EG BANK

Carbon Footprint

Report year: 2021

LIST OF ABBREVIATIONS

AC	Air Conditioning
AR5	Assessment Report number 5 of IPCC
CFP	Carbon Footprint
CH_4	Methane
CO_2	Carbon Dioxide
COP	Conference of the Parties
EF	Emission Factor
EPA	Environmental Protection Agency
FC	Fuel Consumed
g	Gram
GHG	Greenhouse Gas
GWP	Global Warming Potential
HCFC	Hydrochlorofluorocarbon
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organization for Standardization
J	Joule
Kg	Kilograms
L	Liter
m^3	Cubic Meter
MENA	Middle East/North Africa
MT CO_2e	Metric Tonnes of Carbon Dioxide Equivalent
MW	Molecular Weight
N_2O	Nitrous Oxide
SDS	Sustainable Development Strategy
SI units	International System of Units
UNFCCC	United Nations Framework Convention on Climate Change

LIST OF TERMS AND DEFINITIONS

Activity Data	A quantitative measure of a Bank's activity that results in a GHG emission or removal.
Assumed Parameter	A parameter that is not site-specific but based on best practices, global averages, etc. that is more or less representative of the actual value.
Base Year	A historical year used to compare the preceding year's emissions. It can be a calendar year or averaged over several years (Time Series).
Climate Change	Long-term shifts in temperatures and weather patterns.These shifts may be natural or human-driven activities.
CO_2e	Carbon dioxide equivalent – standardizing 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.
EGBANK	Egyptian Gulf Bank
Emission Factor	A factor allowing GHG emissions to be estimated from a unit of available activity data (e.g., tonnes of fuel consumed, tonnes of product produced) and absolute GHG emissions).
Fugitive Emissions	Emissions that are not physically controlled but result from the intentional or unintentional releases of GHGs.
Greenhouse Gas (GHG)	A gas that absorbs and emits radiant energy within the thermal infrared range, causing the greenhouse effect.
GHG Emission / Removal Factors	The specific value used to convert activity data into greenhouse gas emission/reduction values.
GHG Inventory	List of emission sources and the associated emissions quantified using standardized methods.
Greenhouse Gas Emission	The total mass of a GHG released into the atmosphere over a specified period.
Greenhouse Gas Project	Activity(s) that alter the conditions identified in the baseline scenario, which cause GHG emission reductions or GHG removal enhancements.
Greenhouse Gas Report	Stand-alone document intended to communicate an organization's or project's GHG-related information to its intended users.
Greenhouse Gas Source	Physical unit or process that releases a GHG into the atmosphere.

Indirect Emissions	Greenhouse gas emissions from facilities/sources that are not owned or controlled by the Bank but for which the activities of the Bank are responsible (electricity purchase).
Inventory Boundary	An imaginary line encompasses the direct and indirect emissions included in the inventory. It results from the chosen organizational and operational boundaries.
IPCC	The Intergovernmental Panel on Climate Change is an intergovernmental body of the United Nations responsible for advancing knowledge on human-induced climate change.
Mobile Combustion	The burning of fuels by transportation devices such as cars, trucks, trains, airplanes, ships, etc.
Operational Boundaries	The operational boundary determines the emissions associated with operations, classifies emissions as direct or indirect, and categorizes the different scopes of GHG emissions.
Organizational Boundaries	Organizational boundaries determine which operations to include or exclude from the carbon footprint calculations of the organization.
Other Indirect Greenhouse Gas emissions	GHG emissions, other than energy indirect GHG emissions, which are a consequence of an organization's activities, but arise from greenhouse gas sources that are owned or controlled by other organizations
Scope 3 Inventory	A reporting organization's indirect emissions other than those covered in Scope 2.
Stationary Combustion	Burning of fuels to generate electricity, steam, heat, or power in stationary equipment such as generators, etc.
Refrigerant	A refrigerant is a substance or mixture. Usually, a fluid used in a heat pump and refrigeration cycle.

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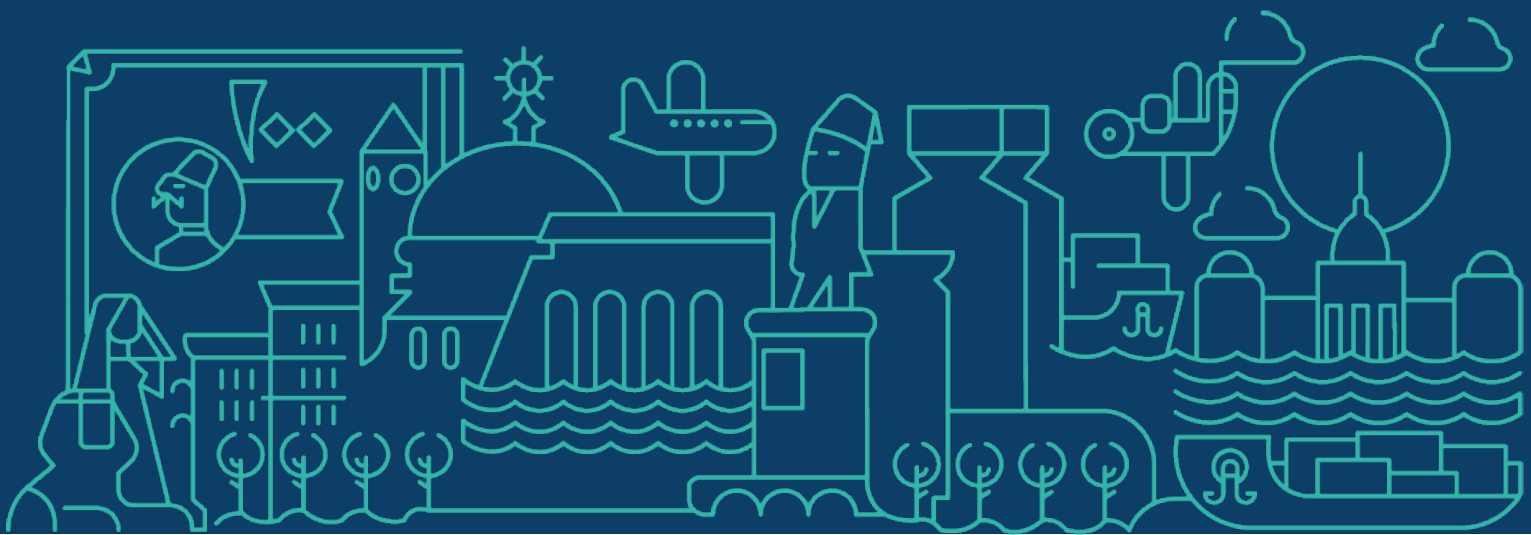
EG BANK



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MESSAGE FROM THE CEO

Climate change issues have been on the radar for so long since 1968 when environmental issues started to receive serious attention by a major UN body, namely The Economic and Social Council. However, it was not until 1997 that the world has witnessed a unified action agenda to combat climate change through the Kyoto protocol to the United Nations Framework Convention on Climate Change (UNFCCC).

While some may argue with or against the urgency of the matter, I believe climate issues touch human needs at the most basic level. COVID – 19 was a loud warning whistle to remind us of how our actions as human beings can have serious implications to the environment and eventually to our daily lives. In addition, it is a case in point of how we are all interconnected on a global level.

