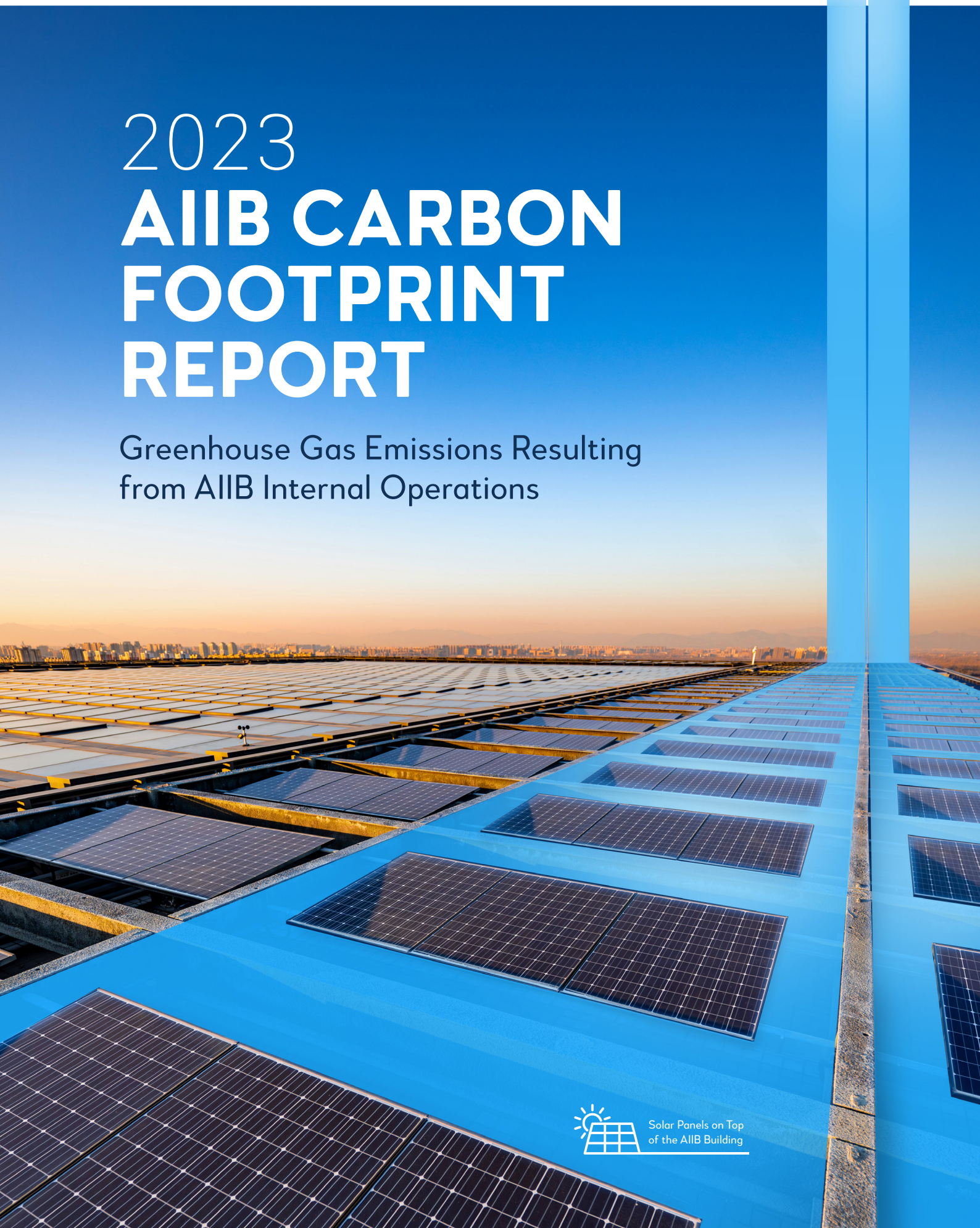
ASIAN INFRASTRUCTURE INVESTMENT BANK

2023

AIIB CARBON FOOTPRINT REPORT

Greenhouse Gas Emissions Resulting from AIIB Internal Operations



Solar Panels on Top of the AIIB Building

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ASIAN INFRASTRUCTURE
INVESTMENT BANK

2023

AIIB CARBON FOOTPRINT REPORT

Greenhouse Gas Emissions Resulting from AIIB Internal Operations


CO2

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ABBREVIATIONS

AIIB	Asian Infrastructure Investment Bank
AR6	IPCC Sixth Assessment Report
BOD	Biochemical Oxygen Demand
BSI	British Standards Institution
CH_4	methane
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
DEFRA	Department for Environment Food and Rural Affairs, Government of the United Kingdom
FAS	Facilities and Administration Services Department
GHG	greenhouse gas
GHG Protocol	Greenhouse Gas Protocol
GJ	gigajoules
GWP	global warming potentials
HFC	hydrofluorocarbon
ICEM	Institutional Carbon Emission Management
IPCC	Intergovernmental Panel on Climate Change
KG	kilograms
KM	kilometers
kWg	kilowatt-hours
L	liters
m^3	cubic meters
MDB	multilateral development bank
MJ/NM^3	Megajoules per normal cubic metre
MRV	monitoring-reporting-verification
NF_3	nitrogen trifluoride
N_2O	nitrous oxide
PFC	perfluorocarbon
SF_6	sulfur hexafluoride
tCO_2e	tonnes of carbon dioxide equivalent

