forcing emissions, which means they include the activities from resource extraction, through fuel production, to delivery of the fuel to the aircraft.

3.5.2. Calculations

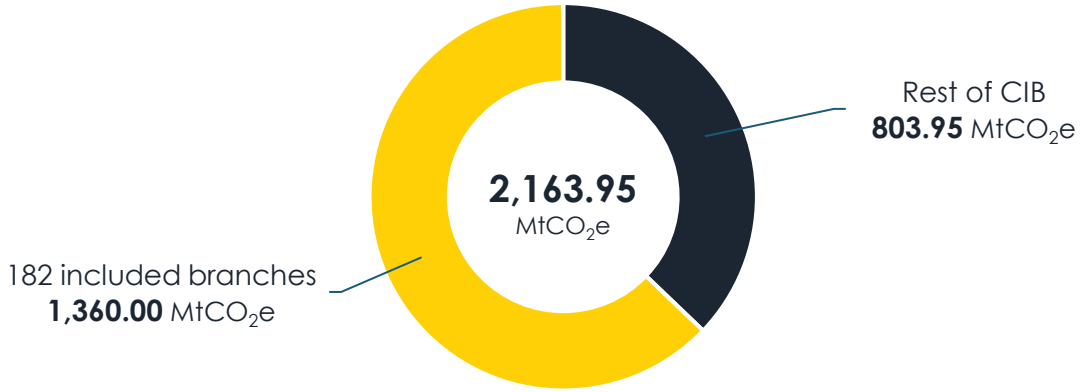
Emissions

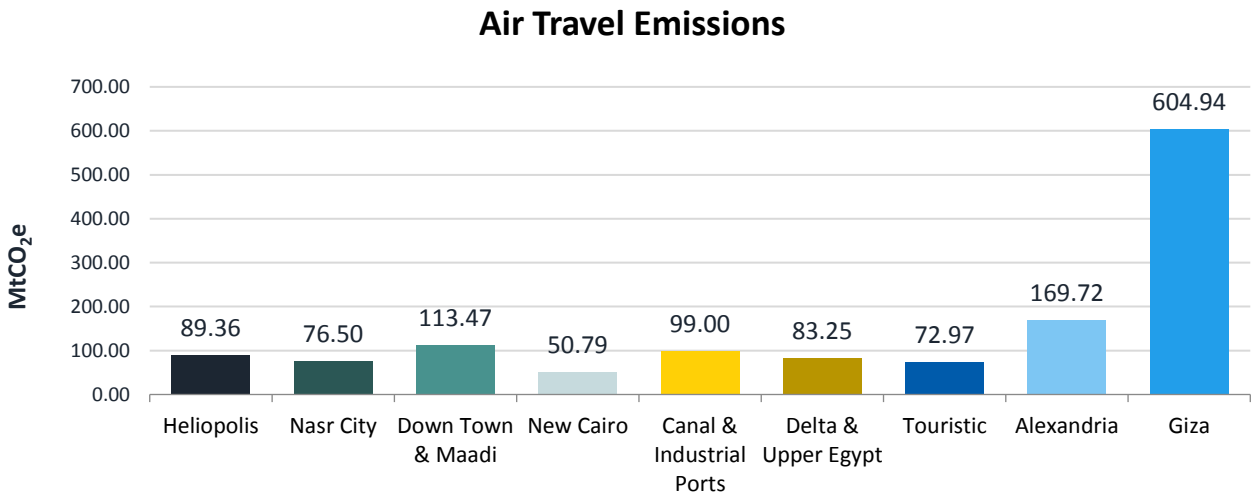
The emissions were calculated by multiplying the total distance travelled per passenger for each flight category (Domestic, short haul and long haul) by the corresponding emission factor.

Air travel emissions ($KgCO_2e$) = Distance travelled per passenger (pkm) x EF ($KgCO_2e$/ pkm)[4]

The annual share of flight emissions of each CIB employee was then calculated by dividing the total emissions by the number of CIB employees, then multiplying it by the number of employees working in the included branches to find the contribution of these branches to the total air travel GHG emissions.

CIB's business air travel for all branches totaled **8,401,051 Km** in the year 2018, this resulted in **2,162.95 $MtCO_2e$** for all CIB branches in Egypt. The included branches accounted for **1,360.00 $MtCO_2e$** which represents around **63%** of the total air travel emissions.





