

ADVANCING THE TRANSITION TO NET-ZERO

Corsorate Loan Portfolio Financed Emissions 2021
OCTOBER 2022

COMMERCIAL INTERNATIONAL BANK - EGYPT (CIB)

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Message from our CEO



As Egypt's leading private sector bank, we can drive the realization of a transition to a net-zero economy and help our nation take one step closer towards the Paris Agreement promise. We also acknowledge that the world has substantial energy needs and that different countries are in different stages of development. We want to make sure CIB's transition plan reflects these realities.

In developing CIB's path to net-zero emissions by 2050, we are building on our sustainability journey that started in 2013 and the goals, commitments we have set to accelerate this transition. As we continue to finance clean energy solutions, realign our business models and work towards a net-zero future, we know we cannot do this alone. Tackling climate change will require tremendous collaboration from everyone: our clients, industry peers, investment community, NGO partners and in particular, governments around the world. There is a critical need for strong public policy to accelerate the global economy's transition to net-zero.

Getting to net-zero means we must support our clients in their own transition to low carbon economy and understand where they are in their journeys to make progress. Our intention is to work with all our clients to develop credible plans and transition to net-zero together. We will also encourage the responsible retirement of carbon-intensive assets rather than divestment as part of these transition plans. We will continue to assess our client relationships, a regular part of how we manage our business, and prioritize partnering on transition strategies before turning to client exits as a last resort.

Mr. Hussein Abaza Chief Executive Officer and Managing Director

Message from our CRO



CIB has a diversified business model, serving the economy's various sectors both at the national and international levels. This diversification increases the breadth of analysis and action to be taken with respect to climate related risks. It also helps to take advantage of a wider range of climate-related opportunities.

CIB believes that climate-change risks are cross-cutting drivers of existing risks. They affect, with different levels of relevance and intensity, the existing risk categories already envisaged in the risk management framework of the group, including credit risk, operational risk, reputational

risk, market risk and liquidity risk. Climate-related financial risks are increasingly becoming more relevant to financial institutions. Central banks, financial supervisors, investors, rating agencies and other parties around the world have a keen interest in risks and opportunities deriving from climate strategies, not only as drivers of financial impacts, but also as indicators of running businesses in a way that is more attentive to the world we live in.

Mr. Talha Karim Chief Risk Officer

Message from our CSO



CIB's voluntary commitment to local and international initiatives and partnerships shows long-term and growing involvement and collaboration with public and private bodies on climate related matters. CIB is aware that as a large banking organization, we have a significant influence in terms of environmental and social sustainability, both in the short and long term. In fact, as concerns climate change, in addition to directly managing its own environmental footprint, CIB has a strong influence on activities and behaviors of customers and suppliers, which can help the transition to a low carbon economy.

CIB has long backed the transition to a low-carbon economy through direct action to mitigate its own emissions through CIB's Climate Change Action Plan and supporting its clients' initiatives and projects. It has been analyzing risks and opportunities deriving from climate change issues and developed a number of projects to ensure that climate change issues may be correctly addressed across the Bank's different lines of business.

Dr. Dalia Abdelkader Chief Sustainability Officer





CIB's Path to Net-Zero



CIB is the first Bank in Egypt to commit to the Net-Zero Banking Alliance (NZBA) and the only representative in Africa's NZBA Steering Group

The world is undergoing a pivotal transformation, changing how we live, learn and do business, with sustainability at the heart of any efforts to address the global challenge of climate change. The role of the banking industry in tackling this challenge is key. As one of the leading sustainability banks in Egypt, CIB is well-aware of this global challenge and the efforts required to reach the globally set targets of reducing the impacts of climate change.

CIB is the leading private sector bank in Egypt, dedicated to creating outstanding value for its stakeholders. The Bank is one of the founding members of the Net-Zero Banking Alliance (NZBA), hosted by the United Nations Environment Programme Finance Initiative (UNEP FI), making CIB among the world's biggest banks focusing on delivering the banking sector's climate commitments in alignment with Paris Agreement goals. Furthermore, CIB is the only bank in the MENA region to join the NZBA and the only bank that represents Africa in the NZBA Steering Group. CIB is also

the first bank in Egypt to support the Task Force on Climate Related Financial Disclosures (TCFD). The Bank is working to address cutting-edge questions on risk assessment and disclosures, partnering with regional and global financial institutions, such as UNEP FI.

For several years, we have been reporting on our Greenhouse Gas (GHG) emissions, covering Scope 1 and 2 emissions, as well as a large extent of our Scope 3 emissions from our own operations, including sustainability reporting and ESG performance. As a step towards net-zero, we have committed ourselves to assessing and disclosing our corporate loan portfolio financed emissions in alliance with the NZBA. We will disclose our financed emissions and follow up on our loan portfolio on a yearly basis to understand how lending decisions affect the climate and track our progress. Through these efforts, we hope that other banks and financial institutions follow suit and begin to consider their financed emissions, which is integral to achieving net-zero emissions.

Our Approach



Communicating Our Commitments Towards Net-Zero Emissions

We commit to align our portfolios with the goals of the Paris Agreement and set portfolio GHG reduction targets in line with the NZBA and the SBTi.



Supporting the Transition to a Low-Carbon Economy

We work to help our clients transition to low carbon solutions and operations through facilitated loans, grants, and technical assistance.



