



البنك الأهلي المصري
NATIONAL BANK OF EGYPT

Towards a Transition to a Low Carbon Economy

ENVIRONMENTAL FOOTPRINT REPORT

2020-2021

CARBON | WATER | WASTE | PLASTIC | LAND



ABOUT THIS REPORT

This report details the environmental footprint related to the National Bank of Egypt's operations in Egypt. It was developed through analyzing source data, data collection systems, as well as internal and external documents and recordings.

The footprints of carbon, water, waste, plastic and land are all evaluated. Since this is the first year for reporting emissions, 2021 serves as the base year against which all subsequent years will be measured. The World Resources Institute Greenhouse Gas Protocol standards are applied for the carbon footprint assessment.



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02

ABBREVIATIONS & ACRONYMS

ATM
BY
CBE
CDP
CFP
CH₄
CO₂
CO₂e
DEFRA
EEAA
EF
EGP
EPA
ERA
FTE
Gha
GHG
GWP
HCWW
HDPE
HVAC
IPCC
ISO
kg
kWh
L
LCA
LDPE
LED
m²
m³
mt
mtCO₂e

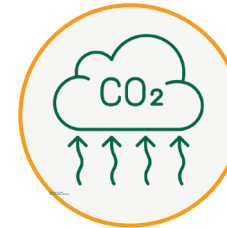
Automated Teller Machine
Base Year
Central Bank of Egypt
Carbon Disclosure Project
Carbon Footprint
Methane
Carbon Dioxide
Carbon Dioxide Equivalent
Department for Environment, Food & Rural Affairs
Ministry of Environment of Egypt
Emission Factor
Egyptian Pound
United States Environmental Protection Agency
Electricity Regulatory Authority
Full-Time Equivalent
Global Hectare
Greenhouse Gases
Global Warming Potential
Holding Company for Water and Wastewater
High-Density Polyethylene
Heating, Ventilating, and Air Conditioning
Intergovernmental Panel on Climate Change
International Standard Organization
Kilograms
Kilowatt Hour
Litre
Lifecycle a
Assessment
Low Density Polyethylene
Light-Emitting Diode
Square Meter
Cubic Meter
Metric Tons
Metric Tons Carbon Dioxide Equivalent

MWh
NBE
NCCS
NFA
NGFS

p.km
PET
PP
PPE
PV
PVC
Scp
SDG
SDS
tkm
TR
VRV
WBCSD
WF
WRI
WTT
YF
Scp
SDG
SDS
tkm
TR
VRV
WBCSD
WF
WRI
WTT
YF

Megawatt Hour
National Bank of Egypt
National Climate Change Strategy
National Footprint Accounts
Network of Central Banks and Supervisors for
Greening the Financial System
Passenger-Kilometer
Polyethylene Terephthalate
Polypropylene
Polyphenylene Ether
Photovoltaics
Polyvinyl Chloride
Scope
Sustainable Development Goals
Sustainable Development Strategy
Ton Kilometer
Ton-Refrigerant
Variable Refrigerant Volume
World Business Council for Sustainable Development
Water Footprint
World Resources Institute
Well-to-Tank
Yield Factor
Scope
Sustainable Development Goals
Sustainable Development Strategy
Ton Kilometer
Ton-Refrigerant
Variable Refrigerant Volume
World Business Council for Sustainable Development
Water Footprint
World Resources Institute
Well-to-Tank
Yield Factor

NBE's ENVIRONMENTAL FOOTPRINT

Carbon
FootprintWater
FootprintWaste
FootprintPlastic
FootprintLand
Footprint

03

REPORT HIGHLIGHTS



Base Year
2021

From **January 1, 2021**
To **December 31, 2021**

Financial institutions are uniquely positioned to push transformation toward a climate-resilient future. The National Bank of Egypt (NBE) aims to lead by example in managing its environmental performance and disclosing the impact of its operations. Recognizing the importance of working to conserve the environment while satisfying the needs of current and future generations. Climate change is one of the key challenges facing the world, as well as threatening the bank's prosperity.

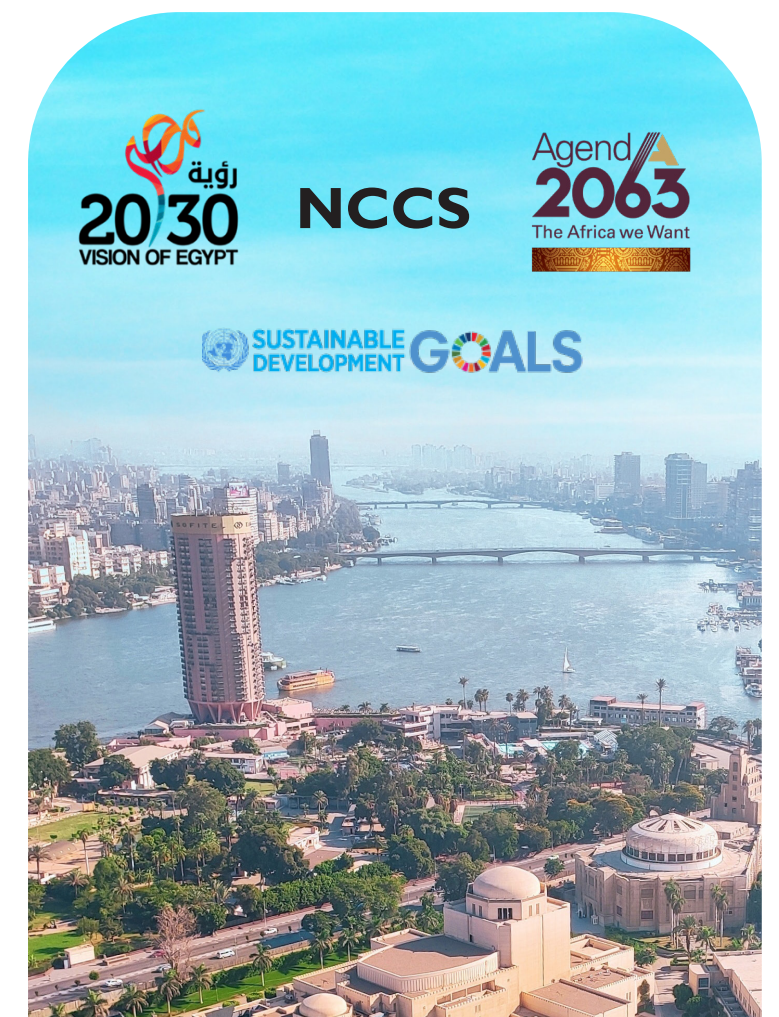
NBE is hereby presenting their first environmental footprint assessment, with the reporting period from July 1, 2020 to December 31, 2020, and from the 1st of January 2021 to the 31st of December 2021. The year 2021 serving as the base year against which all upcoming years will be compared. The bank has assessed its environmental performance in 5 different aspects, covering Land, carbon, waste, water and plastic footprints assessment.

The environmental footprint assessment is conducted based on international and widely applied standards, protocols, and guidelines specially developed for accounting and reporting the different footprints, including but not limited

to the Greenhouse Gas Protocol Guidelines, IPCC Guidelines for Greenhouse Gas Inventories, the global footprint network, the water footprint network, the British Standard for Waste management in buildings, Plastic Leak Project and VERRA Plastic Standard.

As one of the major banks in Egypt, NBE aims to serve as an example and work in alignment with the climate agendas and strategies set out, both globally, regionally and nationally. Egypt has recently launched the National Climate Change Strategy 2050 (NCCS) to address climate change in line with the preparations of COP27 to be held in Sharm El Sheikh, Egypt. The strategy includes climate action and mitigation agendas across all sectors and reducing emissions while supporting economic growth. The country's commitments are also emphasized in Egypt's Vision 2030 Sustainable Development Strategy (SDS), launched in 2016 by the Egyptian Government as a national agenda to address the country's specific challenges and needs. Thereto, Egypt is working in alignment with Africa Agenda 2063 and the Sustainable Development Goals (SDGs) set out by the UN.

NBE's sustainability efforts and climate mitigation actions are closely cohering with Egypt's climate agenda set out in Egypt's National Climate Change Strategy 2050 and Egypt Vision 2030, as well as Africa's Agenda 2063 and the UN's SDGs. Such as, energy efficiency projects of branches and facilities including installation of renewable energy equipment, transportation fleet efficiency projects such as converting conventional vehicles to run on natural gas and transport optimization, resource management with reductions in consumption and circular approaches including but not limited to waste management, recycling, and reuse of office supplies at NBE's Warehouse. Even more is ahead, and with all efforts combined, a transformation from the current global climate crisis to a more sustainable future is achievable.



INVENTORY BOUNDARIES

Organizational boundaries define the businesses and operations that constitute a company. NBE has used the operational control approach in its environmental footprint for its GHG emissions reporting, which

includes both financial and non-financial aspects of its operations. The environmental footprint included the following:

Organizational Boundaries

27
Governorate

Covering all 27 governorates of Egypt.

30,486
FTE

The full-time equivalent included the bank's full-time and outsourced employees, managers, and workers.

595
Facilities

The facilities included branches, units, digital branches, head offices, training centers, housing, clubs, and garages.

591,577
m²






This represents the total gross floor area of all the included facilities.

Operational Boundaries

Carbon Footprint	The amount of Carbon Dioxide that an individual, group, or organization lets into the atmosphere in a certain time	Scope 1 – Direct emissions
		Scope 2 – Indirect emissions
		Scope 3 – Indirect emissions
Water Footprint	Quantification of amount of water use throughout the business, measured in m³.	Direct consumption (water directly consumed in buildings)
		Indirect consumption (water used in the production of NBE used products)
Waste Footprint	It shows the waste quantities and composition by weight for each type of waste.	Daily Office Waste
		Shredded Paper Waste
Plastic Footprint	Quantification of plastic use within the business' operations, measured in kilograms.	Macro-plastics
		Micro-Plastics
Land Footprint	Quantification of the land area that is used to provide the needed resources to carry through the business activities. It is expressed as land area in global hectares.	Built land
		Forest land
		Carbon demand on land



ENVIRONMENTAL FOOTPRINT RESULTS SUMMARY

		2020 (6 months)*	2021 (Base Year)	
		Absolute	Absolute	Intensity
	Carbon Footprint	57,016 mtCO ₂ e	112,341 mtCO ₂ e	2.46 mtCO ₂ e/FTE (Scopes 1&2) 3,796 mtCO ₂ e/EGP.bn (Scopes 1&2)
	Water Footprint	2,045,782 m ³	4,238,393 m ³	139.03 m ³ /FTE
	Waste Footprint	365 tons	7,545 tons	0.24 tons/FTE
	Plastic Footprint	55,399 kg	1,424,674 kg	46.73 Kg/FTE
	Land Footprint	15,873 Gha	29,660 Gha	0.97 Gha/FTE

*The results of both years cannot be compared due to the presence of different organizational and/or operational boundaries. The year 2021 is our base year to which all future years will be referenced.



**Integrated environmental footprint results
for the second half of the year 2020 from
July 1, 2020 to December 31, 2020**

2020
(6 months)

Activities List

Stationary Combustion	Mobile Combustion	Fugitive Emissions	Purchased Electricity	Purchased Goods and Services	Fuel and Energy-Related Activities (Not included in sep 1 and 2)	Upstream Transportation and Distribution	Waste Generated in Operations	Business Travel	Employee Commuting	Downstream Transportation	Processing of Sold Products	Downstream Leased Assets	NBEs Buildings
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Carbon Footprint		Scp 1			Scp 2	Scp 3										
Absolute emissions	mtCO ₂ e	968	4,144	4,973	32,420	1,473	1,412	N/A	8	37	9,845	19	402	1,315		
	%	1.7%	7.3%	8.7%	56.9%	2.6%	2.5%	-	0.01%	0.1%	17.3%	0.01%	0.7%	2.3%		
Total emissions (mtCO ₂ e)		10,085			32,420		14,512									
Scope percentage		18%			57%		25%									

Total carbon footprint:	57,016	mtCO₂e
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Water Footprint		Indirect		Direct			Indirect	
Quantities consumed (m³)		1,099,946	14,671	925,699			5,465	
Percentage %		53.8%	0.7%	45.2%			0.3%	

Waste Footprint

Quantities generated (tons)	365
Percentage %	100%

Total waste footprint: 365 ton

Activities List

Stationary Combustion	
Mobile Combustion	
Fugitive Emissions	
Purchased Electricity	
Purchased Goods and Services	
Fuel and Energy-Related Activities (Not included in sep 1 and 2)	
Upstream Transportation and Distribution	
Waste Generated in Operations	
Business Travel	
Employee Commuting	
Downstream Transportation	
Processing of Sold Products	
Downstream Leased Assets	
NBEs Buildings	

Plastic Footprint

Macro-plastics (kg)		25,450		N/A			26,657
Micro-plastics (kg)	2,331			N/A	0.5	956	4
Percentage %	4.2%	45.9%	-	-	0.01%	1.7%	0.01%
							48.1%

Total plastic footprint: 55,399 kg

Land Footprint

Carbon demand on land	Gha	307	1,354	2,236	8,535		46	N/A	N/A	10	2,577	5	27	346	
	%	1.9%	8.5%	14.1%	53.8%		0.3%	-	-	0.1%	16.2%	0.03%	0.2%	2.2%	
Forrest land	Gha					18									408
Built-up land	Gha					0.1%									
Total footprint	Gha	307	1,354	2,236	8,535	18	46	N/A	N/A	10	2,577	5	27	346	408
	%	1.9%	8.5%	14.1%	53.8%	0.1%	0.3%	-	-	0.1%	16.2%	0.03%	0.2%	2.2%	2.6%

Total Land footprint:	15,873	Gha
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Integrated environmental footprint results for the year 2021 from January 1, 2021 to December 31, 2021. The year 2021 is the base year to which all future years will be referenced.

2021

Base Year

Activities List

Stationary Combustion	Mobile Combustion	Fugitive Emissions	Purchased Electricity	Purchased Goods and Services	Fuel and Energy-Related Activities (Not included in sep 1 and 2)	Upstream Transportation and Distribution	Waste Generated in Operations	Business Travel	Employee Commuting	Downstream Transportation	Processing of Sold Products	Downstream Leased Assets	NBEs Buildings
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Carbon Footprint		Scp 1	Scp 2	Scp 3	
Absolute emissions	mtCO _{2e}	2,106	8,889	9,383	54,769
	%	1.9%	7.9%	8.4%	48.8%
Total emissions – mtCO _{2e}		20,379	54,769	37,194	
Scope percentage	%	18%	49%	33%	

Total carbon footprint:	112,341	mtCO _{2e}
Carbon footprint Intensity:	2.46	mtCO _{2e} / FTE (Scopes 1 & 2)
Carbon footprint Intensity:	3.796	mtCO _{2e} / Bn.EGP

Water Footprint		Indirect	Direct	Indirect
Quantities consumed – m ³		1,961,244	502,048	1,764,495
Percentage %		46.3%	11.8%	41.6%

Total water footprint:	4,238,393	m ³
Water footprint Intensity:	139.03	m ³ / FTE

Waste Footprint		
Quantities generated - tons		7,545
Percentage %		100%

Total waste footprint:	7,545	ton
Waste footprint Intensity:	0.24	ton/ FTE

Activities List

Stationary Combustion	Mobile Combustion	Fugitive Emissions	Purchased Electricity	Purchased Goods and Services	Fuel and Energy-Related Activities (Not included in sep 1 and 2)	Upstream Transportation and Distribution	Waste Generated in Operations	Business Travel	Employee Commuting	Downstream Transportation	Processing of Sold Products	Downstream Leased Assets	NBEs Buildings
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Plastic Footprint													
Macro-plastics (kg)				47,000		1,320,560		51,737					
Micro-plastics (kg)	3,405				93	2	1,870	7					
Percentage %	0.2%		3.3%		0.01%	92.7%	0.01%	0.1%	0.01%	3.6%			

Total plastic footprint:	1,424,674	kg
Plastic footprint Intensity:	46.73	kg/ FTE

Land Footprint														
Carbon demand on land	Gha	671	2,910	4,228	14,419	82	197	42	54	5,035	10	53	921	
	%	2.3%	9.8%	14.3%	48.6%	0.3%	0.7%	0.1%	0.2%	17.0%	0.03%	0.2%	3.1%	
Forrest land	Gha				616									
	%				2.1%									
Built-up land	Gha												421	
	%												1.4%	
Total footprint	Gha	671	2,910	4,228	14,419	616	82	197	42	54	5,035	10	53	921
	%	2.3%	9.8%	14.3%	48.6%	2.1%	0.3%	0.7%	0.1%	0.2%	17.0%	0.03%	0.2%	3.1%

Total Land footprint:	29,660	Gha
Land footprint Intensity:	0.97	Gha/ FTE

Ecological Footprint Results 2021 Base Year Activity Percentage/Footprint (%)



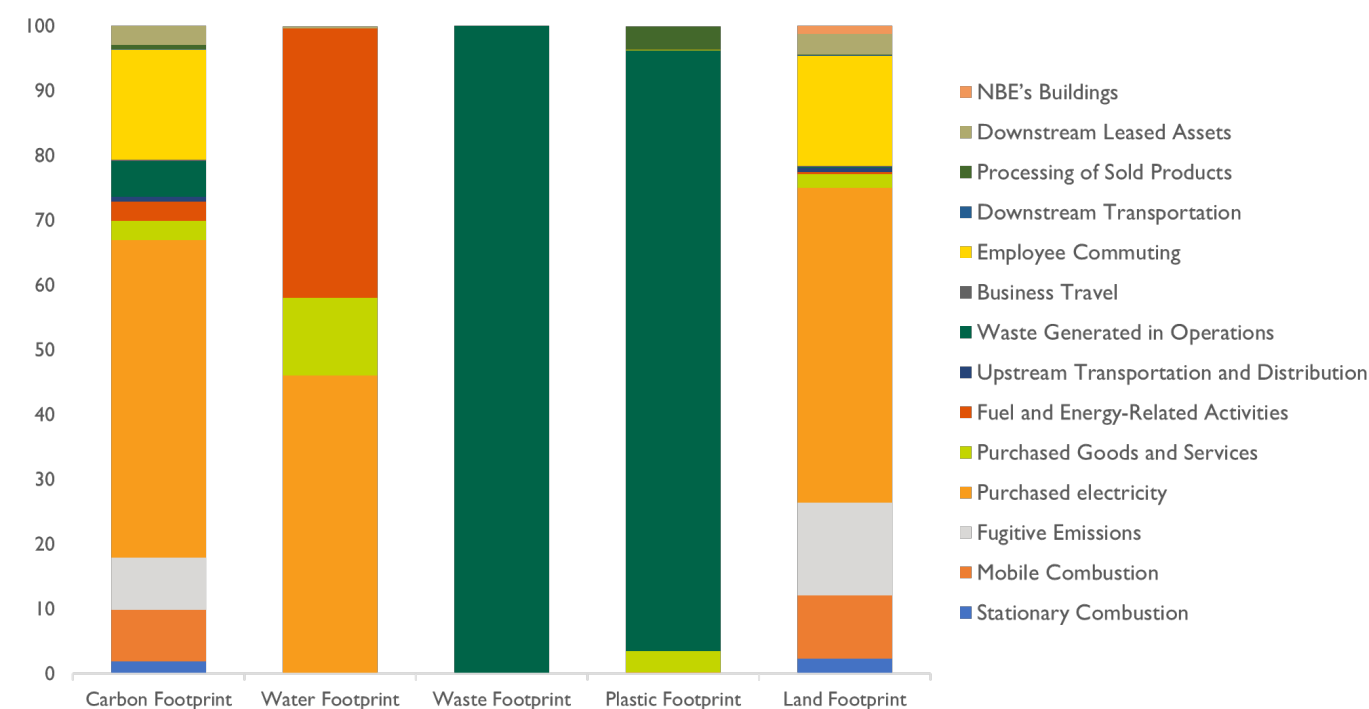
This chart shows the percentage of each activity's impact across the five footprints. This would make it easier to pinpoint the activities that have several impacts.

For example, the waste disposal activity accounted for in the waste footprint has the highest peak in the graph, however, this does not necessarily indicate that it has the greatest environmental impact.

Also, the waste generated during operations comprised more plastic than the cards that the bank had issued (processing of sold products). Therefore, it contributed more to the plastic footprint.

The footprints cannot be compared, but they may be analyzed and evaluated simultaneously.

2021 - Stacked Activity Percentage/Footprint (%)



The graphs above compare the five footprints of all NBE operations (land, carbon, water, waste, and plastic). The water consumption footprint (under fuel and energy related activities) is almost non-existent in most of the other footprints, but it has a significant water footprint.



CARBON FOOTPRINT GHG EMISSIONS SUMMARY

SCOPE 1 – DIRECT EMISSIONS (mtCO ₂ e)		2020 (6 months)		2021 (BY)	
Stationary combustion	Fuel burning – diesel	667	18%	1,179	18%
	Fuel burning – natural gas	301		927	
Mobile combustion	Fuel burning – owned vehicles	4,144		8,889	
Fugitive emissions	Refrigerant leakage	4,973		9,383	
Total Scope 1 (mtCO ₂ e)		10,085		20,379	

SCOPE 2 – INDIRECT EMISSIONS (mtCO ₂ e)		2020 (6 months)		2021 (BY)	
Electricity	Purchased electricity	32,420	57%	54,769	49%
Total Scope 2 (mtCO ₂ e)		32,420		54,769	

Total Scope 1 & 2 Emissions (mtCO ₂ e)	42,505	mtCO ₂ e	75,147	mtCO ₂ e
Scope 1 & 2 Carbon Intensity (mtCO ₂ e/employee)	-	-	2.46	mtCO ₂ e/ employee
Scope 1 & 2 Carbon Intensity (mtCO ₂ e/EGP.bn)	-	-	3,796	mtCO ₂ e/ EGP.bn

SCOPE 3 – INDIRECT EMISSIONS (mtCO ₂ e)		2020 (6 months)		2021 (BY)	
Purchased goods and services	Office supplies	1,473	25%	3,409	33%
	Fuel and energy-related activities (not included in scope 1 and 2)	1,032		2,234	
	Fuel burning – diesel (WTT)	168		297	
	Fuel burning – natural gas (WTT)	39		159	
Upstream transportation and distribution	Water usage & wastewater treatment	173		313	
	Internal courier shipment	N/A		754	
	Office solid waste disposal	N/A		6,233	
Waste generated in operations	Shredded paper waste	8		19	
	Air travel + (WTT)	37		205	
Business travel	Hotel stays	0		40	
	Commuting + (WTT)	9,845		19,215	
Employee commuting	External courier shipment	19		38	
Downstream transportation	Bank issued cards	402		779	
Processing of sold products	ATM transactions	1,315		3,499	
Downstream leased assets					
Total Scope 3 (mtCO ₂ e)		14,512		37,194	

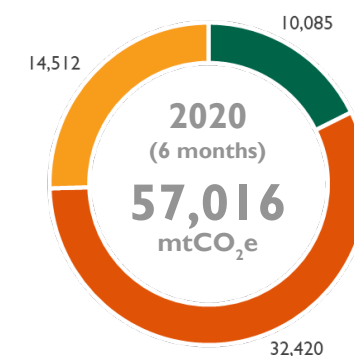
Total Scope 1, 2 & 3 Emissions (mtCO ₂ e)		57,016	mtCO ₂ e	112,341	mtCO ₂ e
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AVOIDED EMISSIONS (mtCO ₂ e)		2020 (6 months)		2021	
Renewable energy carbon offsets	Installed PV instead of purchased electricity	1,433	mtCO ₂ e	3,505	mtCO ₂ e



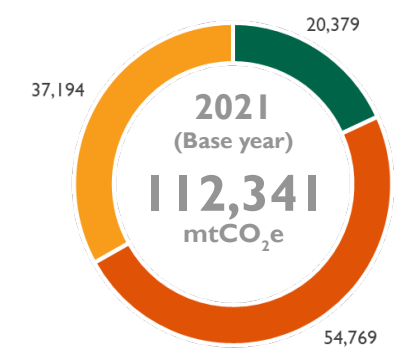
Electricity consumption (scope 2 – Indirect emissions) had the highest emissions in both reporting periods, with percentages of 57% and 49%, respectively. While direct emissions (scope 1) accounted for 18% of total emissions in both years.

2020 (6 months) Absolute
Emissions per Scope (mtCO₂e)



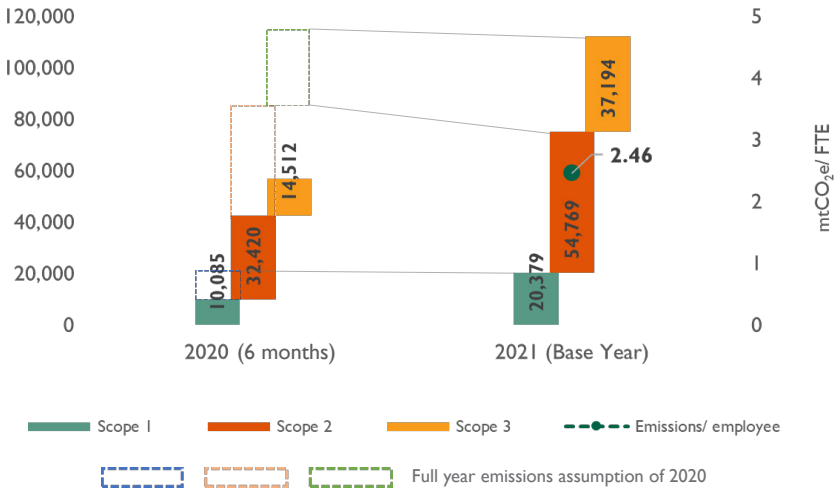
■ Scope 1 ■ Scope 2 ■ Scope 3

2021 (base year) Absolute
Emissions per Scope (mtCO₂e)

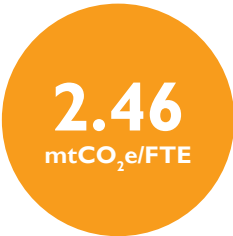


■ Scope 1 ■ Scope 2 ■ Scope 3

GHG Emissions per Scope (mtCO₂e)



2021 Carbon Intensity



Scope 1, 2 and 3 emissions for both reporting periods, as well as scope 1 and 2 emissions per employee, are shown in this graph. The absolute emissions are used to keep track of the yearly emissions, and, since this is the first assessment, such analysis will take place starting next year.

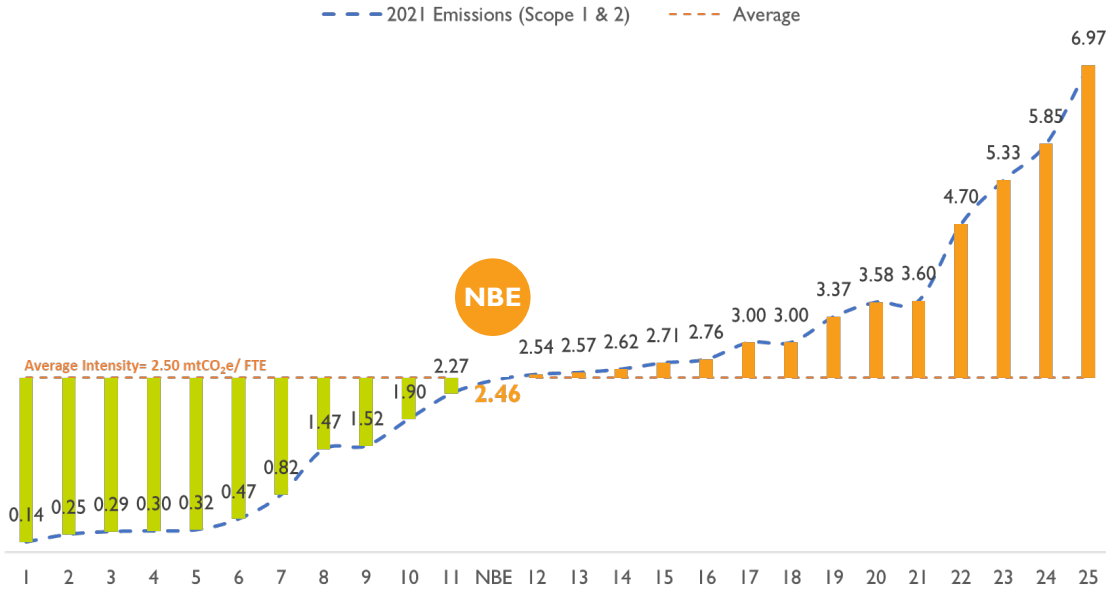
EXTERNAL BENCHMARKING

According to the Carbon Disclosure Project (CDP), in addition to published carbon footprint data of enterprises, the average of the banks’ published scope 1 and 2 emissions for the year 2021 is **2.50 mtCO₂e/FTE**, with the lowest intensity being **0.14 mtCO₂e/FTE** out of 25 national and international banks assessed. The banks are located in different countries around the world which might affect the

emissions in such ways as weather conditions, the country’s electricity mix, etc.

In contrast to other national and international banks, NBE’s emissions intensity was equal to **2.46 mtCO₂e/FTE** in the base year of 2021, which is just below the median emission intensity value, as shown in the below chart.