[4] Emission Factors from DEFRA

3.6. SOLID WASTE DISPOSAL

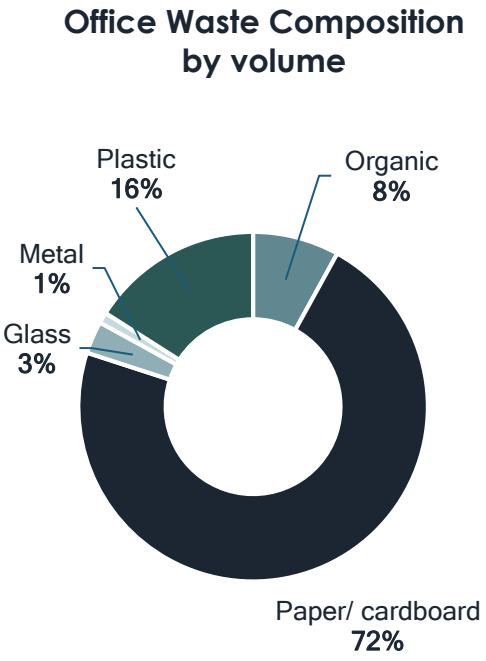
3.6.1. Methodology

Scope & Assumptions

Generated solid waste disposal falls under scope 3 (indirect emissions). All types of waste generated at CIB were considered including paper, cardboard, organic, plastic, metal and glass.

Activity Data

The British Standard for Waste management in buildings (BS 5906:2005) was used to estimate the waste generated at CIB due to unavailability of data. The BS helped in quantifying the waste tonnage, determining the waste types produced (paper, organic, plastic, glass, metal, …etc.) and specifying the generation rate for employees and visitors/week in office buildings. Paper and cardboard waste represents up to 72% of total volume of waste generated.



The types and amounts of waste produced were estimated by multiplying the number of employees and visitors per branch by the waste generation rates (50L/employee/week, and 0.32 L/visitor respectively).

Emission Factors

Emission factors included waste handling, its transportation to landfills and the landfilling process[5].

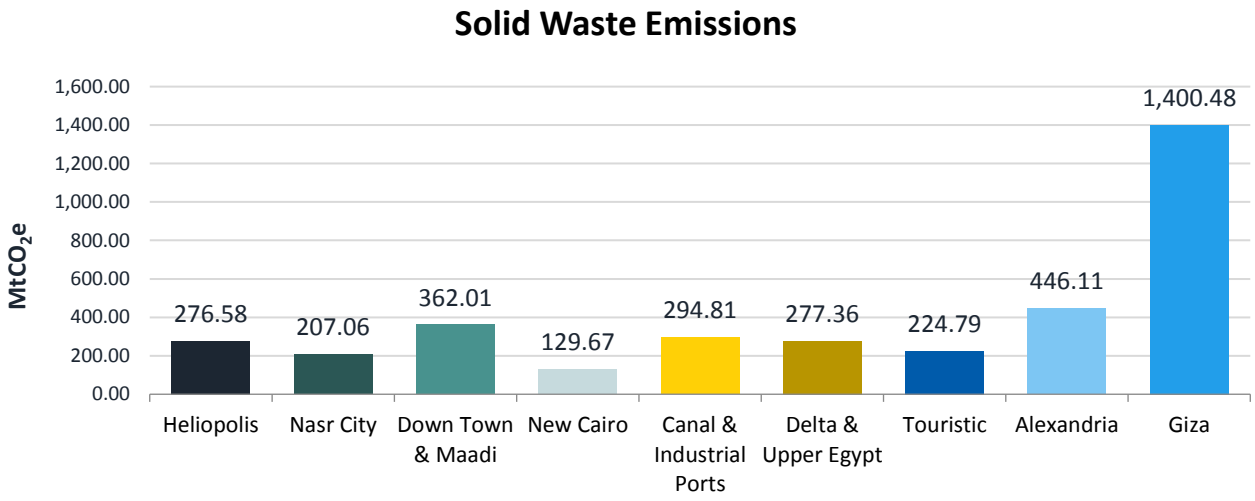
[5] Emission factors from DEFRA

3.6.2. Calculations

Emissions

Solid Waste Emissions ($MtCO_2e$) = Quantity of waste/type (Mt) x EF/ type ($MtCO_2e$/ Mt)

The amount of waste generated by CIB for the year 2018 was around **12,549.57 tons**, this amount resulted in **3,618.88 $MtCO_2e$.** Solid waste transportation to landfills and the landfilling process were accounted for in the emission factor.