EGBANK recognizes the importance of considering those climate change issues at all levels starting from the sovereign and down to every one of us. EGBANK's vision to offer a young and flexible experience to the youth has put many ESG related issues at the heart of its activities, starting from adopting green practices in its newly established branches to supporting the entrepreneurship community through the MINT incubator and supporting financial literacy and inclusion through MINT Hub proposition.

MESSAGE FROM THE CEO

Most of the used materials in our new branches are recycled to promote sustainability and greening by example. Also, the branches are built with sound proof materials that decrease and absorb noise. In addition to the reflective glass, we deployed VFR air conditioning and efficient lighting methods that reduce energy consumption.

As a financial institution, we understand the risk that we are subject to with climate change affecting our portfolio performance and eventually financial results. We are more vulnerable to physical risks that can materialize directly, through our exposures to corporations and households that might experience climate shocks, or indirectly, through the effects of climate change on the wider economy and response effects within the financial system. Exposure includes increased default risk of loan portfolios or lower values of assets.

EGBANK can assist on climate change agenda, among other financial institutions, through promoting sustainable finance as a mitigation mechanism by providing incentives for firms to adopt less carbon-intensive technologies and specifically financing the development of new technologies. Adaptation is trickier at this point of time, but I believe, we will evolve into it as we incorporate climate risks within our wider risk management framework.

The carbon footprint report represents a key step for EGBANK to identify its impact and consequently role towards the climate change agenda. I would claim that we can only see the road ahead if we uncover where we currently are and assess our targets and then start launching initiatives with aspiration for a positive contribution.

EGBANK at this point is looking forward to assuming its responsibility as an active player in the Egyptian banking sector and as a bank that has recognized the importance of green practices ever since it adopted its ambitious growth strategy in 2015 to advance its agenda and renew its commitment to Egypt's climate change agenda eventually contributing to the 13th sustainable development goal to take urgent action to combat climate change and its impact.

Nidal Assar

CEO and Managing Director of EGBANK

EXECUTIVE SUMMARY

Commercial banks play a critical role in executing international organizations' environmental and climate protection activities; they are at the core of combating climate change. Recognizing the importance of the situation, EGBANK has taken the first step in learning about its role in climate change by publishing its Carbon Footprint report.

This report covers the estimated carbon footprint for EGBANK, head-office 45st N Teseen, The Address Building, New Cairo 1, Cairo Governorate. Greenhouse gases released from important emission source categories from 1 January 2021 till 31 December 2021 are recorded. The Scope 1 and Scope 2 Inventory data are derived using the GHG Protocol Corporate Accounting and Reporting Standard, the Intergovernmental Panel on Climate Change (IPCC), and ISO 14064-1:2018 regulations.

The main GHGs used in calculating the GHG Inventory of EGBANK operations are Carbon Dioxide (CO_2), Methane (CH_4), Nitrous Oxide (N_2O), and Hydrofluorocarbons (HFCs). Emissions of each GHG are reported in Metric tonnes of CO_2 equivalent emissions (CO_2e).

This approach normalizes the emissions of the various GHGs to reflect each compound's Global Warming Potential (GWP) with CO_2 as a baseline.

Summary of Carbon Footprint Emissions

The overall carbon footprint emissions between 1/1/2021 and 31/12/2021 for EGBANK came to be 206.36 Metric Tonnes of CO_2e, with Scope 1 direct emissions being 142.48 MT CO_2e representing 69.04% of the total GHG Emissions and Scope 2 with 63.89 MT CO_2e representing 30.96%. A summary of EGBANK's GHG Inventory is presented in Table 1 and Figure 1 below.

Table 1 Summary of GHG emission sources

Emission Sources	Emissions Quantity	Unit	Share in Total GHG Emissions
Scope 1 - Direct Emissions			
Stationary Fuel Combustion	0.34	MT CO_2e	0.16%
Mobile Fuel Combustion	116.38	MT CO_2e	56.39%
Fugitive Emissions	25.76	MT CO_2e	12.48%
Scope 2 – Indirect Emissions			
Electricity Consumption	63.89	MT CO_2e	30.96%
Emissions Summary			
Scope 1 – Direct Emissions	142.48	MT CO_2e	69.04%
Scope 2 – Indirect Emissions	63.89	MT CO_2e	30.96%
Total Emissions	206.36	MT CO_2e	100%

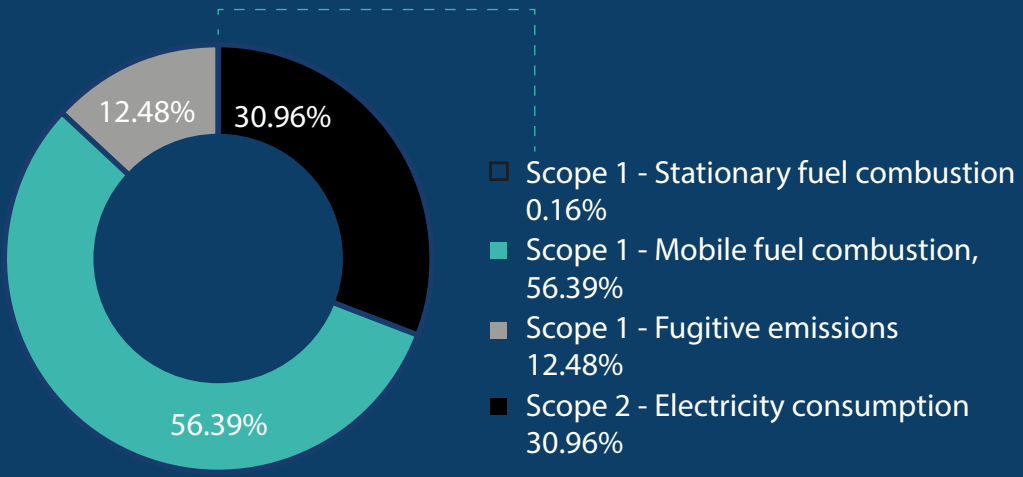


Figure 1 Breakdown of GHG emission sources

EGBANK Key Performance Indicators

0.938	0.075
MT CO_2e/employee/year	MT CO_2e/m^2/year

ABOUT THE BANK

EGBANK History

The Egyptian Gulf Bank (EGBANK) was established in 1981 with the vision of establishing a private Egyptian bank to serve and support developmental projects in Egypt and the Arab countries in an era where the economic scene was witnessing improvement and potential growth.

Over the years, EGBANK grew organically with a strong level of stability and a healthy portfolio. In 2015, the bank adopted a new strategy and approach with the aim of becoming one of the fastest-growing private banks and the bank of choice for youth in Egypt. The bank revamped its new identity and new flagship branch network and succeeded in becoming one of the fastest-growing banks in Egypt.

EGBANK Vision

To offer a young and flexible experience that centers the youth at the heart of our organization.

EGBANK Mission

Our philosophy and decisions are constantly inspired from four Principles:

Youth comes first

Sparking creativity and innovation, today's young minds make tomorrow brighter. We believe that youth is an infinite source of inspiration that is why we make it our utmost priority to be constantly engaged, providing them with relevant tools and solutions to reach their full potential.

Passionate team

With a strong passion to delight our customers, we are constantly exploiting our capabilities in a manner that is relevant and engaging to move us forward, to the benefit of our customers, investors and team.

Futuristic Thinking

In a disruptive market, where direct acquisition of clients will become a conventional trend, capturing non-clients indirectly through partners becomes more relevant and crucial.

Entrepreneurial spirit

Constantly challenging the status quo, we explore new grounds and next level solution, that is why we are the strongest advocates of the entrepreneurial spirit both internally and externally to foster and empower a culture of creative thinking that is agile, flexible and result driven.