Reducing Our Environmental Impact

We aim to reduce the GHG emissions associated with our operations and business activities through promoting resource efficiency and increasing the share of electricity sourced from renewable sources.



Environmental & Social Risk Management (ESRM) in the Risk Assessment **Framework**

In line with the Bank's Sustainable Finance Policy, CIB's ESRM framework integrates Environmental and Social Credit Risk Assessment into its business processes. This occurs in a set of actions that is implemented concurrently with CIB's risk management procedures, according to international best practices.





CIB is aiming to adopt and evolve the Environmental and Social Risk frameworks in line with the global standards and best practices

CIB understands that its commitment to delivering value creation to its stakeholders and the ecosystem is subject to its understanding and implementation of sustainable finance in its business operations. CIB is also committed to aligning its sustainable finance strategy with national and international climate strategies.

Stemming from our commitment and ongoing strategies, CIB has had an Environmental and Social Risk Management System (ESRMS) in place since 2016. It is continuously utilized as a mitigation tool for the Bank's identified negative impact areas, in addition to encouraging social and environmentally friendly practices. The ESRM ensures that the Bank considers the environmental and social risks of its prospective financing opportunities and empowers the Bank to engage with prospective clients to manage and mitigate these identified risks.

The Bank's Sustainable Finance Strategy (SFS) leverages the environmental, social and governance (ESG) pillars to allow for growth opportunities for the Bank in terms of managing E&S risks and capturing new business opportunities. The strategy focuses on leveraging the ESG pillars to build a robust E&S Risk Management framework that enacts the IFC ESRMS, the Equator Principles, and the TCFD. The Strategy also charts how to stimulate revenue generation by leveraging the ESG criteria.

Financing the Transition

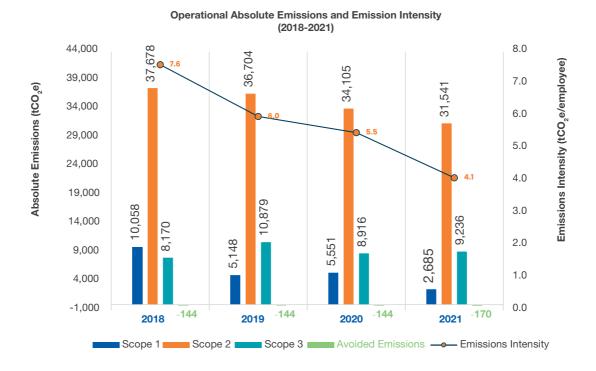
CIB works to lead by example through maintaining GHG efficiency across its operations, continuously monitoring and improving its performance, and directing investments to mitigation measures. The Bank is also setting the path for the private sector's transition to a low-carbon economy by aligning its financing and investments with the goals of the Paris Agreement and providing products and services that satisfy our clients' needs and priorities across a myriad of sectors. CIB continuously seeks to support the national climate change mitigation strategy through its innovative initiatives, products, services and capacity building programs. The Sustaining Sectors Program is proof of commitment towards actively participating in the national transition to a green economy.

Strategic Approach

- Acknowledging risks and synergies between climate risk and traditional risk categories (e.g., credit, market, etc.). The Sustainable Finance Strategy includes the environmental, social and governance dimensions.
- CIB ESG Risk becoming on par with state-of-the-art international risk frameworks. The Bank conducted a thorough gap analysis with the aim of upgrading the ESRM to ensure full and efficient implementation of all system stages from pre-appraisal to monitoring and reporting across all business lines. CIB is adopting and integrating other relevant global E&S risk frameworks, such as the Equator Principles & TCFD Climate Change Risk Management. The TCFD framework involves the identification of climate risk within lending portfolios, heat mapping, scenario analysis and stress testing exercises.
- Introducing new angles to risk assessment, so that with every risk identified, a cross-selling and lending opportunity of green products is created.



Transitioning to net-zero emissions also means reducing our operational emissions of Scope 1, Scope 2 and non-category 15 scope 3 emissions to reach carbon neutrality by 2050 from our own operations. CIB has been reporting on, managing and continuously seeking opportunities to reduce its operational emissions since 2018. CIB has been reducing its carbon emissions intensity per employee during the past four years, reaching a 46% decrease in 2021 from the 2018 baseline.



Decarbonization Action Plan: How are we achieving the reductions in our operational GHG emissions?

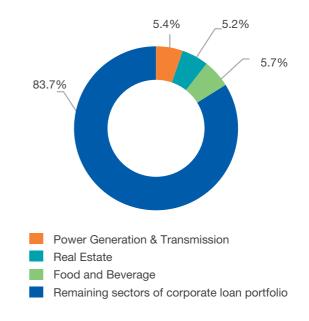


This report represents a milestone on CIB's journey towards Net-Zero emissions by 2050, as the Bank's pilot-phase portfolio emission assessment. We are disclosing our corporate loan financed emissions in accordance with the Partnership for Carbon Accounting Financials (PCAF) Global GHG Accounting and Reporting Standard for the Financial Industry.