3.7. REFRIGERANTS LEAKAGE

3.7.1. Methodology

Scope & Assumptions

The amounts of refrigerants leakage fall under scope 1, as it is a direct emission from the facilities owned by CIB. This includes all types of ACs that exist in all CIB branches excluding leakage from fridges.

Activity Data

The amount of leakage from ACs was obtained from CIB maintenance database. The database contained the amount (in kgs) of Freon R22 used in each branch.

Emission Factors

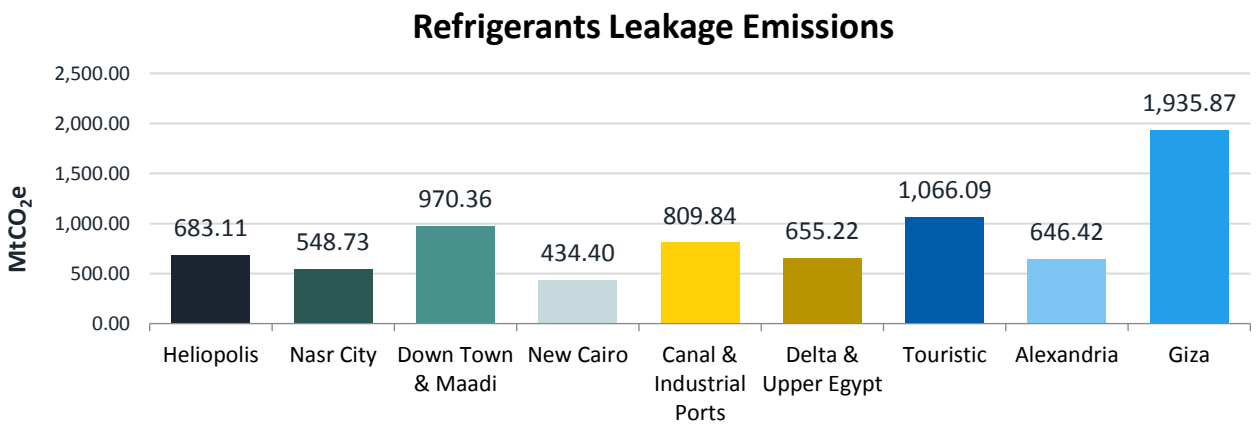
3.7.2. Calculations

Emissions

The total emissions were calculated by multiplying the total leakage mass by the emission factor for R22 gas.

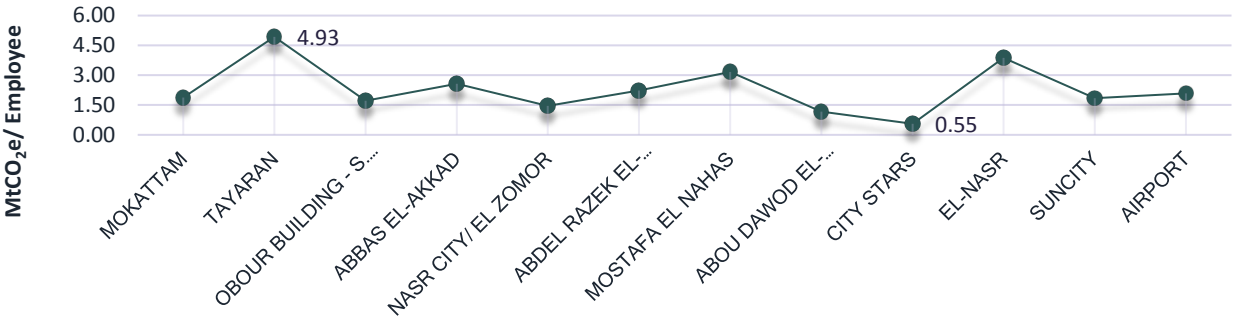
Refrigerants Leakage Emissions ($MtCO_2e$) = Refrigerant leakage (Kg) x EF ($MtCO_2e$/Kg)

The calculations showed that the air conditioning units in the 182 included branches leaked around **4,282 Kg** of R-22 refrigerant, which corresponds to around **7,750.04 $MtCO_2e$** representing around **21.31%** and the second largest contributor to the branches emissions.