VERIFICATION REPORT

Verification Opinion

Organization	**Asian Infrastructure Investment Bank** Tower A, Asia Financial Center, No. 1 Tianchen East Road, Chaoyang District, Beijing 100101 China
Opinion No.	CFV 808149 06092024
GHG Statement	《AIIB Carbon Footprint Report 2023 Greenhouse Gas Emissions Resulting from AIIB Internal Operations》; AIIB Inventory 2024 V5. (Based on ISO 14064-1:2018 & GHG Protocol)
Level of Assurance	Reasonable
Materiality	5%
Reporting Period	January 1, 2023—December 31, 2023
Criteria	ISO 14064-1:2018
Carbon Footprint	Total 11,795.12 tonnes CO_2(e)
Conclusion	**Verified as Satisfactory** Based on the processes and procedures conducted it is concluded that the GHG statement: • is materially correct and is a fair representation of GHG data and information. • has been prepared in accordance with ISO 14064-1:2018 and its principles.
Lead Verifier	RIVER ZHAO
Independent Reviewer	Mary Zhang
Signed on behalf of BSI	Michael Lam - Managing Director Assurance, APAC
Issue Date	2024-09-06

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NOTE: BSI Management Systems Certification (Beijing) Co., Ltd. is independent of and has no financial interest in the Asian Infrastructure Investment Bank. This 3rd party Verification Opinion has been prepared for the Asian Infrastructure Investment Bank only for the purposes of verifying its statement relating to its GHG emissions more particularly described in the scope above. It was not prepared for any other purpose. In making this Statement, BSI Management Systems Certification (Beijing) Co., Ltd. has assumed that all information provided to it by the Asian Infrastructure Investment Bank is true, accurate and complete. BSI Management Systems Certification (Beijing) Co., Ltd. accepts no liability to any third party who places reliance on this statement.

BSI Management Systems Certification (Beijing) Co., Ltd.
Address: Rm. 2008 East Ocean Centre, No. 24A Jianguomenwai Street, Beijing 100004, P.R. China

Appendix A Additional Information about the GHG Statement

Organizational Boundary	Operational Control	
Locations included in the Organizational Boundary	000 Tower A, Asia Financial Center, No.1 Tianchen East Road, Chaoyang District, Beijing 100101 China 001 Floors 25-26, No. 681 Ronghe Rd. Binhai New District, Tianjin, 300450 China	
Scope of activities:	The provision of investment and financing services for infrastructure development in Asia	
Reporting Boundary:		tonnes CO_2(e)
Direct GHG Emissions (Category 1)	Diesel for Emergency Generator, Combustion of natural gas for Kitchen, Corporate Fleet gasoline, refrigerant escape, CO_2 fire extinguisher, Anaerobic treatment of sewage station/septic tank methane escape.	231.07
Direct GHG Removals (Category 1)	NIL	0
Indirect GHG Emissions from imported energy (Category 2)-location based	Purchased power, Purchased heat & cooling	7,565.13
Indirect GHG Emissions from transportation (Category 3)	Staff Commuting (car, tram, metro, etc.), Staff Business Travel (High-Speed Rail), Staff Business Travel (by air), Staff Business Accommodation, Waste Transportation	3,862.99
Indirect GHG Emissions from products used by organization (Category 4)	Cloud Service, Waste Disposal (food waste), Waste Disposal (other waste), Waste Disposal (recyclable), Domestic Water Supply	135.94
Indirect GHG Emissions associated with the use of products from the organization (Category 5)	NIL	Not quantified
Indirect GHG Emissions from other sources (Category 6)	NIL	Not quantified
Total Carbon Footprint		11,795.12

Appendix B Additional information about the Assurance Engagement

Verification Objectives	To express an opinion on whether the GHG Statement which is historical in nature: • Is accurate, materially correct and is a fair representation of GHG data and information • Has been prepared in accordance with ISO 14064-1:2018, the criteria used by BSI to verify the GHG Organizational Statement
Verification evidence gathering procedures	• Evaluation of the monitoring and controls systems through interviewing employees' observation & inquiry • Verification of the data through sampling, recalculation, retracing, cross checking and reconciliation
Verification Standards	The verification was carried out in accordance with ISO 14064-3:2019 and ISO 14065:2020
Note: The Asian Infrastructure Investment Bank is responsible for the preparation and fair presentation of the GHG statement and report in accordance with the agreed criteria. BSI is responsible for expressing an opinion on the GHG statement based on the verification.	