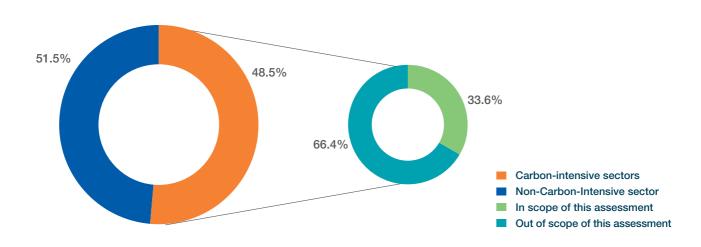
This assessment covers the corporate loan segment only of the "Business Loans and Unlisted Equity" asset class as defined in the PCAF Standard, of which three carbon intensive sectors were selected, including power generation and transmission, real estate, and food and beverages, representing 5.4%, 5.2%, and 5.7%, respectively, from the Bank's corporate loans portfolio. Additionally, the selected three sectors represent 33.6% of our total outstanding loans to carbon-intensive sectors¹. We have used economic activity emission factors to calculate the emissions from each of the selected sectors. The sectors included in this report have been chosen² based on data availability, in addition to the material exposure of each sector compared to CIB's total lending portfolio.

CIB is working towards expanding the coverage scope of its portfolio emissions assessment and will be disclosing the emissions from more asset classes and carbon-intensive sectors in future reports. This will be accompanied by setting portfolio emissions reduction targets in line with the latest climate science, as well as defining sector decarbonization pathways using widely accepted science-based decarbonization scenarios

Share of sectors covered in the assessment from the total corporate loan portfolio by outstanding loans (%)



Corporate loans to carbon & non-carbon intensive sectors by outstanding loans (%)



¹ Carbon intensive sectors correspond to the nine sectors identified in one of the UNEP FI Guidelines for Climate Target Setting for Banks. CIB will work on expanding the scope of reporting to include other carbon-intensive sectors in upcoming assessments.

² For further details, please refer to the section "Selection Criteria".



Assessment Highlights

Building on the Bank's five-year journey of operational GHG reporting and management, CIB has set a milestone towards its net-zero emission by 2050 commitment, which will be achieved through this pilot phase assessment of its corporate loan financed emissions for the year 2021.

CIB committed to the NZBA in 2021 and is one its founding members. CIB became the first Bank in Egypt to join the Partnership for Carbon Accounting Financials (PCAF) in 2022 and developed this assessment in accordance with the PCAF Standard.



1. Assessment Results: Corporate Loans Portfolio Financed Emissions for the Selected Sectors, 20213

Three carbon-intensive sectors were selected based on the following criteria4



Carbon-intensive sector



Significant exposure as % of the total portfolio



Data Availability

Top 10 clients by outstanding loans were selected for the assessment under each of the three defined sectors.



Power Generation & Transmission



Real Estate



Food and Beverages

Coverage⁵ per sector

99% 96%

57%

Absolute financed emissions per sector

2,341,377 tco,e

8,174 tCO₂e

133,910 tCO₂e

Economic emissions Intensity Scope 1+26

4,425 tCO₂e/\$M loaned

17tCO₂e/\$M loaned

421 tCO₂e/\$M loaned

2. Way Forward: CIB's Roadmap to Net-Zero Financed Emissions⁷



Assessing and reporting financed emissions covering all carbon-intensive sectors and applicable asset classes.



Scenario analysis in line with the latest climate science, setting portfolio and operational targets and developing a transitional action plan.



Advancing our Sustainable and Climate Finance Strategy and developing our programs, including the "Sustaining Sectors Program."



Support our clients across sectors in identifying and implementing GHG reduction opportunities and innovative solutions and facilitate their financing mechanisms.



Manage, monitor, improve and report on our progress on a yearly basis.



⁵Coverage from the total outstanding loans portfolio in each sector.



Guidelines and Frameworks

The assessment is conducted using the Greenhouse Gas Protocol, which is the most applied global standard for accounting on greenhouse gas emissions across industries. The Partnership for Carbon Accounting Financials (PCAF) Standard has been applied, specifically addressing financed emissions, measuring, and reporting on GHG emissions associated with the corporate loan portfolio.

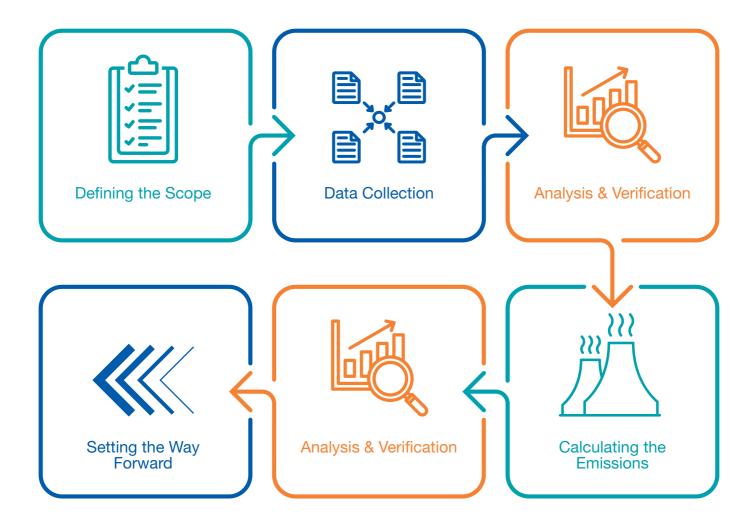


General Approach⁸

The approach of the assessment follows the six steps presented below. The scope of the assessment was defined by assessing the carbon- intensive sectors in the loan portfolio and applying the selection criteria, followed by the data collection. This was made done using both CIB's data records, as well as PCAF's database to access the emission factors to calculate the emissions of the selected industries of the loan portfolio.