External Benchmarking - 2021 Emissions Intensity (mtCO₂e/FTE)



Scope	Base Year Emissions – mtCO ₂ e (2021)	Emissions Percentage	Carbon Intensity (mtCO ₂ e/FTE)	Carbon Intensity (mtCO ₂ e/EGP.bn)
SCOPE 1	20,379	18%	0.67	1,029
SCOPE 2	54,769	49%	1.80	2,766
SCOPE 1+2	75,147	67%	2.46	3,796
SCOPE 3	37,194	33%	1.22	1,879
TOTAL	112,341	100%	3.69	5,674



EMISSIONS REDUCTION TARGETS

We aim to set emissions reduction targets in alignment with a 1.5-degree temperature goal with the target completion year to be 2028. Considering the current carbon footprint being our first, 2021 is set as the fixed target base year and we will be committing to achieving the following absolute reduction targets:

Scope	2021 Base Year Emissions (mtCO ₂ e)	2028 Target Year Emissions (mtCO ₂ e)	% Reduction
SCOPE 1	20,379	14,265	30%
SCOPE 2	54,769	38,338	30%
SCOPE 1+2	75,147	52,603	30%



DECARBONIZATION PLAN

NBE has implemented a decarbonization plan that includes various opportunities to enhance its environmental footprint. The plan outlines the main projects, where the selected projects will be studied in-depth with a complete feasibility study. Actions and initiatives in order to reduce the impacts are presented below.

Operations



Supply Chain



Investment Portfolio



CLIMATE MITIGATION ACTIONS

Climate mitigation measures are efforts to reduce or eliminate greenhouse gas emissions. NBE has taken a number of steps to improve its overall performance and reduce its activities' environmental effect. Improving the energy efficiency of present equipment, as well as changing management processes and consumer behavior, are examples of these efforts.



Energy Efficiency

Renewable energy

NBE is one of the first banks in Egypt to implement photovoltaic (PVs) renewable energy. Presently, NBE's renewable energy implementation covers a total of 28 branches and the headquarters. The renewable energy has many benefits, such as emission free, clean energy and less pollution.

LED lighting

NBE's branch in Heliopolis is one of the first banks branch in Egypt to be fully equipped with LED lights since 2013. Halogen Spotlight (29,000) and additional LED Tube (245,200) replaced conventional lamps and yielded an electricity reduction of 1,253,609 kWh.



VRV cooling system

NBE has saved around 15 GWh and EGP 12 mn in energy consumption costs and further cost reductions of operation and maintenance during this period. 127 electric power generators were renovated and replaced with more energy efficient ones, leading to reductions in fuel consumption, noise pollution and improved air quality.



Cooling load reduction

Thermal glass coatings were applied to the Baraka and Cairo Plaza Towers in order to enhance the building's energy performance.



Water Efficiency

Water usage was reduced by 25% by installing infrared water fittings in some of NBE's new and existing buildings.



Most of the faucets in NBE's owned facilities were replaced with low-flow water faucets.



Fuel Burning Efficiency

Converted part of the owned petrol fuel vehicles to natural gas which reduces the petrol fuel burning emissions.

The use of large-scale transport vehicles to reduce the number of times that goods are shipped and transported, as well as to transfer garbage from branches and centers and return it to warehouses as part of NBE's transportation plan.

The bank purchased 5 new electric cars as part of reducing the use of the different types of fuel.



Resources Consumption and Waste Reduction

The bank phased out all plastic cups to be replaced by cardboard cups for a sustainable selection of single-use items. Eventually, paper cups were replaced by glass cups once single-use plastic cups were phased out.

All the waste that was generated from the different facilities is now carried out by a special committee after the collection for waste reuse.



NBE replaced the conventional plastic bags with bio-based eco-friendly plastic bags since 2019. Benefits of the initiative include, reduction of GHG emissions, waste reduction and non-toxic for the environment in comparison with conventional bags made with harmful by-products and chemicals.

All offices & branches send their shredded papers dispatches, where the shredded paper is pressed into bales in preparation to be sent to the paper companies that the Bank has contracted with. With this process, a secure handling of the documents disposal as well as an increased circularity of material flows are achieved.

NBE guidelines ensure total circularity and minimal waste in all of the Bank's supplies. The NBE warehouse sector is in charge of the process whenever the goods have reached the end of their useful lives or if any supplies have been reported as broken by the administration of any office or branch. Technical experts examine the products' damages, and maintenance is done on anything that could be utilized internally again in an NBE facility.



04

INTRODUCTION

مرحباً بك

CHAIRMAN'S MESSAGE

Dear Stakeholders,

Our *first Environmental Report 2021* is a voice of commitment to our Planet-dedicated stakeholders (Public sector entities, Private sector and market, environmental Youth & Entrepreneurs, environmental activists, media and NGOs, Environmental regulatory bodies, Environmental academic institutions, green conscious vendors and suppliers; as well as environmental rating agencies .. i.e. the global environmental ecosystem). It is our Environmental Operational Baseline year that sheds the light on our bank's mitigation and adaptation efforts towards climate as well as water, plastic, land and planet resources reservation. Because, banking is no more disconnected from the **Natural Capital**.

Today, with this report, NBE is redefining its role towards our planet and pioneering a new environmental integration milestone; whereby the Environmental pillar is starting to lead *measuring* NBE's performance from *mainstream financially-based KPIs (key performance indicators) to Environmental -based Performance decision-making and culture*.

The Environmental History of NBE: From Pollution Finance to Operational Environmental Resilience

Our environmental history in the National Bank of Egypt goes back to over twenty years ago .. financing Pollution Abatement for enforcing environmental compliance and standards. In 1998, NBE led the banking sector intervention, activating *environmental compliance* by providing *environmentally-driven finance*, promoting the transition of the private industrial sector from Brown to Green (industrial) economy. The strategic partnership with the Egyptian Ministry of Environment, and the World Bank under the Egyptian Pollution Abatement Program (EPAP) with an amount of 1 Billion EGP - running to date – was

a clear commitment towards fulfilling a nation-wide environmental banking role.

In parallel, globally, the international environmental standards and frameworks were reshaping the banking industry compliance framework and business models to embrace new environmental challenges, latest of which is Climate Change as an environmental (physical and transitional) global risk; as well as newly arising investment opportunities and green markets such as Carbon Markets. TCFD, EP, CDP, and Net Zero Alliances, are setting new global benchmarks we seek to embrace for meeting our international partners, donors and global stakeholder's prospects.

The Biggest reporting boundary within the Egyptian Banking sector ..

The scope of our report exceeded our ambition considering the Bank's operational capacity, scale and magnitude. Being the first Egyptian commercial public sector bank disclosing an environmental report with widest spectrum (biggest data inventory on five key environmental aspects: Carbon, Plastic, Water, Waste and Land); and the first to report on Plastic footprint framework recently published in 2021. Our operational report boundaries succeeded to cover all NBE's bank-wide geographical premises to include: **595 facilities over nationwide 27 governorates of Egypt** (10 Regional Zones, over 600 plus branches both traditional & digital), nine Head Offices, training centers, three social & sports clubs, and two vehicles (car and buses) garages; with approximately **30,486 full-time equivalent FTE** (i.e. employees) – both full-time and outsourced (employees and workers). NBE's carbon intensity amounting to **2.45 mtCO₂e/FTE** – is considered lower than average global banking sector (**amounting to 2.50 mtCO₂e/FTE**) for our base year 2021.

While our mitigation activities began since 2008, we use the report to consolidate as well as to establish our baseline year for our Low-Carbon (decarbonization) Plan and Climate Strategy, considering the Paris International Agreements; as well as targets; strategically aligned with Egypt Vision 2030, Africa Agenda 2063 and environmentally focused SDGs 2030 (Goal 7, 13, 14, 15).

Moreover, the report methodology stands out being based on more than **8 international standards, protocols and global guidelines** - among which but not limited to GHG protocol guidelines, ISO 14064, IPCC, the Water Footprint Network, VERRA plastic standards – most recently published in 2021), the Global Footprint Network (GFN) and more; with a very high ambition to develop a banking sector benchmark that goes beyond Carbon Footprint reporting.

How we define Green at NBE goes beyond Compliance and Risk .. towards higher Environmental Governance, Strategy and Disclosure

For NBE, the definition of Green Banking goes beyond compliance and risk .. to embrace higher Environmental Governance, Strategy and Disclosure. This report will walk you through the transition of our operations and supply value chain from mainstream to an environmental resilience operation that are measurable, manageable, and massively scalable. It is a Prototype that highlights many findings we are proud to share and seek your feedback and opinion to always develop and build upon partnerships to grow together towards a common end.

Best regards,

Hisham Okasha
Chairman, National Bank of Egypt



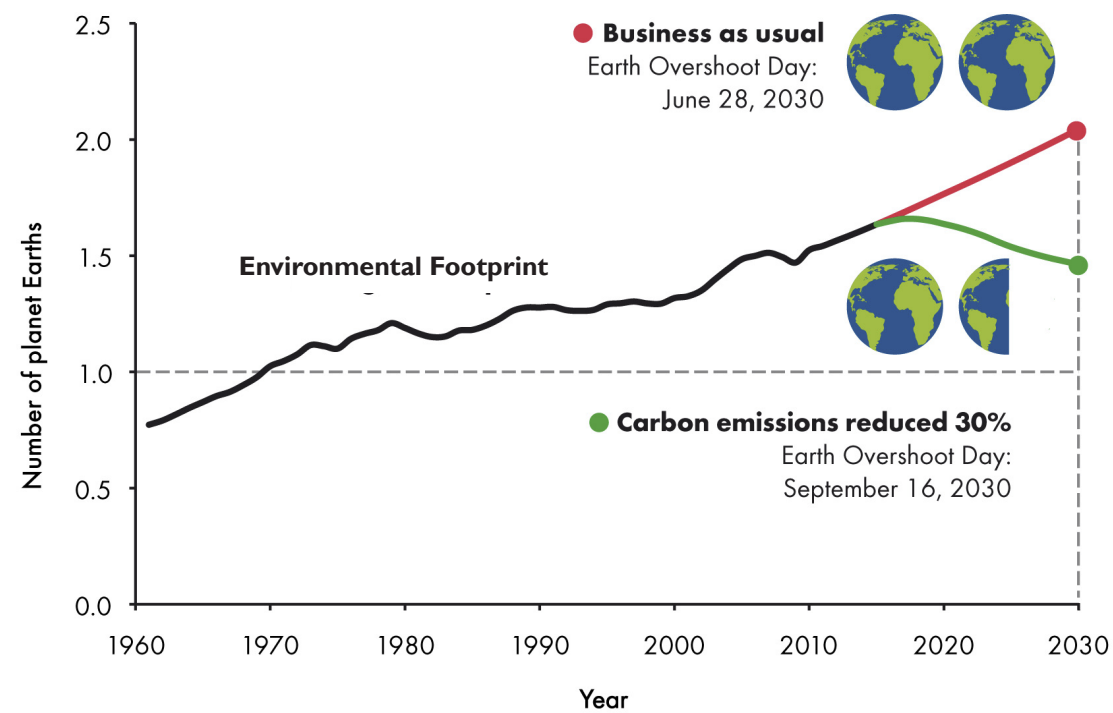
GLOBAL ENVIRONMENTAL CHALLENGES

The climate challenges are perceivable all over the world, for instance in terms of air pollution, water scarcity and deforestation. The need for climate action is more actual than ever. Resources of the planet are being exploited at a higher rate than it is regenerated, the soil impoverish, and forests decreased for the use of agricultural croplands, urbanization, and mining activities. Thereto, non-biodegradable materials are widely applied in businesses, contaminating soil and water resources,

remaining on earth for thousands of years without degradation.

Looking at the global consumption rates, we would need the capacity of two earths to maintain the current human lifestyle and meet our level of demand by 2030. We only have one earth, and therefore everybody and all entities need to review their consumption patterns with efforts to limit their impacts on the environment.

How many Earths does it take to support humanity?



ENVIRONMENTAL ECONOMIC TRANSITION

It is essential to collectively take steps to decarbonize the society through minimizing the output of GHG emissions in and around our practices. To achieve this, globally all entities must undergo a transition from the current carbon intensive economy towards a low carbon economy, specifically a Green, Blue and Yellow Economy. This involves reducing the business' carbon footprint, resource-conserving with a significant global shift to limit consumption of natural resources to sustainable levels in order to stay within planetary capacities. Blue Economy entails sustainable use of ocean resources for economic growth, improved livelihoods while preserving the health of ocean ecosystem, with impacts of climate change and rising

sea-levels and litter in the oceans to be mitigated, while Yellow Economy is integrating solar energy in that pursuit.

There is also a global movement striving towards a Circular Economy by implementing and supporting models of production and consumption that not only reduce the amount of carbon it takes to make a product, but also extend that product's lifetime for as long as possible through the reusability and recyclability of its materials. By transforming a traditionally linear system into a circular one, we are able to reduce the amount of waste produced as a whole, both now and in the future.

EGYPT'S MITIGATION ACTIONS TOWARDS PRESERVING THE ENVIRONMENT

During COP26, held in Glasgow in November 2021, the countries reaffirmed the Paris Agreement goal of limiting the global average temperature rise to well below 2°C above pre-industrial levels and to step up efforts to reach the goal of a global average temperature increase of no more than 1.5°C. The urgency of action in this critical decade was also highlighted, where carbon dioxide emissions must be reduced by 45 percent from 2010 levels by 2030 to reach net zero to 2050.

Egypt has recently, in connection with the preparations of COP27 to be held in Sharm El Sheikh in Egypt, launched the National Climate Change Strategy 2050 (NCCS) for tackling climate change and supporting a stronger and greener Egyptian economy. The country commitments are also emphasized in the initial Egypt Vision 2030 Sustainable Development Strategy (SDS). The newly launched National Climate Change Strategy includes adaptation and mitigation agendas in all sectors, while supporting economic growth and reducing emissions. The national strategy is also designed to improve climate finance and raise awareness of climate change.

The Ministry of Environment of Egypt (EEAA) is responsible for formulating environmental policies, preparing the necessary plans for environmental projects and following up their implementation, and undertaking climate related pilot projects of the country, closely collaborating with other ministries to establish green bonds and advance the country's efforts in climate mitigation actions for a sustainable environment.

Moreover, the Central Bank of Egypt (CBE) has issued six guiding principles that provide the basis for planning and laying out the general framework for applying sustainable financing in Egyptian banks, building capacities and proving the necessary resources to implement these principles. Sustainable financing refers to financing projects at banks that take into account the environmental component of society, such as clean and renewable energy projects. Thereto, the CBE recently announced joining the Network of Central Banks and Supervisors for Greening the Financial System (NGFS), globally recognized in the field of green economy. This is in the light of the Egypt's climate strategy, applying the international best practices in the field and the significant role of the country's banking sector.



NBE'S FIRST ENVIRONMENTAL FOOTPRINT ASSESSMENT

As one of the major banks in Egypt, NBE aims to lead by example to fulfil Egypt's climate agenda set out in Egypt's National Climate Change Strategy 2050 and Egypt Vision 2030, and CBE's Guiding Principles on Sustainable Finance. In order to preserve the natural resources and achieve a sustainable society, it is vital for NBE to assess the business' impacts on the environment, which is one of the reasons why NBE has chosen to conduct an environmental footprint, unique in its scope, covering 5 footprints to address the main climate challenges, reduce its consumption, increase its efficiency further and identify opportunities of decarbonizing the business.

NBE is hereby presenting their first environmental footprint as the first governmental bank in Egypt to conduct such an assessment. The bank has assessed its environmental performance out of 5 different footprints, namely a carbon footprint assessment, water and land footprints, as well as waste and plastic footprints. Each of the footprints is presenting the quantities and the impacts of the utilization of the resources. The footprint accounting also enables NBE to benchmark performance indicators and evaluate progress over time, where targets are set for the GHG emissions reductions.

This report presents NBE's footprint across Egypt from July 1, 2020 to December 31, 2021. NBE has a financial year of one and a half year, whereas footprints are commonly reported in fiscal years. Therefore, the base year has been selected as the year 2021, from January 1, 2021 to December 31, 2021, where the base year will be used in the upcoming assessments to evaluate the progress and for targets evaluation.

The integrated environmental footprint has numerous advantages and enables a holistic view of the environmental performance from various aspects; the single index provides ease of understanding, and a variety of activities can readily be assessed and compared. A thorough assessment of sustainability is facilitated, where the relationship between different impacts can be explored and the findings from one assessment can benefit the other, as well as fortify the analysis, highlight NBE's performance and conclusions of main priority areas and key actions needed to be taken.



OUR ENVIRONMENTAL STRATEGY

We believe that there are various ways in which our environment affects our prosperity and well-being. As it provides the fundamental natural resources required for our life and work, including the resources for creating our infrastructure as well as the air we breathe, food we eat, and water we drink. Environmental concerns now define the global economy and cannot be divorced from it. Healthy ecosystems are essential for tackling issues like climate change, water scarcity, the depletion of natural resources, etc. As a result, the NBE Environment Strategy offers a comprehensive solution to these global issues that is aligned with pertinent international agreements and objectives.

NBE has developed an Environment Strategy in alignment with international agreements that provides a coherent response to the global challenges we face. It encompasses six different pillars, each with associated goals and strategies to achieve them.

NBE Environmental Sustainability Vision

Making a positive impact through our responsible and committed environmental performance.



Environmental Strategy Pillars



Pillar 1: Climate Change Mitigation

Involves the effort to control the human sources of climate change and their cumulative impacts, notably the emission of GHGs. This is achieved through adopting a green economy model, harnessing new technologies (such as electric vehicles and solar irrigation systems), promoting renewable energies and improving efficiency of older energy systems.



Pillar 2: Climate Change Adaptation & Resilience

Encompasses the acts of preventing and minimizing damages caused by climate change, taking advantage of opportunities and absorbing climate-related disturbances while retaining the same core structure and ways of functioning. Actions vary from deploying cool/green roofs or reflective pavements to upgrading/designing buildings and development projects to bear climate change impacts. NBE has begun by committing to upgrading the insulation of its buildings through the deployment of double walls and the increased usage of thermal glass.



Pillar 3: Water Efficiency

Means improving the way we manage our scarce water resources especially given the anticipation of altered hydrological cycles (floods and droughts) due to climate change. To save water, it is encouraged to ration it, reuse wastewater, install water treatment plants, implement modern irrigation methods and install desalination plants. Even simply installing low-flow and infrared faucets can help.



Pillar 4: Waste Management

Includes adopting a circular economy model rather than a linear one to prevent the waste of not just the material, but also the labor, land, energy etc. that goes into producing it. It can also involve recycling industrial and agricultural waste and the replacement of high consuming machines with more advanced ones. NBE can proudly say that when it comes to bank supplies it is currently at zero waste due to its recycling system and has plans to expand its effort to employee waste as well.



Pillar 5: Environment Management System (EMS)

NBE's EMS provides structure to help manage environmental impacts and improve performance of products, services and activities. It integrates the organization's environmental objectives with its overall business processes and systems, so that environmental considerations can become a routine factor in business decisions. Through the use of an EMS, we proactively seek to improve our environmental performance.



Pillar 6: Environmental Awareness and Communication

relates to promoting, training and delivering awareness campaigns so that staff and stakeholders are better informed of the advantages of changing practices in ways that help the environment. NBE has taken steps to spread awareness both internally and externally since 2020, distributing employee surveys, creating sustainability reports, organizing workshops for its employees and posting on its various platforms (websites, social media, conferences and forums).



For almost 125 years now, National Bank of Egypt has paid significant attention to its environmental role and impact on the Egyptian society. This awareness initiated our efforts towards circular economy and bringing economic benefits of suppliers and users with 99% of our suppliers as national ones. Our Green Procurement Strategy and Sustainable Supply Chain have Resource and Operational Efficiency at the heart, by mitigating negative environmental risks, driven cost optimization and profitability, as well as integrating environmental standards in procurement and facilitating internal processes.

Mr. Hossam El Haggag

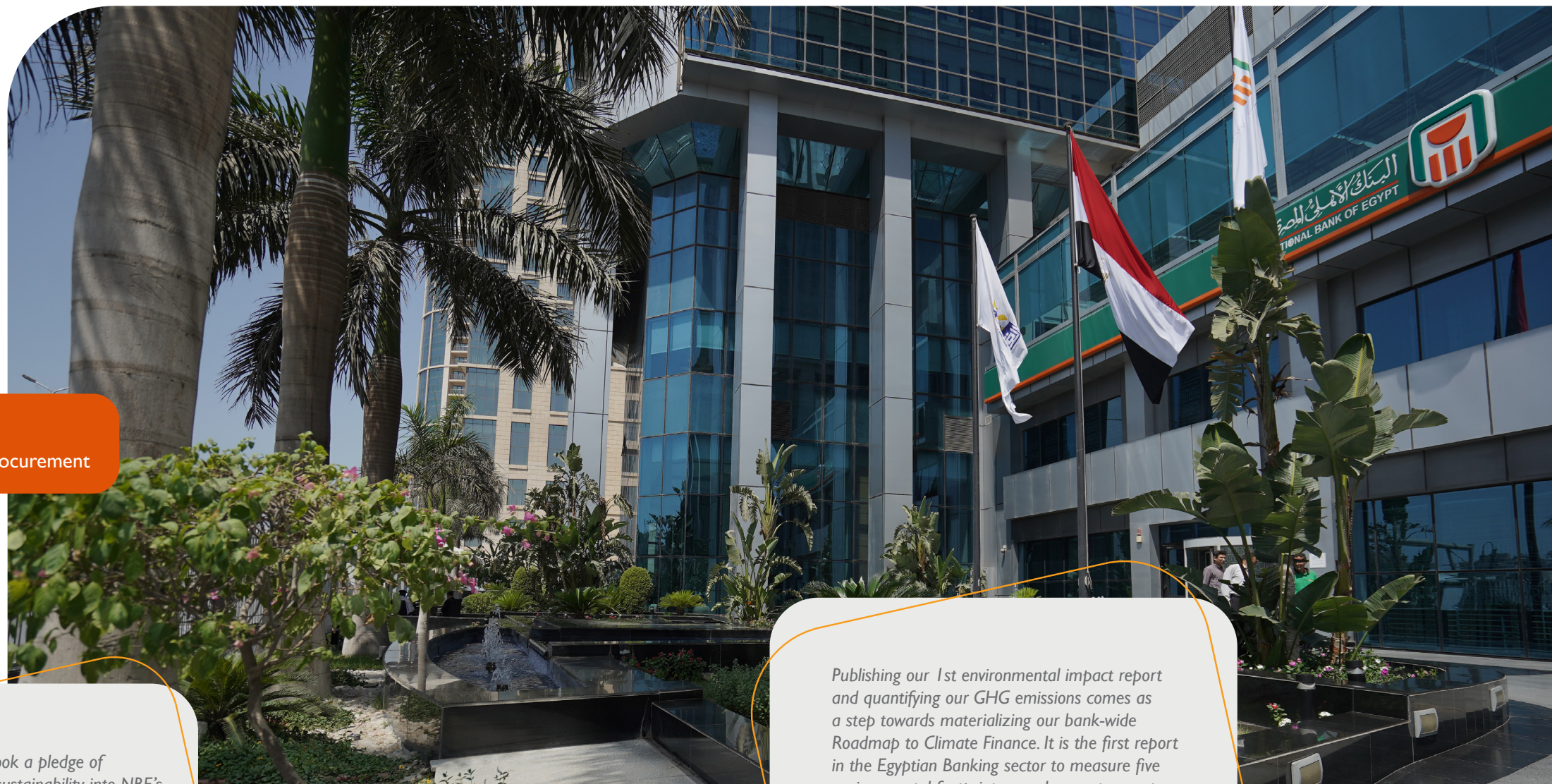
Head of Administrative Support and Procurement



In 2020, we took a pledge of incorporating sustainability into NBE's strategy. Integrating sustainability reflects how NBE's holistically views its value creation. Driving business growth, while maintaining positive environmental impact comes at the core of NBE's values.

Mr. Michael Makkar

Head of Strategy, Sustainability, and Financial Inclusion



Publishing our 1st environmental impact report and quantifying our GHG emissions comes as a step towards materializing our bank-wide Roadmap to Climate Finance. It is the first report in the Egyptian Banking sector to measure five environmental footprints – carbon, water, waste, ecological (land), and plastic – with biggest operational and physical reporting boundaries, and 8 international environmental standards. This disclosure marks a key milestone towards integrating environmental accounting in our day-to-day decision-making process, core banking operations and business growth strategy.

Ms. Maha Hasebou

Head of Strategic Sustainability, Deputy General Manager



SUSTAINABLE FACILITY MANAGEMENT

The Facility Management community plays an essential role in achieving sustainability within the Bank, with efforts and decision-making to maximize the assets value while embracing sustainability and providing a secure, comfortable, healthy and productive environment over the long term without negative impacts on the environment. Part of this is taking green buildings into account, with the intention to lower electricity and water consumption as well as lowering the waste generation, maximizing daylight, and optimizing acoustic performance. The well-being of the occupants is also considered with regards to CO2 concentrations in the premises and ventilation systems to be reviewed to achieve a comfortable indoor environment and enhanced air quality.

New facilities are constructed according to the highest standards, while existing facilities have plenty of opportunities to be modernized with actions to turn the facilities into greener ones. An optimized facility does not only imply less impacts on the environment, but an enhanced working environment also has the possibility to increase the workforce productivity significantly compared to a standard facility. Hence, investments in the facility will also show in terms of increased productivity and higher customer satisfaction.

We are incessantly encouraging all Facility Managers to take sustainability into consideration by

eliminating and minimizing the negative impacts on the environment in terms of reducing the facilities' carbon footprint, land footprint, water footprint, waste and plastic footprint, e.g. by increasing energy efficiency, selecting eco-friendly supplies, implementing preventive maintenance and recycling practices, conducting sustainability analyses and employing green subcontractors. On the ground, this could be implemented by using internet of things (IoT) sensors in the facilities to monitor and analyze various aspects of the facility's operations for a clear decision-making process of improvement projects. The cooling load and windows of the facilities to be reviewed and replacing old AC units with modern ones, replacing old lighting fixtures by LED lighting and simultaneously using intelligent lighting systems. The waste generated are depending on several streams, such as customer waste, packaging waste, manufacturing waste and fuel and electricity production waste, as well as the waste generated by our employees and workers, where we are encouraging the use of recycled materials, double face printing, and going paperless.

Each and every one of us must be involved in the process of moving towards sustainability and decarbonizing the Bank's operation, where the Facility Management community is taking their role earnestly with several actions on the agenda for continuous improvements of the Bank's facilities.

“

At the National Bank of Egypt, improving employee health and safety is a primary focus. Our facilities are constructed and planned on the inside and out in accordance with the highest international sustainable construction standards and guidelines, taking into account resource efficiency and environmentally friendly materials that preserve our planet.

Dr. Ashraf Elbakry

Head of Projects and constructions



ABOUT NBE

NBE is the oldest commercial bank in Egypt, established in 1898. Throughout its long history, the Bank's functions and roles have continually developed and the bank is always keen to deliver top-quality and cutting-edge banking services and products to its customers. NBE has an extensive network of over 550 branches, offices and banking units nationwide, serving nearly EGP 16.5 mn customers. Total financial position at the end of June 2020 recorded EGP 2 trillion, growing 23% yoy, and accordingly the Bank's total assets accounted for 31.5% of Egyptian banks' total assets in 2020. NBE's financial position reached EGP 2.5 trillion at end-March 2021.

The Bank is constantly developing its diversified services and products to provide its customers with high quality services and is also keen on promoting digitalization and financial inclusion. During the past few years, NBE introduced several online banking services such as Al Ahly Net and NBE Phone Cash wallets. Moreover, the Bank opened 23 electronic service branches in order to reduce cash transactions in the market. The number of ATMs is also continuously increasing with improved deployment to reach 4,950 ATMs nationwide. Moreover, NBE stayed in the lead in terms of retail cards, issuing a total of EGP 7.4 mn prepaid cards and EGP 5.8 mn debit cards in March 2021.

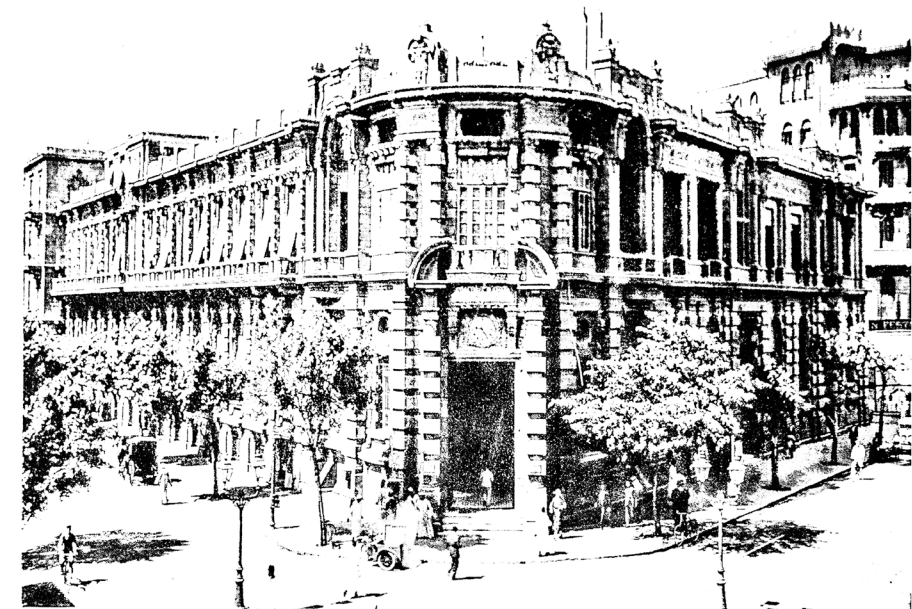
As one of the major and leading commercial banks in Egypt, NBE understands its responsibilities. This includes the policies and procedures to deal with the business out of a sustainable perspective and maintain their confidence and continue its leadership in the local banking market.