EXECUTIVE SUMMARY

The Asian Infrastructure Investment Bank (AIIB or the Bank) aims to lead by example in managing its carbon emissions and disclosing the impact of its internal operations. It analyzed the carbon emission impacts associated with its internal operations for the first time in September 2020 (for 2017-2019 emissions) and then again in September 2021 (for 2020 emissions), tracking the carbon footprint from scopes linked to its internal operations. Starting with the report on its 2021 activities, AIIB has continuously monitored and verified its carbon emissions annually, disclosing this information to the public.

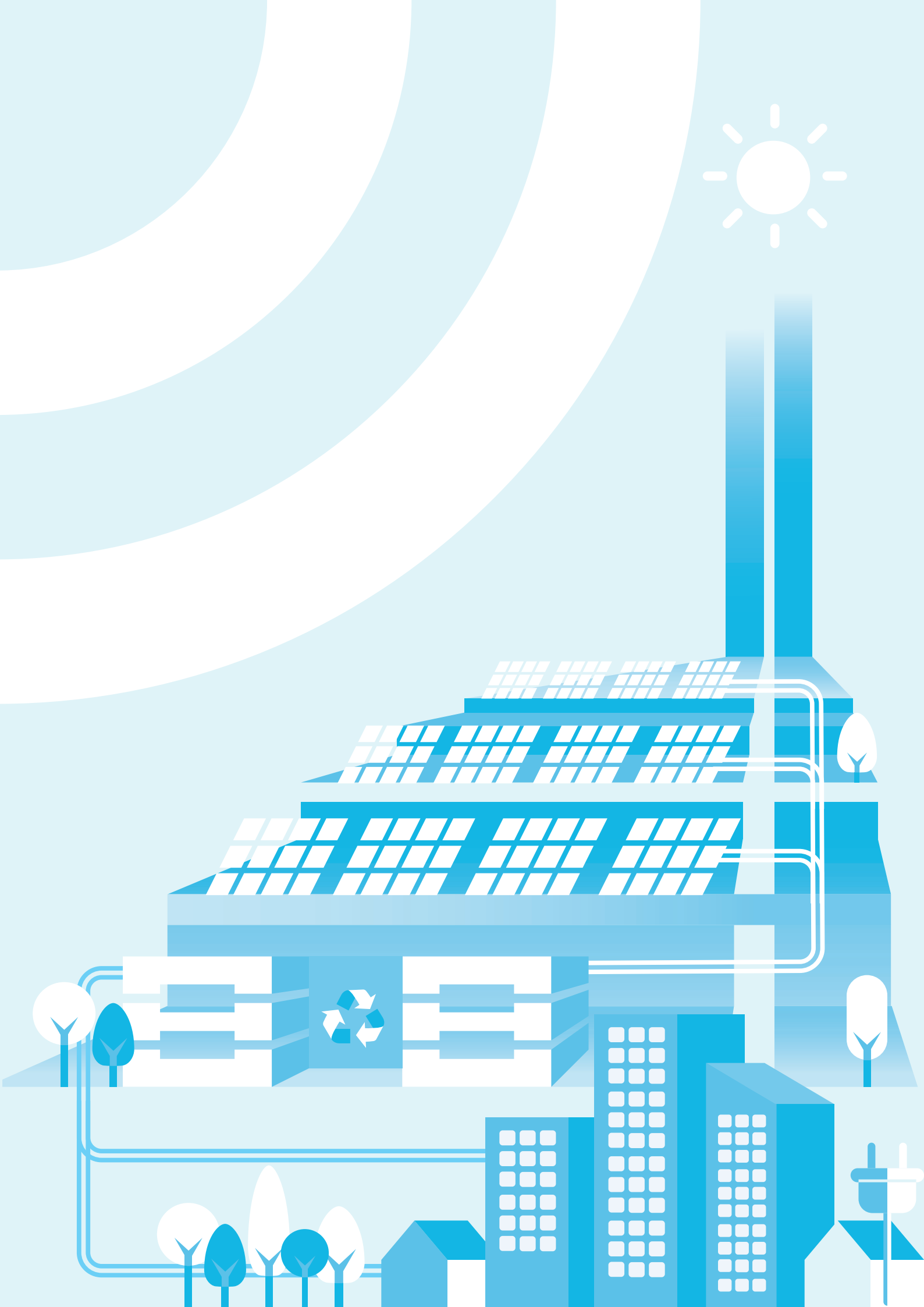
This report, as the third verified annual carbon footprint report, provides a comprehensive analysis of the carbon footprint generated by the internal operations of AIIB's Headquarters in Beijing and its backup office in Tianjin. Annual data has been prepared for the 12-month period from January 1, 2023 to December 31, 2023. As in the previous reports, it identifies the sources of greenhouse gases (GHGs) and categorizes them in accordance with ISO 14064-1:2018 and the Greenhouse Gas Protocol (GHG Protocol).