The assessment covers scope 1 and 2 only of the selected sectors, and accounts for the seven greenhouse gases as per the Kyoto Protocol in metric tons of CO₂ equivalent (tCO₂e). All financial data is converted from EGP to USD using the Bank's official exchange rate as of the 31st of December 2021.

The calculations were followed by further analysis and presentation, as well as data quality scores according to the PCAF Standard. The assessment sets the way forward and propose steps for assessments in the upcoming years.

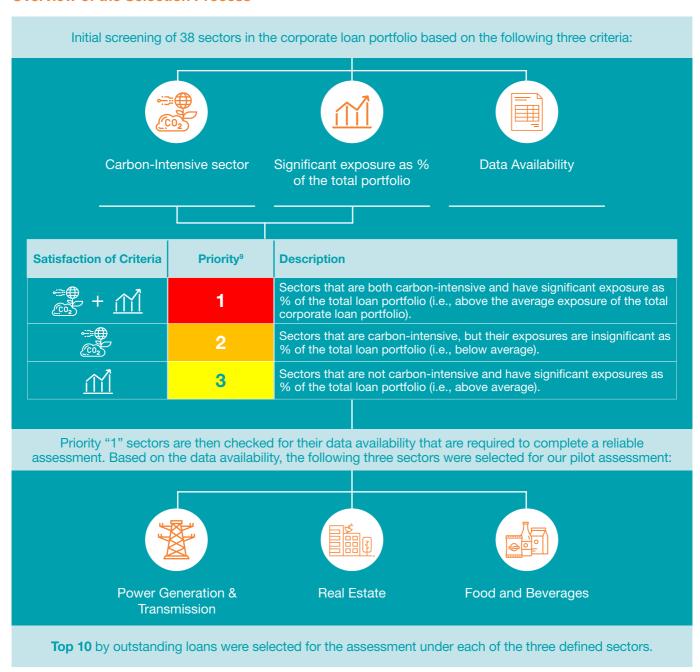


⁸ For further details on the calculations methodology, please refer to the annex "Calculations Methodology of Financed Emissions".



To select the sectors for this assessment, a set of criteria has been defined (as presented in the diagram below), which includesd the screening of the sectors in the Bank's total corporate loans portfolio. Each of the 38 sectors was rated based on a defined colouring scheme (red, orange, and yellow), according to its fulfilment of the set criteria. Finally, the sectors that were rated as priority "1" were selected to be included in our assessment.

Overview of the Selection Process



⁹ Signifies priority for selection, where "1" is the highest, and "3" is the lowest.



The below table presents the results of the first assessment of our financed emissions for our corporate loan portfolio under the "Business Loans and Unlisted Equity" asset class, as defined in the

PCAF Standard, covering the period from January 2021 to December 2021. The assessment includes the financed emissions of the Top 10 clients in each of the selected three carbon-intensive sectors.

Table 1. Corporate loan financed emissions for selected sectors, 2021

	Activity	Total Outstanding Loans Covered (\$M)	Scope 1+2 Emissions (tCO ₂ e)	Economic Emission intensity Scope 1+2 (tCO ₂ e/\$M loaned) ¹⁰	Weighted Data Quality Score ¹¹ (High quality = 1; Low quality = 5)	% Coverage From Total ¹²
		Absolute F	inanced Emissions	Per Asset Class		
Business L Equity ¹³	oans and Unlisted	1,340.4	2,483,461	1,853	4	-
	Absolute Financed Emissions Per Sector					
	Power Generation and Transmission	529.1	2,341,377	4,425	4	99%
	Real Estate	493.1	8,174	17	4	96%
	Food and Beverages	318.2	133,910	421	4	57%

 $^{^{10}}$ These are absolute emissions (scope 1 and 2) divided by the loan volume, expressed as e.g., tCO_2e /\$M loaned, according to the PCAF standard.

¹¹ For further details, please refer to the section "Data Quality Scores" of the annex "Calculations Methodology of Financed Emissions".

¹² Total refers to the total portfolio of the specified asset class or sector.

¹³ Only corporate loans were considered in this assessment. CIB will work on expanding the scope of reporting to include more activities and asset classes in upcoming assessments.

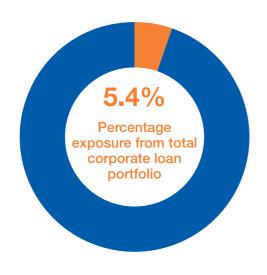


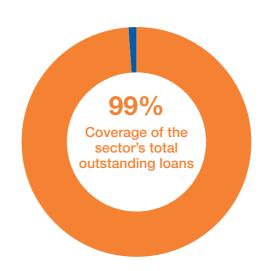


The Power Generation and Transmission sector is one of the main carbon-intensive sectors to be reported from the corporate loan portfolio. This sector represents 5.4% of CIB's total loan portfolio, and the measured financed emissions covered 99% of the sector's total loan exposure. The clients, which are governmental entities responsible for producing and delivering electricity to consumers nationwide, are divided into public and private sector companies.

Private sector companies were developed on a Build-Operate-Own-Transfer (BOOT) Independent Power Producer (IPP) program to sell the generated electric power pursuant to the Power Purchase Agreement (PPA) executed between other private sector companies and government-owned companies.