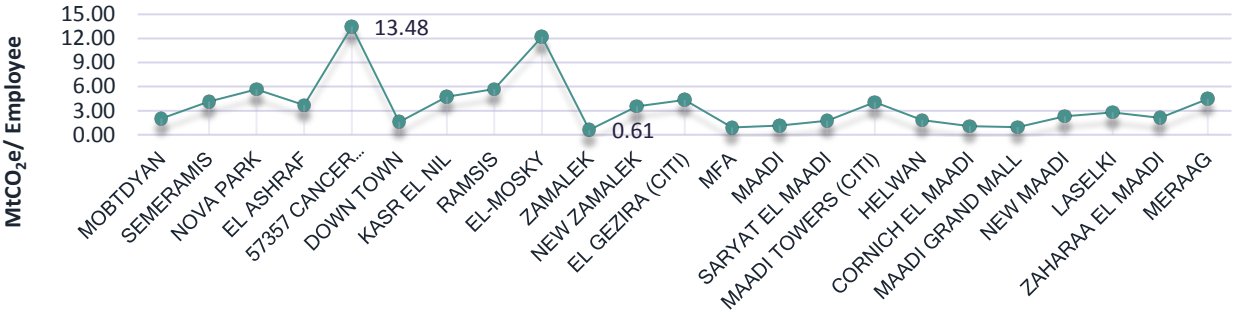


HELIOPOLIS

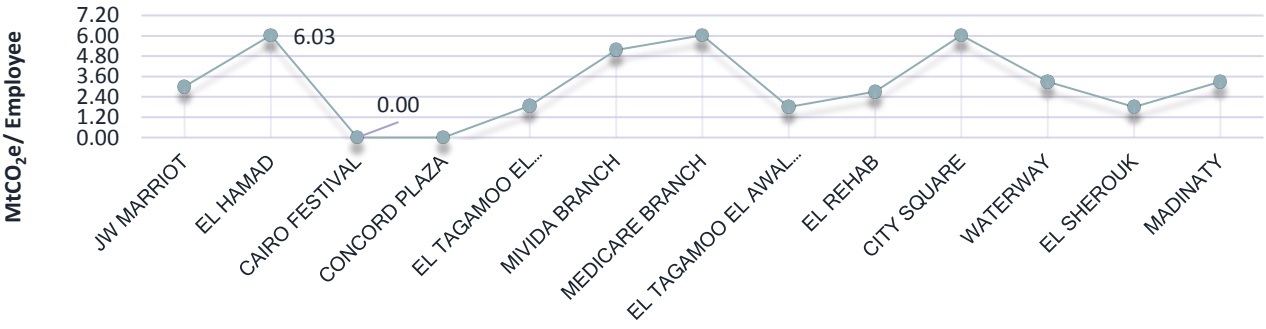
NASR CITY



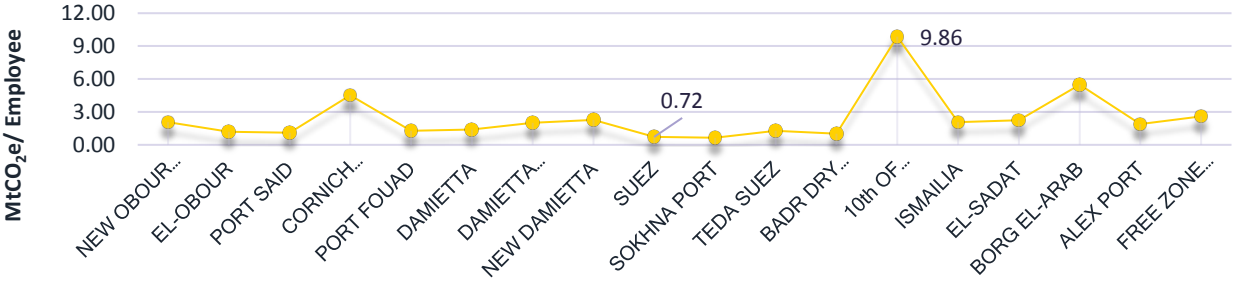
DOWN TOWN & MAADI



NEW CAIRO



CANAL & INDUSTRIAL PORTS