In 2023, emissions from AIIB's internal operations totaled 11,149.25 metric tons of carbon dioxide equivalent (CO_2e). Due to significant efforts in saving energy and implementing green initiatives, total consumption of energy, such as electricity and heating, declined between 2022 and 2023, despite the increasing business size and scale. However, Scope 2 emissions remain the largest, accounting for 64% of AIIB's overall carbon footprint, highlighting the need for further efforts.

Emissions from business travel accounted for over 32%, marking a significant increase from the 10% recorded in 2022 and 7% in 2021. As China relaxed its travel policies in December 2022 following the pandemic, business travel, especially international travel, rebounded in 2023. The data quality assessment shows that in 2023, data quality corresponds to Level 1, with rating scores significantly improved compared to 2021 and 2022. This improvement highlights the substantial efforts made over the past year to enhance data quality, alongside reducing the carbon footprint.

This report outlines the methodology for selecting and collecting data and calculating carbon emissions for all relevant emission categories, using internal and external documentation, interviews with key AIIB personnel and service suppliers, and source data. To ensure the accuracy of the calculations and the findings, GHG data is managed in strict accordance with the ISO 14064-1:2018 standard. This document prioritizes open data, data processing to provide results, and the enhancement of data usability and annual maintenance.

This report does not address AIIB's lending or technical support activities for its clients.



1: GENERAL DETAILS, PURPOSE, AND POLICY

1.1 Introduction

This report includes the complete greenhouse gas (GHG) emissions inventory of the Asian Infrastructure Investment Bank (AIIB or the Bank) for 2023. AIIB's reporting procedures and emission categorizations adhere to international regulations and standards. Similar to the first report, this report conforms to the standards of ISO 14064-1:2018. The information given adheres to the standards established in Part 9.3.1, and where applicable, Part 9.3.2 of the said ISO.

This document provides organization-wide information, including a corporate overview and goals, boundary conditions of the inventory, emissions quantification methods, data management methods, base year selection discussion, a list of management tools, and auditing and verification processes. The report outlines the current scope and vision of AIIB's commitment to inventorying and managing GHG emissions for its internal global business operations and includes AIIB's GHG inventory methodology. It sets forth AIIB's intention to create a GHG inventory consistent with the principles and guidance of the World Resources Institute's and the World Business Council for Sustainable Development's GHG Protocol Initiative for its internal corporate GHG accounting and reporting. The inventory methodology is designed to meet the most rigorous and comprehensive accounting and reporting standards.

This report includes information that applies to AIIB's Permanent Headquarters in Beijing and its Tianjin Backup Office located in China. Emissions from both offices are calculated using the same methodology to ensure consistency in the quantification process. This report is utilized for reporting to external stakeholders.

1.2 Purpose of this Report

AIIB aims to (a) follow best practices among multilateral development banks (MDBs) regarding consistency, comparability, and completeness in the accounting of GHG emissions; (b) lead by example by managing its own carbon emissions; and (c) align its internal activities with a pathway toward low GHG emissions and with the objectives of the Paris Agreement.

This report:

- relates to AIIB's emissions from internal activities in 2023. However, this report does not cover AIIB's lending or technical support activities for its clients.
- reflects AIIB's efforts to comply with ISO 14064-1:2018 standards for reporting its GHG emissions and enhance its monitoring-reporting-verification (MRV) performance concerning emissions.
- has been prepared by the Bank's Facilities and Administration Services Department (FAS) in line with the standards of ISO 14064-1:2018.
- attempts to use primary data whenever possible, particularly for all major emission sources. In the absence of primary data, this report uses a consistent and conservative calculation method instead.
- does not include confidential information.

1.3 Introduction to AIIB

By investing in infrastructure and other productive sectors, AIIB aims to encourage sustainable economic development, create wealth, and strengthen infrastructural connections in Asia. Working with other international and bilateral development institutions, AIIB is also tasked with fostering regional cooperation and partnerships to address development concerns. AIIB adapts and innovates continuously to provide its clients with personalized investment solutions.

For further information, please visit www.AIIB.org.

1.3.1 Institutional Carbon Management Policies and Strategies

AIIB announced its Institutional Carbon Emission Management (ICEM) Plan (the Plan) (Figure 1) in January 2022 to assist the Bank in achieving carbon neutrality by 2025 and align its internal activities with the Paris Agreement. The Plan presents a five-year overview of AIIB's institutional GHG management strategy (2021–2025), which prioritizes emission tracing and management and information disclosure. It identifies steps for the Bank to monitor, verify, and report its institutional carbon footprint, as well as the high-level strategies the Bank might employ to cut and decarbonize its institutional energy use.