Business Lines

- Retail banking and small and medium enterprises:

  Both specialize in achieving targeted sales in branches and providing outstanding customer experience, with a particular focus on deposits, loans, Islamic products, and credit cards, attracting new customers to the bank, and salary transfer services in addition to a dedicated and specialized sales team for auto loans and self-employment loans. SMEs team is a specialized team that markets loans to small and medium-sized companies through the network of branches, in line with the Central Bank's direction to increase proportion of lending portfolio allocated to this crucial sector.

- Corporate Banking and Special Products:

  The Corporate banking services sector serves large companies, inclusive financing projects, and syndicated loans. The special products team is responsible for designing, following up, and evaluating new products and handling a current portfolio of gas, microfinance companies, and CBE housing initiatives.

- Treasury, Investment, and Financial Institutions:

  The Treasury Department specializes in investing the bank's funds in government debt instruments inside and outside the Arab Republic of Egypt, as well as investing in corporate bonds and securing foreign currencies for the bank's customers. The investment department handles EGBANK's equity investments, most notably EG Holding – the investment arm of EGBANK. The financial institutions department is EGBANK's focal point for communication with international financial institutions/correspondent banks.

- MINT Platform:

  EGBANK launched MINT in 2018 as a platform dedicated to the young and curious – enabling youth to access the world of banking, accelerate their business, and unleash their potential. MINT, as a youth banking platform, aims to navigate the passage from teens to entrepreneurs, creating a long-term customer journey that revolves around developing banking and beyond banking products and services.

  In the past 7 years, EGBANK witnessed unprecedented growth on all fronts; tripling its total assets, client base, profits, staff population, and market share. Moreover, this incomparable growth manifested itself in a 622% increase in assets, followed by a 615% rise in total deposits and a 454% rise in net loans. In addition to increasing the bank's net profit by 236% and expanding the operating branches from only 19 to reach 60 branches.

EGBANK'S EFFORTS TOWARDS THE ENVIRONMENT

EGBANK's vision has put many ESG related issues at the heart of its activities, starting with adopting green practices in its newly established branches where most of the used materials in our new branches are recycled to promote sustainability and greening by example.

Also, the branches are built with sound proof materials that decrease and absorb noise. In addition to the reflective glass, we deployed VFR air conditioning and efficient lighting methods that reduce energy consumption.

MINT by EGBANK is a platform dedicated to the young and curious. It aims at developing the capabilities of youth and introducing them to the world of banking in a fun and innovative way.

There is a global focus on sustainability and emerging initiatives from different stakeholders. At EGBANK, we introduced MINT, a platform that capitalizes on unleashing the potential of youth, building capacities, and accelerating scalable businesses.

MINT by EGBANK launched the "Green Fintech Hackathon" in August 2022. In partnership with GRID, Untap, E-Youth Banalstic, and Greenish.

The Hackathon aimed to equip participants with the tools and the space to hack the challenge of climate change using fintech or fintech-enabled solutions.

The Hackathon targeted participants between the age of 18 and 35 with background experience in technology, business, and sustainable development.

The Hackathon provided the platform for integration between sustainable development and fintech.

Hackathon objectives were:

- Create social awareness about the most pressing challenges related to climate change, along with different verticals of fintech solutions.
- Mobilize young talents that are eager to discover innovative solutions to climate change.
- Encourage innovative and disruptive solutions to the fintech industry that will help mitigate or adapt to the climate change crisis.
- Explore scalable solutions not only on the local level but also on the regional and global levels.

EGYPT'S EFFORTS TOWARDS SUSTAINABILITY

At the global level, Egypt has always been at the forefront of tackling climate change in Africa and the MENA region. In 1994, Egypt ratified the UNFCCC as a member of the non-Annex I Parties. Egypt also signed the Paris Agreement in April 2015, ratified by the Egyptian Parliament in June 2017. The Sustainable Development Goals and Paris Agreement affirm that growth and development cannot continue without all countries tackling climate change and boosting environmental sustainability.

Transitioning from the current development pathway to a low-carbon, climate-resilient one requires significant investment, innovation, and, more importantly, a shift in how governments and the private sector make decisions.

Over the past eight years, Egypt brought the risks of climate change up-front and center, in addition to playing an essential role in supporting Africa in the areas of energy and water related to climate change.

Furthermore, assuming the responsibility of defending the interests of the African continent on the issue of climate change, Egypt participated in the High-Level Meeting for the Climate Change Coalition, chairing a partnership with Britain in the 2019 Climate Action Summit. During the Summit, the need for private sectors to address their contributions in fulfilling their responsibilities towards the planet, civil society, and the governments was highlighted. Hence, establishing a Carbon Footprint report is the steppingstone to raising the bar in mitigating climate change risks.

On the national level, Feb 2016 witnessed the launch of Egypt's Sustainable Development Agenda 2030, "Egypt Vision 2030", which came in line with the United Nations 2030 Agenda for Sustainable Development. The Vision accommodates the three bottom lines of sustainability, economic, social, and environmental dimensions of development to guide national development plans in Egypt.

Moreover, Egypt presented its first National Determined Contribution (NDC), declaring its intended efforts toward combating climate change. The NDC was updated in 2022, stating quantitative measures toward mitigation and adaptation efforts across many sectors. In 2019 Egypt presented its LOW Carbon Emission Strategy and prepared its first Biennial Updated Report (BUR), setting a baseline for its national GHG inventory.

In 2021, Egypt presented its Green Recovery Strategic Framework aligned with its Environmental Sustainability Standard Guide prepared by the Ministry of Planning and Economic Development and the Ministry of Environment. As a result of these efforts, Egypt earned the global trust of hosting COP27.

On the road to COP27, Egypt has unveiled its updated National Strategy for Climate Change 2050, based on five main goals to improve citizens' quality of life and sustainable economic growth and preserve its natural resources amid a number of environmental challenges in May 2022.

The strategy put forward several goals covering a nationwide scope topic, such as achieving economic growth while reducing greenhouse emissions in various sectors, improving the governance and management of work in the field of climate change, as well as promoting innovative financing mechanisms that prioritize adaptation actions, like green bonds.

At the sectoral level, the financial system's role is pivotal. Aligning with the National Strategy, the Central Bank of Egypt (CBE) has directed its support of sustainable development by promoting and applying sustainable international financing standards in the banking sector in Egypt. Accordingly, the CBE has joined the Green Banks Network, a publicly capitalized entity explicitly established to facilitate private investment into green sectors. Moreover, CBE has developed a framework to define sustainable financing, its relevant objectives, and the requirements to apply the framework in the Egyptian context.

The framework is released in two parts:

(1) discussion on sustainable financing (2) guiding principles for sustainable finance.

In light of this framework, CBE has mandated all banks in Egypt to disclose their carbon footprint emissions prior to the COP27 in November. In addition, The Financial Regulatory Authority (FRA) issued Decrees 107 and 108 in 2021, mandating all registered companies on the Egyptian Stock Exchange to declare their ESG performance and efforts toward mitigating GHG emission and incorporating the climate change related risks into their decision-making process. The previous demonstration shows Egypt's perpetual efforts to become the sustainability landscape leader and combat climate change-related risks in Africa and the MENA region.