CIB Portfolio in Scope of the Assessment





Financed Emissions Results, 2021

Sector I – Power Generation and Transmission			
Total Outstanding Loans (\$M) ¹⁴	Scope 1+2 Emissions (tCO ₂ e)	Economic Emission Intensity (tCO ₂ e/\$M loaned) ¹⁵	Weighted Data Quality Score ¹⁶ (High Quality = 1; Low Quality = 5)
529.1	2,341,377	4,425	4

¹⁴Loans figures were converted from EGP to USD based on the FX rate of 15.7167 as of December 2021.

¹⁵These are absolute emissions (scope 1 and 2) divided by the loan volume, expressed as e.g., tCO₂e/\$M loaned, according to the PCAF standard.

¹⁶For further details, please refer to the section "Data Quality Scores" of the annex "Calculations Methodology of Financed Emissions".



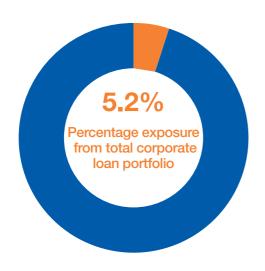


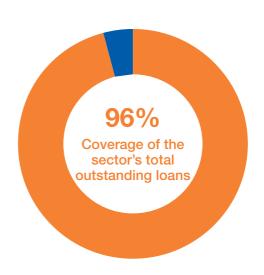
Real Estate is one of CIB's corporate loan portfolio sectors, with clients in several sub-sectors, divided into mixed use, commercial, residential and service. The sub-sector mixed use is usually classified as a project that features the mixing of at least three significant revenue streams, including retail, residential and commercial revenues. The sub-sector mixed use includes constructing, owning, managing and marketing of hotels, residential units and tourism villages with related supplementary services, including entertainment, sporting and commercial activities.

The sub-sector commercial includes constructing and managing properties used exclusively for business purposes or to provide a workspace rather than a living space. This sub-sector includes retailers of all kinds, office space, hotels, malls, restaurants and stores.

This sector has been classified as carbon-intensive and represents 5.2% of CIB's total corporate loan portfolio. 96% of the sector has been covered in this assessment.

CIB Portfolio in Scope of the Assessment





Financed Emissions Results, 2021

Sector II – Real Estate			
Total Outstanding Loans (\$M) ¹⁷	Scope 1+2 Emissions (tCO ₂ e)	Economic Emission Intensity (tCO ₂ e/\$M loaned) ¹⁸	Weighted Data Quality Score ¹⁹ (High Quality = 1; Low Quality = 5)
493.1	8,174	17	4

¹⁷Loans figures converted from EGP to USD based on the FX rate of 15.7167 as of end of December 2021.

¹⁸These are absolute emissions (scope 1 and 2) divided by the loan volume, expressed as e.g., tCO₂e/\$M loaned, according to the PCAF standard.

¹⁹For further details, please refer to the section "Data Quality Scores" of the annex "Calculations Methodology of Financed Emissions".



Sector III Food and Beverage

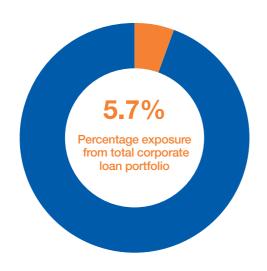
Food and beverage is the third sector for reporting our financed emissions, representing 5.7% of CIB's total loan portfolio. The sector has several sub-sectors, mainly beverages, confectionery and snacks, dairy products, fast food, as well as oil and ghee, trade commodities and other food products.

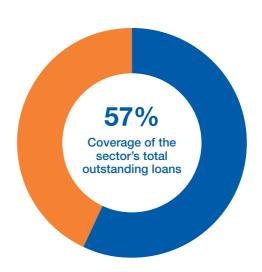
The beverages sub-sector covers the production of carbonated soft drinks and the extraction of water from

wells, purifying and bottling it. The confectionery and snacks sub-sector includes operations related to the production of confectionery, such as chocolate and gums. Dairy products include operations related to the production of dairy products, starting from the livestock to fermentation and packaging.

This industry has been classified as carbon-intensive. We have covered 57% of the sector in our assessment.

CIB Portfolio in Scope of the Assessment





Financed Emissions Results, 2021

Sector III – Food and Beverages			
Total Outstanding Loans (\$M) ²⁰	Scope 1+2 Emissions (tCO ₂ e)	Economic Emission Intensity (tCO ₂ e/\$M loaned) ²¹	Weighted Data Quality Score ²² (High Quality = 1; Low Quality = 5)
318.2	133,910	421	4

²⁰Loans figures were converted from EGP to USD based on the FX rate of 15.7167 as of end of December 2021.

²'These are absolute emissions (scope 1 and 2) divided by the loan volume, expressed as e.g., tCO₂e/\$M loaned, according to the PCAF standard.

²²For further details, please refer to the section "Data Quality Scores" of the annex "Calculations Methodology of Financed Emissions".



Conclusion & Way Forward

Setting a New Milestone in GHG Reporting

This is CIB's first assessment of the financed emissions of its corporate loan portfolio, as of December 2021. Three sectors have been selected for the assessment: Power Generation and Transmission, Real Estate and Food and Beverage, representing 16% of CIB's total corporate loan portfolio. We are aware of the key role we play in tackling climate change and that reporting on our financed emissions is only a small part of our sustainability reporting that follows the global agenda of transitioning to a green economy and building a sustainable future.