Figure 1: AIIB's Institutional Carbon Emission Management Plan (2021–2025)

The Plan also sets four decarbonization targets for 2021–2025 as part of AIIB's efforts to curb climate change:

- AIIB will measure and manage its carbon footprint, continuously enhancing the data quality of its institutional carbon footprint wherever possible. AIIB will continue to hone its methods to enhance coverage and transparency and to prepare for disclosure.
- AIIB will publish its institutional GHG emissions resulting from business travel and facilities by the end of 2022.
- In 2023/2024, AIIB will begin purchasing renewable electricity to cut indirect emissions, eventually covering 100% of the electrical needs of its offices.
- Prior to 2025, AIIB will offset its remaining GHG emissions from internal activities.

In recent years, AIIB has implemented multiple initiatives to reduce its carbon footprint. Chapter 6 provides more details about AIIB's climate mitigation activities in 2023.

1.3.2 Institutional Carbon Monitoring, Reporting, and Verification

The ICEM Plan established the MRV system for AIIB's internal carbon footprint. AIIB first analyzed carbon emission impacts associated with its internal operations in September 2020 (for 2017–2019 emissions) and then again in September 2021 (for 2020 emissions), tracking the carbon footprint through scopes linked with its internal operations. Starting with the 2022 report (for 2021 emissions), AIIB has been continuously monitoring and verifying its emissions annually and disclosing this information to the public.

This report provides a comprehensive analysis of the carbon footprint generated by AIIB's internal operations at its Permanent Headquarters in the Chaoyang area of Beijing and its backup office in Binhai New District of Tianjin. It was compiled using internal and external documentation, submitted by key AIIB personnel and service

suppliers, source data, and data-gathering systems. Additionally, it describes the methodology for selecting and collecting data and computing carbon emissions for all relevant emission categories. It prioritizes the data source's openness, the data processing to provide results, and the enhancement of its usability and annual maintenance. This report does not address AIIB's lending or technical support activities for its clients.

Following AIIB's expansion of its global presence, the Bank opened its first office outside of China—the Interim Operational Hub in Abu Dhabi, United Arab Emirates (UAE)—in April 2023. AIIB will undertake additional efforts in the coming years to assess the environmental impact of its offices, with the release of reports dependent on future capacity.

ISO 14064 Part 1 is generally consistent and compatible with the GHG Protocol developed by the World Resources Institute and the World Business Council for Sustainable Development. Furthermore, it provides a framework for GHG accounting and verification to organizations looking to quantify and reduce their GHG emissions.

1.3.3 AIIB Climate Action Plan

In mid-2023, AIIB released its first Climate Action Plan, which consolidates the Bank's climate commitments and achievements, aligning them with the principles of climate financing and outlining key actions that will guide its investments in support of its Members. Regarding internal activities, the Climate Action Plan noted that AIIB will focus on improving its capacities, corporate practices and culture concerning its own internal operations, and its engagement with stakeholders and clients.

AIIB will:

- adopt, report on, and disseminate evolving standards with climate implications, including impact metric requirements from the International Sustainability Standards Board (ISSB) and other relevant recommendations.
- explore and implement best practices for the Bank's internal operations (e.g., building management, staff commuting and travel, pension management) to minimize its carbon footprint as envisaged in Building Block Six of the Joint MDB Paris Alignment Framework. Regarding internal activities related to facility management and staff travel, AIIB will measure and monitor carbon footprint to achieve carbon neutrality before 2025.

For further information on this plan, please visit the AIIB Climate Action Plan.

1.3.4 Sustainability Report

AIIB will also report on evolving standards with climate implications in its annual sustainability report. Information from this report will be disclosed in accordance with relevant standards, along with other pertinent information.

1.3.5 Act Green Together Initiative

The Act Green Together (AGT) initiative is AIIB's sustainable event management framework for its Annual Meetings since 2019. It combines key learnings from international best practices in sustainable event management and carbon emissions accounting standards. The initiative focuses on four components:

- Sustainable meeting design and management
- Carbon emissions measurement and offset
- Participant actions and engagement
- Carbon reporting and disclosure

Since its inception in 2019, the AGT has been successfully implemented for AIIB's Annual Meetings in Luxembourg (2019) and Egypt (2023). Due to travel restrictions due to the COVID-19 pandemic, AIIB held its Annual Meetings virtually from 2020 to 2022. The AGT for the 2024 Annual Meeting was co-led by the Corporate Secretary and FAS.

Since the launch of the AGT initiative, the Bank has made tremendous efforts to assess the events' impact by implementing comprehensive data collection and analysis processes. This includes detailed measurement of the carbon footprint for each Annual Meeting and identifying areas where emissions can be reduced. The Bank has also focused on addressing residual emissions through rigorous carbon monitoring practices, ensuring that any unavoidable emissions are effectively compensated through verified carbon offsets.