ROLE OF FINANCIAL INSTITUTIONS IN CLIMATE CHANGE

EG BANK

Climate Change poses major risks to the global economy. It affects the availability of resources, influencing the price of energy and the value of companies. Climate change affects the financial system through two main channels: Physical Risks and Transition Risks. The first involves risks from property, infrastructure, and land damage. The second results from changes in climate policy, technology, and consumer and market sentiment during the adjustment to a lower-carbon economy.

To mitigate these risks, the Paris Agreement (COP21), signed in December 2015, represents a milestone: countries representing 97% of global greenhouse emissions agreed to respond to global warming by keeping global warming below 2°C. COP21 represents the first comprehensive climate deal that explicitly recognizes the need to "make finance flows compatible with a pathway toward low greenhouse gas emissions and climate-resilient development." As a major credit provider, the banking sector is critical in these efforts. The momentum established by COP21 expanded the set of available investment opportunities to finance green projects and renewable energy.

Financial institutions play a crucial role in achieving the 2015 Paris Climate Agreement. They can manage capital flows for financing the required transformation towards a decarbonized industry. Currently established policy programs and regulations at the European and national levels increasingly address financial institutions to make their climate warming impact measurable and transparent. Moreover, the Egyptian National Strategy 2050 discussed promoting innovative financing mechanisms that prioritize adaptation actions, like green bonds and improving infrastructure through bank financing of climate change projects.

However, aligning with the national goal requires understanding the importance of carbon footprint implications and mitigation actions. Therefore, EGBANK's commitment to measure and manage its footprint is consistent with the Bank's direction to embed environmental and social policies, principles, and standards for the projects it finances. Through a thorough understanding of its carbon footprint, EGBANK identifies and implements measures to reduce emissions and track performance against targets.

SCOPE OF THE INVENTORY

REPORTING PERIOD

The base year is considered the starting point for assessing the change in emissions, if any, over the years. Since this is the first Carbon Footprint report created by EGBANK, 2021 is considered EGBANK's base year. Hence, the data used in calculating the Carbon Footprint reporting was collected between 1/1/2021 and 31/12/2021.

ORGANIZATIONAL BOUNDARY

The term boundaries refer to the parameters accounted for in the Carbon Footprint of EGBANK.

Organizational boundaries determine which operations to include or exclude from the Carbon Footprint calculations of the Bank. Several organizational structures define the degree of ownership or control they exert over different activities. The GHG emissions inventories are constructed to reflect three views of an organizational boundary: operational control, financial control, or equity share. Once these boundaries have been defined, the GHG arising from the Bank's operations will be identified and assigned to two scopes.

In this assessment, the boundaries are set to cover the Bank's facilities and staff-related emissions in the head office of EGBANK, 45st N Teseen, The Address Building, New Cairo 1, Cairo Governorate. The physical boundary covers the two floors occupied by the Bank's head office. The operation control approach is followed in this report. In other words, EGBANK is accountable for 100% of the GHG emissions produced during the reporting period.

OPERATIONAL BOUNDARY

The operational boundary determines the operations, classifying emissions as direct or indirect and categorizing the different scopes of GHG emissions. Although EGBANK should be reporting on all owned buildings/branches, this report is bounded by the 2-floor head office of EGBANK, 45st N Teseen, The Address Building, New Cairo 1, Cairo Governorate, only. The operational boundary for EGBANK Carbon Footprint encompasses the following:

• Scope 1:

This includes all direct emission sources from EGBANK's main building. This consists of the diesel generators used as a backup in case of power cut-off, transport fuel used to run EGBANK owned/controlled diesel-consuming vehicles, or gasoline mission cars.

• Scope 2:

Purchased electricity from the National Grid of Electricity.

REPORT OBJECTIVES

The GHG report will work as a comprehensive guide for managing and mitigating GHG emissions within EGBANK. The Carbon Footprint objectives of the report are to:

* Identify the energy consumption and the main GHG emission sources of EGBANK

* Provide a detailed analysis of the GHG emission inventory and the Key Performance Indicators

* Allow EGBANK to take actions to control and reduce emissions based on informative data

* Provide recommendations on Carbon Footprint calculations' improvements.

GHG INVENTORY DEVELOPMENT STEPS

The development of a thorough Carbon Footprint methodology was made during the initial phases of the project. The following process flow, Figure 2, demonstrates the project implementation phase 2 undertaken to estimate the Carbon Footprint emissions for EGBANK.

1. Select Standards Calculation Methodologies
2. Determine Operational & Organizational Boundaries
3. Identify Emissions Source Activities
4. Collect Data from Departments
5. Define Assumptions
6. Calculate Carbon Footprint (Scope 1 & 2)
7. Identify Data Gaps & Hotspots
8. Issue the Carbon Footprint Report

Figure 2 Methodology of developing Carbon Footprint Report

EGBANK

SELECTION OF STANDARD CALCULATION METHODOLOGIES

Currently, there are several internationally recognized methodologies and standards for calculating carbon footprint according to their approach, scope, and orientation. EGBANK Carbon Footprint analysis and calculations were based on:

- Inter-Governmental Panel on Climate Change (IPCC) Guidelines
- The GHG Protocol: Corporate accounting and reporting standard
- ISO 14064-1:2018 Greenhouse gases — Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals

SCOPE 1 AND SCOPE 2 EMISSIONS (DIRECT AND INDIRECT EMISSIONS)

The GHG Protocol defines Scope 1 emissions, calculated here, as the direct emissions from sources owned or controlled by EGBANK. On the other hand, Scope 2 emissions are indirect emissions from energy sources not owned or controlled by EGBANK, e.g., electricity. Hence, based on EGBANK, the identified Scope 1 direct emissions are subdivided into the following main category emissions:

Stationary Combustion Sources

Emissions due to fuel combustion to produce energy. This is from the diesel generators used in EGBANK.

Mobile Sources

Emissions due to vehicles owned/controlled by EGBANK. This includes the buses used for employees' transportation, mission cars that serve the Bank, and cars used for managers' or board members' transportation. All of these vehicles are owned/controlled by EGBANK.

Fugitive Emissions

Emissions due to leaks and other irregular releases of gases or vapors.
For EGBANK, this only includes the refrigerant leaks from the air conditioning and refrigeration equipment used in the main building. The fugitive emissions were reported concerning the fire suppressants usage in the reporting year.

Electricity Emissions

Emissions due to electricity generation from the power plants.
Data was collected based on the monthly consumption of the Bank. EGBANK has four electricity meters distributed over the two floors, one for each floor wing.

DATA COLLECTION

During site visits, the employees were assessed to identify emission sources and the type of data available. Accordingly, customized data collection spreadsheets were designed for each emission source considered in the GHG inventory. Data collection sheets were communicated and reviewed simultaneously with focal points in the departments to ensure transparency and completeness in the data collection procedure. Data collected were categorized under Scope 1 direct and Scope 2 indirect emissions. An example of a data collection sheet for stationary combustion can be seen in table 2.

Table 2 Examples of data collection sheets for stationary combustion

Source	Number of Equipment	Fuel Type	Consumption (L/hr)	Annual Operating Hours (Hours/yr)	Total Consumption (L/yr)
xxxx	x	xxx	xxx	xx	xxx

x = representing values

GHG EMISSION CALCULATION

The formula used to calculate GHG emissions is:

$$\text{GHG Emissions (MT } CO_2e) = \text{Activity Data (unit of activity)} \times \text{Emission Factor} \times \text{GWP}$$

Where,

Activity data are those associated with the consumption of energy, electricity, or consumables of the organization and were obtained via customized data collection sheets.