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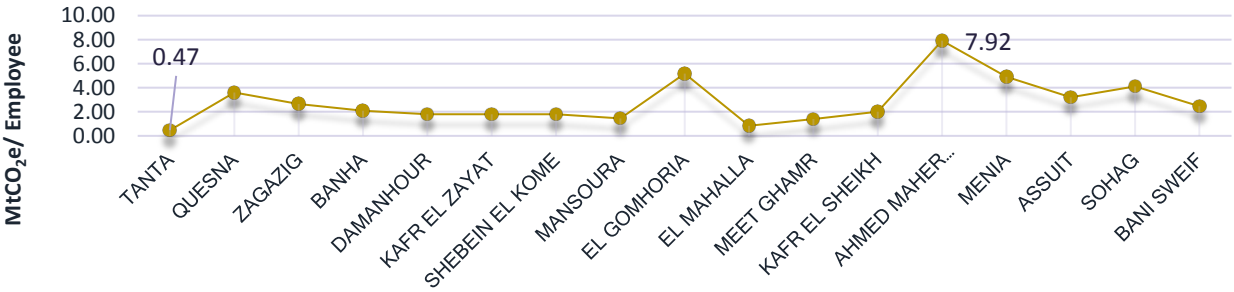

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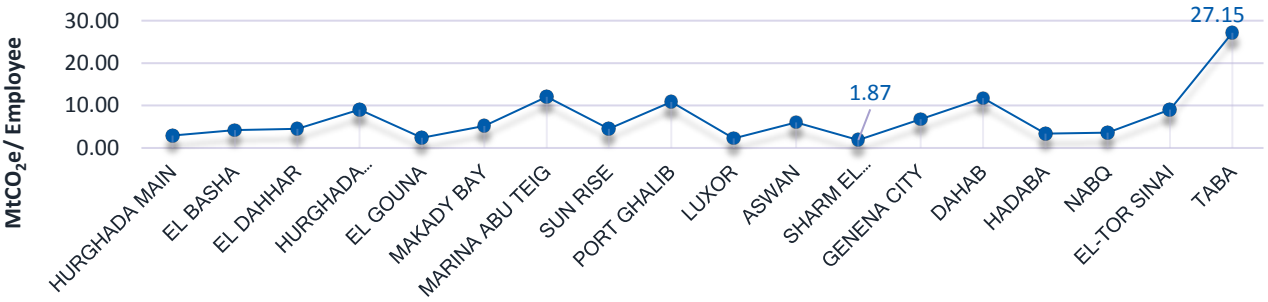
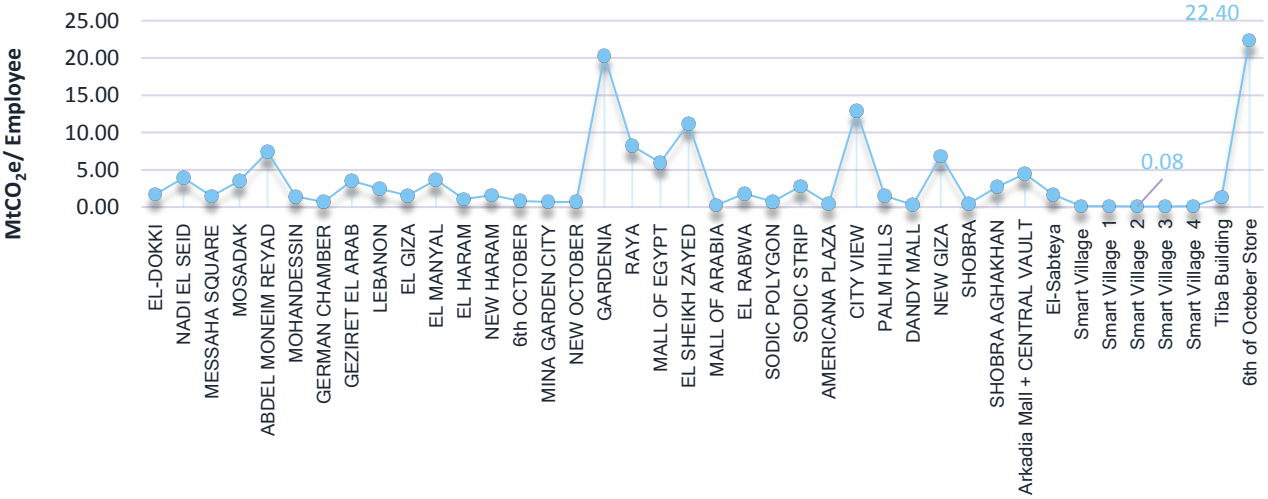