In addition to these technical measures, the Bank is committed to transparency by regularly disclosing detailed information about the environmental impact of its events to the public. This transparency fosters accountability and encourages continuous improvement in sustainable practices.

More importantly, the AGT initiative has played a crucial role in capacity building for host countries. Through extensive training and support, the Bank has helped the Annual Meetings' host countries develop and implement their own sustainable event management practices. This is particularly beneficial for developing countries as this has helped to enhance their capacity to more effectively manage carbon emissions. By providing technical assistance, sharing best practices, and facilitating knowledge exchange, the Bank has empowered these countries to improve their sustainability efforts and contribute to global climate goals.

1.4 Persons Responsible

1.4.1 Governance of the Institutional Carbon Emission Management Plan

ICEM governance is explained by the following:

- AIIB institutional carbon emissions are the subject of the analyses (Scopes 1, 2,[1] and part of 3,[2] including travel, commuting, waste management, water consumption, etc.)
- Staff responsible for ICEM:
  - Vice President and Chief Administration Officer or Director General, Facilities and Administration Services (FAS) Department: leads the function.
  - Institutional Carbon Management Specialist: supports the entire function.
  - Facility Officer(s) and facility management service providers: provide energy and electrical statistics, building energy efficiency measures, etc.
  - Administrative Officer(s) and corporate service providers: provide information regarding waste management, water use, vehicle operation, staff commute data, and other green activities.
  - Procurement Officer(s): provide procurement data, green procurement programs, etc.

Staff training: ICEM provides regular training to increase awareness of the importance of low-carbon emissions and environmental preservation. Specific trainings have been provided by third-party verifiers to data managers (see Sec. 1.4.2) for data collection and maintaining rules.

Document keeping: ICEM documents (UL360) are kept in an electronic format and maintained using a third-party inventory management system that is accessible to both internal and external parties. ICEM documents and the management system are examined annually as part of internal and external audits and verifications.

1.4.2 Persons Responsible

AIIB prepared the 2023 AIIB Carbon Footprint Report with significant collaboration among departments of the Bank and service providers.

Overall responsibility:

- Dan Yang, Director General, FAS
- Zhan Wang, Manager, FAS

Preparation of the GHG inventory and report:

- Yuan Lin, Senior Institutional Carbon Management Specialist

---

1 United States Environmental Protection Agency Scope 1 and Scope 2 Inventory Guidance.
2 United States Environmental Protection Agency Scope 3 Inventory Guidance.

Data Managers:
- Ying Zhang, Administration Officer
- Yechao Zhu, Senior Administrative Officer
- Lihai Yin, Senior Facility Management Officer
- Yang Zhang, Head of Security and Emergency
- Evan Shang, Senior Corporate Procurement Specialist
- Chong An, Digital Program Specialist

Collaborative Initiatives:
- AGT: Kai Cheng, Senior Events Management Officer
- ISSB: Xiaojia Chen, Senior Finance Officer

1.5 Audience and Dissemination Policy

This report is intended for all AIIB stakeholders interested in the Bank's GHG emissions inventory and the accompanying reporting format, notations, and explanations. It is made available to the public after appropriate third-party verification. In addition, the report communicates:
- AIIB's institutional GHG performance
- AIIB's institutional resolve to achieve GHG performance improvements.

The intended users of this document are:
- Stakeholders and peers
- Intergovernmental entities
- The public.

1.6 Reporting Period and Frequency of Reporting

This GHG report covers the calendar year from January 1 to December 31, 2023. GHG reports are produced annually.

1.7 Reporting Standards, Approach, and Verification

1.7.1 Compliance with ISO 14064-1:2018

The GHG report for the year ending on December 31, 2023 has been prepared in accordance with ISO 14064-1:2018.

1.7.2 Audit of GHG Inventory

This report has been verified to reasonable assurance by the British Standards Institution (BSI).

1.8 Declaration Statement by AIIB

AIIB, in its capacity as a "Reporting Organization" for the purposes of this report, therefore, certifies that the inventorying and reporting of GHG emissions have been performed in accordance with ISO 14064-1:2018. (Specification with Guidance at the Organization Level for Quantification and Reporting of Greenhouse Gas Emissions and Removals).

AIIB initiated data collection and reporting in a structured format in accordance with ISO 14064-1:2018 requirements.

2: PRINCIPLES FOLLOWED IN GREENHOUSE GAS REPORTING

In preparing this report, AIIB followed the following five principles set forth under ISO 14064-1:2018 to ensure that GHG-related information is accurate and fairly accounted for:

- Relevance
- Completeness
- Consistency
- Accuracy
- Transparency

Relevant GHG sources and sinks at the Bank were identified and quantified for the purpose of GHG reporting based on the methodology described in the respective chapters of this report. In the event of uncertainty or a lack of data, reasonable assumptions were made based on information accessible on various data platforms to limit the uncertainty and risk associated with GHG accounting.