NATIONAL BANK OF EGYPT

Established by Khedivial Decree of 25th June, 1898, with
exclusive right to issue notes payable at sight to Bearer.



HEAD OFFICE: CAIRO



CAPITAL (fully paid) - £3,000,000

RESERVE FUND - £3,000,000



OFFICES IN EGYPT AND THE SUDAN

CAIRO (7 Offices), ALEXANDRIA, Abou-Tig (Sub-Agency to Assiut), Assiut, Assuan, Benha, Beni-Suef, Chebin-el-Kom, Damanhour, Dessouk (Sub-Agency to Damanhour), Deyrout (Sub-Agency to Assiut), Edfu (Sub-Agency to Luxor), Esneh (Sub-Agency to Luxor), Fashn (Sub-Agency to Beni-Suef), Fayoum, Heliopolis (Cairo), Ismailia (Sub-Agency to Port Said), Kafr-el-Zayat (Sub-Agency to Tantah), Kenah,

Luxor, Maghaga (Sub-Agency to Beni-Suef), Mansourah, Manfalout (Sub-Agency to Assiut), Mehalla-Kebir, Mellawi (Sub-Agency to Minieh), Minet-el-Gamh (Sub-Agency to Zagazig), Minieh Port Said, Samalout (Sub-Agency to Minieh), Sohag, Suez, Tantah, Zagazig. KHARTOUM, El-Obeid, Omdurman, Port Sudan, Tokar (Sub-Agency to Port Sudan), Wad-Medani.

LONDON AGENCY - 6 and 7 KING WILLIAM STREET, E.C.4

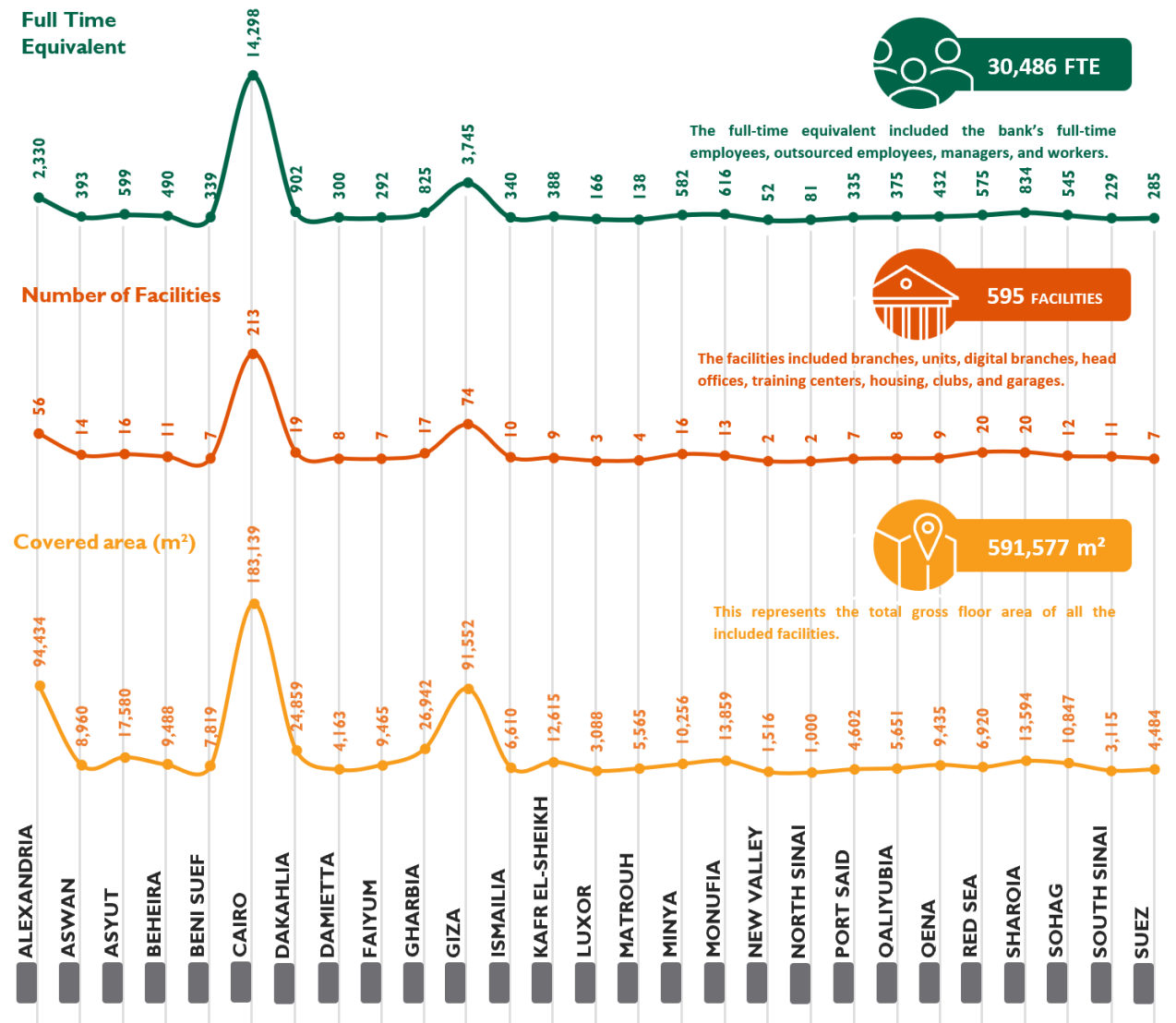
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INVENTORY BOUNDARIES

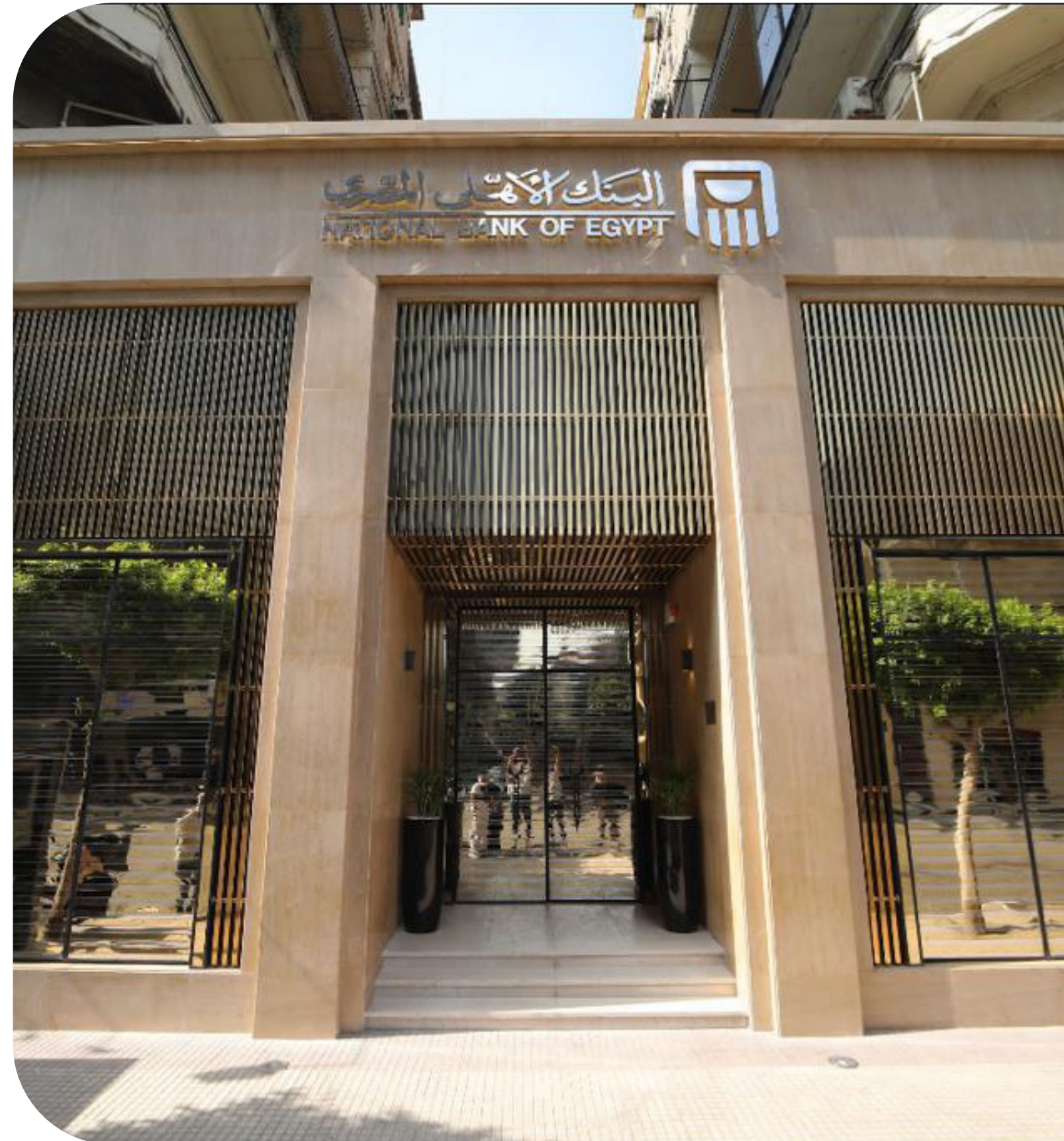


ORGANIZATIONAL BOUNDARIES

For the purpose of accounting and reporting GHG emissions, the organizational boundary defines the businesses and operations that constitute the company. Companies can choose to report either the emissions from operations over which they have financial or operational control (the control approach) or from operations according to their share of equity in the operation (the equity share approach). **NBE's** environmental footprint uses the operational control approach. As such, it included:



NBE 2021 – ORGANIZATIONAL BOUNDARIES



OPERATIONAL BOUNDARIES

An organization establishes its operational boundaries after deciding the organizational boundaries in terms of the operations it owns or manages. This entails identifying the various banking operations-related activities and categorizing them in accordance with each footprint methodology.

Carbon Footprint (CFP)

Operational boundaries determine the business activities of the reporting company that generate emissions, and which of these activities that should be included in the calculations, and how these activities should be classified (i.e. direct or indirect emissions). The emissions fall under different scopes; Scope 1, resulting from NBE's owned or controlled equipment and assets, Scope 2 covering emissions from purchased electricity; and Scope 3 embracing significant indirect emissions resulting from the operations.

In conformance with the GHG Protocol Corporate Standard, the reporting of Scope 1 and Scope 2 emissions, direct emissions and indirect emissions resulting from purchased electricity, are mandatory to report. The operational boundaries for NBE's 2021 carbon footprint assessment included the following:

SCOPE 1 – Direct Emissions

Emissions from sources that are owned or controlled by **NBE** (i.e. any owned or controlled activities that release emissions straight into the atmosphere).

The list of scope 1 activities includes the following:

- Stationary combustion
 - ◊ Diesel fuel burning on site (This mainly includes diesel generators)
 - ◊ Natural gas fuel burning
- Mobile combustion
 - ◊ Owned vehicles fuel burning
- Fugitive emissions:
 - ◊ Refrigerant 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 **NBE**.

The list of scope 1 activities includes the following:

- Purchased electricity



SCOPE 3 – Indirect Emissions

Emissions resulting from other activities that are not covered in scope 1 and 2. This includes transport fuel used by air business travel, and employee-owned vehicles for commuting to and from work; emissions resulting from courier shipment; emissions from waste disposal; ... etc. **The list of scope 3 activities includes the following:**

- | | |
|---|--|
| <ul style="list-style-type: none"> • Purchased goods and services <ul style="list-style-type: none"> ◊ Office supplies • “Fuel and energy-related actives (not included in scope 1 and 2)” <ul style="list-style-type: none"> ◊ Fuel burning: diesel Well-to-Tank (WTT) ◊ Fuel burning: natural gas (WTT) ◊ Fuel burning: owned vehicles (WTT) ◊ Water usage & wastewater treatment • Upstream transportation and distribution <ul style="list-style-type: none"> ◊ Internal courier shipment + WTT • Waste generated in operations <ul style="list-style-type: none"> ◊ Office solid waste disposal ◊ Shredded paper waste | <ul style="list-style-type: none"> • Business travel <ul style="list-style-type: none"> ◊ Air travel + (WTT) ◊ Hotel stay • Employee Commuting + WTT • Downstream transportation <ul style="list-style-type: none"> ◊ External courier shipment + WTT • Processing of sold products <ul style="list-style-type: none"> ◊ Bank issued cards • Downstream leased assets <ul style="list-style-type: none"> ◊ ATM Transactions |
|---|--|

Avoided Emissions

Renewable energy has a key role to play in the decarbonisation of the banking sector and the mitigation of climate change effects. This includes solar photovoltaics that were used to supply some of NBE branches with their electricity needs.

Water Footprint

NBE has identified where and when water is used in its operations by calculating its water footprint. The direct (operational) and indirect (supply-chain) water footprints of NBE are covered in the assessment. The following activities are accounted for under both scopes:

DIRECT CONSUMPTION

Water consumed in NBE's buildings including offices, canteens, cleaning, or gardening activities.



INDIRECT CONSUMPTION

Water used in the production of electricity, cooling, office supplies, and debit/credit cards issued by NBE.

Plastic Footprint

The plastic footprint addresses the plastic use of NBE's business. The same operational boundaries and activities as the carbon footprint have been assessed for the plastic footprint, looking into the plastic use of each activity.

Plastics enter the environment by one of two main streams, which are visible macro-plastics mainly from solid waste and any plastic items purchased of the business, and invisible primary micro-plastics released as particles from various sources, e.g. due to tire abrasion of road transportation.

Macro-Plastics

Macro-plastics are defined as plastic fragments greater than 5 mm long. Macro-plastics are mainly derived from single use of durable plastics. The plastics are divided into type of polymers and these materials might leak to the terrestrial environment and oceans causing severe impacts.

Micro-Plastics

Micro-plastics are defined as plastic particles smaller than 5 mm and greater than 1 µm in diameter. Micro-plastics, as small particles, are much more pervasive compared to macro-plastics and have more subtle routes to the environment, occurring from example tire abrasion of road transportation.

Waste Footprint

The waste footprint falls under the environmental footprint as it measures how much we generate waste. Calculating the waste footprint enabled NBE to estimate the waste quantities that was generated as a result of the operations occurring at the organization. There were two sources of waste that were included in the waste footprint:

OFFICE WASTE

Waste generated from employees and workers during the working day.



PAPER WASTE

Amounts of paper shredded in the reporting period.

Out of NBE's business, the following activities have been accounted for in the plastic footprint.

Macro-Plastics

Bank card issued (Processing of sold products)

Office solid waste disposal (Waste generated in operations)

Office supplies (Purchased goods and services)

Micro-Plastics

Tire abrasion due to road transportation

Owned vehicles (Mobile combustion)

Internal Courier Shipment (Upstream transportation and distribution)

External Courier Shipment (Downstream transportation)




Employee commuting (Employee commuting)

Air Travel (Business travel)



Land Footprint

The following were included in the operational boundaries for NBE’s land footprint:

Area Types	Description	Included Activity
 Carbon Demand on Land	It is the amount of land used to absorb carbon dioxide and other greenhouse gases.	<div>Stationary Combustion</div> <div>Mobile Combustion</div> <div>Fugitive Emissions</div> <div>Electricity</div> <div>Fuel and energy related activities</div> <div>Upstream transportation & distribution</div> <div>Downstream transportation & distribution</div> <div>Employees commuting</div> <div>Processing of sold products</div> <div>Business travel</div> <div>Downstream leased assets</div> <div>Waste generated in operations</div>
 Forest land	The area of forest land required to sequester these carbon dioxide emissions is computed as the carbon footprint component of the land footprint.	NBE’s Purchased goods (Mainly the paper consumed)
 Built land	The area of land covered by human infrastructure, housing, and industrial structures. This included all NBE’s facilities.	The total built area land of all NBE facilities (Exclusions are found in the annex under excluded organizational boundaries)

REPORTING PERIOD

The first reporting period is from July 1, 2020 to December 31, 2020 and the second reporting period is from January 1, 2021 to December 31, 2021. Given that the aforementioned timeframes were covered by our fiscal year, we have chosen to report on both. However, the most thorough and precise data was available for the year 2021.

Since this is the first environmental report published by NBE, 2021 will be used as the baseline year for all subsequent years.








06

OVERALL METHODOLOGY



FOLLOWED PROTOCOLS & STANDARDS

The environmental footprint assessment is conducted based on several international and widely applied standards, protocols, and guidelines specially developed for accounting and reporting the different footprints, including but not limited to the following:

 Carbon Footprint	The Greenhouse Gas Protocol Guidelines which include, but not limited to: <ul style="list-style-type: none"> A Corporate Accounting and Reporting Standard Corporate Value Chain (Scope 3) Accounting and Reporting Standard
	ISO 14064-1:2019, Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals.
	2006 Intergovernmental Panel on Climate Change (IPCC) Guidelines for Greenhouse Gas Inventories (with 2019 Refinements).
 Water Footprint	The water footprint
 Waste Footprint	British Standard for Waste management in buildings (BS 5906:2005)
 Plastic Footprint	Plastic Leak Project. Methodological Guidelines. Quantis and EA. 2020 v1.1
	VERRA Plastic Standard
 Land Footprint	The global footprint

CALCULATION APPROACH

Carbon Footprint

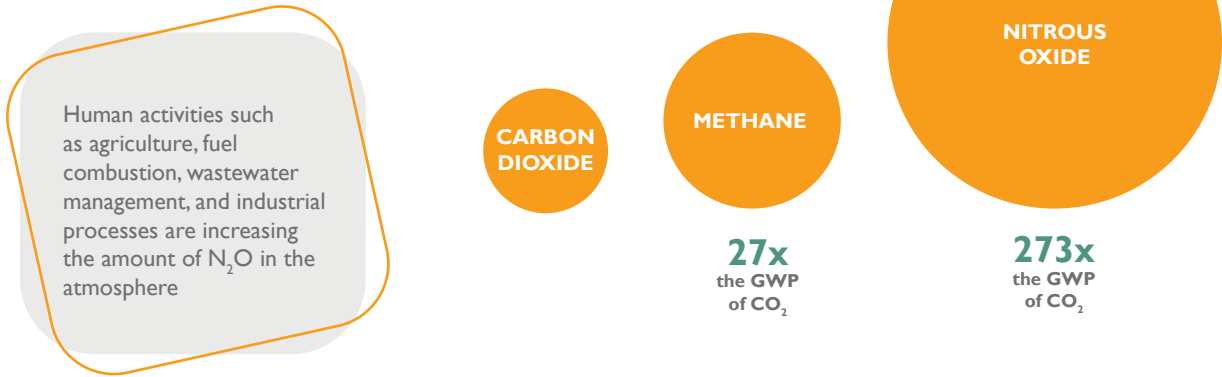
As required by best practice in organizational GHG accounting and the chosen WBCSD/WRI GHG Protocol, all seven Kyoto Protocol greenhouse gases have been included where applicable and material. This includes biogenic carbon dioxide, which is created from the combustion, harvesting, decomposition or processing of biological sources rather than fossil sources.

Global Warming Potentials (GWPs) are factors describing the radiative forcing impact of one unit of a specific greenhouse gas (e.g. methane) relative to one unit of carbon dioxide. They are used in GHG accounting to convert individual greenhouse gas

emissions totals to a single standardized unit useful for comparison, carbon dioxide equivalent, or CO₂e.

The carbon footprint applied 100-year GWPs to all emissions data in this inventory in order to calculate total emissions in metric tons carbon dioxide equivalent (mtCO₂e). Global warming potential values were sourced from the Intergovernmental Panel on Climate Change's (IPCC) sixth Assessment Report (AR6 2021), the most recent IPCC report available at the time of assessment. The Kyoto Protocol GHGs (or categories of GHGs) and their respective GWPs are listed in the table below.

Greenhouse Gas	Chemical Formula	100-Year GWP
Carbon dioxide	CO ₂	1
Methane*	CH ₄	27
Nitrous oxide	N ₂ O	273
Hydrofluorocarbons (HFCs)	Various	Various
Perfluorocarbons (PFCs)	Various	Various
Nitrogen trifluoride	NF ₃	17,400
Sulphur hexafluoride	SF ₆	25,200



*The greenhouse gas that is most commonly released during fuel burning operations is carbon dioxide, however methane emissions from these operations accounted for less than 0.01% of all fuel burning emissions.

Each activity falls under a certain scope according to the GHG Protocol Guidelines; Scope 1 (Direct emissions), Scope 2 (Indirect emissions associated with the consumption of purchased electricity) and Scope 3 (Indirect emissions) that are a consequence of the operations of the organization but are not directly owned or controlled by the reporting company.

When calculating the CFP of **NBE**, the emissions of each activity have been considered. Each activity falls under a certain scope, which is described more in depth in the annex. The general calculation approach for the emissions, counted in mtCO_2e , is multiplying

the activity with its corresponding emission factor. When doing this, a unit analysis is performed in order to make sure the results of the emissions are obtained in the desired unit mtCO_2e . The general formula for calculating the emissions for each activity is according to the below equation.

The unit of the GHG emissions is metric tons carbon dioxide equivalent (mtCO_2e). The unit CO_2e refers to an amount of a GHG, whose atmospheric impact has been standardized to that one-unit mass of carbon dioxide (CO_2), based on the global warming potential (GWP) of the gas.

$$\text{GHG Emissions, } E [\text{mtCO}_2\text{e}] = \text{Activity, } A [\text{unit}] \times \text{Emission Factor, } EF [\text{mtCO}_2\text{e/unit}]$$

The general formula could be applied for each activity to obtain its emissions. All activities were calculated for two reporting periods 2020 (6 months) and 2021 base year. Thus, the emissions accounted for, were those of the total value for each activity that occurred in both reporting periods.

Emission Factors

Emission factors (EF) are representing the quantity of pollutants released to the atmosphere caused by a certain activity. The emission factor is usually expressed as the carbon dioxide equivalent (CO_2e) emissions generated by a unit weight, volume, distance, or duration of the activity, e.g., CO_2e /liter fuel consumed, CO_2e /km driven or CO_2e /kWh of purchased electricity etc. The emission factors were identified based on:

DEFRA

Department for
Environment, Food & Rural
Affairs UK 2020 and 2021

IPCC

Intergovernmental Panel
on Climate Change

EPA

United States
Environmental Protection
Agency

Country Specific Emission Factors

Emission factor calculated
specifically for Egypt

As regards to the country specific emission factor, the emission factor is reported monthly by Egypt Electricity Regulatory Authority (ERA). An average value is calculated for each year. The emission factor is based on Egypt's actual fuel consumption.

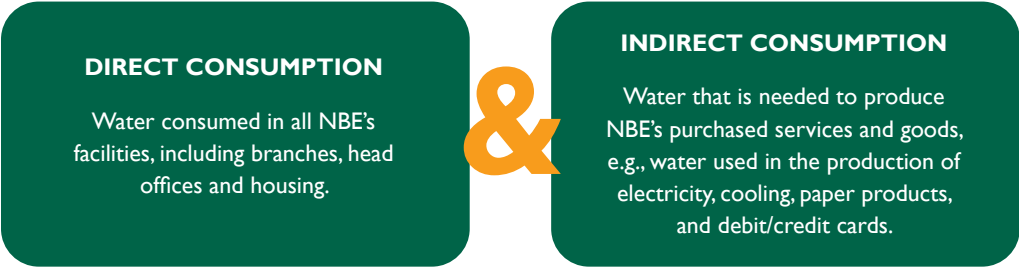
The emission factor for water supply and wastewater treatment is calculated using a conversion formula, provided by the Holding Company for Water and Wastewater (HCWW). Based on the amount of energy consumed in each process, the corresponding emission factor could be obtained.



Water Footprint

Our water footprint shows the water use throughout our business. It enables us to find out where and for what purpose the water is used in our business. The water footprint covers both the direct and indirect water consumption of our business,

where the direct water consumption is activities within NBE’s operational boundaries, whereas the indirect consumption occurs throughout the supply-chain. The activities of each of the scopes of the water footprint are as following:



The water footprint of products used in the business is calculated by conducting a Lifecycle Assessment (LCA) for the products. Through the LCA, the water uses in the complete lifecycle (raw material

extraction, manufacturing, transportation etc.) is obtained. In general, there are 3 types of water footprint, as described below:



Due to the nature of NBE’s business and activities, only blue water footprint is calculated.

Waste Footprint

NBE’s waste footprint shows the waste generated in the owned facilities that are included in the organizational boundaries. It shows the waste quantities and composition by weight for each type of waste. The waste footprint helped us identify the amount of waste generated, which is the first step towards managing those amounts and putting in place the proper system to manage it.

A waste survey was conducted for 60 branches and head offices located in different zones for office waste generated by employees and workers, and the results were analyzed and utilized as a basis for estimating the rest of the branches.

As for the shredded paper waste, recorded quantities were collected from NBE’s database.



Plastic Footprint

In order to identify the plastic use of the business, all activities of NBE have been reviewed and the plastic use of each activity assessed. The plastic footprint is reported as **macro-plastics** and **micro-plastics**, in kilograms plastics. Furthermore, the macro-plastics are specified as type of polymer.

This is conducted through collecting data from NBE’s internal data recordings, such as items, item specifications and quantities. For the macro-plastics, cards issued by the bank, waste generated in operations and plastic purchased goods have been included, where the weight of the items are multiplied by the quantities to calculate the plastic use.

Regarding micro-plastics, one of the main sources contributing to releasing micro-plastics in the environment are from the abrasion of tire tread

on road surfaces. For NBE, all transportation, e.g., internal and external courier shipment, commuting and business travels, such as air travels have been assessed.

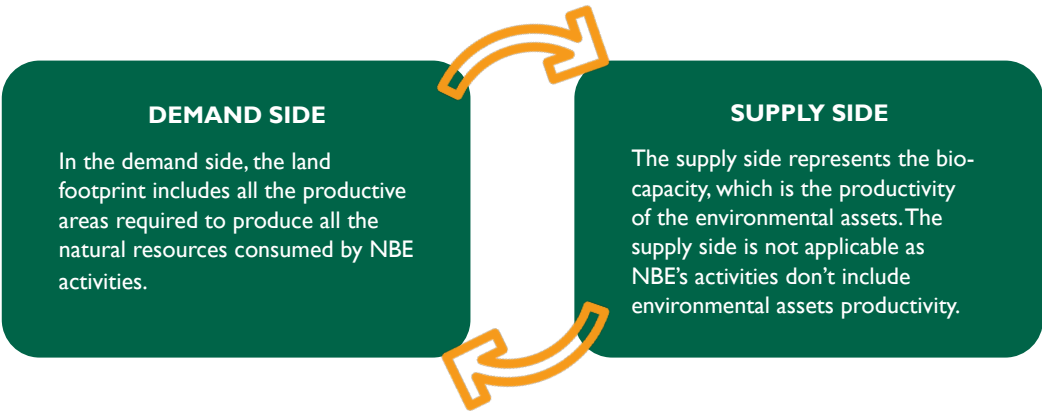
Several factors affect the tire tread abrasion rate. Key parameters that influence the loss of tire tread include characteristics of the tire design, such as tread rubber formulation and distribution of the forces in the tire-road contact area and vehicle characteristics such as weight, load distribution and location of driving wheels. Other parameters are road surface characteristics, e.g. , material, roughness, humidity, and weather conditions as well as road topology, hilly/winding or flat/straight roads and driving behavior characteristics, smooth driving, speed, braking, etc. The parameters have been assessed by the **Plastic Leak Project** for each type of vehicle, passenger cars, trucks, buses, MC

Land Footprint

A land footprint is a consumption-based indicator, i.e., it looks at the resources needed to create a final product or service by an organization. Sometimes, the land footprint is referred to as an ecological footprint.

The land footprint is expressed as the total amount of land area in global hectares used throughout an organization’s supply chain in order to carry out through the business. More precisely, it allows the

quantification of land area used to provide the needed resources. The land footprint reveals the extent of our contribution to nature: how much nature we have and how much nature we use. Since the resources are finite, the land footprint enables businesses to operate within the natural biocapacity of the earth, thus not exploiting more than can be regenerated. The land footprint is divided into two sides: demand and supply.



Equivalence Factors

A scaling factor based on the productivity that converts a type of specific land into a universal unit of biologically productive area, which is the global hectare. Equivalence factors were obtained from National Footprint Accounts (NFA).