Emission factors are representative values that relate a quantity of gas emitted to the atmosphere with an activity associated with the emission of said gas. Each emission factor is reported in metric tonnes of a GHG per unit of activity, where the unit of activity is expressed in either the International System of Units (SI units) or U.S. customary units. Since there are no emission factors released by Egypt, except for the national grid emission factor, all other emission factors were adapted from EPA and IPCC Databases with priority given to the IPCC.

Global warming potential, or GWP, is the heat absorbed by any greenhouse gas in the atmosphere as a mixture of the heat that the same carbon dioxide would absorb. GWP is 1 for CO_2. The global warming potentials of the fifth IPCC report have been used.

ASSUMPTIONS AND DATA GAPS

Part of following the GHG Protocol Standard is to ensure fulfillment of the five accounting principles that set an implicit standard for the faithful representation of the Bank's GHG emission through its technical, accounting, and reporting efforts. These principles are transparency, accuracy, consistency, comparability, and completeness. Accordingly, all activity data relevant to fuel consumption and electricity consumption were collected from annual invoices from EGBANK.

Assumptions made in this inventory:

The heating value of all fuels consumed in both stationary and mobile combustion sources.

The densities all fuels consumed in both stationary and mobile combustion sources.

Working days were assumed to be 240 days/year.

The allocation of diesel generator fuel amounts utilized by EGBANKs office relative to the whole building, as EGBANK occupies just 2 floors out of 6. The allocation was estimated through the meter readings designated for diesel generators on each floor.

EXCLUDED SOURCES

Based on site visits and interviews with focal points at EGBANK, the excluded emission source(s) and their respective reason for exclusion are listed below. However, these were only excluded during the reporting period, so it is recommended to revisit these sources each year prior to deciding on their exclusion.

Excluded emission source(s)

AC Refrigerants and leaks were excluded as no emissions due to AC refrigerant charging were released in the reporting year.

Excluded Greenhouse Gases

SF_6, NF_3, and PFCs are not captured for all EGBANK sites for Scope 1 due to the nature of activities at EGBANK.

EGBANK GHG INVENTORY RESULTS

Based on the methodology section, Table 3 summarizes the activity data collected according to EGBANK's communicated data during the reporting period of 1/1/2021 and 31/12/2021.

Table 3 Summary of activity data collected

Scope	Emission source	Activity Data	Quantity	Unit
Scope 1	Stationary Combustion	Diesel Fuel Consumption	124.5	Litres/year
	Mobile combustion	Motor Gasoline Consumption	46,689.7	Litres/year
		Diesel Fuel Consumption	2642.9	Litres/year
	Fugitive emissions	Fire Suppressant (FM 200)	8	Kg/year
Scope 2	Electricity[1]	Electricity Consumption	119.9	MWh/year

CARBON FOOTPRINT AT EGBANK

According to the main categories of emission types in Table 3, Table 4 shows the identified emission sources and their respective GHG emissions at EGBANK. Scope 1 emissions are classified into stationary combustion sources, mobile sources, and fugitive emissions. Each source is discussed in detail in the following sections. Scope 2 emissions are comprised of the electricity consumed by EGBANK.

Table 4 Summary of Emission Sources at EGBANK

Emission Source Type	Emission Source in EGBANK	ton CO_2e/Year
Stationary Combustion Sources	Generator	0.338
	Total	0.338
Mobile Sources	Vans	7.25
	Mission cars	109.13
	Total	116.38
Fugitive Emissions	Fire suppressants	25.76
	Total	25.76
Scope 1 –Total Direct Emissions		142.48
Indirect Sources	Electricity Consumption from National Grid	63.89
Scope 2 –Total Indirect Emissions		63.89
Total GHG Emissions		206.36

As seen in Scope 1, direct emissions represent 69.04%, while in Scope 2, indirect emissions represent 30.96% of the total GHG emissions.

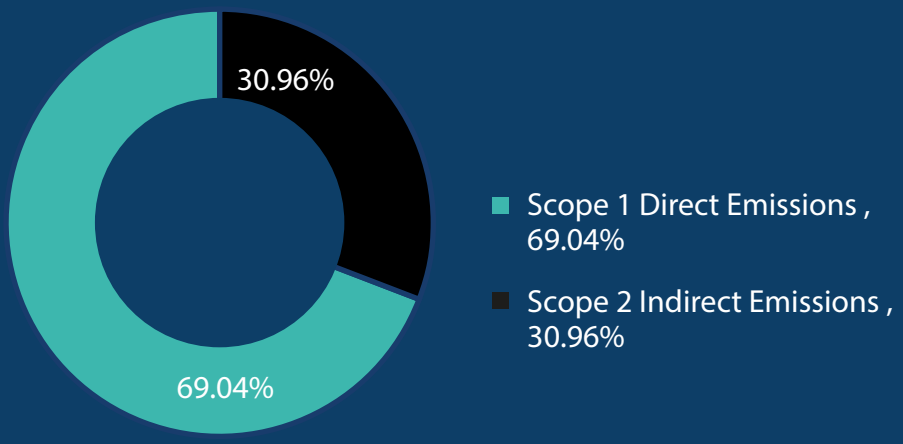


Figure 3 Scope 1 and Scope 2 GHG Contribution

Figure 4 below demonstrates how much each primary identified emission source contributes to the total GHG emissions. Mobile source contributes the most with 56.39% of the total GHG emissions, followed by electricity consumption with 30.96% and fugitive emissions at 12.48%. The remaining source, stationary combustion, represents only 0.16% of the total emissions. Therefore, the top 2 sources must be investigated closely to understand their high GHG emissions. The upcoming sections will break down the primary category sources, as seen in Table 4 above.

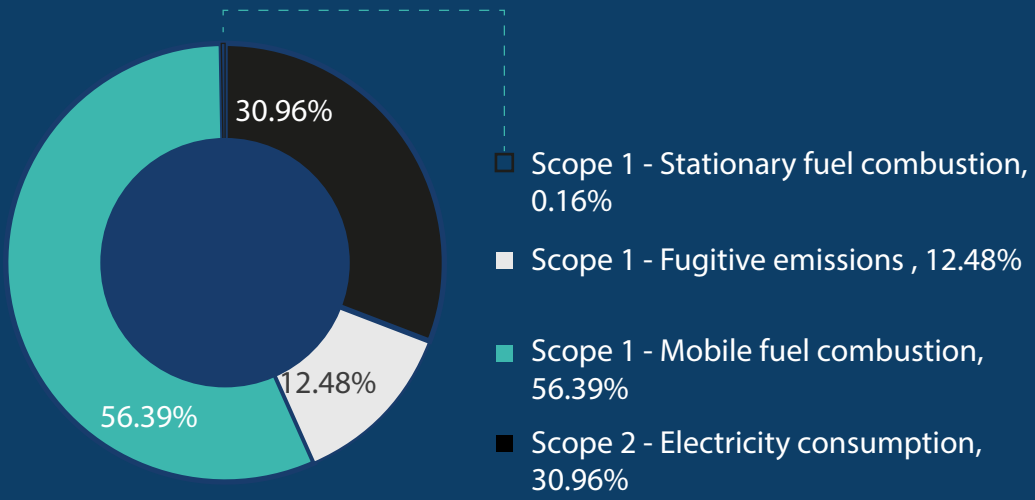


Figure 4 Breakdown of GHG emission sources at EGBANK

KEY PERFORMANCE INDICATORS

Key performance indicators (KPIs) are used to normalize the GHG Inventory results to the essential parameters of the organization's operations. The KPIs benchmark EGBANK against national and international banks and track future performance.