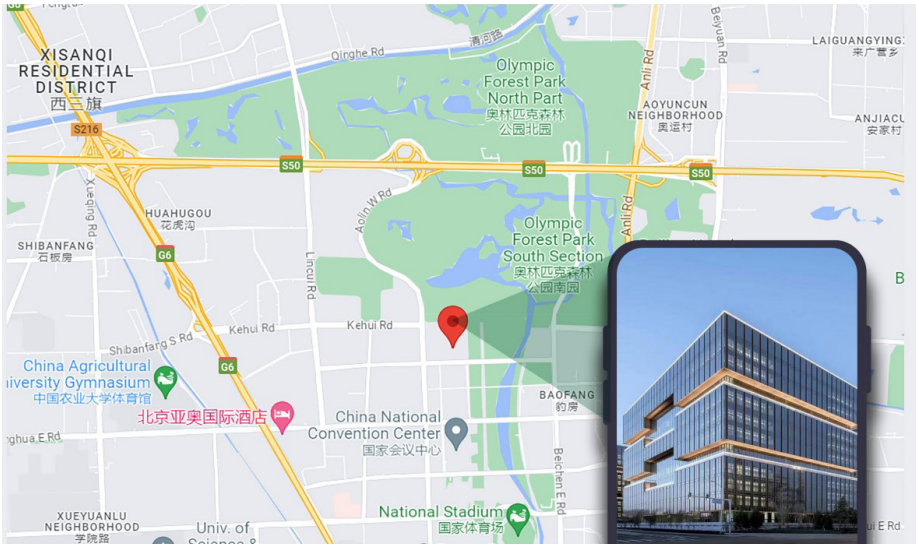
AIIB maintains the records used to collect data for the quantification of GHG emissions. Collecting sufficient and relevant GHG-related information allows the intended users to make decisions with an acceptable degree of confidence and enable the formulation of a roadmap to reduce internal GHG emissions.

3: GREENHOUSE GAS INVENTORY BOUNDARIES

3.1 Geographic Boundaries of the Inventory

AIIB calculates its carbon footprint utilizing the operational control approach. This method considers any emissions over all areas where AIIB has direct physical or operational control, but not necessarily financial control. This report includes information that applies to AIIB's Permanent Headquarters in Beijing and its Tianjin Backup Office located in China. Nevertheless, in the following reporting years, AIIB will make additional efforts to document the environmental impact of its subsidiary offices worldwide.

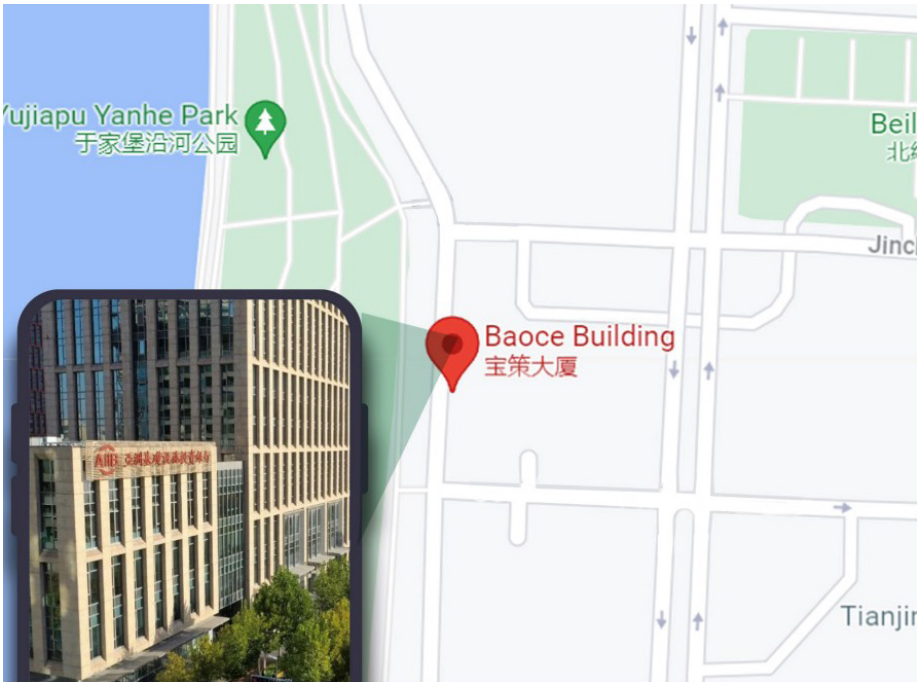
Figure 2: AIIB Permanent Headquarters Location



Address: AIIB, Tower A, Asia Financial Center, No.1 Tianchen East Road, Chaoyang District, Beijing 100101 China
Source: Amap