CIB is committed to reporting on its financed emissions and has recently joined the Partnership for Carbon Accounting Financials (PCAF). As a founding member of the NZBA and in line with its goals, we will set intermediate and long-term targets and will continue to report on and disclose our financed emissions for these sectors and other carbonintensive sectors on a yearly basis.

This report is a pilot assessment of CIB's financed emissions. We are working on improving and refining our analysis and coverage using the data sources and methodologies available for the analyzed sectors. We also aim to set a solid baseline to which our targets will be developed and compared against. We expect the data quality scores to improve over time as clients continue to expand their disclosures to meet growing regulatory and stakeholder expectations. We aim to report annually our progress against the targets in a transparent manner. We are aware that financed emissions may not be comparable year-on-year and baselines and targets may be required to be re-evaluated as data availability and methodologies are refined over time.

In the coming years, we strive to extend the scope of reporting to include more asset classes and carbon-intensive sectors. The financed emissions of all carbon-intensive sectors as per the NZBA guidelines shall be disclosed in upcoming reports, followed by the entire corporate loan portfolio. Additional carbon metrics, such as physical emissions intensity, shall be included as applicable.

As for the coming assessments, selection of emission factors as per location, refined methodology applied to our corporate loan portfolio and the clients' characteristics with enhanced data quality score are of significant importance to ensure that the financed emission reporting reflects our corporate loan portfolio as much as possible. Portfolio GHG reduction targets, action plans and decarbonization pathways with scenarios such as NZE2050 and IPCC scenarios, shall be considered in the upcoming assessments as applicable and where methodologies are available.



Leading the Transition through our Sustaining Sectors Program



CIB actively cooperates with its corporate clients to create a more sustainable future. To that end, the Bank has announced its Green Bond Framework and launched the "Sustaining Sectors Program," a knowledge and action-oriented program that targets corporates from various sectors. This program is designed to help corporates in different sectors leverage sustainability to realize their potential and advance their growth while driving system transformation towards a circular economy. The program discusses new global and national trends and features multiple stakeholders, renowned thinkers and subject-matter experts. It also equips businesses with the necessary tools,

capacity-building training and financial products needed to help business owners transition to a low carbon economy.

Best practices are introduced and new global and national trends by hosting renowned thinkers, subject matter experts, and national leaders to support business leaders' transition toward a low carbon economy

CIB also supports its clients in benefitting from green sustainable finance loans, learning about the regulations to enter global markets and exploring ways to grow their business.

Harnessing Climate Opportunities

Across Sectors

CIB seeks to identify and support the financing of innovative solutions and opportunities targeted at corporates across numerous sectors to help them reduce their operational emissions. As part of the Bank's Sustaining Sectors Program, CIB continues to identify and suggest several opportunities of actions to its corporate clients, based on the nature of their activities and their needs to support them in reducing their GHG emissions, including but not limited to the following:



Power Generation & Transmission

- Transition from fossil fuel power generation to clean renewable energy by expanding the implementation of renewable energy systems, such as solar, wind and hydro power systems
- Explore the feasibility of energy recovery solutions from waste, such as the conversion of non-recyclable waste materials into usable heat, electricity or fuel through a variety of processes, including combustion, gasification, pyrolization, anaerobic digestion and landfill gas recovery
- Sustainable biomass, rehabilitation/ construction of biomass units for heat and electricity generation
- Smart technologies, including real-time energy demand-supply solutions and smart grid systems
- Exploring opportunities of cogeneration and distributed/ decentralized energy sources
- Communicate with customers about user's load and sustainable patterns
- Further exploration and implementation of grid energy storage to manage electricity generation/loads



Real Estate

- Install energy efficient lighting fixtures, such as LEDs, in addition to lighting control systems such as occupancy and vacancy sensors
- Install ventilation control systems, such as CO₂ sensors
- Install external shading device or reflective sheets to reduce solar heat gain
- Follow energy efficiency measures for steam boilers and steam distribution with improved insulation or steam and hot water distribution networks and steam traps
- Reduce cooling load by using reflective paint on the roof and/or the exterior walls and adding insulation materials on the roof and/or the walls and green roof layers
- Reduce solar heat gain and heat transfer by using high performance glazing, such as double and or low emissivity (Low-E) glazing
- Install variable speed drives (VSD) on motors and equipment to reduce energy consumption by controlling the speed based on the varying demand
- Use the chillers' compressors' waste heat to reduce energy consumption for water heating
- Install efficient variable refrigerant flow cooling systems
- Use renewable energy covering solar photovoltaic solutions
- Increase water efficiency using water sub-metering and automatic shut-off nozzles and marking hand-operated valves in a way that open, close and directed-flow positions are easily
- Use wastewater treatment solutions, including grey water reutilization



Food and Beverages

- Incorporate operations and behaviour measures, such as Energy Management Systems (EnMS)
- Invest in new high energy performance equipment, machineries and processes
- Follow energy conservation measures related to process utilities in food processing, such as flue gas heat recovery, recover blow down steam, capture return condensate, improve efficiency at steam end use, install high efficiency compressed air systems, etc.
- Follow energy conservation measures related to process heating, inter process heat recovery, waste heat recovery solutions
- Follow energy conservation measures related to the facility building in food processing, such as free cooling for space cooling, efficient HVAC system operations and maintenance, building envelope enhancement and LED lighting retrofit
- Use low carbon energy solutions, including renewable energy system installations, such as solar PV systems





Methodology

Our assessment covers the segment corporate loans, from the asset class "Business loans and unlisted equity" as defined in the PCAF (2020), the Global GHG Accounting and Reporting Standard for the Financial Industry "First edition".