YieldFactors (YF)

A factor that accounts for differences between countries in productivity of a given land type. Each country and each year have yield factors for cropland, grazing land, forest and fisheries. The most recent yield factors for Egypt were obtained from National Footprint Accounts (NFA).



Area Types

There are six types of land and water regions on the earth’s approximately EGP 12.2 bn biologically productive hectares. The six biocapacity area types that corresponds to the footprint’s demand categories are:

<h3>Forest Land</h3> <p>Forest land performs two functions: The forest product footprint is a metric that measures how much lumber, pulp, timber products, and fuel wood a business consumes on a yearly basis. It also includes the carbon footprint, which represents carbon dioxide emissions from fossil fuel combustion. Imported items’ embodied carbon is also included in the carbon footprint. The area required to sequester these carbon emissions represents the forest land. The quantity of forest land required to absorb these carbon dioxide emissions is computed as the carbon footprint component of the land footprint. The carbon footprint currently accounts for the majority of humanity’s footprint.</p>	<h3>Carbon Demand on Land</h3> <p>The carbon land footprint refers to the amount of land used to absorb carbon dioxide and other greenhouse gases. It’s also the only land use type for which biocapacity isn’t stated explicitly. Cropland and grassland ecosystems, for example, have the ability to store CO2 for lengthy periods of time. However, because the majority of terrestrial carbon uptake in the biosphere happens in forests, and to minimize overestimation, the environmental footprint technique assumes that carbon uptake land is forest land. As a result, it is classified as a subset of forest land.</p>
<h3>Cropland</h3> <p>Cropland is the most bio productive land use category, consisting of areas used to grow food and fiber for human use, livestock feed, oil crops, and rubber.</p>	<h3>Built-up Land</h3> <p>The area of land covered by human infrastructure, transportation, housing, and industrial structures is used to calculate the built-up land footprint.</p>
<h3>Grazing Land</h3> <p>Grazing land is used to raise livestock to produce meat, dairy, hides, and wool.</p>	<h3>Fishing Grounds</h3> <p>The maximum sustainable catch for a variety of fish species is used to estimate the fishing grounds footprint.</p>

After assessing NBE’s activities, only three categories have been included: **the carbon demand on land, the built-up land and the forest land.**

07

EFP RESULTS



CARBON FOOTPRINT RESULTS*

SCOPE I – DIRECT EMISSIONS

Emissions from sources that are owned or controlled by NBE (i.e., any owned or controlled activities that release emissions straight into the atmosphere). Scope I included stationary and mobile combustion in addition to fugitive emissions.

2020

(6 months)

57,016
mtCO₂e

2021

(Base year)

112,341
mtCO₂e

2.46
mtCO₂e/FTE

3,796
mtCO₂e/EGP bn

Total Emissions

Emission Intensity
(Scope I + 2)

Emission Intensity
(Scope I + 2)

*The results of both years cannot be compared due to having different organizational and/or operational boundaries. The year 2021 is our base year to which all future years will be referenced.

Stationary Combustion Activities

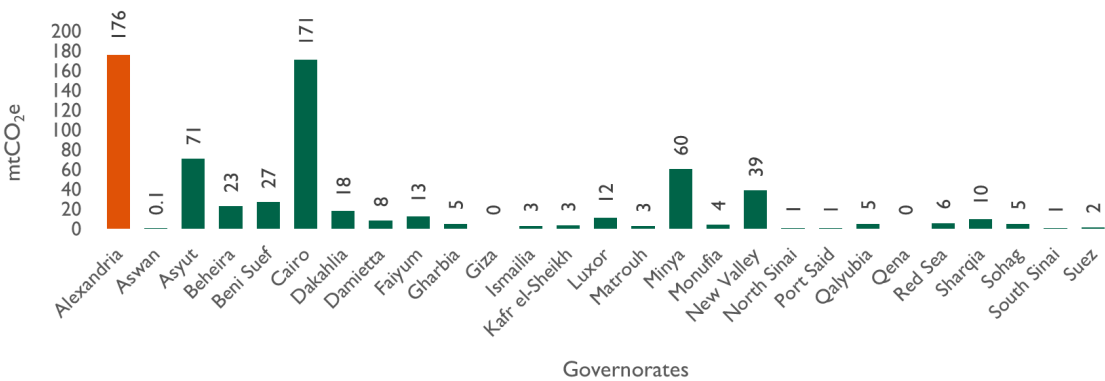


Diesel fuel burning

Emissions resulting from diesel fuel burning on site fall under scope I (direct emissions). Generators at NBE's facilities use diesel fuel to meet electrical demands in the event of a power outage.

In the reporting period of 2020 (6 months), NBE's facilities consumed **277,688 liters** of diesel which resulted in **667 mtCO₂e** of direct emissions. While in the base year 2021, the facilities consumed **485,076 liters** of diesel and resulted in **1,179 mtCO₂e**.

Diesel Fuel Burning Emissions per Zone - 2020 (6 months) - (mtCO₂e/Governorate)

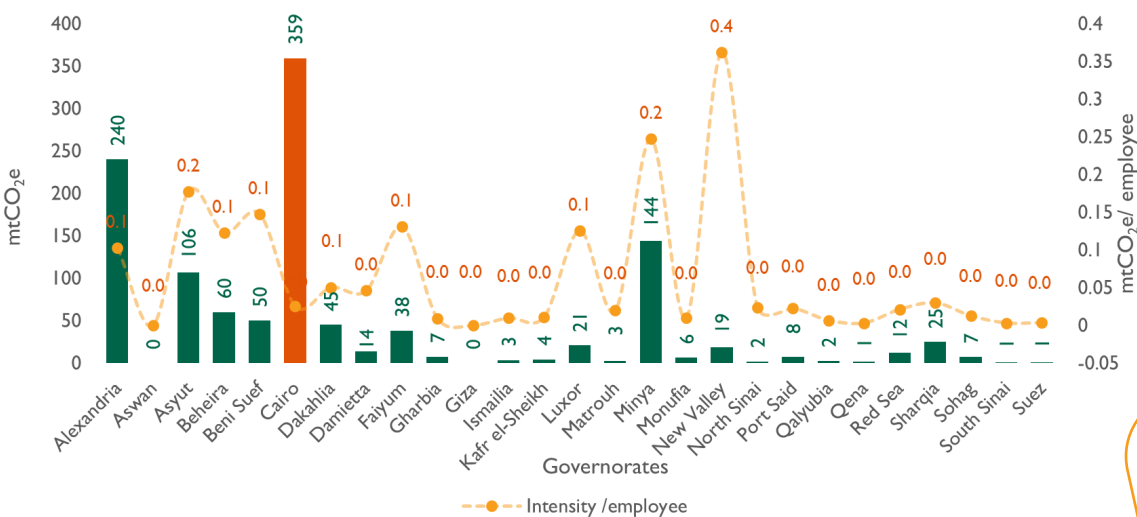


2020
(6 months)



667
mtCO₂e

Diesel Fuel Burning Emissions per Zone - 2021 (Base Year) - (mtCO₂e/Governorate)



2021
(Base year)



1,179
mtCO₂e

The highest diesel fuel burning emissions in 2021 resulted from Cairo and Alexandria governorates with emissions of 359 and 240 mtCO₂e respectively. Followed by Minya and Asyut governorates.



Natural gas fuel burning

Since it is directly used by the owner, the emissions resulting from the consumption of natural gas were accounted for under scope 1. Natural gas was mainly used in the Bank House in Nasr City and the Bank's club in Alexandria governorate. The uses of natural gas were mainly for water heating and kitchen use.

In the half year of 2020, **148,789 m³** of natural gas were burnt, resulting in **301 mtCO₂e**. While the quantities consumed in 2021 totaled **458,638 m³** and resulted in direct emissions of **927 mtCO₂e**.

2020
(6 months)



301
mtCO₂e

2021
(Base year)



927
mtCO₂e



Owned vehicles fuel burning

The emissions from the vehicles owned by NBE are included in scope 1 direct emissions. In 2021, the bank had 194 owned and operated vehicles, which covered 66,612,241 km and used 3,677,805 liters of various fuel types. These vehicles are mostly used for getting employees to and from their various workplaces. In addition to the mobile digital branches (ATM) that serve customers who live far from branches, this also includes cars, minibuses, and microbuses.

The emissions resulting from this activity are also called Tank-to-Wheel (TTW) emissions. TTW describes the use of fuel in the vehicle and emissions during driving.

For the half year of 2020, the total distance covered by these vehicles was equal to **45,605,027 km** which consumed **1,701,576 liters** of diesel and petrol. This resulted in **4,144 mtCO₂e**. While in the year 2021, the travelled distance was equal to **66,612,241 km** which consumed **3,677,805 liters** of diesel and resulted in **8,889 mtCO₂e** of direct emissions.

2020
(6 months)



4,144
mtCO₂e

2021
(Base year)



8,889
mtCO₂e



Fugitive Emissions



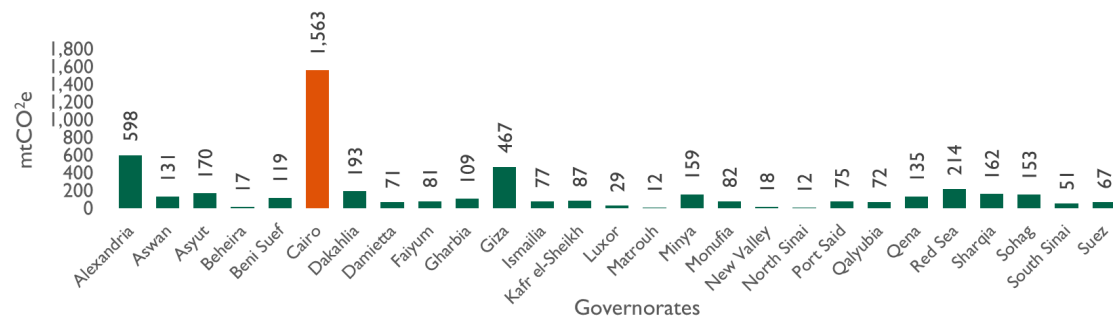
Refrigerant leakage

Refrigerants are fluids used in refrigeration cycles to cool a space. The emissions corresponding to refrigerant leakage were accounted for under scope 1.

The “R-22” refrigerant was the most common among NBE’s facilities, with only a few using the “R-410A” coolant. In the year 2020 (6 months), the

total refrigerant quantities utilized to recharge the various cooling systems were **2,831 kg**, resulting in **4,973 mtCO₂e**. However, in 2021, total quantities consumed were **5,353 kg**, resulting in direct emissions of **9,383 mtCO₂e**. With a share of 12% in scope 1 and 2, refrigerant leakage was the second most significant emitting activity.

Refrigerant Leakage Emissions per Zone - 2020 (6 months) - (mtCO₂e/Governorate)

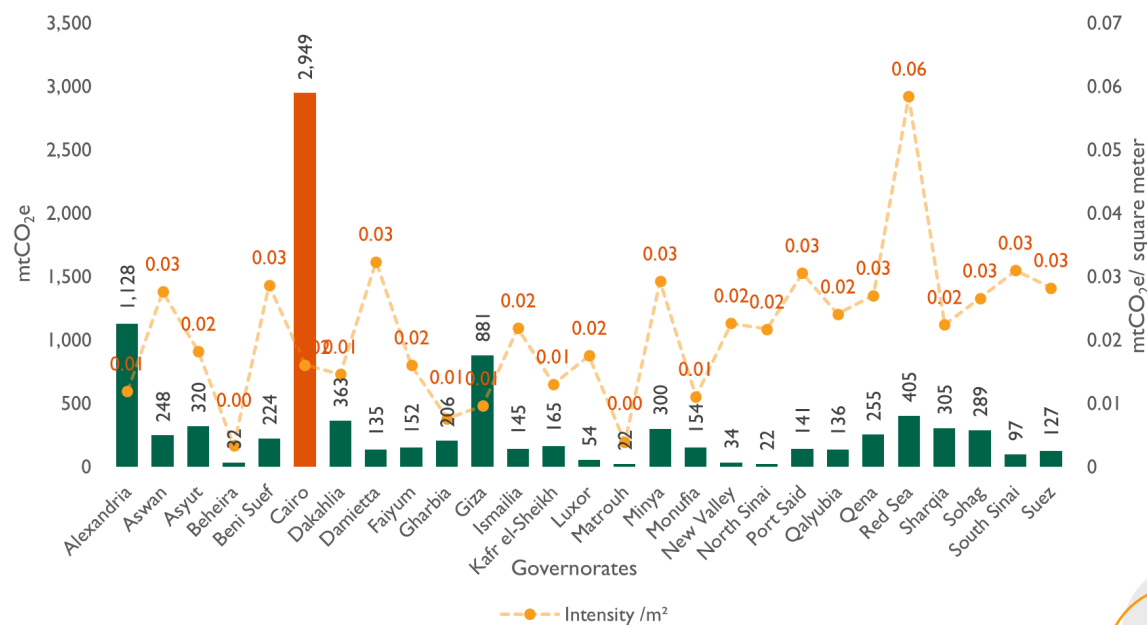


2020
(6 months)



4,973
mtCO₂e

Refrigerant Leakage Emissions per Zone - 2021 (Base Year) - (mtCO₂e/Governorate)



2021
(Base year)



9,383
mtCO₂e

With a total of 2,949 and 1,128 mtCO₂e, respectively, the governorates of Cairo and Alexandria had the highest emissions due to the usage of various refrigerants. However, the Red Sea governorate had the highest emission intensity at 0.058 mtCO₂e/square meter.



SCOPE 2 – INDIRECT EMISSIONS

Emissions are indirect GHG emissions associated with the purchase of electricity, steam, heat, or cooling. Although scope 2 emissions physically occur at the facility where they are generated, they are accounted for in an organization's GHG inventory because they are a result of the organization's

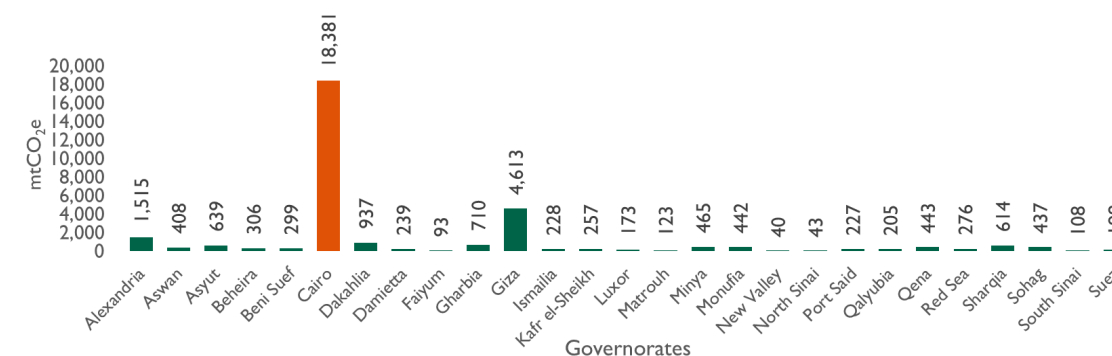


Purchased electricity

For each reporting period of 2020 (6 months) and 2021, NBE electricity consumption was **72,044,539 kWh** and **128,458,002 kWh**, respectively, resulting in **32,420 mtCO₂e** and **54,769 mtCO₂e**. This activity accounts

for largest share of the carbon footprint emissions in most businesses, and it was the largest contributor to NBE's emissions, accounting for about **57%** and **49%** of total emissions in 2020 (6 months) and 2021.

Electricity Emissions per Zone - 2020 (6 months) - (mtCO₂e/Governorate)

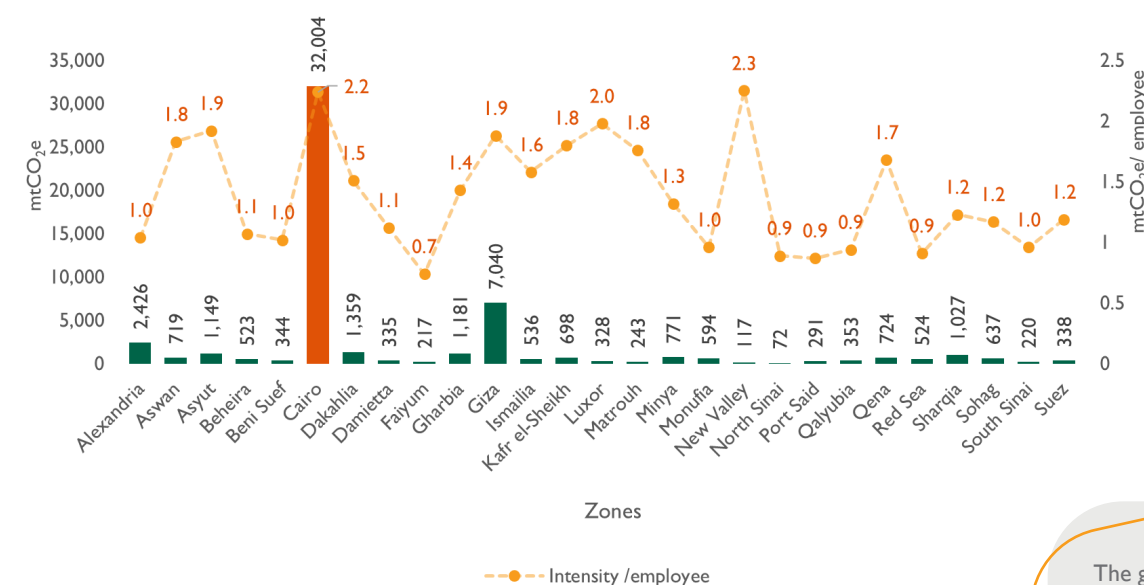


2020
(6 months)



32,420
mtCO₂e

Electricity Emissions per Zone - 2021 (Base Year) - (mtCO₂e/Governorate)



2021
(Base year)



54,769
mtCO₂e

The governorates of Cairo and Giza had the highest emissions in both years due to the concentration of corporate headquarters in these areas. However, New Valley had the greatest emissions per employee, followed by Cairo governorate, with emission intensities of **2.3** and **2.2 mtCO₂e/employee**, respectively.

SCOPE 3 – INDIRECT EMISSIONS

Scope 3 emissions are the result of activities from assets not owned or controlled by the reporting organization, but that the organization indirectly impacts in its value chain. Scope 3 emissions include all sources not within an organization’s scope 1 and 2 boundary.

Purchased Goods and Services



Office supplies

Emissions resulting from the use of the different office supplies fall under scope 3. The purchased goods included ink, copy paper, envelopes, files, cardboard archive boxes, and other hygiene and disposal items such as face masks, paper

cups, and plastic bags.

The purchased goods generated **1,473 mtCO₂e** in the reporting period of 2020 (6 months), compared to **3,409 mtCO₂e** in the base year 2021.



Fuel and Energy-Related Activities (Not Included in Scope 1 and 2)

The boundaries of this activity included Well-to-tank emissions associated with the indirect fuel burning as well as water usage and wastewater treatment activities.

Well-to-Tank (WTT) emissions

NBE accounted for WTT emissions in order to capture the maximum climate impacts from fuel burning activities. Emissions related to fuel burning WTT fall under scope 3 are as follows:



1. For the reporting periods of 2020 (6 months) and 2021, WTT emissions from **NBE-owned vehicles** were 1,032 and 2,234 mtCO₂e, respectively, with the highest emissions in this category.

2020
(6 months)



1,032
mtCO₂e

2021
(Base year)



2,234
mtCO₂e



2. For both reporting periods, WTT resulting emissions from **diesel** usage were 168 and 297 mtCO₂e, respectively.

2020
(6 months)



168
mtCO₂e

2021
(Base year)



297
mtCO₂e



3. And finally, the WTT emissions related to the consumption of **natural gas** were equal to 39 and 159 mtCO₂e, respectively.

2020
(6 months)



39
mtCO₂e

2021
(Base year)



159
mtCO₂e



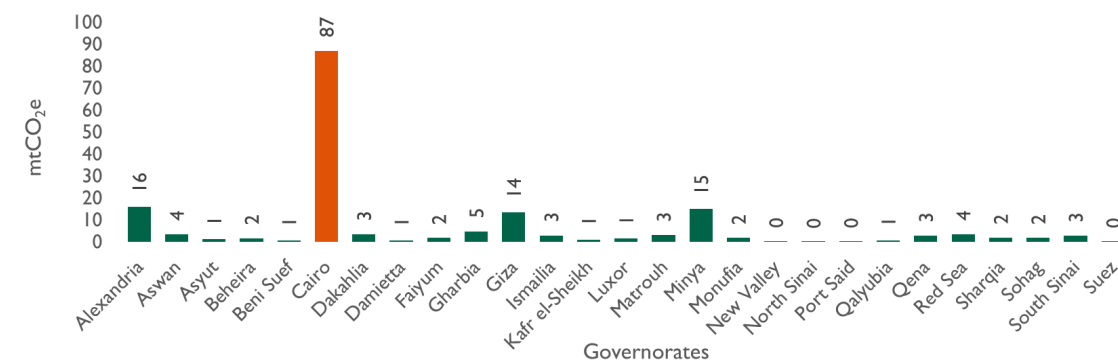


Water usage & wastewater treatment

Scope 3 includes water consumption and wastewater treatment emissions. In the reporting period of 2020 (6 months), NBE's facilities consumed **925,699 m³** of water, resulting in **146 mtCO₂e** for water consumption and

27 mtCO₂e for wastewater treatment. The overall water consumption in the base year 2021 was equal to **1,764,495 m³** which resulted in **263 mtCO₂e** for water consumption and **50 mtCO₂e** for wastewater treatment.

Water Consumption & Wastewater Treatment Emissions per Zone - 2020 (6 months) - (mtCO₂e/Governorate)

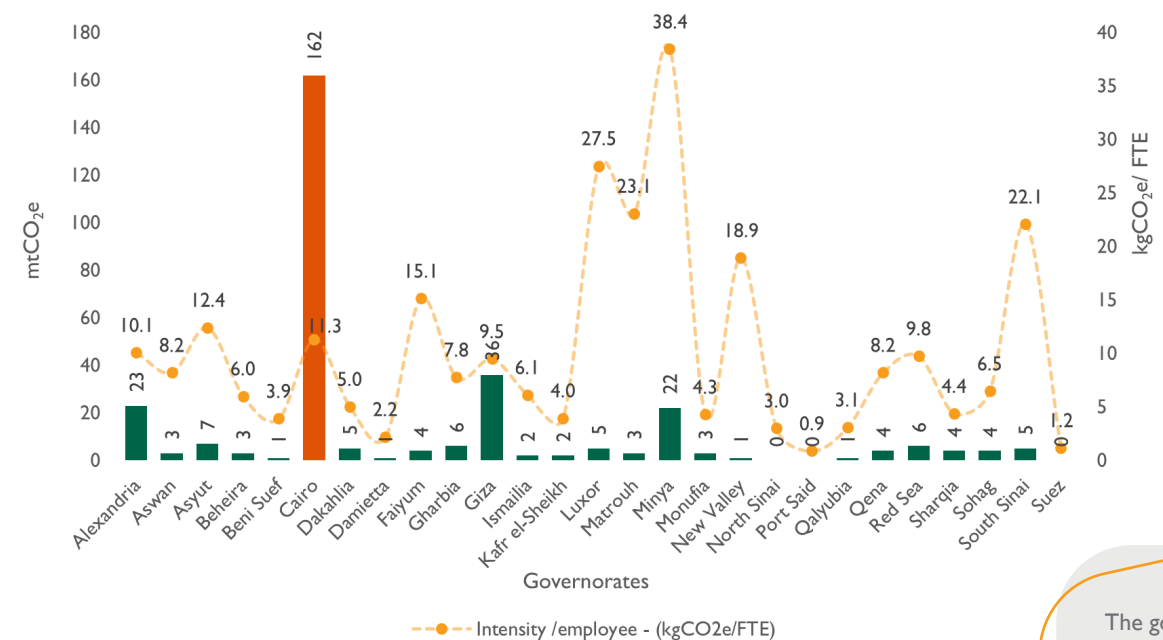


2020
(6 months)



173
mtCO₂e

Water Consumption & Wastewater Treatment Emissions per Zone - 2021 (Base Year) - (mtCO₂e/Governorate)



2021
(Base year)



313
mtCO₂e

The governorate of Cairo had the highest emissions in both years due to the concentration of office buildings. However, with emission intensities of 38.4 and 27.5 kgCO₂e/employee, Minya governorate had the highest emissions per employee, followed by Luxor governorate.

Upstream Transportation and Distribution



Internal courier shipment

Various vehicles were employed to transfer bank-related documents from and to owned facilities. Cars, vans, and motorbikes were all included. This activity was carried out by a third party; thus, the associated emissions fall under scope 3.

In 2021 (BY), overall fuel consumption was **232,656 liters** which resulted in **754 mtCO₂e**.



Shredded paper waste

In the reporting period of 2020 (6 months), the total weight of shredded paper was **365 tons**. The total amount of shredded paper in the base year was **881 tons**. The shredded paper was all sent to recycling facilities, resulting in emissions of **8** and **19 mtCO₂e**, respectively. Among all the activities that fall under the three scopes, this activity had the lowest share of emissions.



Waste Generated in Operations

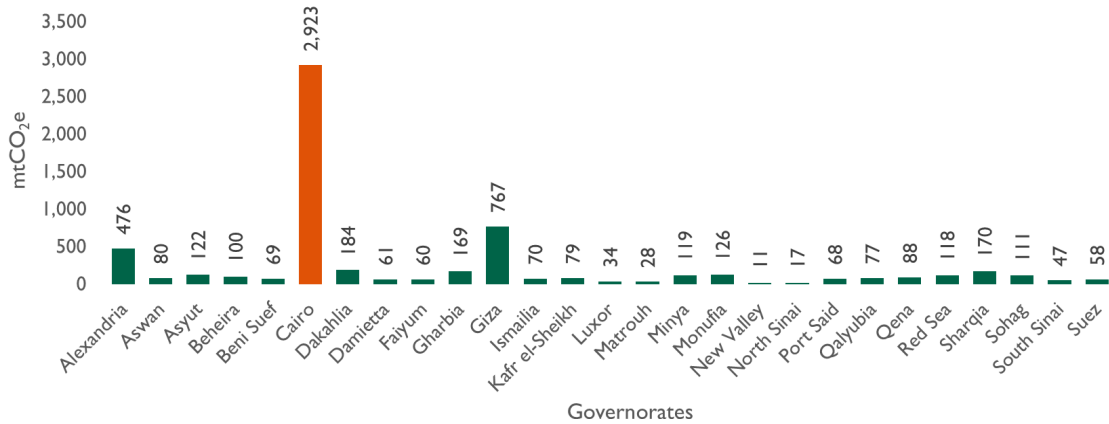


Office solid waste disposal

NBE's facilities generated about **6,664 tons** of office waste in the reporting period of 2021. This quantity resulted in **6,233 mtCO₂e**.



Office Waste Disposal Emissions per Zone - 2021 (Base Year) - (mtCO₂e/Governorate)



With a value of 2,923 mtCO₂e, Cairo governorate had the highest emissions from office waste disposal, followed by Giza governorate with an estimated value of 767 mtCO₂e. This is due to the high concentration of employees and branches in these two zones.



Business Travel



Air travel + (WTT)

Because of COVID-19, NBE only had domestic flights in 2020. The total kilometers travelled by all passengers were **185,222 p.km**, resulting in **37 mtCO₂e**. International as well as domestic flights took place in the base year of 2021. In the base year, total passenger kilometers for domestic and international flights totaled **1,004,884 p.km**, resulting in **205 mtCO₂e**. WTT emissions were taken into account in order to capture the maximum impacts of air travel.

2020
(6 months)



37
mtCO₂e

2021
(Base year)



205
mtCO₂e

Employee Commuting + WTT



A sample of around 3,000 employees has been used to estimate the distances travelled for commuting. For the sample, coordinates of the employees' addresses and the branches they are working at are gathered, wherefrom the commuting distances have been estimated. The samples were then utilized to create a commuting profile to estimate the commuting of all of NBE's employees, as shares of employees and the corresponding distance travelled.

Accordingly, the average distance travelled by an employee was about 5,950 km per year. The total distance travelled by employees to and from their individual workplaces during the reporting period of 2020 (6 months) was **80,708,664 kilometers**. Including WTT emissions, this distance resulted in **9,845 mtCO₂e**. The total distance travelled in 2021 (BY) was estimated to be **157,877,475 km**, resulting in **19,215 mtCO₂e**.



Hotel stays

The total number of nights spent in different hotels in ten countries around the world was 750, resulting in 40 mtCO₂e in the base year (2021).

2021
(Base year)



40
mtCO₂e

2020
(6 months)



9,845
mtCO₂e

2021
(Base year)



19,215
mtCO₂e



Downstream Transportation

This category includes emissions that occur in the reporting year from transportation and distribution of sold products in vehicles and facilities not owned or controlled by the reporting company



External courier shipment

Two service providers were hired to handle the delivery of cards in addition to other banks' sold products to the end-user (Clients). The overall distance travelled in the reporting period 2020 (6 months) was **69,651 km**, resulting in **19 mtCO₂e**. In the base year of 2021, the total distance travelled was **139,302 km**, resulting in emissions of **38 mtCO₂e**. WTT emissions were also taken into account. This is the second lowest emitting activity.