Employees' Share of Total GHG Emissions
As of 2021, EGBANK employed 220 employees at its head office. Accordingly, each employee's share of the total GHG emissions is 0.938 tonCO_2e/employee/year.
Building Space Share of Total GHG Emissions
With only one building (2 floors) and a total area of 2751 m^2, the share of the total GHG emissions per area is 0.075 ton CO_2e/m^2/year.

SCOPE 1 DIRECT EMISSIONS

According to GHG Protocol Standard, Scope 1 Direct emissions result from activities and assets owned or controlled by EGBANK.

Scope 1 emissions of EGBANK consist of diesel generators and mobile sources used for employees' transportation for EGBANK's head office. Scope 1 emissions were estimated to be 142.48 MT CO_2e per year, representing 69.04% of total GHG emissions by EGBANK.

Table 5 and Figure 5 represent a breakdown of the sources of emissions that make up the Scope 1 Direct emissions of EGBANK.

Table 5 Breakdown of Scope 1 direct emission sources

Emission Source Type	Emission Source in EGBANK	ton CO_2e/Year
Stationary Combustion Sources	Generators	0.338
	Total	0.338
Mobile Sources	Microbuses	7.25
	Mission cars	109.13
	Total	116.38
Fugitive Emissions	Fire suppressants charge	25.76
	Total	25.76
Scope 1 –Total Direct Emissions		142.48

The Mobile Sources represent the largest sources of GHG emissions within scope 1, with total emissions of 116.38 MT CO_2e per year, representing 81.68% of Scope 1 direct emissions.

The fugitive emissions are the second most contributing source of GHG emissions in Scope 1 Direct Emissions, with total emissions of 25.76 MT CO_2e per year representing 18.08% of Scope 1 GHG emissions. Stationary combustion is the least contributing source in Scope 1 Direct emissions with 0.34 MT of CO_2e per year, respectively, meaning 0.24% of Scope 1 Emissions.

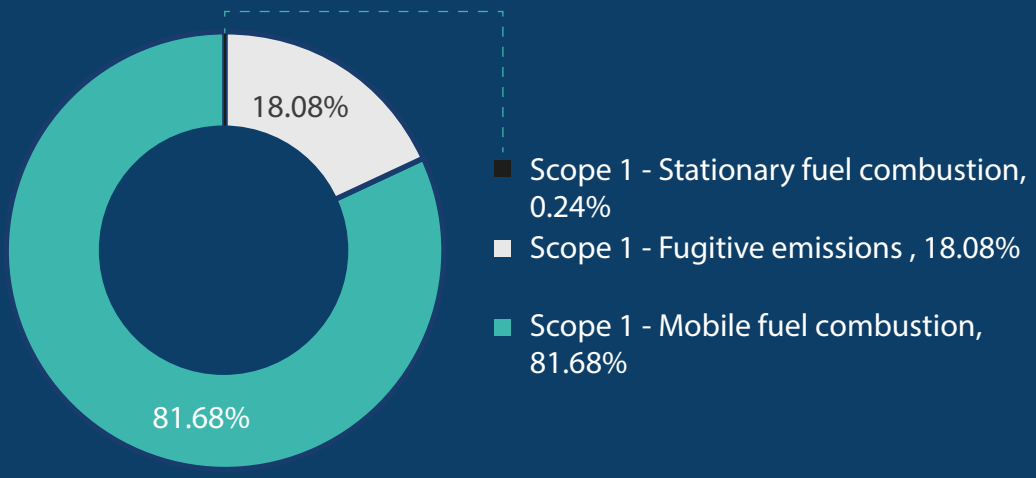


Figure 5 Breakdown of Scope 1 Direct Emission Sources

SCOPE 1:
STATIONARY COMBUSTION SOURCES

Stationary combustion sources at EGBANK emerge from a generator used as a backup in case of a power outage. The generator combust diesel fuel. During the reporting period, the total diesel consumed was 124.5 liters. The high consumption and usage of diesel generator is noticeable, and that is due to the frequent electricity outage in the bank district.

The entire building shares the generator. The amount of fuel consumed by EGBANK's head office is estimated by comparing the electricity consumption indicated by electricity meters designated only for generator usage available on each floor using the same ratio for estimating the fuel consumption in the generator.

The site-specific carbon content of the fuel was unavailable, so the GHG emissions from Stationary Combustion sources were estimated based on the fuel consumed, fuel type, and respective default emission factors for CO_2, CH_4, and N_2O of diesel from the IPCC guidelines. Table 6 highlights the contribution of each generator to GHG emissions of stationary fuel combustion.

Table 6 Stationary combustion sources at EGBANK

Emission Source	Diesel fuel consumption (L)	GHG Emission (ton CO2e/year)
Generators	124.5	0.338

SCOPE 1: MOBILE SOURCES

Mobile sources are vehicles that are either owned or controlled by EGBANK. Some of the Bank's employees require daily transportation to and from the Bank, and they commute via a bus owned by EGBANK.

Moreover, EGBANK owns vehicles – passenger cars and vans - that are used for different errands for the Bank, such as document delivery, ATMs cash transportation, etc. Passenger cars are also used for business errands by the high board members of the Bank.

Carbon footprint estimation for mobile sources is simply based on the volume of fuel combusted, vehicle categorization, default heating values, and emission factors from the IPCC Guideline since the fuel's carbon content is unavailable. Vehicles owned by EGBANK have no control technology emission applied, so they were assumed to be 'Uncontrolled' mode category.

As seen in Table 7, the total emissions from mobile sources are 116.38 MT CO_2e/year, representing 81.68% of the Scope 1 Direct Emissions. The vehicles responsible for the maximum mobile combustion emissions, as seen in Figure 6, are the mission cars that consumed the maximum fuel quantity, gasoline – 46689.68 L/yr.

Table 7 Mobile Sources Emission breakdown

Type of Vehicle	Type of Fuel	Annual Consumption (Liter)	Total Emissions (ton CO_2e/year)
Microbuses	Diesel	2642.9	7.25
Passenger cars	Gasoline	46,689.68	109.13
Total Emissions			116.38

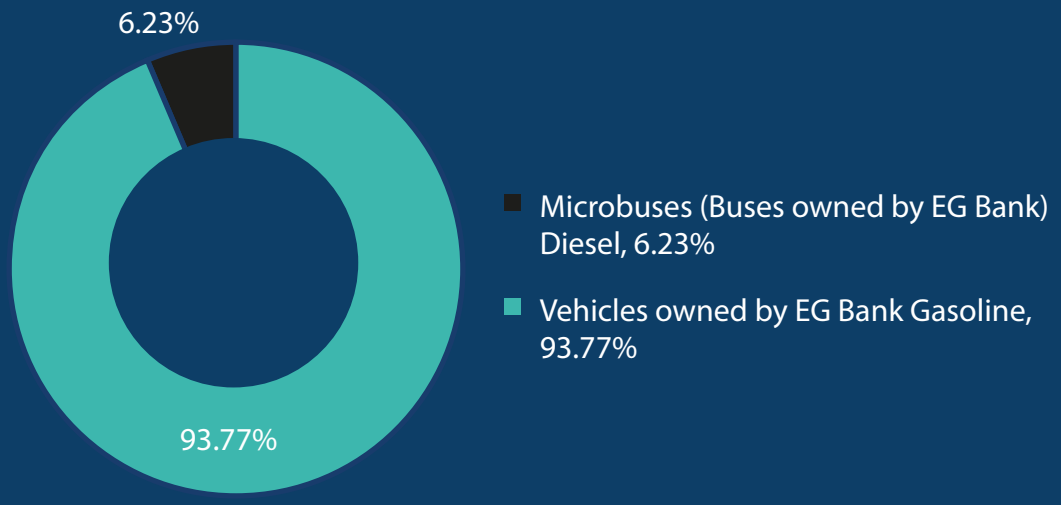


Figure 6 Mobile Sources Emission Breakdown

SCOPE 1: FUGITIVE EMISSIONS

AC & Refrigerants

At EGBANK, the whole building depends on a central water chiller that circulates the cool air all over the building. The chiller has not been charged with any type of AC refrigerant during the reporting period, so there are no GHG emissions.