ALEXANDRIA

GIZA



IMPACT ASSESSMENT

4. IMPACT ASSESSMENT

Scope 1 & 2

Total numbers of employees in CIB studied branches are **4,231** employees. As per the total scope 1 emissions are **10,043.45 $MtCO_2e$**, while total scope 2 emissions are **17,770.76 $MtCO_2e$**. Therefore, scope 1&2 emissions per employee are **6.57 $MtCO_2e$/ employee**.

According to CDP the median of the banking sector's scope 1&2 emissions is **5.165** $MtCO_2e$/ employee and the international best practice is **2.82** $MtCO_2e$/ employee.

The figure shows the banking sector's scope 1&2 emissions per employee for 11 different banks compared to CIB's scope 1&2 emissions per employee.

In order to reach the banking sector median, CIB must cut down its emissions by **21%**. However to reach the best practice, emissions should be reduced by **57%.** GHG Equivalencies Calculator by EPA was used to quantify the emissions reduction in everyday terms.

21% reduction

Cutting down scope 1&2 emissions by 21%, means reducing the emissions from **27,814.21 $MtCO_2e$** to **22,000.22 $MtCO_2e$**. This is equal to **5,840.98 $MtCO_2e$** emissions reduction.

Equivalent to:

657,250

Gallons of gasoline consumed

1,019

Homes electricity use for one year

13,523

Barrels of oil consumed

14,281,125

Miles driven by an average passenger vehicle

2,037

Tons of waste recycled instead of land-filled

96,582

Tree seedlings grown for 10 years

57% reduction

Cutting down the emissions by **57%,** means reducing the emissions from **27,814.21 $MtCO_2e$** to **11,971.72 $MtCO_2e$**. This is equal to **15,869.49 $MtCO_2e$** emissions reduction.

Equivalent to:

1,785,697

Gallons of gasoline consumed

2,767

Homes electricity use for one year

36,741

Barrels of oil consumed

38,800,709

Miles driven by an average passenger vehicle

5,535

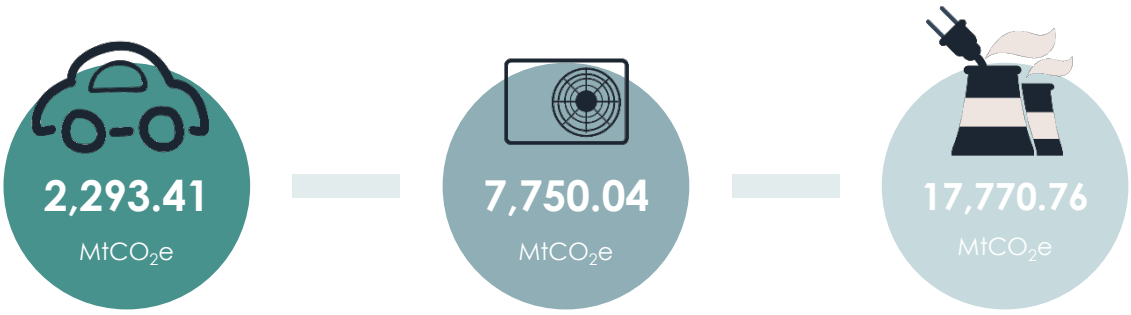
Tons of waste recycled instead of land-filled

262,405

Tree seedlings grown for 10 years

Emissions from Scope 1&2 can be reduced to reach the median or the best practice by cutting down the emissions from either owned vehicle fuel burning (scope 1) or refrigerants leakage (scope 1) or purchased electricity (scope 2).