2020
(6 months)



19
mtCO₂e

2021
(Base year)



38
mtCO₂e

Processing of Sold Products



Bank issued cards

The total number of cards issued in the reporting period of 2020 (6 months), including all types of NBE issued cards, was **4,442,784 cards**, resulting in **402 mtCO₂e**. The total number of cards issued in 2021- BY was **8,622,916** and the associated emissions were **779 mtCO₂e**.

2020
(6 months)



402
mtCO₂e

2021
(Base year)



779
mtCO₂e

Downstream Leased Assets

This category includes emissions from the operation of assets that are owned by the reporting company and leased to other entities in the reporting year that are not already included in scope 1 or scope 2. This included the ATM transactions of the machines which are not located in a branch.



ATM transactions

This category includes all ATM transaction-related emissions. ATM machines located outside of NBE's owned facilities consume electricity for each transaction which are not accounted for under scope 2 emissions. The emissions resulting from the use of ATM machines fall under scope 3.

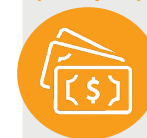
The total number of transactions from **4,906 ATMs** in the reporting period of 2020 (6 months), was **203,729,010** with a total of **1,315 mtCO₂e** emitted. The total ATM transactions in 2021 were **393,689,815** from **5,345 ATMs**. The corresponding emissions totaled **3,499 mtCO₂e**.

2020
(6 months)



1,315
mtCO₂e

2021
(Base year)



3,499
mtCO₂e

AVOIDED EMISSIONS

Avoided emissions are emissions that are avoided by performing a procedure effectively but would have been produced if done differently. Considered avoided emissions, for instance, are those that result from the use of renewable energy sources.



Renewable energy carbon offsets

Installed PV instead of purchased electricity: When compared to utilizing the purchased electricity, 28 NBE branches used PV solar panels, resulting in fewer emissions being released into the atmosphere. For each reporting period, total avoided emissions were **1,433 mtCO₂e** and **3,505 mtCO₂e**, respectively.

2020
(6 months)



1,433
mtCO₂e

2021
(Base year)



3,505
mtCO₂e

CARBON FOOTPRINT GHG EMISSIONS SUMMARY

SCOPE 1 – DIRECT EMISSIONS (mtCO ₂ e)		2020 (6 months)	2021 (BY)	
Stationary combustion	Fuel burning – diesel	667	18%	1,179
	Fuel burning – natural gas	301		927
Mobile combustion	Fuel burning – owned vehicles	4,144	18%	8,889
Fugitive emissions	Refrigerant leakage	4,973		9,383
Total Scope 1 (mtCO₂e)		10,085		20,379

SCOPE 2 – INDIRECT EMISSIONS (mtCO ₂ e)		2020 (6 months)	2021 (BY)	
Electricity	Purchased electricity	32,420	57%	54,769
Total Scope 2 (mtCO₂e)		32,420		54,769

Total Scope 1 & 2 Emissions (mtCO₂e)	42,505	mtCO ₂ e	75,147	mtCO ₂ e
Scope 1 & 2 Carbon Intensity (mtCO₂e/employee)	-	-	2.46	mtCO ₂ e/ employee
Scope 1 & 2 Carbon Intensity (mtCO₂e/EGP.bn)	-	-	3,796	mtCO ₂ e/ EGP.bn

SCOPE 3 – INDIRECT EMISSIONS (mtCO ₂ e)		2020 (6 months)	2021 (BY)	
Purchased goods and services	Office supplies	1,473	25%	3,409
	Fuel and energy-related activities (not included in scope 1 and 2)	1,032		2,234
	Fuel burning – diesel (WTT)	168		297
	Fuel burning – natural gas (WTT)	39		159
Upstream transportation and distribution	Water usage & wastewater treatment	173	33%	313
	Internal courier shipment	N/A		754
	Office solid waste disposal	N/A		6,233
Waste generated in operations	Shredded paper waste	8	25%	19
	Air travel + (WTT)	37		205
Business travel	Hotel stays	0	33%	40
	Commuting + (WTT)	9,845		19,215
Employee commuting	External courier shipment	19	25%	38
Downstream transportation	Bank issued cards	402		779
Processing of sold products	ATM transactions	1,315	33%	3,499
Downstream leased assets				
Total Scope 3 (mtCO₂e)		14,512		37,194

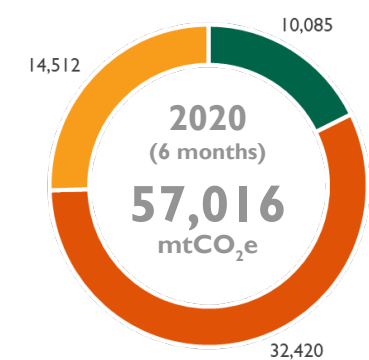
Total Scope 1, 2 & 3 Emissions (mtCO₂e)	57,016	mtCO ₂ e	112,341	mtCO ₂ e
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AVOIDED EMISSIONS (mtCO ₂ e)		2020 (6 months)	2021	
Renewable energy carbon offsets	Installed PV instead of purchased electricity	1,433	mtCO ₂ e	3,505
			mtCO ₂ e	



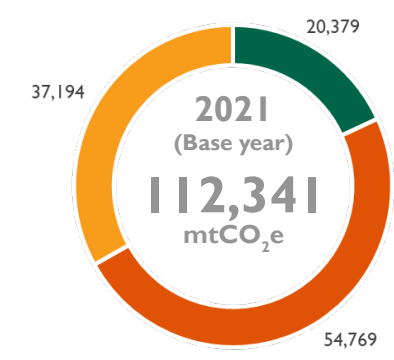
Electricity consumption (scope 2 – Indirect emissions) had the highest emissions in both reporting periods, with percentages of 57% and 49%, respectively. While direct emissions (scope 1) accounted for 18% of total emissions in both years.

2020 (6 months) Absolute
Emissions per Scope (mtCO₂e)



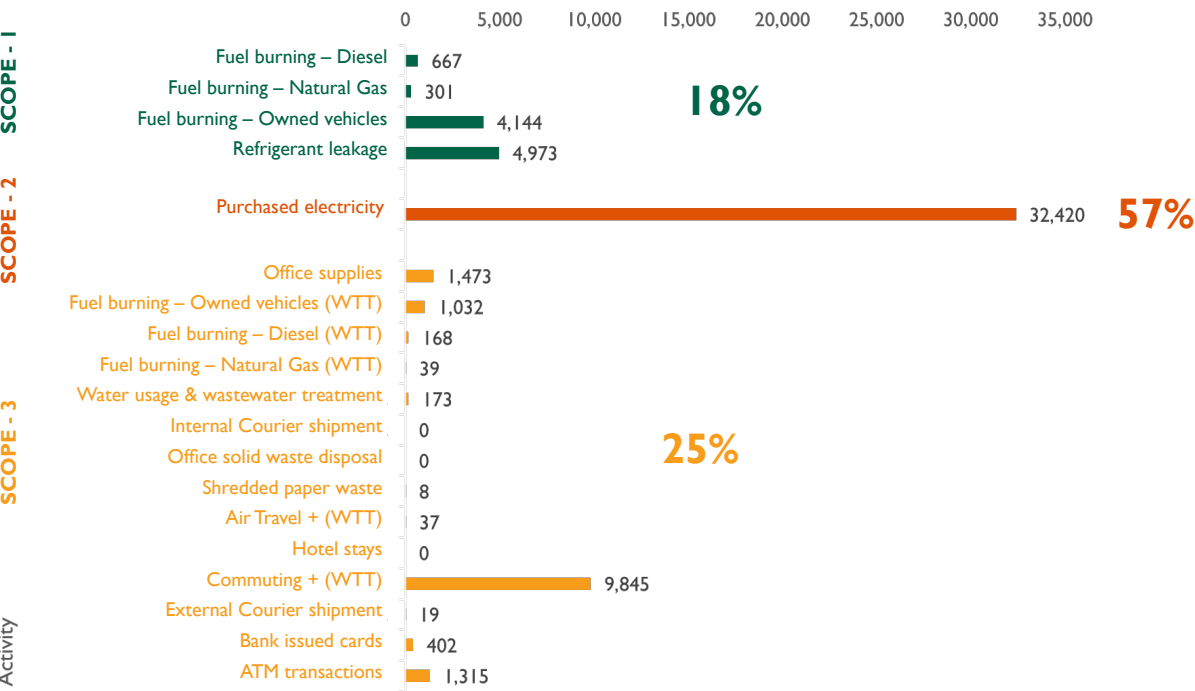
■ Scope 1 ■ Scope 2 ■ Scope 3

2021 (base year) Absolute
Emissions per Scope (mtCO₂e)

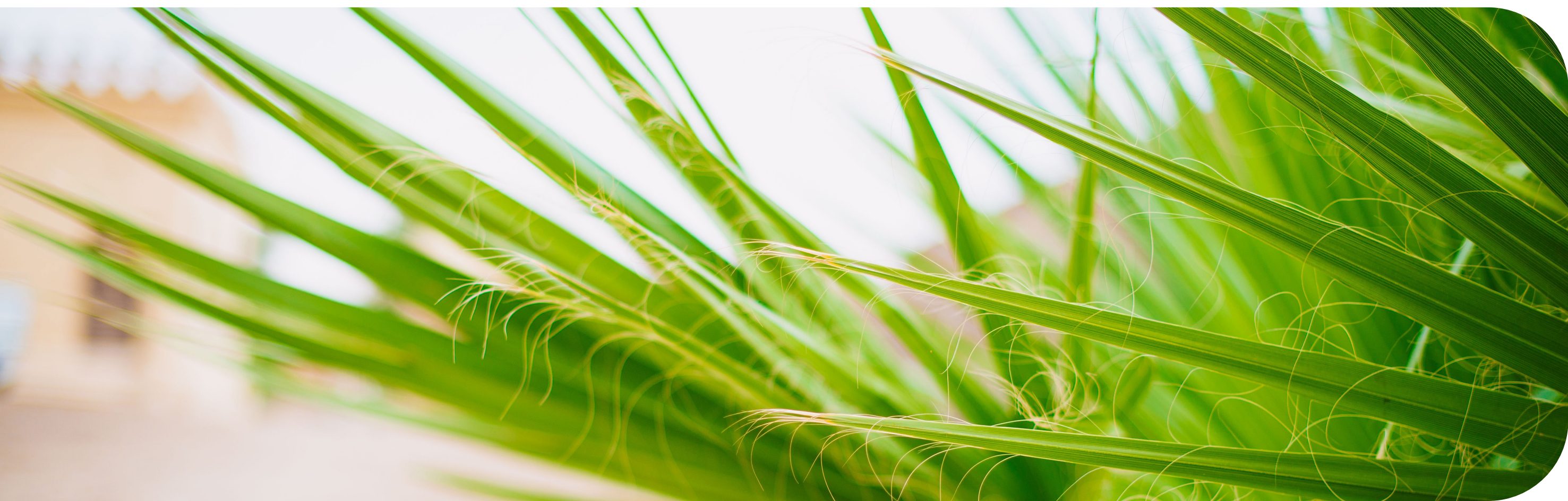
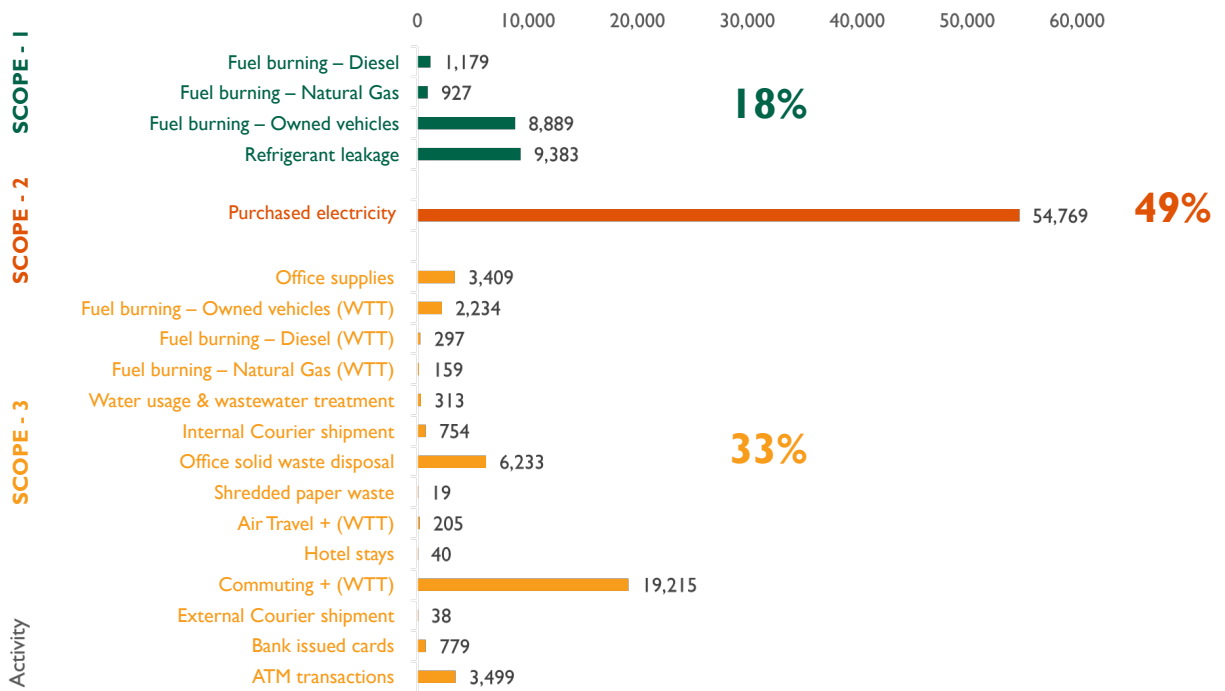


■ Scope 1 ■ Scope 2 ■ Scope 3

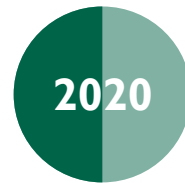
2020 (6 months) Absolute Emissions per Activity (mtCO₂e)



2021 (Base year) Absolute Emissions per Activity (mtCO₂e)



WATER FOOTPRINT RESULTS*



(6 months)



(Base year)

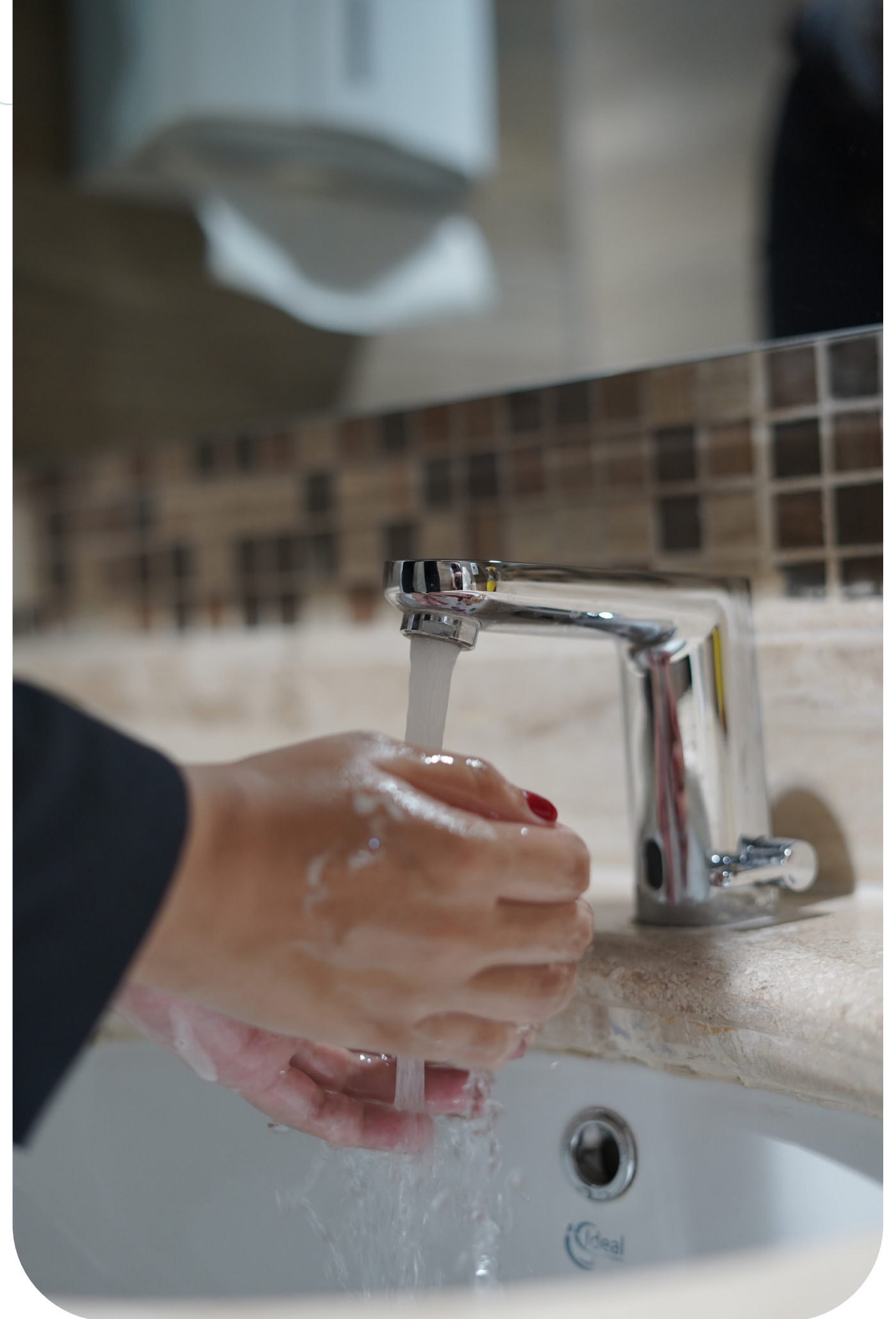
2,045,782
m³**4,238,393**
m³

Total Consumption

139.03
m³/FTE

WFP Intensity

*The results of both years cannot be compared due to having different organizational and/or operational boundaries. The year 2021 is our base year to which all future years will be referenced.



Direct Water Consumption



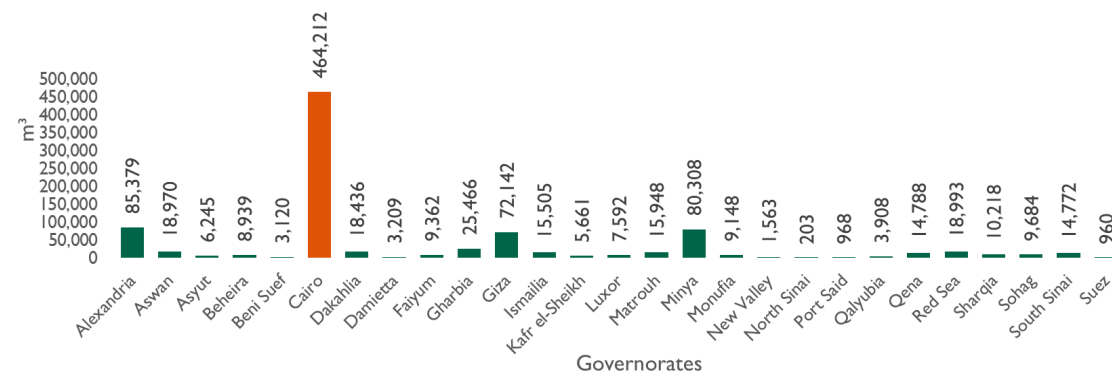
Water consumption

The database was used to obtain the direct water use in NBE-owned buildings. This showed the amount of water consumed directly during the facility's operation. The total quantity of water consumed was equal to **925,699 m³** in the reporting period of 2020 (6 months). As for the base year 2021, the quantities have reached **1,764,495 m³**.

DIRECT CONSUMPTION

Water consumed in NBE's buildings including offices, canteens, cleaning, or gardening activities.

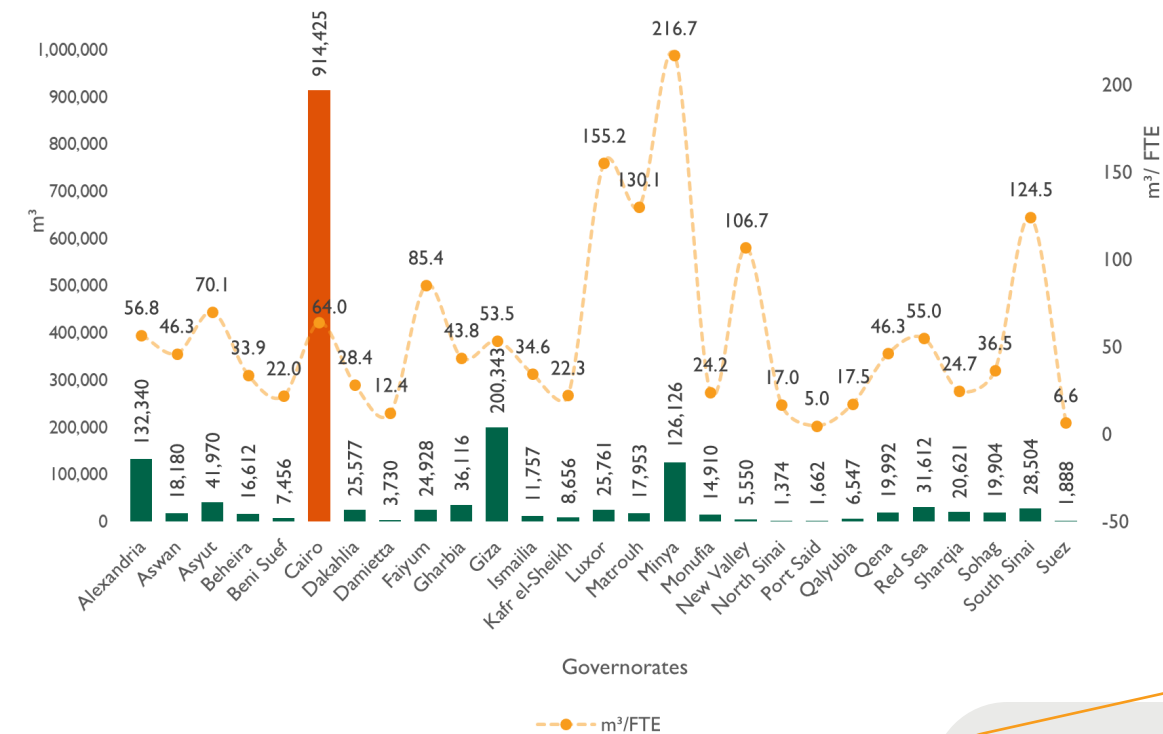
Direct Water Consumption - 2020 (6 months) - (m³/Governorate)



2020
(6 months)

925,699
m³

Direct Water Consumption - 2021 (Base Year) - (m³/Governorate)



2021
(Base year)

1,764,495
m³

With a total amount of **914,425 m³**, Cairo was the largest water consuming governorate, accounting for more than half of the entire consumption, due to the concentration of corporate headquarters in the capital city, followed by the governorate of Giza with a total quantity of **200,343 m³**. Minya governorate, on the other hand, had the highest water consumption per employee, with **216 m³/FTE** per year.



Indirect Water Consumption

INDIRECT CONSUMPTION

Water used in the production of electricity, cooling, office supplies, and debit/credit cards issued by NBE



Processing of sold products – Bank issued cards

NBE's issued cards consumed an amount of water during its fabrication process. The amount of water consumed to manufacture these cards in the reporting period of 2020 (6 months) was equal to **5,465 m³**. As for the BY the amount of water was equal to **10,606 m³**.

2020
(6 months)



5,465
m³

2021
(Base year)



10,606
m³



Purchased electricity

The electricity consumption counts as indirect water use. Water footprint network studies were used to calculate the quantity of water used to generate 1 kWh of electricity in a mixed energy system. In the reporting period of 2020 (6 months), the indirect water footprint resulting from the production of electricity was **1,099,946 m³**. In the base year of 2021, water consumption was **1,961,244 m³**.

2020
(6 months)



1,099,946
m³

2021
(Base year)



1,961,244
m³



Purchased goods – Paper consumption

The amount of water used to manufacture various types of paper goods, such as printing paper, envelopes, and notebooks, is referred to as indirect water consumption. The indirect water used was equal to **14,671 m³** in the reporting period of the year 2020 (6 months). As for the base year 2021, the water consumed was equal to **502,048 m³**.

2020
(6 months)



14,671
m³

2021
(Base year)



502,048
m³

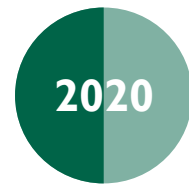
WATER FOOTPRINT SUMMARY 2020 (6 months) and 2021 (Base year)

DIRECT WATER CONSUMPTION – m³		2020 (6 months)		2021 (BY)	
Water consumption	Branches water consumption	925,699	45%	1,764,495	41%
Total direct water consumption – m³		925,699		1,764,495	

INDIRECT WATER CONSUMPTION – m³		2020 (6 months)		2021 (BY)	
Purchased Electricity	Electricity consumption	1,099,946		1,961,244	
Purchased goods and services	Office supplies (Paper Consumption)	14,671	55%	502,048	59%
Processing of sold products	Bank issued cards	5,465		10,606	
Total indirect water consumption – m³		1,120,083		2,473,898	

Total water footprint – m³	2,045,782	m³	4,238,393	m³
Water footprint Intensity – m³/FTE	N/A	-	139.03	m³/FTE

WASTE FOOTPRINT RESULTS*



(6 months)



(Base year)

365
tons

7,545
tons

**Total Waste
Disposed**
0.24
tons/FTE

**Waste FP
Intensity**

*The results of both years cannot be compared due to having different organizational and/or operational boundaries. The year 2021 is our base year to which all future years will be referenced.



Office Waste



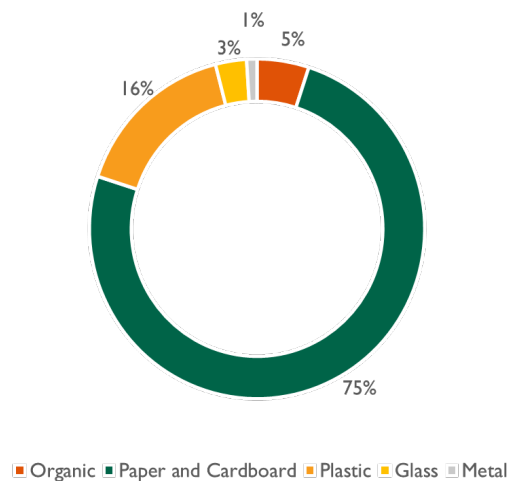
For the included organizational boundaries, the total amount of waste generated in the base year 2021 was around **6,664 tons** of waste. This amount was estimated based on the waste survey that was conducted for 60 branches and head office.

Due to the unavailability of data, the British standard assisted in determining the waste types, volumes and corresponding weight for each type of waste generated.

The share of paper and cardboard share in the total volume of waste generated is up to 75%. However, organic waste share represents only 5% of the total volume of waste generated.

The weight of each type of waste generated is as follows:

Waste Composition by Volume - %

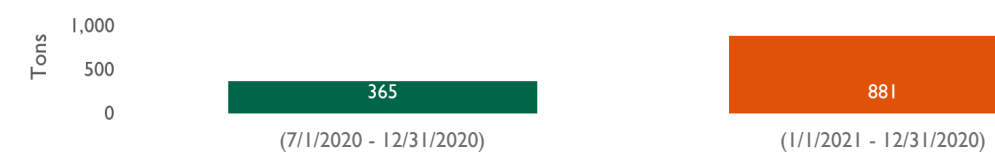


Shredded Paper Waste

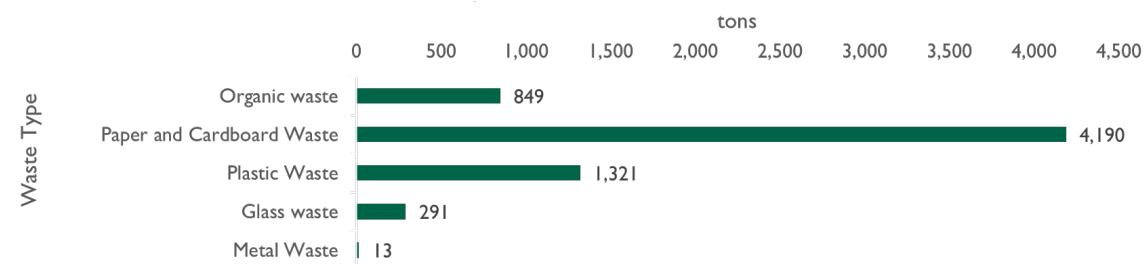


The total amounts of shredded paper were retrieved from NBE's database. These quantities are recorded as all the shredded paper waste is collected and goes to recycling facilities. The total quantities were 365 tons for the period of July 1, 2020 to December 31, 2020 and 881 tons for the base year 2021.