Fire suppressants

At EGBANK, during the reporting period, the quantity of consumed fire suppressants (FM-200) is 8 kg/yr. According to IPCC, FM-200 suppressant has GWP equivalent to HFC-227ea refrigerant. The following Table 8 summarizes the emissions according to each suppressant unit.

Table 8 GHG Emission Summary by fire suppressant

Type of fire suppressant Gas	GWP	Annual charge (kg)	CO_2 Emissions (ton CO_2e/year)
FM-200 (HFC-227ea)	3220	8	25.76
Total GHG Emissions			25.76

As demonstrated in Table 8, the total GHG Emission due to fire suppressants charge is 25.76 tons CO_2e/year. This contributes to 18.08% of the Scope 1 emissions.

SCOPE 2
INDIRECT EMISSIONS

EGBANK receives its electricity supply from the National Grid of Electricity. It is the primary energy source for the buildings at EGBANK The national grid average emission factor for the Arab Republic of Egypt is 0.533 MT CO_2e/MWh based on data from the Institute for Global Environmental Strategies, IGES, database and latest registered wind farm CDM project (IGES, 2022).

The total consumed electricity during the reporting period was 119.9 MWh. Scope 2 emissions are estimated as 63.88 tons of CO_2e/year, which represents 30.96% of the total GHG emissions of EGBANK's head office. The monthly consumption of the main building is shown in Figure 7

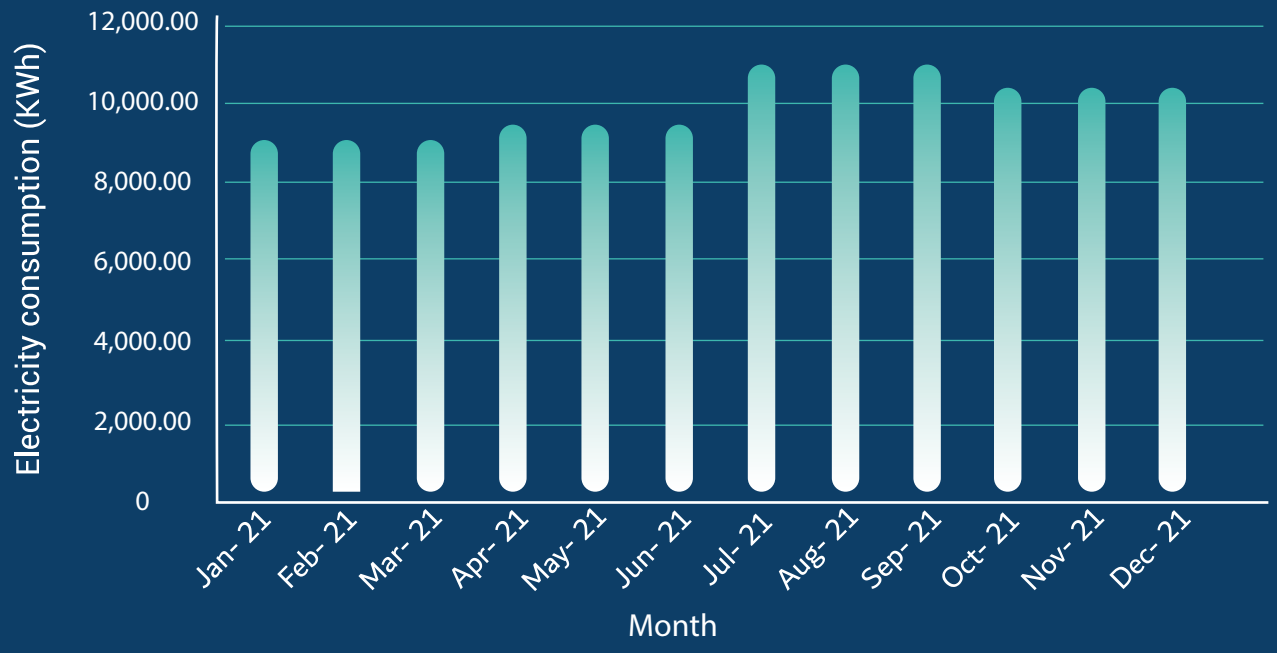


Figure 7: Monthly consumption of electricity in EGBANK's head office

DATA QUALITY AND COMPLETENESS

Assessing the data quality is a critical part of GHG reporting and accounting. Table 9 details the data quality regarding five reporting principles according to the GHG Protocol. For example, the most significant GHG emission source, electricity data was reported in full transparency and completeness. However, Scope 1 emissions data lacked third-party invoices/statements to verify the reported data by EGBANK. Therefore, EGBANK must commit to continually improving reported data quality wherever possible and continue refining its methodology to improve the coverage and transparency of our disclosure.

Table 9 Data quality and assumptions by source

Scope	Emission source	Activity Data	Data Quality	Assumptions made
Scope 1	Stationary Combustion	Diesel fuel consumption		The heating value of fuel
	Mobile Sources– Microbuses	Diesel fuel consumption		Heating value of fuel and vehicle categorization
	Mobile Sources – Passenger Cars	Motor fuel consumption		Heating value of fuel and vehicle categorization
	Fugitive Emissions	Fire suppressant charge		GWP of the fire suppressant chemical
Scope 2	Electricity	Electricity consumption		-

Good	Satisfactory	Poor
No change required	Could be improved in terms of completeness	Priority for improvement

CONCLUSION AND RECOMMENDATIONS

This report presents the base year emissions of EGBANK Head office. The report was prepared based on the GHG Protocol Corporate Accounting and Reporting Standard and IPCC Methodologies. The total GHG emissions during the reporting period between 1/1/2021 and 31/12/2021 were estimated to be 206.36 MT CO_2e/year, with Scope 1 direct emissions representing 69.04% of these emissions and Scope 2 representing 30.96%.

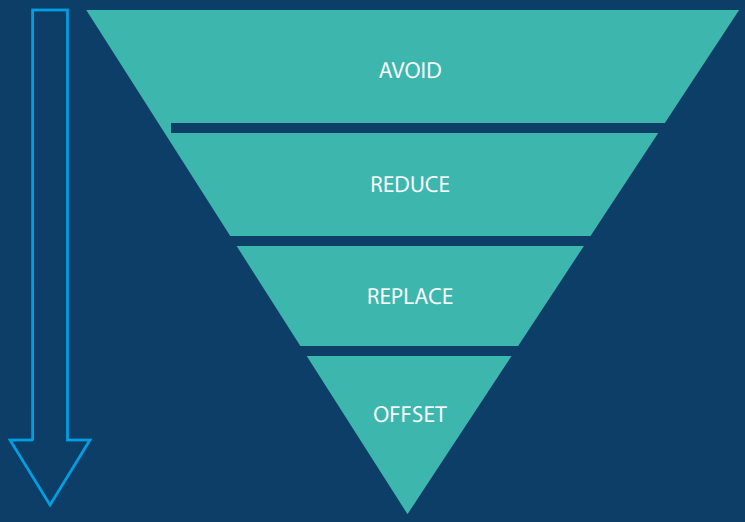
The major contributive sources of GHG emissions were mobile combustion sources and electricity consumption. Overall, the data collected was satisfactory, with weakness displayed due to the lack of third-party invoices/statements that verify the data collected.