Sectoral Classification

The scope of clients analysed is determined based on sectoral filtering and includes the codes shown in the table below. For the corporate loan portfolio, we use ISIC Revision 4 codes. ISIC codes are assigned at the individual client level. We then determine the clients' group level ISIC code by assessing lending limits provided by CIB to each individual client within the sector.

Sector	ISIC Rev.4 Classification of Principal Activity
Power Generation and Transmission	3510 Electric power generation, transmission, and distribution
Real Estate	6810 Real estate activities with own or leased property
Food and Beverages	1030 Processing and preserving of fruit and vegetables
	1040 Manufacture of vegetable and animal oils and fats
	1072 Manufacture of sugar
	4630 Wholesale of food, beverages and tobacco

Input Data for Emission Calculations

To compute the absolute financed emissions from business loans, we retrieved clients' financial data, including total revenues, assets, as well as data needed to calculate each client company's value, including enterprise value including cash (EVIC) for listed companies and total equity and debt for private or non-listed companies. Outstanding loan amounts²³ were retrieved from CIB's databases per client and per sector.

The PCAF database of emission factors expressed in tCO₂e/\$M of revenue per sector (ISIC Revision 4) and country, exported from the Environmentally Extended Input Output (EEIO) database EXIOBASE, were used to complete the emission calculations.

²³For corporate loans, this is defined as the value of the debt that the borrower owes to the lender (i.e., disbursed debt minus any repayments).

Calculation of Clients' Financed Emissions

In this assessment, we focused on computing Scope 1 and 2 of our top 10 clients by outstanding loans in each of the three selected sectors. To calculate the absolute financed emissions per sector, we followed the following general formula (equation 1) as specified in the PCAF Standard.

Equation 1: General equation to calculate financed emissions

Financed emissions (tCO₂ e)= \sum Attribution factor, X Company emissions (tCO₂e) i = company/client per sector

To calculate the company emissions, we followed Option 3: Economic Activity-based Emissions, where emissions are estimated using sector-specific average emission factors. The following formulas were used to calculate the attribution factor and the emissions per company for each of the three sectors:

Equation 2: Company Emissions

GHG Emissions Company emissions (tCO₂e)= Revenue (\$M) X C = company Revenue (\$M) S = sector

Equation 3: Attribution Factor

Outstanding loan amounts Attribution factor = Company value 24

When calculating the loan portfolio emissions intensity per sector, we consolidated clients' financed emissions and outstanding loan data using the equation below.

Equation 4: Economic Emissions Intensity

Company emissions Economic emissions intensity (tCO₂e/\$M loaned)= $\sum_{i=1}^{n}$ Attribution factor, X Outstanding loans, i = company/client per sector

²⁴The PCAF standard defines this as the sum of total company equity and debt for private companies, as well as the company enterprise value, including cash (EVIC) for listed companies.



Data Quality Scores

When calculating the clients' financed emissions, we adopted the PCAF data quality hierarchy table to help provide transparency in our calculation methodologies.

Table 2. General description of the data quality score table

Data Quality (Score 1 = highest data quality: Score 5 = lowest data quality)	Options to Estimate the Financed Emissions		When to Use Each Option
		1a	Outstanding amount in the company and total company equity plus debt are known. Verified emissions of the company are available.
Score 1	Option 1: Reported emissions	1b	Outstanding amount in the company and total company equity plus debt are known. Unverified emissions calculated by the company are available.
Score 2	Option 2: Physical activity-based emissions	2a	Outstanding amount in the company and total company equity plus debt are known. Reported company emissions are not known. Emissions are calculated using primary physical activity data for the company's energy consumption and emission factors specific to that primary data. Relevant process emissions are added.
Score 3		2b	Outstanding amount in the company and total company equity plus debt are known. Reported company emissions are not known. Emissions are calculated using primary physical activity data for the company's production and emission factors specific to that primary data.
Score 4	Option 3: Economic activity- based emissions	3a	Outstanding amount in the company, total company equity plus debt, and the company's revenue is known. Emission factors for the sector per unit of revenue are known (e.g., tCO ₂ e per euro of revenue earned in a sector).
Score 5		3b	Outstanding amount in the company is known. Emission factors for the sector per unit of asset (e.g., tCO ₂ e per euro of asset in a sector) are known.
		3с	Outstanding amount in the company is known. Emission factors for the sector per unit of revenue (e.g., tCO ₂ e per euro of revenue earned in a sector) and asset turnover ratios for the sector are known.

Data Limitations

Due to the limited data availability with regards to sectoral and country-specific emission factors (for Egypt), we used average economic emission factors for the Middle East given its closest relevance to Egypt. In this assessment, we only considered the primary activity per client in the selection of the ISIC codes. We aim to enhance our data quality scores in future assessments by improving our data collection and management systems, as well as supporting our clients in tracking the required data to enable further granularity when it comes to assessing the financed emissions across all applicable sectors and asset classes.