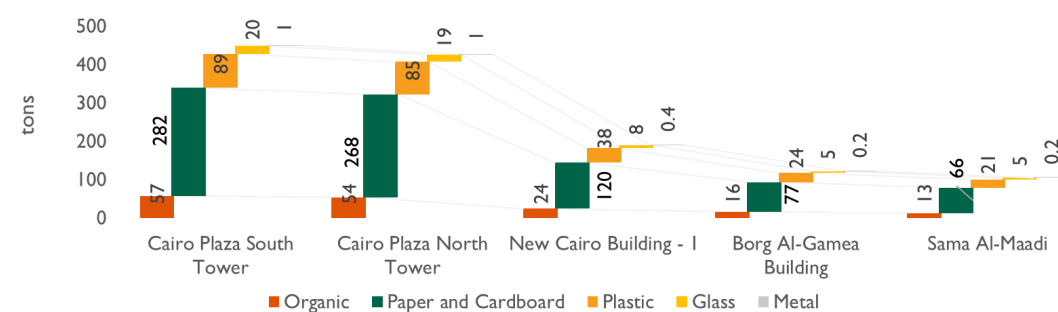
Shredded Paper Waste Quantities (Tons)



Generated Waste Quantities for the Base Year 2021



Top 5 Waste Generating Branches/Head Offices



PLASTIC FOOTPRINT RESULTS*



55,399
kg



1,424,674
kg

Total Plastic
Used

46.73
kg/FTE

Plastic FP
Intensity

*The results of both years cannot be compared due to having different organizational and/or operational boundaries. The year 2021 is our base year to which all future years will be referenced.

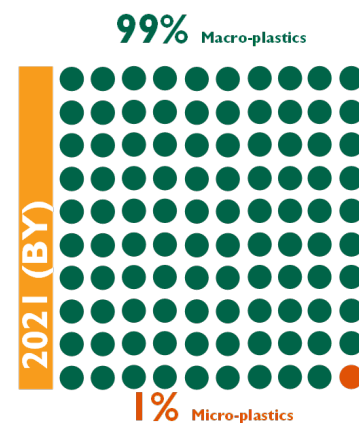


NBE has chosen to conduct an environmental footprint assessment, also covering the plastic footprint of the business as plastic pollution is one of the main pressing environmental issues with accumulated plastics in the environment, affecting our ecosystems.

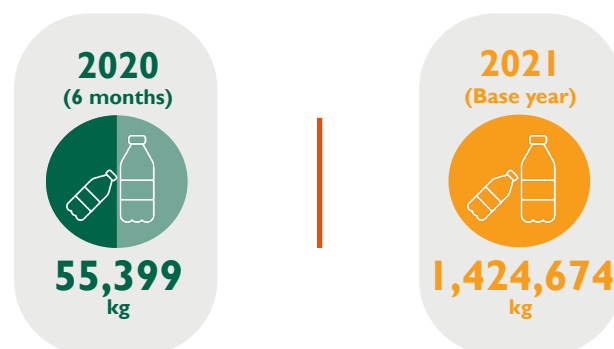
The plastic footprint is separated in macro- and micro-plastics, where the macro-plastics are visible plastics in various products such as plastic bank cards and office supplies, while micro-plastics are invisible particles caused by example the tire abrasion of road transportation. The macro- and micro-plastics released into the environment cause health and environmental impacts, e.g. by air pollution and affecting the ecosystems, and are therefore of urgent need to be dealt with and mitigated. NBE is one of the first banks in Egypt and MENA to conduct such an assessment, with the aim to significantly reduce its environmental impacts regarding plastics.

Below the plastic footprint of NBE is presented as kg plastics. In 2020, macro-plastics are accounting for 94% of the plastic use and 99% in 2021. The largest contribution is from office solid waste disposal, 93% of the plastic use in 2021, followed by the bank cards issued as 4% of the plastic footprint.

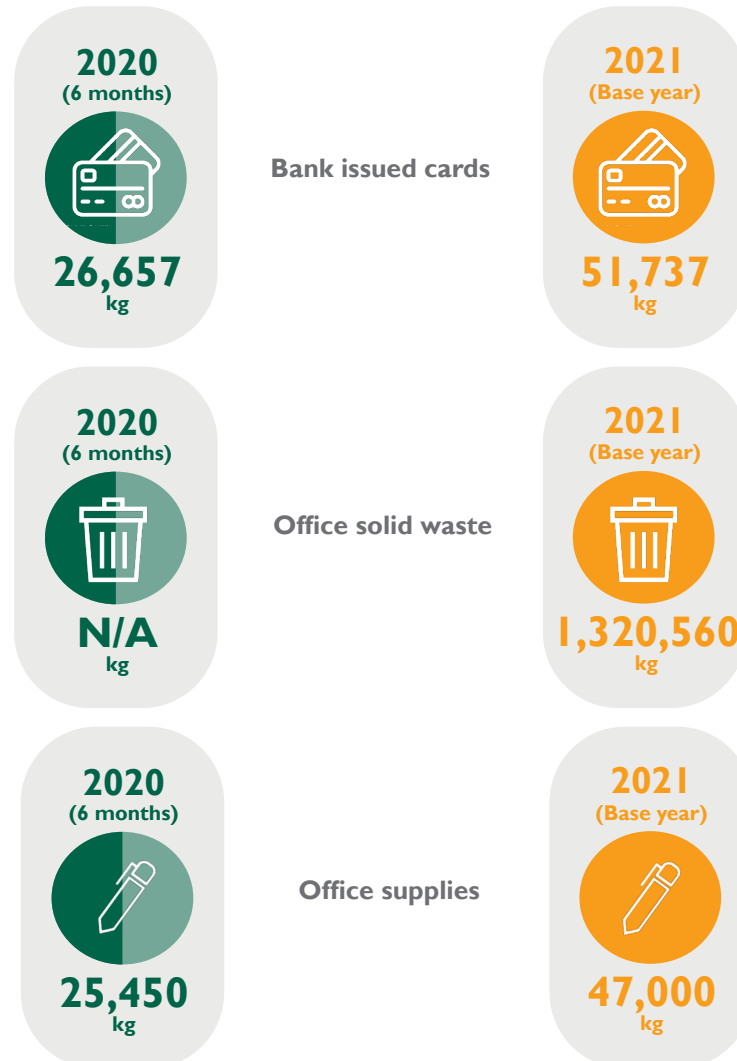
The macro-plastics use amounted to more than **55 tons** in 2020 and about **1,425 tons** in 2021. Micro-plastic releases are invisible particles caused by tire abrasion of road transportation. All transportations included in NBE's operational boundaries have been covered in the releases of micro-plastics, where the distance travelled was around 110 t.km in 2020 and 195 t.km in 2021. The air travel is also included in the releases of micro-plastics in terms of the tires used during take-off and landing. The total micro-plastics releases were **3,292 kg** in 2020 and **5,377 kg** in 2021, including transportation by air travel.



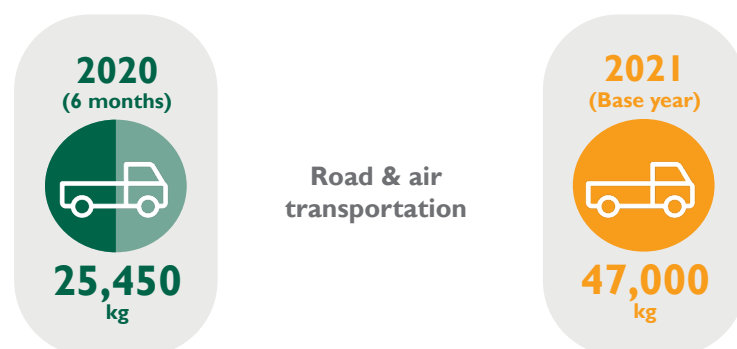
Total Plastic Footprint (kg)



Micro-Plastics



Macro-Plastics



NBE's use of macro-plastics are divided into different polymers: Polypropylene (PP), Polyvinyl Chloride (PVC), Polyethylene terephthalate (PET) and Low-Density Polyethylene (LDPE). The bank cards of NBE are made of PVC, while PP is used in the hygiene disposable items like face masks. The office solid waste disposal by employees and visitors are including plastic waste such as water bottles, plastic containers of food and beverages, packaging, etc., made of PET, LDPE and PP. As a step in reducing the plastic use and impacts, NBE has chosen to replace the conventional plastic bags with bags made of bio-based polypropylene plastics. The single-use plastics cups have also been replaced by cardboard and glass cups in the efforts to reduce the pollutions and increase circularity.

The polymers have varying environmental impacts, for example PVC is usually known as one of the plastics with the highest impacts for human health and the environment, largely due to its production process. The contribution to global warming of the different polymers is also varying, with its energy consumption in the processes and GHG emissions. Depending on the disposal of the polymers, the impacts are also varying. In this assessment, the use of plastics in NBE's business has been quantified and separated into type of polymer, where the table below is showing the polymer of the plastic use of macro-plastics. The largest contribution is from the mix of PET, LDPE and PP from office solid waste disposal, followed by PVC of bank cards issued by NBE.

Plastic Use per Polymer of Macro-Plastics	2020 - 6 months (kg)	2021 Base Year (kg)
PP	25,450	47,000
PP bio-based	23,000	9,500
PVC	26,657	51,737
MIX/UNSPECIFIED (PET/LDPE/PP)	-	1,320,560
TOTAL	52,107	1,419,297

Where Does the Plastic Use Occur Along the Value Chain?

The main plastic use is at NBE's facilities due to office solid waste disposal, followed by bank cards issued and purchased goods and services. This emphasizes the need of a waste management plan with recycling and circular solutions for the plastic use of NBE. Regarding the bank cards

issued, accounting for over 26 tons of plastic in 2020 and 51 tons in 2021, the cards are still in use by the consumers. However, once these are disposed, there is no retaking of these cards by the bank, and it is up to each consumer to dispose the plastic cards.



Country Perspective. Where Does the Plastic Use Occur?

NBE's business has been assessed in Egypt and hence, all the plastic use is occurring locally.

Further analysis of all plastic streams along the value chain and throughout the business will be conducted in the upcoming years, in order to collect reliable data. Out of this, NBE will be able to set targets and an action plan to reduce its plastic use and its impacts as part of NBE's climate actions and work towards a sustainable and plastic-free environment.



PLASTIC FOOTPRINT SUMMARY 2020 (6 months) and 2021 (Base Year)

MACRO-PLASTICS - kg		2020 (6 months)		2021 (BY)	
Processing of sold products	Bank issued cards	26,657		51,737	
Waste generated in operations	Office solid waste disposal	N/A	94%	1,320,560	99%
Purchased goods and services	Office supplies	25,450		47,000	
Total macro-plastics (kg)		52,107		1,419,297	

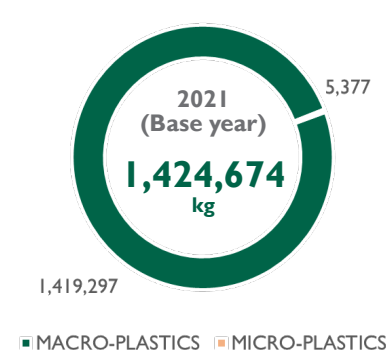
MICRO-PLASTICS - kgt		2020 (6 months)		2021 (BY)	
Road Transportation	External courier shipment	4		7	
	Internal courier shipment	N/A		93	
	Commuting	956	6%	1,870	1%
	Owned vehicles	2,331		3,405	
Air transportation	Air travel	0.5		2	
Total micro-plastics (kg)		3,292		5,377	

Total plastic footprint – kg	55,399	kg	1,424,674	kg
Plastic footprint intensity – kg/FTE	N/A	-	46.73	kg/FTE

2020 (6 months)
Plastic Footprint (kg)



2021 (Base year)
Plastic Footprint (kg)



LAND FOOTPRINT RESULTS*



(6 months)



(Base year)

15,873
Gha

29,660
Gha

Total Land FP

0.97
Gha/FTE

Land FP Intensity

*The results of both years cannot be compared for the reason of having different organizational and/or operational boundaries. The year 2021 is our base year to which all future years will be referenced.

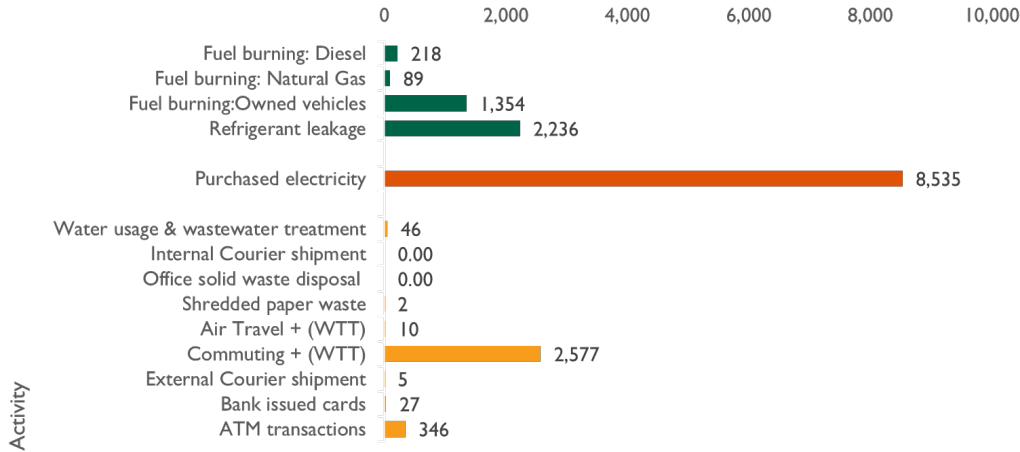


Carbon Demand on Land

The carbon demand on land is calculated by converting CO₂ emissions from all NBE operations into hectares of land. Other GHG emissions are not included; only CO₂ is. Simply said, it indicates how much land NBE needs to function with this amount of natural resources.

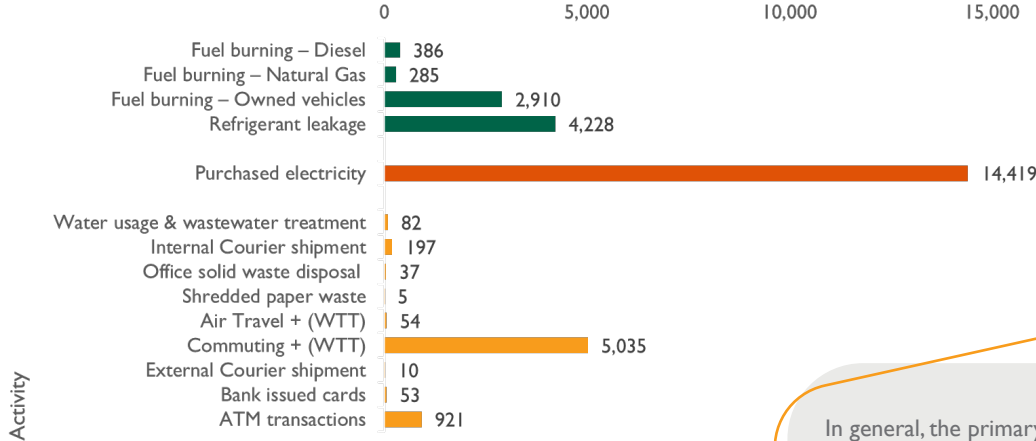
The carbon demand varies for the different activities. From the previous graphs we can conclude that the highest impact is from fuel combustion activities followed by the refrigerant leakage. Fuel is utilized in the purchased electricity, on-site fuel burning and the transportation.

Carbon Demand on Land - 2020 (6 months) - (Gha/Activity)



2020
(6 months)
15,447
Gha

Carbon Demand on Land - 2021 (Base Year) - (Gha/Activity)



2021
(Base year)
28,623
Gha

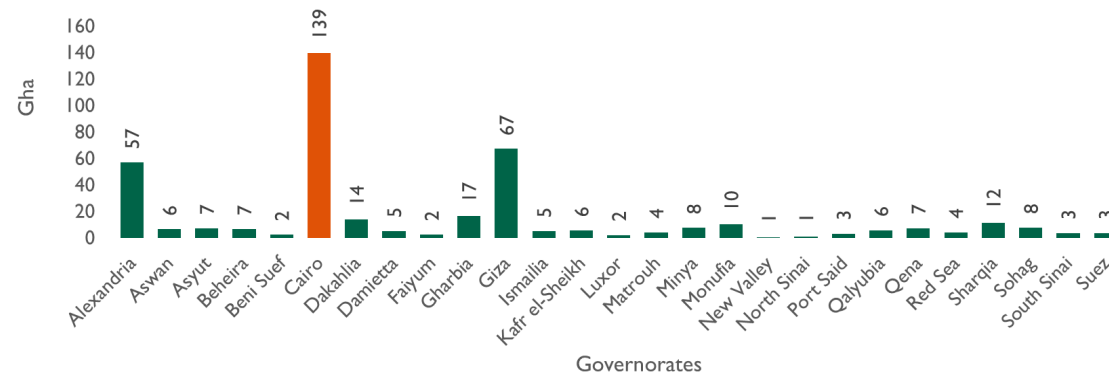
In general, the primary energy-consuming activity in an office building is the use of electricity. That explains why it has a significant impact on the land footprint as seen in the results.



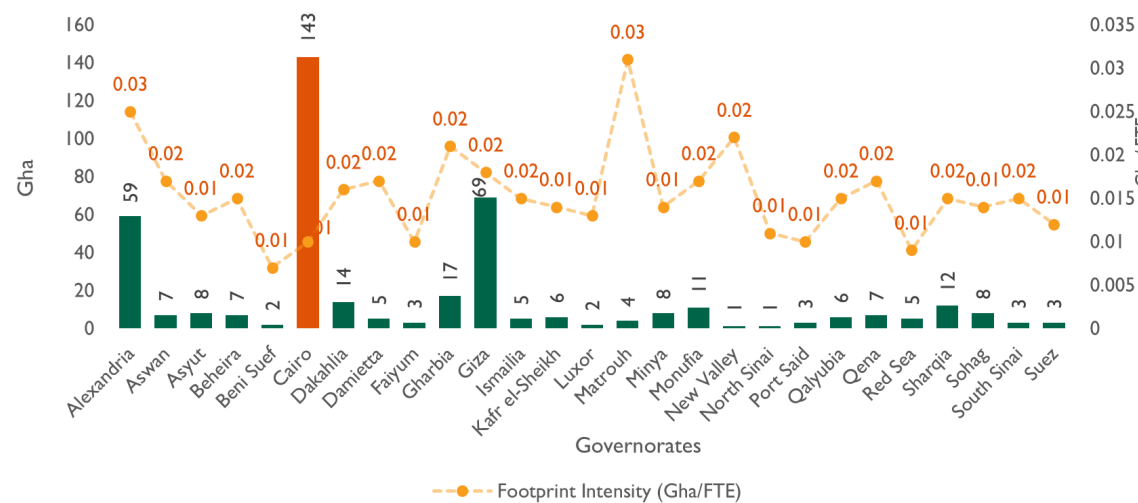
Built Land

The built land is the land area occupied by NBE's branches. NBE's branches are either a standalone building utilizing all the land area or part of a building utilizing a share from the total land area depending on the total number of floors of the buildings.

Built Land - 2020 (6 months) - (Gha/Governorate)



Built Land - 2021 (Base Year) - (Gha/Governorate)



The extent of new branches determines the built land change throughout time. Cairo has the most constructed area, followed by Giza and Alexandria, with 143, 69 and 59 Gha, respectively. This is due to the governorates' significant numbers of branches. On the other hand, Matrouh governorate had the highest intensity with a value of 0.03 Gha/FTE.

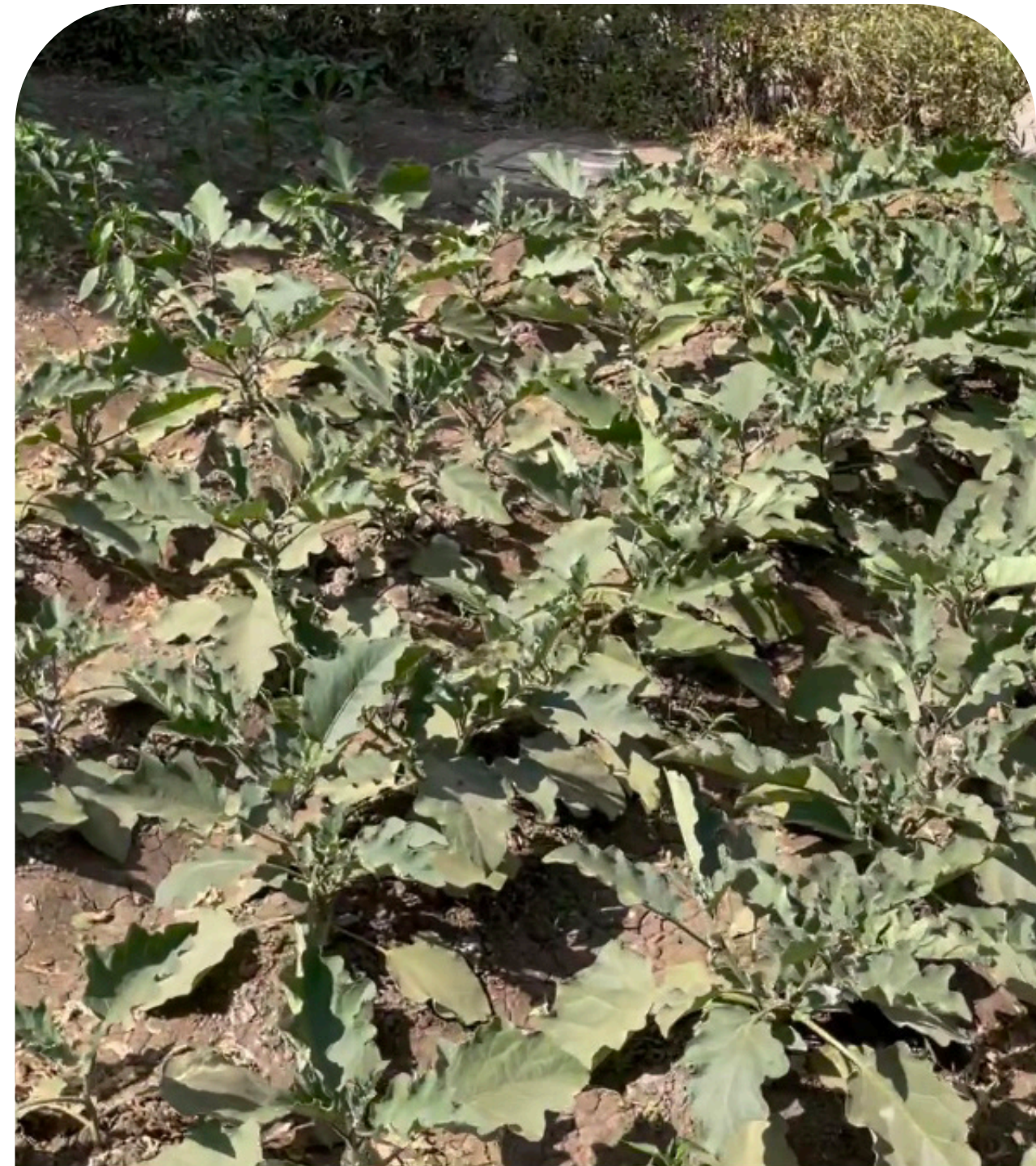


Forest Land

Forest land is calculated for the paper consumed by NBE's branches. The forest land is the area of land deforested to produce paper.

2020
(6 months)
18
Gha

2021
(Base year)
616
Gha



2020
(6 months)
408
Gha

2021
(Base year)
421
Gha

LAND FOOTPRINT SUMMARY 2020 (6 months) and 2021 (Base Year)

CARBON DEMAND ON LAND (Gha)		2020 (6 months)		2021 (BASE YEAR)	
Stationary Combustion	Fuel burning – Diesel	218	97.3%	386	96.5%
	Fuel burning – Natural Gas	89		285	
Mobile Combustion	Fuel burning – Owned vehicles	1,354		2,910	
Fugitive Emissions	Refrigerant leakage	2,236		4,228	
Electricity	Purchased Electricity	8,535		14,419	
Fuel and energy related activities	Water consumption and wastewater treatment	46		82	
Upstream transportation and distribution	Internal Courier shipment	N/A		197	
Downstream transportation and distribution	External Courier shipment	5		10	
Employees commuting	Commuting	2,577		5,035	
Processing of sold products	Bank issued cards	27		53	
Business travel	Air travel	10		54	
Downstream leased assets	ATM transactions	346		921	
Waste generated in operations	Office waste disposal	N/A		37	
	Shredded Paper Waste	2		5	
Total Energy Land (Gha)		15,447		28,623	

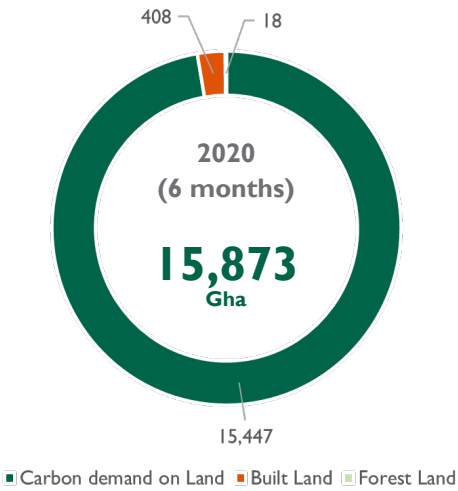
BUILT LAND (Gha)	2020 (6 months)		2021 (BASE YEAR)	
NBE's facilities-built land	408	2.6%	421	1.4%

FOREST LAND (Gha)	2020 (6 months)		2021 (BASE YEAR)	
Purchased goods (Paper consumed)	18	0.1%	616	2.1%

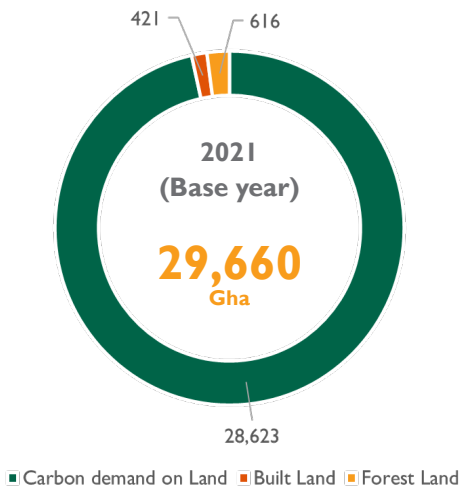
Total Land Footprint (Gha)	15,873	Gha	29,660	Gha
Land footprint intensity – Gha/FTE	N/A	-	0.97	Gha/FTE



2020 (6 months) Land Footprint Results



2021 (Base Year) Land Footprint Results



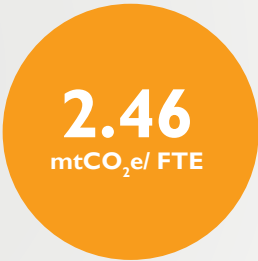
08

BASE YEAR
& TARGETS
EVALUATION



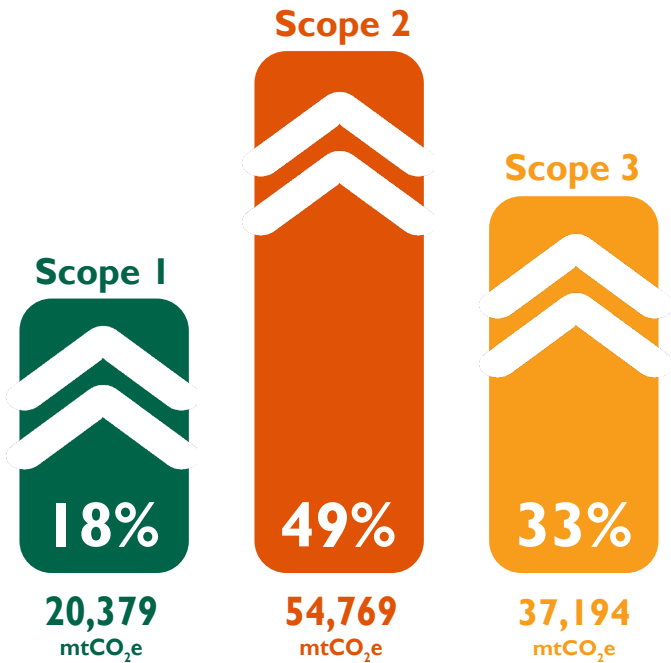
2021 Carbon Intensity

In terms of climate neutrality, a base year is a historical reference year against which current emissions can be compared in order to keep the carbon footprints consistent and comparable in the future. Because this is the first time NBE has disclosed emissions, 2021 will be used as a baseline against which all future emissions will be compared.