Several recommendations can be made from the results and the process of reporting EGBANK's Carbon Footprint, such as:

- Third-party invoices/statements must be present for all data delivered by EGBANK.
- To fulfill the GHG Protocol standards, EGBANK must report on all owned branches in Egypt.
- Include Scope 3 emissions in the upcoming years to quantify the entire carbon footprint of EGBANK organization.

CARBON FOOTPRINT REDUCTION PLAN

Following the development of its base year carbon footprint report, EGBANK should strategize a plan to reduce its carbon footprint. This plan is referred to carbon footprint reduction plan (CMP). This plan shall detail how EGBANK can reduce or offset its carbon footprint emissions by enhancing its energy efficiency, utilizing energy generated from renewable origins, raising awareness, focusing on environmental projects, and implementing various sustainable finance practices. Carbon reduction methods can be implemented in 4 different ways, starting with the most preferred approach to the least:



Avoid carbon-intensive ativities (and re-think business strategy)

Conduct daily bank operations more efficiently

Switich from carbon-itensive energy to low-carbon sources

Offset emissions that cannot otherwise be reduced

Avoid

Consider public transportation options when moving towards places near the city and avoid using Bank owned passenger cars whenever possible to reduce fuel consumption.

Influence various business decisions and develop environmental strategies within the Bank's strategy to avoid investments/tapping into GHG-intensive practices across the lifecycle

Reduce

With a relatively large space on the rooftop, EGBANK should consider installing solar panels on the rooftops. This practice is not new in Egypt, as many office buildings run on energy sourced from solar panels. Installing solar panels will reduce the dependence on backup generators and reduce the consumption of electricity consumption which is the largest source of GHG emissions at EGBANK.

Invest in Energy efficiency measures to reduce the amount of energy consumed while maintaining or improving the quality of services provided in the building.

Provide monitors, projectors, and equipment with energy efficiency ratings, and reduce power consumption when not used.

Replace

Replace the expired fire suppressants with more environmentally friendly ones such as the ones equipped with dry chemicals.

Replace any old, energy-consuming appliances with efficient ones. For example, switch to energy-efficient lighting such as LEDs with dimmer options and implement motion sensors in less occupied areas. This can significantly impact electricity consumption, mainly as lighting is a crucial part of the banking sector.

Perform periodic maintenance and inspections of all company vehicles and replace any old cars with new, fuel-efficient ones

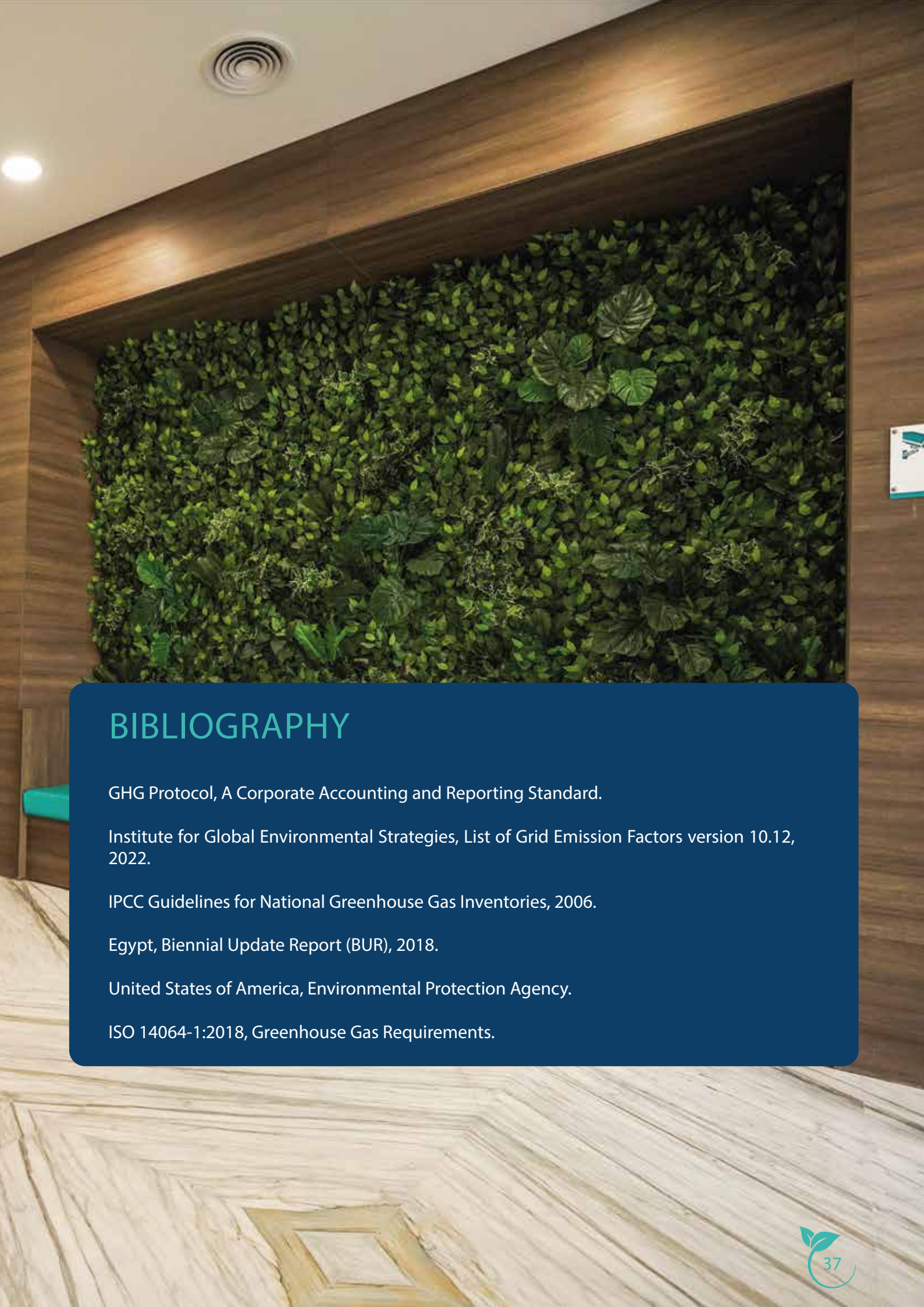
Offset[1]

Compensate 'unavoidable' emissions through carbon offset schemes, such as:

Invest in renewable energy projects within the region to boost the amount of renewable energy on the grid, create jobs, and decrease reliance on fossil fuels.

Purchase carbon credits through reforestation and conservation projects that directly capture the carbon while also protecting eco-systems, wildlife, and social heritage

[1]A carbon offset is a reduction or removal of emissions of carbon dioxide or other greenhouse gases made in order to compensate for emissions made elsewhere. Offsets are measured in tonnes of carbon dioxide-equivalent (CO_2e).



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EG BANK

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