The total emissions from fuel burning, refrigerants leakage, and purchased electricity are **2,293.41** $MtCO_2e$, **7,750.04** $MtCO_2e$, and **17,770.76** $MtCO_2e$ respectively.



1 % reduction of total scope 1&2 emissions is equivalent to **278.14 $MtCO_2e$**, this represents around 12%, 3.59%, and 1.56% of the total emissions of each category.

Owned vehicles fuel burning emissions

Owned Vehicles Emissions ($MtCO_2e$) = Fuel consumption (L) x EF ($MtCO_2e$/ L)

278.14 $MtCO_2e$ is equivalent to **126,427 Liters** of petrol.

278.14 $MtCO_2e$

Refrigerants leakage emissions

Leakage Emissions ($KgCO_2e$) = Refrigerant leakage (Kg) x EF ($kgCO_2e$/Kg)

278.14 $MtCO_2e$ is equivalent to **154 Kg** of refrigerant leakage.

278.14 $MtCO_2e$

Purchased electricity emissions

Electricity Emissions ($MtCO_2e$) = Consumption (kWh) x EF ($MtCO_2e$/kWh)

278.14 $MtCO_2e$ is equivalent to **526,780 kWh**.

278.14 $MtCO_2e$

Scope 3

Categories where opportunities exist were identified and the equivalence for each percent of emissions reduction is illustrated below:

Transportation emissions

Total emissions resulting from transportation emissions including WTT and employees commuting emissions are **5,615.79 $MtCO_2e$**. 1% emissions reduction is **56.18 $MtCO_2e$** and equivalent to

137,359

Miles driven by an average passenger vehicle

23

Tree seedlings grown for 10 years

Paper Consumption

Paper consumption emissions are **135.13 $MtCO_2e$,** 1% emissions reduction is **1,351.3 $KgCO_2e$** is equivalent to

Solid waste disposal

Solid waste disposal emissions are **3,618.88 $MtCO_2e$**. 1% emissions reduction is **36.19 $MtCO_2e$** and equivalent to

11.5

Tons of waste recycled instead of land-filled

DCarbon ©
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Investment Village,
Cairo, Egypt.
www.dcarboneg.com

External Assurance Letter

To the Chief Communications Officer,

Cairo, 12 November 2019

Dcarbon is an Egyptian Sustainability, environment and climate change consultation firm registered under the law no. 159 for the year 1981 and its executive regulation. Dcarbon is a certified training partner to the Global Reporting Initiative (GRI), and a GRI Gold Community member. Our main focus is to assist organizations, public and private, in understanding and addressing their economic, environmental, and social impact. Our team of experts provides consultations and training on sustainable development and climate change issues throughout the MENA region.

Dcarbon team of experts, have been engaged by the CIB to perform an independent limited assurance engagement on CIB Carbon Footprint Report for the year 2018.

The scope of assurance covered data and information for the period from 1st January 2018 to 31st December 2018. Selected information was assured throughout the report. Limited assurance was issued based on our review to the transparency of data and calculations, appropriateness of supporting data and assumptions, and overall credibility of the calculated annual carbon footprint.

Activities

- Reviewing the methodologies, boundaries and functional unit and assure that they are clearly defined.
- Undertaking analytical procedures over Scope 1, Scope 2, and Scope 3 greenhouse gas emissions during the reporting period.
- Assessing the appropriateness of estimates and assumptions applied.

Responsibilities

CIB is responsible for the determination of the GHG emissions within the defined scope and boundaries, based on the activity data collected and the emission factors used in calculations.

DCarbon's sole responsibility was to provide an independent verification on the accuracy of the GHG emissions reported for the period stated.

We do not accept or assume responsibility to anyone other than CIB for our work or for our conclusion.

Conclusion

Based on the activities performed and the evidence received, the review has not found assumptions or calculations errors, and found that CIB has complied with International Standards and Guidelines stated in the report, in all material respects, in accordance to criteria.

ENG. Sherif Hafez, Climate Change Expert.
United Nations Framework Convention on Climate Change (UNFCCC), Roster of Experts

Ehab Shalaby, Phd.
Chief Executive Officer

www.be-masader.com