Scope	Base Year Emissions – mtCO ₂ e (2021)	Emissions Percentage	Carbon Intensity (mtCO ₂ e/FTE)	Carbon Intensity (mtCO ₂ e/EGP.bn)
SCOPE 1	20,379	18%	0.67	1,029
SCOPE 2	54,769	49%	1.80	2,766
SCOPE 1+2	75,147	67%	2.46	3,796
SCOPE 3	37,194	33%	1.22	1,879
TOTAL	112,341	100%	3.69	5,674

Absolute Emissions



2020 (6 months)*

2021 – Base Year

	Absolute	Absolute	Intensity
Water Footprint	2,045,782 m ³	4,238,393 m ³	139.03 m ³ /FTE
Waste Footprint	365 tons	7,545 tons	0.24 tons/FTE
Plastic Footprint	55,399 kg	1,424,674 kg	46.73 Kg/FTE
Land Footprint	15,873 Gha	29,660 Gha	0.97 Gha/FTE

**The results of both years cannot be compared due to having different organizational and/or operational boundaries. The year 2021 is our base year to which all future years will be referenced.*



09

EXTERNAL BENCHMARKING





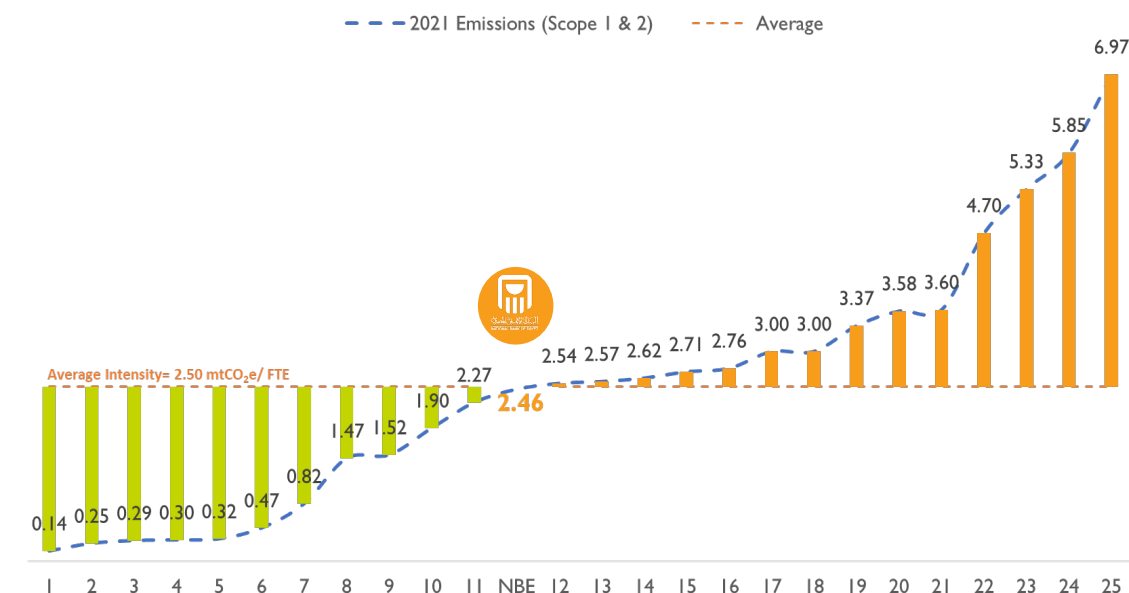
In the benchmarking, only emissions from scope 1 (direct emissions) and scope 2 (indirect emissions) are included. scope 3 indirect emissions of operations that are not directly owned or controlled by the bank, are more difficult to verify than direct emissions, hence they are not taken into account in this section.

According to the Carbon Disclosure Project (CDP), in addition to published carbon footprint data of enterprises, the average of the banks' published scope 1 and 2 emissions for the year 2021 is **2.50 mtCO₂e/Full-time equivalent (FTE)** while the

lowest intensity was equal to **0.14 mtCO₂e/FTE**. As shown in the charts below, NBE just falls under the average value for emissions per FTE with a value of **2.46 mtCO₂e/FTE** in relation with other national and international banks.

It is of importance to keep in mind that the external benchmarking is only an indicative measure, since each of the banks are operating in different parts of the world, which might imply differences in system boundaries and business activities as well as slight variations in methodologies when calculating carbon footprints.

External Benchmarking - 2021 Emissions Intensity (mtCO₂e/FTE)



Scope 1 and 2 Emissions Intensity for the Year 2021 (mtCO₂e/FTE)

NBE

2.46
mtCO₂e/ FTE

Average of
Banks Assessed

2.50
mtCO₂e/ FTE

10 TARGETS



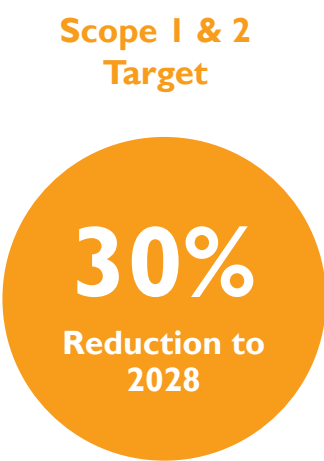


We experienced a historic and unprecedented moment of worldwide unanimity in Paris in 2015. Nearly 200 countries signed an ambitious target to keep global warming far below 2 degrees Celsius above pre-industrial levels, with a goal of 1.5 degrees Celsius. In 2018, the Intergovernmental Panel on Climate Change (IPCC) warned that global warming **must not exceed 1.5°C** to avoid the catastrophic impacts of climate change.

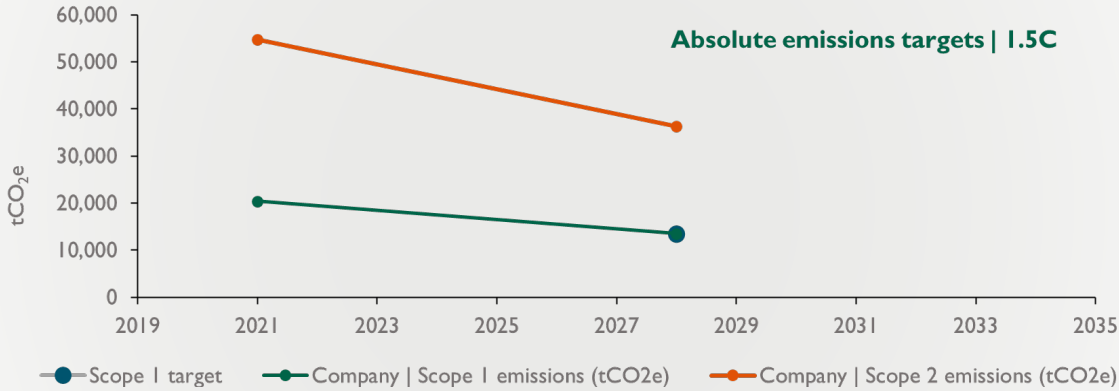
CLIMATE SCENARIO ALIGNED WITH A 1.5 DEGREE TEMPERATURE GOAL

NBE have set targets towards a low-carbon economy by accounting for carbon emissions and ensuring that NBE's activities and related emissions contribute to a global temperature increase of no more than 1.5 degrees Celsius. The Intergovernmental Panel on Climate Change (IPCC), has set this as the safe limit for temperature increases from pre-industrial levels.

In order to achieve the 1.5 degree temperature goal, we aim to set absolute emissions reduction targets with 2028 as the target completion year. As this is our first environmental footprint, 2021 has been chosen as the fixed target base year, and we are committed to attaining the following absolute reduction targets:



Scope	2021 Base Year Emissions (mtCO ₂ e)	2028 Target Year Emissions (mtCO ₂ e)	% Reduction
SCOPE 1	20,379	14,265	30%
SCOPE 2	54,769	38,338	30%
SCOPE 1+2	75,147	52,603	30%



OPPORTUNITIES AND ACTIONS TOWARDS A BETTER ENVIRONMENT



DECARBONIZATION PLAN

NBE has put in place a decarbonization plan that includes different opportunities to enhance its environmental footprint. The plan is outlining the main projects, where the selected projects will be studied in-depth with a complete feasibility study. The following are actions and initiatives to be taken into account in order to reduce the different impacts:



Operations

PROJECT

BENEFITS (Environmental, Social and Economic)

Energy and Water Management System

Adoption of energy and water management systems and achieve continuous improvement in energy and water consumption. The system will assist in identifying opportunities to further reduce the consumption and environmental impacts of the business and set clear KPIs. In addition, it will help in regular monitoring and taking the necessary corrective actions where needed to ensure target achievements and continuous improvement.

- + Reduced indirect costs/Increased profit
- + Increased building efficiency and performance
- + Complying with international guidelines and recommendations

Renewable energy

Increase the share of electricity use from renewable resources (i.e solar PV).

- + Reduced indirect costs/Increased profit
- + Less dependence on grid electricity and diesel generators, with reduced risks of power outage
- + Complying with international guidelines and recommendations

Transport fleet

Study the feasibility of electric vehicles for NBE's transport fleet.

- + Reduced indirect costs/Increased profit
- + Less pollution and enhanced air quality
- + Complying with international guidelines and recommendations

ISO-certification

ISO 14001 certification for all headquarters and branches including an integrated waste management plan to monitor waste generation, increase the recycling rate and reduce the percentage of waste disposed in landfills.

- + Material Circularity
- + Waste reduction and allowing for segregation, accurate quantification, and reuse/ recycling/ recovery
- + Value recovery

Analysis of employee commuting

Design, adopt and implement employee commuting data collection and analysis system

- + Improved ESG ratings for sustainability/ESG Indexes
- + More efficient commuting and less traffic jam
- + Increased employee satisfaction and enhanced commuting services

Sustainability policies

Introduce and adopt sustainability policies for all NBE's business and activities, with commitment to practices and standards to promote environmentally and socially responsible operations, incl. developing low-carbon business travel policy.

- + Enhanced sustainability performance with reduced environmental impacts with improved ESG Indexes
- + Compliance with international guidelines
- + Fulfillment of ESG disclosure requirement

Operations

PROJECT

BENEFITS (Environmental, Social and Economic)

Green building guidelines

Develop and adopt green building guidelines including refurbishment of buildings such as insulation, draught proofing, efficient lighting and lighting control, HVAC operational parameters and control, external/internal shading optimization, daylight and occupancy sensors and building energy and water efficiency and management.

- + Reduced indirect costs/Increased profit
- + Improved health and well-being of employees and customers
- + Improved customer satisfaction
- + Increased employee fulfillment
- + Enhanced building performance with longer lifetime and less maintenance

Digital and online services

Digital and online banking services to reduce environmental impacts such as hard token, printing materials and branch visits.

- + Reduced indirect costs/Increased profit
- + Reduced customer load on branches with enhanced services
- + Improved customer satisfaction
- + Increased employee fulfillment

Capacity building

Capacity building on climate change, decarbonization and climate resilience.

- + Reduced indirect costs/Increased profit
- + Enhanced and more solid capacity building of all employees and workers
- + Enhanced security and health and safety of employees and workers
- + Potential of reduction of environmental footprint values

Water efficiency audit

Water efficiency audit for all facilities to achieve reduced water usage and consumption.

- + Reduced indirect costs/Increased profit
- + Less water uses and impacts and positive contributions to a society going towards water scarcity
- + Improved environmental footprint values

Data Monitoring & Controlling System

Digital sustainability management tool to facilitate live monitoring all kinds of consumptions (electricity, water, generators etc.) of the branches and allow for intervention in case of any extra/unnecessary consumption e.g. leaving PCs on for 24 hours. The system will serve as an easy digitalized tool to collect and track data and has already been applied for 50 branches as a first phase in 2021 and 2022 and will gradually be applied for the entire organization.

- + Reduced indirect costs/Increased profit
- + Less consumption and use of resources where unnecessarily consumption is cut off
- + Improved environmental footprint values

Cooling towers for water reuse

Cooling towers to reuse the condensed water from the central air conditioning (AC) for the two Cairo Plaza towers. This would increase the efficiency of the cooling process, improve the processes of the central air conditioner, e.g. the chillers performance and reduce the operating hours, with reduced operating costs. A reduction in water consumption, that would be reflected in upcoming water and carbon footprints to assist in achieving set reduction targets.

- + Reduced indirect costs/Increased profit
- + Less water uses and impacts and positive contributions to a society going towards water scarcity
- + Improved environmental footprint values





Supply Chain

PROJECT	BENEFITS (Environmental, Social and Economic)
<p>Supplier selection criteria and monitoring for a green supply chain</p> <p>Design/update and adopt a new supplier selection criteria, suppliers' monitoring and auditing programs with "Green Supply Chain" policies to minimize waste and improve environmental footprint values. By including environmental factors for the stages of the supply chain; from product development and manufacturing to distribution and end customers, the traditional supply chain could be transformed to a green one, where such an initiative will ensure the sustainability of natural resources and boost eco-friendly materials.</p> <p>Environmental and climate procurement criteria</p> <p>Design/update and adopt environmental and climate procurement criteria.</p> <p>Increased recycling of employees' solid waste disposal</p> <p>NBE to consider hiring a recycling company for the employees' waste to fully carry out the Bank's circular economy model, where a circular approach is currently applied to the office supplies. The recycling of the employees' solid waste disposal to start as a pilot project for the Head offices to be extended later on. This initiative will facilitate the waste quantities to be accurately quantified per waste category and the quantities/materials recycled to estimate the GHG emission reductions.</p>	<ul style="list-style-type: none"> + Reduced indirect costs/Increased profit + Improved environmental footprint values + Material Circularity and value recovery + Waste reduction and allowing for reuse/recycling/recovery + Less pollution with enhanced air quality
<p>Collection system of bank cards</p> <p>Designing of innovative collection and return of expired bank cards for reuse of plastics.</p>	<ul style="list-style-type: none"> + Material Circularity + Waste reduction and allowing for segregation, accurate quantification, and reuse/recycling/recovery + Value recovery

Investment Portfolio

PROJECT

BENEFITS
(Environmental, Social and Economic)

Assess the investment portfolio

Assess the carbon footprint of NBE's investment portfolio.

- + Enhanced sustainability performance with reduced environmental impacts with improved ESG Indexes
- + A larger coverage of NBE's activities to be covered in the environmental footprint
- + Compliance with international guidelines

Exclusion criteria and climate change risk assessment tools

Design, adopt and implement an exclusion criteria and climate change risk assessment tools. Through a set of policies, procedures and tools; NBE will be able to manage and monitor the impact of its lending/investment portfolio, assisting in identifying, assessing and managing the environmental and social risk of financial transactions and define the decision-making process. It will also facilitate the distribution of the roles and responsibilities and stating the documentation and recordkeeping requirements. Conducting an environmental and social due diligence and monitoring the client's/investee's environmental and social performance would assist in monitoring and improving the environmental impacts positively.

- + Enhanced sustainability performance with reduced environmental impacts with improved ESG Indexes
- + Compliance with international guidelines
- + Enhanced branding of NBE

Set reduction targets

Set carbon emission reduction targets and reduce the carbon footprint.

- + Potential of short- and long-term reduction of carbon footprint
- + Improved sustainability performance
- + Compliance with international guidelines



12 CLIMATE MITIGATION ACTIONS



Climate mitigation actions refers to efforts to minimize or avoid greenhouse gas emissions. Mitigation might take the form of implementing new technologies such as renewable energy sources, improving the energy efficiency of current facilities and/or altering management practices or customer behavior.

NBE has implemented numerous actions and initiatives to improve the overall performance and reduce the environmental impacts of its operations. Example of the actions taken include:



ENERGY EFFICIENCY

Renewable Energy

NBE started their renewable energy strategy in 2015 on a voluntarily basis with NBE's first solar branch "Luxor Branch" to be the first bank in Egypt to implement photovoltaic (PVs) renewable energy.

Solar energy is motivated internally by NBE for any new branch if the facility meets the requirements such as roof area required for the building. In 2016, NBE opened the first headquarter and training center powered by solar energy in the fifth settlement. The renewable station was also equipped with the necessary batteries to store the energy for use when needed. Moreover, the renewable station is also connected to the electricity grid.

Presently, NBE's renewable energy implementation covers a total of 28 branches and headquarters. The renewable energy has many benefits, such as emission free, clean energy and less pollution during operation compared to conventional energy sources. NBE is aiming to successively increase the number of branches powered by solar energy as part of its renewable energy strategy.



LED Lighting

NBE's branch in Heliopolis (Sheraton branch) is considered to be one of the first bank branches in Egypt to be fully equipped with LED lights since 2013. After the first success, LED lights were installed across multiple branches; Halogen Spotlight (29,000) and additional LED Tube (245,200), replacing conventional lamps and yielding an electricity reduction of 1,253,609 kWh.



VRV Air Conditioning System

All new branches have VRV air conditioning systems, while an initiative to replace the air conditioning system of some of the existing branches with high-efficiency split systems has taken place. More precisely, the National Bank of Egypt has implemented and renewed 9,714 air conditioners (VRV air conditioning system) across branches and headquarters during the period 2011 to 2022. This initiative has saved around 15 GWh and EGP 12 mn in energy consumption costs and further cost reductions of operation and maintenance during this period. Additionally, 127 electric power generators were renovated and replaced with more energy efficient ones, leading to reductions in fuel consumption and noise pollution rates, with an improved air quality.

Cooling Load Reduction

Installing structure glazing façade and thermal glass coatings to Cairo plaza towers in 2008 and Downtown building in order to enhance the building energy performance by minimizing the need for cooling and heating. This has facilitated reductions in energy consumptions and operating costs, as well as reductions in maintenance costs and system downtime. A similar project is also carried out in NBE's new Headquarter in downtown – the Fifth settlement.



Protecting and preserving resources has captured the imagination of NBE since 2015 by constructing the Luxor branch fully functioning with solar energy to become the first bank in Egypt transitioning its facilities to clean energy, which was only the start of our journey towards best energy efficiency practices, as of 2022 we have more than 28 branches powered by clean energy and more to come.



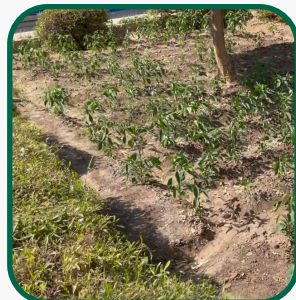
Eng. Ali Ibrahim

Head of Project Implementation Monitoring



WATER EFFICIENCY

Water consumption was reduced by 52% in all existing buildings & branches by installing low-flow regulators on all water fixtures.



Water consumption has been cut by 68% as a result of installing infrared water fittings in all new branches and some of our existing facilities.



Over the last decade NBE facility management team adopted the principals of sustainable Facility Management to achieve the best working environment, reduce running and maintenance cost & maximize NBE assets value which led directly to significant reduction of power & water consumption i.e. reduction of Carbon & Water Foot Print and achieved secure, comfortable, healthy and productive working environment which are the pillars of sustainability.

Eng. Gamal Al-ziyady
Maintenance & FM Sector G.M



FUEL BURNING EFFICIENCY

Converted part of the owned petrol fuel vehicles to natural gas which reduces the petrol fuel burning emissions.



The use of large-scale transport vehicles to reduce the number of times that goods are shipped and transported, as well as to transfer garbage from branches and centers and return it to warehouses as part of NBE's transportation plan.



RESOURCES CONSUMPTION AND WASTE REDUCTION

With increased precautions during the pandemic of Covid-19, the bank took the opportunity to review its supplies and phased out all plastic cups to be replaced by cardboard cups for a sustainable selection of single-use items. Eventually, paper cups were replaced by glass cups once single-use plastic cups were phased out.

All the waste that was generated from the different facilities is now carried out by a special committee after the collection for waste reuse.



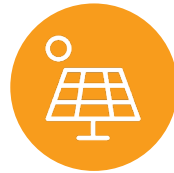
Another step NBE has taken in reducing the plastic use throughout the business, is replacing the conventional plastic bags by Bio-based eco-friendly plastic bags since 2019. Benefits of the initiative are reduced GHG emissions, waste reduction and non-toxic for the environment in comparison with conventional bags made with harmful by-products and chemicals. In addition to this, the total quantities of purchased bags are reduced, with 2,200,000 Bio-based plastic bags in 2020 and 1,900,000 Bio-based plastic bags in 2021.

Upon the expiration of the retention period for the documents kept by NBE, the documents are being shredded and safely disposed. All offices & branches send their shredded papers dispatches, where the shredded paper is pressed into bales in preparation to be sent to the paper companies that the Bank has contracted with. The bales are weighed (the weight output is calculated against the price per ton) and delivered to the paper company. By this process, a secure handling of the documents disposal as well as an increased circularity of material flows are achieved.

NBE Warehouse

NBE policies ensure minimal waste in all the Bank's supplies with a complete circularity. After the supplies lifespan or if any supply has been reported as broken by the administration of any office or branch, NBE warehouse sector is responsible for the process. Trucks are sent to take the old supplies and deliver new ones "two trips in one". Damages of the items are reviewed by technical experts and maintenance carried out to items that could be used internally again in one of NBE facilities. At the same time, other items are checked for

damaged to be repaired to ensure a proper management and discarded items collected to be sold after a careful review by various technical and administrating expertise to evaluate the financial value for each item according to its conditions and its market value. By this process, a linear economy and increased GHG emissions are avoided, where the circular approach provides opportunities to tackle the climate crisis and reduce GHG emissions along the supply chain and preserving the embodied energy of products and materials.



NBE PORTFOLIO: SOLAR IRRIGATION SYSTEM

The Sub-borrower Sadek Co. is an agricultural business that owns 2,000 feddans where they cultivate, process, and package fruits and vegetables, and then distribute to the local market. The Sub-borrower bought the farm more than 12 years ago with remaining water wells, water storage, irrigation systems, pivots, packaging units, cooling storage, and admin buildings with workers' accommodation.

The Sub-borrower is planning to invest in a 5.4 MWp off-grid solar PV system. Additionally, the existing inefficient water pumps will be replaced with new ones of modern technology.

The output as annual electricity production of the PV system is estimated to 9,328 MWh corresponding to 5,419 mtCO₂e reductions during the first year of operation. In addition, annual savings of 1,555 mtCO₂e is estimated owing to pumps replacement. Since the beneficiary; loan and project meet the eligibility criteria, the investment is eligible under NBE GEFF.

Sub-Projects Benefits

PARAMETER	UNIT	VALUE
Sub-borrower's savings	MWh/year	407
Primary energy savings	GJ/year	111,930
GHG emissions reduction	mtCO ₂ e/year	5,419
Permanent job creation	FTE	5
Temporary job creation	FTE	50

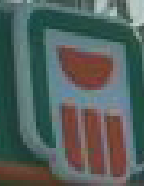
No environmental risks or malpractices were identified for the project. The project achieved considerable environmental improvements, mainly in terms of clean energy, less pollution and GHG emission reductions.



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STRATEGIC ALLIANCES

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Egypt has recently, in connection with the preparations of COP27 to be held in Sharm El Sheikh, Egypt, launched the **National Climate Change Strategy 2050 (NCCS)** for tackling climate change. The newly launched National Climate Change Strategy includes adaptation and mitigation agendas in all sectors, while supporting economic growth and reducing emissions. The strategy has five main goals, comprising a number of directions to assist in fulfilling the set-out strategy. The goals have been prepared so that the first two goals are the main goals that require most involvements in different sectors, and they also have the greatest impact on the mitigation of greenhouse gas emissions and climate change.

The country's commitments are also emphasized in **Egypt's Vision 2030** Sustainable Development Strategy (SDS), launched in 2016 by the Egyptian Government as a national agenda to address the country's specific challenges and needs. The vision consists of eight main goals to be met by 2030. This comes along with achieving high and sustainable economic growth, enhancing investments and promoting innovation in all fields. Egypt Vision 2030 focuses on addressing the effects of climate change through an integrated and sustainable society that enhances resilience.

Africa's Agenda 2063 is a strategic framework for inclusive growth and sustainable development and was adopted in 2015 by the African countries. The agenda seeks to accelerate Africa's political, social, economic and technological transformation through 7 aspirations and 20 goals. The agenda is carried out as implementation plans in ten-years intervals. The first Implementation plan is currently in action as the initial step to realize the vision of the "Africa We Want By 2063".

The Sustainable Development Goals (SDGs) were adopted by all United Nations Member States in 2015, with 17 goals calling to action to protect the planet, ensure prosperity, and to end poverty. All the SDGs are integrated, and action in one area will affect the outcome in others, highlighting that the development must be a balance of social, economic and environmental sustainability.

As one of the major banks in Egypt, NBE aims to lead by example and work in alignment with the climate agendas and strategies set out, both globally, regionally, and nationally. NBE's sustainability efforts and climate mitigation actions are aiming to fulfill Egypt's climate agenda set out in Egypt's National Climate Change Strategy 2050 and Egypt Vision 2030, as well as Africa Agenda 2063 and the SDGs set out by the UN.

NBE CLIMATE MITIGATION ACTIONS

GOALS FULFILLED



NCCS



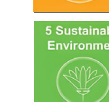
Conducting an environmental footprint assessment to set a baseline of emissions and quantities for each footprint, including targets to track progress and reduce environmental impacts.



Increasing the share of renewable energy throughout the business and investment portfolio.



Reduced consumption of natural resources, electricity needs with increased efficiency, including enhancing facilities' energy performance by e.g., thermal coatings, switching to LED-lighting, installing and replacing cooling systems (VRV), and adopting monitoring systems.



NBE CLIMATE MITIGATION ACTIONS

GOALS FULFILLED



Reduce water use throughout NBE's facilities, e.g., by installing infrared water fittings and replacing water faucets with low-flow water faucets.



Efficient and low-emitting transport fleet; converting conventional vehicles to natural gas to reduce emissions and vehicle load optimization to reduce number of times that goods are shipped and transported.



Phasing out plastics wherever possible; switching from single-use plastic cups to cardboard cups and from conventional plastic bags to bio-based plastic bags.



NBE CLIMATE MITIGATION ACTIONS

GOALS FULFILLED



Increased recycling and material circularity with regards to waste management, e.g. paper shredding bales for recycling and NBE's Warehouse with policies ensure minimal waste in all the Bank's supplies.



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I 4 DETAILED METHODOLOGY

DATA SOURCES AND QUALITY

All of the information used to compute the various footprints comes from NBE's database. The data quality has been evaluated and presented below, with data from each business sector evaluated independently to enable better analysis, display of resolution, and further explanations. The most used types of data are:

- **Primary data:** taken from documents that are directly linked to the assessment, such as electricity invoices, to calculate emissions caused due to electricity.
- **Secondary data:** such as databases, studies, and reports.
- **Assumptions:** assumptions made based on internationally recognized standards and studies.



CFP Data Quality from July 1, 2020 to December 31, 2020

SCP	ACTIVITY	DATA (TOTAL 2020)	RESOLUTION	NOTES
I	Organizational boundaries	-	Gross floor areas, address, number of floors and employees per branch/ head office	-
I	Fuel burning - Natural gas	148,789 m ³	Monthly consumption of natural gas per branch – m ³ /month	-
I	Fuel burning - Diesel	- Diesel: 64,616 liters - Petrol 92: 213,072 liters	Yearly diesel consumption per branch – Liters/year	-
I	Fuel burning - Owned vehicles	- Diesel: 550,299 liters - Petrol 92&95: 1,151,277 liters	Yearly fuel consumption and distance travelled per vehicle – liters and distance travelled/vehicle and year	-
I	Refrigerant leakage	2,831 kg	Yearly quantity of refrigerants (kg) per type per branch – Kg/year	-
2	Purchased electricity	72,044,539 kWh	Consumption per month – kWh/month	-
3	Water consumption + treatment	6,600,235 EGP 925,699 m ³	Monthly Water consumption payments per branch – EGP & m ³ / month	-
3	Purchased goods	13,153,408 items (such as envelopes, paper racks, toners, PPEs, paper cups, plastic bags etc.)	Yearly quantities of purchased goods – kg/year	Specifications of some items are missing. Where applicable, appropriate assumptions have been made, such as paper weight and type of plastics
3	Internal courier shipment	N/A	-	-
3	External Courier shipment	- Service provider #1: 49,794 km - Service provider #2: 19,857 km	Average distance travelled in km per financial year – km/financial year	-
3	Office waste disposal	N/A	-	No data records of office waste. Category was excluded from 2020 CFP results
3	Shredded paper waste	365 tons	Quarterly quantities of shredded paper waste in kg – kg/quarter	-
3	Hotel stay	N/A	-	There were no hotel stays this year due to COVID-19
3	Air travel	Domestic flights: 185,222 p.km International flights: 0 p.km	No. of tickets for domestic and international flights – no. of tickets/destination	-
3	Employees commuting	By passenger car: 16,236,641 km By buses: 44,650,762 p.km By metro/other: 16,236,641 km By motorcycle: 4,059,160 km	Data record of employee addresses	A methodology using the coordinates of the employees' and branches addresses together with internal software have been used to estimate employee commuting
3	ATM transactions	203,729,010 transactions	Yearly numbers of transactions per ATM	-
3	Bank Issued Cards	4,442,784 cards issued	Yearly quantities of cards per type issued by the bank – Cards/type	-
3	Renewable Energy	530,634 kWh	Renewable energy capacity and generation per branch	-

Weak – Priority area for improvement

Satisfactory – Could be improved

Good – No changes recommended

CFP Data Quality from January 1, 2021 to December 31, 2021

SCP	ACTIVITY	DATA (TOTAL 2021)	RESOLUTION	NOTES
I	Organizational boundaries	-	Gross floor areas, address, number of floors and employees per branch/ head office	-
I	Fuel burning - Natural gas	458,638 m³	Monthly consumption of natural gas per branch – m³/month	-
I	Fuel burning - Diesel	- Diesel: 101,226 liters - Petrol 92: 383,850 liters	Yearly diesel consumption per branch – Liters/year	-
I	Fuel burning - Owned vehicles	- Diesel: 788,195 liters - Petrol 92&95: 2,877,549 liters - Natural gas: 12,061 m³	Yearly fuel consumption and distance travelled per vehicle – liters and distance travelled/vehicle and year	-
I	Refrigerant leakage	5,353 kg	Yearly quantity of refrigerants (kg) per type per branch – Kg/year	-
2	Purchased electricity	128,458,002 kWh	Consumption per month – kWh/month	-
3	Water consumption + treatment	12,580,849 EGP 1,764,495 m³	Monthly Water consumption payments per branch – EGP & m³/ month	-
3	Purchased goods	29,804,963 items (such as envelopes, paper racks, toners, PPEs, paper cups, plastic bags etc.)	Yearly quantities of purchased goods – kg/year	
3	Internal courier shipment	- Diesel: 178,188 liters - Petrol 92: 54,468 liters	Average monthly fuel consumption and type in liters per vehicle – Liters/year	
3	External Courier shipment	- Service provider #1: 99,588 km - Service provider #2: 39,714 km	Average distance travelled in km per financial year – km/financial year	
3	Office waste disposal	6,664 tons (Based on the survey and assumptions)	Number of waste bags and bag size/ day/ branch	A waste survey was conducted for 60 branches located in different governorates. The daily number of waste bags and the size of the bag was received and the waste quantities for the other branches were estimated accordingly
3	Shredded paper waste	881 tons	Quarterly quantities of shredded paper waste in kg – kg/quarter	
3	Hotel stay	No. of hotel nights: 750	No. of nights and rooms for each trip per destination – no. of rooms and nights/destination	
3	Air travel	Domestic flights: 425,182 p.km International flights: 582,926 p.km	No. of tickets for domestic and international flights – no. of tickets/destination	Transits are not specified and has not been covered in the calculations.
3	Employees commuting	By passenger car: 31,761,148 km By buses: 87,343,58 p.km By metro/other: 31,761,148 km By motorcycle: 7,940,287 km	Data records of a sample of 3,000 employee addresses and their workplace was provided.	A methodology using the coordinates of the employees' and branches addresses together with internal software have been used to estimate employee commuting
3	ATM transactions	393,689,815 transactions	Yearly numbers of transactions per ATM	-
3	Bank Issued Cards	8,622,916 cards issued	Yearly quantities of cards per type issued by the bank – Cards/type	-
3	Renewable Energy	685,059 kWh	Renewable energy capacity and generation per branch	

Weak – Priority area for improvement

Satisfactory – Could be improved

Good – No changes recommended



RELEVANCY AND EXCLUSIONS

Operations and Activities

The following section describes the GHG emission sources and sinks that were excluded from **NBE's** GHG inventory due to data not being available, or not technically feasible to obtain or for data whose emission quantification is beyond **NBE's** operation and control. The exclusion rationale per category has also been specified.