Absolute emissions	Emissions attributed to a financial institution's lending and investing activity. (expressed in tonnes CO ₂ e.)
Asset class	A group of financial instruments that have similar financial characteristics.
Attribution factor	The share of total greenhouse gas (GHG) emissions of the borrower or investee that are allocated to the loan or investments.
Business loans	Loans and lines of credit for general corporate purposes (i.e., with unknown use of proceeds as defined by the GHG Protocol) to businesses, non-profits and any other structure of organization that is not traded on a market and is on the balance sheet of the financial institution.
Economic emission intensity	Absolute emissions divided by the loan and investment volume expressed as e.g., tCO ₂ e/\$M invested or loaned, according to the PCAF standard.
Enterprise Value Including Cash (EVIC)	The sum of the market capitalization of ordinary shares at fiscal year-end, the market capitalization of preferred shares at fiscal year-end and the book values of total debt and minorities' interests. No deductions of cash or cash equivalents are made to avoid the possibility of negative enterprise values.
Environmentally extended input-output (EEIO) data	EEIO data refers to EEIO emission factors that can be used to estimate scope 1, 2 and upstream scope 3 GHG emissions for a given industry or product category. EEIO data is particularly useful in screening emission sources when prioritizing data collection efforts.
EXIOBASE	A global, detailed multi-regional environmentally extended supply-use table and input-output table. It was developed by harmonizing and detailing supply use tables for a large number of countries, estimating emissions and resource extractions by industry.
Financed Emissions	Greenhouse gas emissions that occur as a result of financing, including lending and investment activity. These activities fall within scope 3, category 15 of the GHG protocol.
GHG accounting of financial portfolios	The annual accounting and disclosure of GHG emissions associated with loans and investments at a fixed point in time in line with financial accounting periods. This is also called portfolio GHG accounting.
Greenhouse gases (GHG)	GHGs are atmospheric gases that absorb and emit radiation within the thermal infrared range and contribute to global climate change. The seven gases include carbon dioxide (CO ₂), methane (CH ₄), nitrous oxide (N ₂ O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF ₆), and nitrogen trifluoride (NF ₃).
Scenario analysis	A process of analysing future events by considering alternative possible outcomes.
Scope 1 emissions	Direct GHG emissions that occur from sources owned or controlled by the reporting company—i.e., emissions from combustion in owned or controlled boilers, furnaces, vehicles, etc.
Scope 2 emissions	Indirect GHG emissions from the generation of purchased or acquired electricity, steam, heating, or cooling consumed by the reporting company. Scope 2 emissions physically occur at the facility where the electricity, steam, heating, or cooling is generated.
Scope 3 emissions	All other indirect GHG emissions (not included in Scope 2) that occur in the value chain of the reporting company. Scope 3 can be broken down into upstream emissions that occur in the supply chain (for example, from production or extraction of purchased materials) and downstream emissions that occur as a consequence of using the organization's products or services.
Scope 3 category 15 (investments) emissions	This category includes scope 3 emissions associated with the reporting company's loans and investments in the reporting year, not already included in scope 1 or scope 2.
Total balance sheet value	A balance sheet is a financial statement that reports a company's assets, liabilities and shareholders' equity. The balance sheet value refers to the sum of total equity and liabilities, which is equal to the company's total assets.
Unknown use of proceeds	Unknown use of proceeds refers to investments and loans for general (corporate or consumer) purposes (i.e., the financial institution does not know exactly for what activity the money is used, which applies to general purpose loans).

Source: PCAF Standard.

Abbreviations and Acronyms

CIB	Commercial International Bank
EnMS	Energy Management System
ESRM	Environmental and Social Risk Management
GHG	Greenhouse Gas
IEA	International Energy Agency
IPCC	Intergovernmental Panel on Climate Change
NZBA	Net-Zero Banking Alliance
NZE2050	Net-Zero Emissions by 2050
PCAF	Partnership for Carbon Accounting Financials
TCFD	Task Force on Climate-Related Financial Disclosure
tCO ₂ e	Tons of Carbon Dioxide Equivalent
UNEP FI	United Nations Environment Programme Finance Initiative
VSD	Variable Speed Drive
\$M	Million US Dollars





To the Bank's Board of Directors,

We have been appointed by the Bank to conduct the financed emission calculations pertaining to the Bank's corporate loans portfolio of selected sectors, for the period from 1st of January 2021 to the 31st of December 2021.

Auditors' Independence and Quality Control

We adhere to integrity, objectivity, competence, due diligence, confidentiality and professional behaviour. 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 financed emissions calculations, we have adopted the Partnership for Carbon Accounting Financials (PCAF), the first edition of the Global GHG Accounting and Reporting Standard for the Financial Industry 2020, the Greenhouse Gas Protocol Guidelines, the TCFD Recommendations and the UNEP FI Guidelines for Climate Target Setting for Banks.

It is our responsibility to express a conclusion about the quality and completeness of the primary data collected/provided by the Bank. 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 was 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 the Bank's raw data used in the financed emissions calculations has not been thoroughly collected or verified or does not truly represent the Bank'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 from anyone other than the Bank for the provided assurance and conclusion.

Dr. Abdelhamid Beshara, Founder and Chief Executive Officer

MASADER, ENVIRONMENTAL & ENERGY SERVICES S.A.E CAIRO,









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.

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