Scope 3 Activities

#	ACTIVITY	DESCRIPTION	2020 – 6 months (mtCO ₂ e)	2021 – BY (mtCO ₂ e)	STATUS
1	Purchased goods and services	Purchased consumables such as office supplies; envelopes, printing materials, paper consumption, disposable items and PPEs.	1,473	3,675	Relevant, calculated
2	Capital goods	Includes the emissions from embodied carbon in NBE's owned assets, buildings, etc.	-	-	Relevant, not yet calculated
3	Fuel and energy-related activities (not included in scope 1 and 2)	Emissions from energy consumed for municipal water supply and wastewater treatment, as well as WTT from fuel burning and transportation.	1,412	3,003	Relevant, calculated
4	Upstream transportation and distribution	Emissions from NBE's internal courier shipment.	N/A	754	Relevant, calculated
5	Waste generated in operations	Covers emissions from office waste by employees, landfill emissions from the disposed waste, as well as shredded paper that is recycled. Waste generated by employees have only been estimated for the base year 2021 in accordance with the British Standard. As for the waste collected and sent to NBE's warehouse, it was excluded from NBE's environmental footprint for both reporting periods, and it is expected to identify and evaluate the waste-related emissions within the upcoming years.	8	4,931	Relevant, calculated
6	Business travel	Includes emissions from air travel and hotel stays.	37	245	Relevant, calculated
7	Employee commuting	Commuting emissions by employees.	9,845	19,215	Relevant, calculated
8	Upstream leased assets	We do not have any upstream leased assets.	-	-	Not relevant, explanation provided
9	Downstream transportation	Emissions from NBE's external courier shipment for bank-to-bank shipments.	19	38	Relevant, calculated
10	Processing of sold products	Includes emissions occurring due to bank issued cards.	402	779	Relevant, calculated
11	Use of sold products	This category is not relevant to NBE's business and has therefore been excluded.	-	-	Not relevant, explanation provided
12	End of life treatment of sold products	This category is not yet embraced in the calculations, but could include end of life treatment of credit cards and hard token distributed to the customers etc.	-	-	Relevant, not yet calculated
13	Downstream leased assets	Emissions occurring due to ATM transactions calculated as the electricity consumption of the active and in-active hours of the ATMs.	1,315	3,499	Relevant, calculated
14	Franchises	This category is not relevant to NBE's business model; hence, it has been excluded.	-	-	Not relevant, explanation provided
15	Investments	It is expected to identify and evaluate the investments-related emissions within the upcoming years.	-	-	Relevant, not yet calculated



Excluded Organizational Boundaries in 2021 (BY)

The branches, head offices, and other facilities owned or operated by NBE are listed in the table below. This ensures consistency when comparing the performance of the base year 2021 to that of subsequent years. The rationale for exclusion has also been given for each location.



#	GOVERNORATE/ LOCATION	FACILITY NAME	RATIONALE
1	Alexandria	Tosson	The branch has been closed for renovations since January 26, 2020 and did not operate during the reporting year.
2	Cairo Governorate	Benha Branch Extension – Financing Business	The branch is currently closed
3	Cairo Governorate	Tahrir complex	The branch is currently closed
4	Cairo Governorate	Abbasiya Police Academy	The branch started its operations on 10/08/2021 but there was no data available.
5	Cairo Governorate	The old headquarters of the finance business	The branch is currently closed
6	Cairo Governorate	Al Ahly Exchange	Because of the difference in scope, the branch is deemed to be outside the base year organizational boundaries. (Out of scope)
7	Cairo Governorate	Al Ahly Real Estate Finance	Out of scope.
8	Cairo Governorate	Al Ahly Capital Holding	Out of scope.
9	Cairo Governorate	Al Ahly Financial Leasing & Factoring	Out of scope.
10	Cairo Governorate	Upper Egypt Food Industry	Out of scope.
11	Cairo Governorate	Egyptian Real Estate Asset and Investment Management	Out of scope.
12	Cairo Governorate	Bank House Training Center in Nasr City	The facility is closed.
13	International	National Bank of Egypt - Khartoum	Out of scope. No data available.
14	International	Dubai International Financial Center	Out of scope. No data available.
15	International	National Bank of Egypt – United Kingdom	Out of scope. No data available.
16	International	National Bank of Egypt – New York	Out of scope. No data available.
17	International	National Bank of Egypt – South Africa	Out of scope. No data available.
18	International	National Bank of Egypt - Shanghai	Out of scope. No data available.
19	International	National Bank of Egypt – UAE Dubai	Out of scope. No data available.
20	International	National Bank of Egypt – Ethiopia	Out of scope. No data available.
21	Giza Governorate	Warehouse	Out of scope. No data available.
22	Cairo Governorate	Mohamed Farid building	Out of scope. No data available.
23	Cairo Governorate	Sekket Al-Fadl	Out of scope. No data available.
24	Cairo Governorate	Wahba's Mansion	Out of scope. No data available.
25	Cairo Governorate	AL-Maqassa	Out of scope. No data available.
26	Cairo Governorate	Al-Tawfiqeya	Out of scope. No data available.
27	Cairo Governorate	Al-Dahabeya	Out of scope. No data available.
28	Cairo Governorate	Al-Shouna Garage	Out of scope. No data available.
29	Cairo Governorate	Asmaa Fahmy Building	Out of scope. No data available.
30	Cairo Governorate	Debt handling	Out of scope. No data available.
31	Cairo Governorate	Tele sales Maadi	Out of scope. No data available.



CALCULATION METHODOLOGY PER FOOTPRINT

Carbon Footprint

SCOPE I – DIRECT EMISSIONS

Stationary Combustion



Diesel and petrol fuel are consumed by the generators that supply NBE's buildings' electricity demands in case of electricity cutout and emergency. The total consumption of diesel for each building was recorded on a monthly basis in both liters and amount of money purchased. For some branches, the data were in EGP, where average fuel prices for 2020 and 2021 respectively were utilized to calculate the amount of fuel burned and the corresponding emissions.

In addition, branches that use natural gas keep records of the amounts in m³, which were utilized to calculate the emissions where the amount of natural gas is multiplied by its emission factors to obtain the equivalent emissions.

Since it is directly used by NBE, the emissions resulting from the stationary consumption were accounted for under scope I.

Fuel burning: Diesel emissions (mtCO₂e) = Fuel consumption (L) × EF (mtCO₂e/L)

Fuel burning: Natural gas emissions (mtCO₂e) = Fuel consumption (m³) × EF (mtCO₂e/m³)

Mobile Combustion



Owned vehicles fuel burning falls under scope I direct emissions. This included all the owned vehicles used to transport the managers, employees, packages, etc. As for the owned vehicles of NBE, type of vehicle, as well as fuel type and fuel consumption in liters and distance travelled in km were obtained from the database. Since the data of fuel type and fuel consumption were available, these were utilized to estimate the emissions occurring from owned vehicles.

Fuel burning: Owned vehicles emissions (mtCO₂e) =
Fuel consumption (L) × EF (mtCO₂e/L)

Fugitive Emissions



Refrigeration fluids are fluids which are used to cool a space in refrigeration cycles. Each year, an amount of refrigerants is used to re-charge the cooling systems used in each building in order to compensate for the leakage that happened during the operating year. The refrigerant type used in each building is different and all its related data was found in NBE's database.

Refrigerants leakage emissions (mtCO₂e) =
Refrigerant leakage (Kg) × EF (mtCO₂e/Kg)



SCOPE 2 – INDIRECT EMISSIONS

Purchased Electricity



Emissions from purchased electricity are the product of the national grid emission factor and the annual electricity consumption of each building.

Purchased Electricity falls under Scope 2 (Indirect emissions).The electricity consumption includes all

NBE’s operating buildings.The monthly electricity consumed at the buildings, was retrieved from the electricity bills in both kWh and amount of money purchased (EGP).Therefore, the total electricity consumption of the fiscal year was calculated using the formula below:

Purchased electricity emissions (mtCO₂e) = Electricity Consumption (kWh) × EF (mtCO₂e/kWh)

SCOPE 3 – INDIRECT EMISSIONS

Purchased Goods and Services



Office supplies, masks, marketing materials, etc.

Purchased goods are the commodities used by the different sectors. For the branches and head offices, office supplies including ink, copy paper, envelopes, files, cardboard archive boxes etc. as well as hygiene and disposal items such as face masks, paper cups and plastic bags were included in the purchased goods. Items that did not have clear specifications were estimated where applicable using common market characteristics and specifications, and otherwise excluded.

The yearly amounts of purchased goods per type have been retrieved from the internal data recordings, as units of items.The emissions were obtained by multiplying the emission factor per unit by the number of items.

Purchased goods emissions (mtCO₂e) = ∑ quantity of item (units) × EF of each item (mtCO₂e/unit)



Fuel and Energy-Related Activities (Not Included in Scope 1 and 2)



Well-to-tank (WTT) emissions

WTT emissions are those that result from the production of a fuel, including resource extraction, initial processing, transportation, fuel production, distribution and marketing, and delivery into a consumer vehicle’s fuel tank.WTT emissions were taken into consideration in order to reflect the full range of climatic impacts from fuel-burning activities.

All fuel burning activities, such as diesel & natural gas consumed by NBE’s buildings and distribution fleet were included in WTT emissions.

For each amount and type of fuel burned, the general formula was applied to determine the relevant emissions.

WTT Emissions (mtCO₂e) = Fuel consumption (unit) × WTT EF (mtCO₂e/unit)

Fuel and Energy-Related Activities (Not Included in Scope 1 and 2)



Water usage & wastewater treatment

The emission factor for water supply and wastewater treatment is calculated by using a conversion formula, provided by Holding Company for Water and Wastewater (HCWW). The emissions are based on the amount of energy consumed

in each process. The emission factors for water supply and wastewater treatment are accordingly calculated by multiplying the conversion factor by the electricity emission factor. At the same time, a unit analysis is performed to make sure the units are conforming.

Energy consumption (Wh) = Water supply/wastewater (m³) × Conversion formula (Wh/m³)

Water supply and treatment (mtCO₂e) = Energy Consumption (kWh) × EF (mtCO₂e/kWh)

Waste Generated in Operations



Solid waste disposal

Emissions from solid waste disposal are the product of the emission factor for each waste type and the quantity of waste for each type in addition to

the waste fate. (i.e. the transportation to the landfill and the landfilling procedure were included in the emission factor of the landfilled waste).



Shredded paper waste

NBE has its archive, where paper that is no longer needed to be achieved is shredded on a yearly basis. The paper is sold and recycled to ensure a circularity of the bank's activities.

The paper shredded is recorded on a quarterly basis in tons, where the yearly emissions have been calculated utilizing emissions data for closed-loop paper waste disposal.

Solid waste or shredded paper emissions (mtCO₂e) =
Quantity of waste/type (tons) × EF/ type of waste (mtCO₂e/tons)

Business Travel



Hotel stays

For each of the hotel stays, dates, location, no. of hotel rooms and nights were obtained from NBE's data records. All hotel stays are during 2021, with no hotel stays during 2020. DEFRA is providing the emission factors per hotel night for each

country as UK and non-UK countries. In those cases where the country of the hotel stay is not available in DEFRA, an average value of all non-UK values has been used to approximate the emissions.

Hotel stay emissions (mtCO₂e) = hotel stays per country (Nights) × EF (mtCO₂e/night per country)



Air travel + well to tank emissions

In 2020, no international flights occurred, only domestic flights. As for 2021, both international and domestic flights took place. NBE's data records provided data of flight routes, dates and no. of tickets. However, the transits of international flights are not provided and have therefore not been accounted for and thus, the

international flights are calculated as the distance of departure location to final destination. The flight distances have been obtained from airport distances calculator. The emissions factors were obtained from DEFRA as average passenger, flights to/from non-UK countries.

Air travel emissions (mtCO₂e) = Distance travelled per passenger (pkm) × EF (mtCO₂e/pkm)



Employee Commuting



From NBE's database, data of the employees related to commuting have been retrieved. A sample of around 3,000 employees has been used to estimate the distances travelled for commuting. For the sample, coordinates of the employees' addresses and the branches they are working at are gathered, wherefrom the commuting distances have been estimated. The samples were then utilized to create a commuting profile to estimate the commuting of all of NBE's employees, as shares of

employees and the corresponding distance travelled.

Further, the transportation means of commuting has been approximated as private cars, public transportation (buses), motorcycles, metro and walking. The share of each category is set based on internal software and previous studies. Out of this, the commuting emissions of each category is approximated using emission factors from DEFRA, including WTT emissions.

$$\text{Employees commuting emissions (mtCO}_2\text{e)} = \text{Travelled distance (km)} \times \text{EF (mtCO}_2\text{e/km)}$$



Upstream and Downstream Transportation



Internal courier shipment

For internal courier shipment, type of vehicle, fuel type and monthly fuel consumption were obtained.

Out of this, yearly quantities could be estimated and the corresponding emissions.



External courier shipment

There are two companies managing the external courier shipment, EgyServ and Fedex. EgyServ provided overall data for the time period July 1, 2020 to December 31, 2021 as routes and distances in km, as well as total service costs in EGP. To calculate the emissions of the external courier shipment, the type of delivery vehicle and fuel type have been assumed. The distances travelled have been equally distributed over the 1.5 years as one-third of the km driven for 2020 and two-thirds for 2021. The emission factors are retrieved from DEFRA as mtCO₂e/km.

Fedex's data is recorded in total service costs in EGP for the time period July 1, 2020 to December 31, 2021. The data of total service costs of EgyServ with corresponding distances travelled have been used to estimate an average value of price per km. Out of this, the distance travelled in km has been estimated for Fedex. Similar to EgyServ, the type of delivery vehicle and fuel type have been assumed and the distances travelled equally distributed over the 1.5 years. The emission factors are retrieved from DEFRA as mtCO₂e/km.

$$\text{Internal/ external courier shipment emissions (mtCO}_2\text{e)} = \text{Travelled distance (km)} \times \text{EF (mtCO}_2\text{e/km)}$$

Processing of Sold Products



Bank issued cards

NBE issues bank cards such as debit, credit, and prepaid cards. An LCA study has been performed to assess the emissions related to bank cards issued. The emission component took into account extraction, processing, manufacturing, and transportation.

All emission factors for this section were sourced from Defra, with the exception of the credit and debit card emission factor. SimaPro V9 software was used to obtain it, which uses the Ecoinvent V3 database.

Downstream Leased Assets



ATM transactions

For each of NBE's ATMs, no. of transactions is recorded. To estimate the emissions occurring from ATM transactions, the electricity consumption is approximated. The active and in-active hours of each ATM were utilized along with corresponding effects in Watts to estimate the kWh consumed for the ATMs. The ATM power in Watts were retrieved by software/internal databases. Gathering

all this data, the emissions occurring by the bank's ATMs have been estimated.

ATMs within branches, offices and head offices have been excluded from this section since the electricity consumption of these facilities have already been accounted for under Scope 2 emissions in order to avoid double counting.

AVOIDED EMISSIONS

Installed PV Instead of Purchased Electricity



The PV generation is tied to the grid and used for NBE's own consumption. Therefore, the energy yield generated from the PV and utilized by the branches replaces the grid purchased electricity.

Renewable energy generation data was received for each month for the branches installing PV. The avoided emissions are then calculated by multiplying the monthly value by the number of months to obtain the yearly generation, which is then multiplied by the grid emission factor.

$$\text{Avoided emissions (mtCO}_2\text{e)} = \text{Annual renewable energy generation (kWh)} \times \text{EF (mtCO}_2\text{e/kWh)}$$



Water Footprint

Water Consumption



Direct water consumption in NBE's facilities.All data were obtained from NBE's database. No conversion factors were applied in this case.

Electricity & Chilled Water



The water consumed to generate electricity and chilled water counts as indirect water use.The amount of water consumed to generate 1 kWh in a mixed energy grid was obtained from published sources.

Products



Water used to produce purchased goods and services has been accounted for as indirect water use. The amount of water consumed to produce paper and credit cards was obtained by performing an LCA on the products using SimaPro V9 software, which in turn uses Ecoinvent V3 database.

Waste Footprint

Shredded Paper Waste



Direct water consumption in NBE's facilities.All data were obtained from NBE's database. No conversion factors were applied in this case.

Office Waste



A waste survey was conducted for 60 branches and the results were used to estimate the waste quantities for the other branches. The waste generation rate used was 10 liters/day per employee based on the result of the survey.



Plastic Footprint

Plastic Use of Bank Cards Issued



All the bank cards issued by NBE are made of plastics to a large extent. To calculate the plastic use of the cards, the quantities of each type of the bank

cards are multiplied by the weight of the card. The plastic used for the cards is PVC and is considered as micro-plastics.

$$\text{Plastic use of bank cards (kg plastics)} = \text{Quantities of the cards (units)} * \text{weight of the card (kg)}$$

Plastic of Office Solid Waste Disposal



The office solid waste disposal of all facilities of NBE have been accounted for, where a share of the solid waste disposal is plastic waste. The plastic waste of offices usually consists of PET/LDPE/PP. However, since no specific data is available, the plastic waste of office solid waste disposal is considered as mixed/unspecified macro-plastics.

To calculate the plastic of the office solid waste disposal, the waste composition of plastic (%) is multiplied by the generation rate (litres/day), followed by a conversion to kilograms through multiplication by the waste density. This is conducted for all employees at all NBE's facilities.

Plastic Use of Purchased Goods



As regards to the purchased goods; the office supplies, hygiene and disposable items of the business have been addressed, such as plastic files, PPEs and plastic bags. The purchased goods are either made of HDPE or PP, macro-plastics. Items that did not have clear specifications were estimated where applicable using common market characteristics and specifications, and otherwise excluded.

The yearly amounts of purchased goods per type have been retrieved from the internal data recordings, as units of items. The plastic use of the purchased goods was obtained by multiplying the weight of the items by the quantities of the items.

$$\text{Plastic of purchased goods (kg plastics)} = \text{Weight of each item (kg/unit)} * \sum \text{quantity of item (units)}$$

Plastic Leakage from Transportation Due to Tire Abrasion



Several factors affect the tire tread abrasion rate. Key parameters that influence the loss of tire tread include characteristics of the tire design, such as tread rubber formulation and distribution of the forces in the tire-road contact area and vehicle characteristics such as weight, load distribution and location of driving wheels. Other parameters are road surface characteristics, e.g. material, roughness, humidity, and weather conditions as well as road topology, hilly/winding or flat/straight roads and driving behaviour characteristics, smooth driving, speed, braking etc. The parameters have been assessed

by the Plastic Leak Project for each type of vehicle, passenger cars, trucks, buses, MC and aircraft, and equations provided with specific parameters for each type of vehicle.

The equation that is applied to all transportation and specific vehicles of NBE's business is as following, where the parameters are depending on the vehicle type. The plastic leakage from transportation due to tire abrasion has been calculated for owned vehicles transportation, internal and external courier shipment, commuting and air travel.

$$\text{Plastic leakage from transportation due to tire abrasion} =$$

$$\text{distance travelled} * \text{Loss}_{\text{vehicle tires}} * \text{ShPolymer}_{\text{vehicle tires}}$$

$$\text{Loss}_{\text{vehicle tires}} = \text{Loss of tire tread per kilometer travelled by the vehicle}$$

$$\text{ShPolymer}_{\text{vehicle tires}} = \text{Share of polymer, synthetic rubber, and natural rubber in tire tread}$$

The specific parameters for each type of the vehicles are provided by the Plastic Leak Project Guide. In those cases where number of passengers are provided, e.g., for the air travel and employee commuting. As for the plastic leakage due to tire abrasion due to transport by airplane is only taking into account the use of the tires, i.e., during take-off and landing.



Land Footprint

Carbon Demand on Land



The carbon footprint of all NBE operations (energy, water, transportation, and product use) was converted into a land footprint using the following equation:

$$LF = E_c * (1 - S_{oc}) / Y_f * EQF$$

- **LF:** Land footprint
- **E_c:** Carbon emissions
- **S_{oc}:** Fraction of annual oceanic anthropogenic CO₂ sequestration
- **Y_f:** National yield Factor of forest land
- **EQF:** Equivalence factor of forest land

When carbon dioxide CO₂ is released into the atmosphere from the burning of fossil fuels, approximately 50% remains in the atmosphere, while 25% is absorbed by land plants and trees, and the other 25% is absorbed into certain areas of the ocean.

Built Land



The area of all the included buildings was obtained from NBE's database. The areas were then converted into "Land area" by dividing the area of each facility by the number of floors of the building of said facility.

$$\text{Land area} = \text{area} \div \text{number of floors}$$

The land footprint was then calculated using the following equation:

$$LF \text{ Built-up} = A \text{ (ha)} * YF * EQF$$

- **LF:** Land footprint
- **A:** Land area in hectare
- **YF:** National yield factor of cropland
- **EQF:** Equivalence factor for crop land

Forest Land



Forest land was calculated for paper consumption and paper used in sold products using SimaPro V9 software which uses Eco-invent V3 database. In this case, forest land refers to the quantity of land that has been deforested in order to produce paper.



DEFINITIONS & TERMINOLOGY

Base year	A base year is a reference year in the past with which current emissions can be compared. In order to maintain the consistency and comparability with future carbon footprints, base year emissions need to be recalculated when structural changes occur in the company that change the inventory boundary (such as acquisitions or divestments). If no changes to the boundaries of the inventory happen, the base year is not adjusted.
Carbon Footprint	The amount of Carbon Dioxide that an individual, group, or organization lets into the atmosphere in a certain time frame.
CO ₂ Sequestration	The capture and secure storage of carbon that would otherwise be emitted to or remain in the atmosphere.
CO ₂ e	Carbon dioxide equivalent or CO ₂ equivalent, abbreviated as CO ₂ e, is a metric used to compare the emissions from various GHGs on the basis of their global-warming potential (GWP), by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential.
Direct Emissions	Greenhouse gas emissions from facilities/sources owned or controlled by a reporting company, e.g. generators, blowers, vehicle fleets.
Emission Factors	Specific value used to convert activity data into greenhouse gas emission values.
Fugitive Emissions	Fugitive emissions are emissions of gases or vapors from pressurized equipment due to leaks and other unintended or irregular releases of gases, mostly from industrial activities. Besides the economic cost of lost commodities, fugitive emissions contribute to air pollution and climate change.
Global Hectare (Gha)	The global hectare (Gha) is the measurement unit for the land footprint and refers to a biologically productive hectare with world average biological productivity for a given year.
GHG Protocol	Greenhouse Gas Protocol is a uniform methodology used to calculate the carbon footprint of an organization.
GWP	Global Warming Potential is an indication of the global warming effect of a greenhouse gas in comparison to the same weight of carbon dioxide.
HVAC	HVAC (heating, ventilating, and air conditioning) is the technology of indoor and vehicular environmental comfort. Its goal is to provide thermal comfort and acceptable indoor air quality.
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.
Kyoto protocol	It operationalizes the United Nations Framework Convention on Climate Change by committing industrialized countries to limit and reduce greenhouse gases (GHG) emissions in accordance with agreed individual targets.
Operational boundary	Determination of which facilities or sources of emissions will be included in a carbon footprint calculation.
Organizational boundary	Determination of which business units of an organization will be included in a carbon footprint calculation.
Refrigerant	A refrigerant is a substance or mixture, usually a fluid, used in a heat pump and refrigeration cycle.
Renewable Energy	Energy from a source that is not depleted when used, such as wind or solar power.
Scope 1	Direct emissions from sources that are owned or controlled by the reporting entity (i.e. any owned or controlled activities that release emissions straight into the atmosphere).
Scope 2	Indirect 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 resulting from other activities that are not covered in scope 1 and 2. This includes transport fuel used by air business travel, and employee-owned vehicles for commuting to and from work; emissions resulting from courier shipment; emissions from waste disposal, etc.



15 QUALITY ASSURANCE



QUALITY ASSURANCE STATEMENT

To NBE's Board of Directors',

We have been appointed by the National Bank of Egypt to conduct environmental footprint calculations pertaining to NBE's operational activities in Egypt for the period from 1st of January 2020 to the 31st of December 2021. The scope covered NBE's operating branches, units, digital branches, head offices, training centers, housing, clubs, and garages.

Auditors' Independance and Quality Control

We adhere to integrity, objectivity, competence, due diligence, confidentiality, and professional behavior. We maintain a quality control system that includes policies and procedures regarding compliance with ethical requirements, professional standards, and applicable laws and regulations.

Auditors' Responsibility

In conducting the environmental footprint calculations, based on international and widely applied standards, protocols, and guidelines specially developed for accounting and reporting the different footprints, including but not limited to the Greenhouse Gas Protocol Guidelines, IPCC Guidelines for Greenhouse Gas Inventories, the global footprint network, the water footprint network, the British Standard for Waste management in buildings, Plastic Leak Project and VERRA Plastic Standard and finally ISO 14064-

1:2019 specification with guidance at the organization

level for quantification and reporting of GHG emissions and removals.

It is our responsibility to express a conclusion about the quality and completeness of the primary data collected/provided by NBE. We have performed the following quality assurance/quality control tasks:

- Several rounds of data requests were performed whenever the received information was not clear;
- All data presented in this report were provided by the reporting entity and revised and completed by our technical teams;
- For data outliers, meetings were held to investigate the accuracy of the data and new data was provided when requested;
- Any gaps, exclusions and/or assumptions have been clearly stated in the report.

Conclusion

Based on the aforementioned procedures, nothing has come to our attention that would cause us to believe that NBE's raw data used in the environmental footprint calculations have not been thoroughly collected, verified and truly represent NBE's resource consumption in the reporting period related to all categories/aspects identified in this report. We do not assume and will not accept responsibility to anyone other than NBE for the provided assurance and conclusion.

Abdelhamid Beshara




Dr. Abdelhamid Beshara, Founder and Chief Executive Officer
MASADER, ENVIRONMENTAL & ENERGY SERVICES S.A.E CAIRO,

October 2022



COMMUNITY MEMBER



About Masader

Masader is an innovative interdisciplinary consulting, design and engineering sustainability firm based in Cairo, aiming at leveraging positive impact across the MENA region and globally. It specializes in Resource Efficiency, Sustainable Management of Natural Resources and Integrated Sustainability Solutions. Since 2015, Masader has led 100+ projects across the areas of energy, environment, climate change & carbon footprint, circular economy, green building (LEED), as well as corporate sustainability strategies, reporting and certification.

157 Baehler's Mansions Building, 2nd Floor, 26th of July Street, Zamalek, Cairo, Egypt



Tel/Fax: +202 2735 4033



Email: info@be-masader.com



Website: <https://www.be-masader.com>