Figure 3: AIIB Headquarters

Figure 4: AIIB Tianjin Backup Office Location



Address: Floor 25-26, No. 681 Ronghe Rd. Binhai New District, Tianjin, 300450 China
Source: Amap

Figure 5: AIIB Tianjin Backup Office

3.2 Reporting Boundaries

3.2.1 Emissions Categories and Classification

AIIB has chosen to set its organizational boundaries for the GHG inventory based on the operational control approach. Consistent with this approach, AIIB accounts for GHG emissions from its locations where it has direct control over operations and can influence decisions that impact GHG emissions. This includes all owned and leased facilities, as well as vehicles operated by AIIB. A portion of leased facilities operate under full-service gross leases, where the building owner/manager pays the utilities directly, preventing AIIB from accessing actual energy consumption data. AIIB includes these facilities in its definition of operational control and estimates energy consumption and refrigerant use when this data is unavailable, as described in the 4.2 Methodologies for the Collection and Quantification of Data.

This report is directed by the FAS of AIIB. Reporting boundaries have been established within the AIIB offices and include emissions from facilities and office use at the Permanent Headquarters and Tianjin office, emissions from corporate vehicles, staff commuting and travel, and emissions from the use of certain products. The boundary does not encompass AIIB investment projects or their associated upstream and downstream emissions. AIIB's carbon footprint from investment projects are managed and disclosed through other initiatives.

The sources of GHG emissions have been identified and categorized in accordance with ISO 14064-1:2018. Although ISO 14064-1:2018 is consistent with the GHG Protocol, the standard classifies emissions into six categories, which differ slightly from Scopes 1 through 3 of the GHG Protocol. The following are the six ISO categories and their corresponding scopes in the GHG Protocol:

- Category 1 (Scope 1): Direct GHG emissions and removals
- Category 2 (Scope 2): Indirect GHG emissions from imported energy
- Category 3 (Scope 3): Indirect GHG emissions from transportation
- Category 4 (Scope 3): Indirect GHG emissions from products used by the organization
- Category 5 (Scope 3): Indirect GHG emissions associated with the use of products from the organization
- Category 6 (Scope 3): Indirect GHG emissions from other sources

According to the requirements of ISO 14064-1:2018, GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3).

3.2.2 Significance and Materiality

Factors for consideration in assessing significance and materiality include:

- Emission size
- Difficulty in obtaining data
- AIIB's influence on the emission source
- Validity in available quantification and estimation approaches
- Risks and opportunities
- Staff engagement possibilities

AIIB selected inclusions and exclusions are in strict accordance with the ISO 14064-1:2018 standard. Table 1 displays the significance scores of all identified emission sources within the geographic boundaries of the inventory. All direct and indirect emission sources with significant or medium impacts are reported in this document. Emission sources with scores of 20 or higher are marked as 'Significant', those with scores between 15 and 19 as "Medium", and sources with scores of 14 or lower as "Insignificant". Based on the results of the significance assessment, emission sources with insignificant impacts are not included in this report but are elaborated upon in Chapter 3.2.4. For those minor emission sources, the Bank acknowledges their existence and are actively exploring ways to quantify them in the future.

Table 1: Significance Score of Direct and Indirect Emissions Sources, 2023

Subcategory		Emission Sources	Quantitative Method	Emission Factor Availability	Influence	Risk		Opportu-nity	Sectoral Guidance Availability	Outsourcing	Staff Engagement	Total	Summary
						Possibility	Impact						
Category 1: Direct Greenhouse Gas (GHG) Emissions and Removals													
1.1	Stationary combustion	Diesel for emergency generator	5	5	1	1	1	2	3	1	1	20	Significant
		Natural gas	5	5	1	1	1	2	3	1	1	20	Significant
1.2	Mobile combustion	gasoline for corporate fleet	5	5	1	1	1	2	3	1	1	20	Significant
1.3	Industrial process	Not identified within the reporting scope											
1.4	Fugitive	Release of refrigerant	5	5	1	1	1	1	3	1	1	19	Medium
		Carbon dioxide fire extinguisher	5	5	1	1	1	1	3	1	1	19	Medium
		Septic tank	5	5	1	1	1	1	3	1	1	19	Medium
1.5	Land use, land use change and forestry	Not identified within the reporting scope											
Category 2: Indirect GHG Emissions from Imported Energy													
2.1	Indirect GHG emissions from imported electricity	Electricity from grid	5	5	3	1	1	2	3	1	1	22	Significant
		Hot water	5	5	1	1	1	2	3	1	1	20	Significant
2.2	Indirect emissions from imported energy	Regional cooling	5	5	1	1	1	2	3	1	1	20	Significant
		Heating	5	5	3	1	1	2	3	1	1	22	Significant

Subcategory		Emission Sources	Quantitative Method	Emission Factor Availability	Influence	Risk		Opportu-nity	Sectoral Guidance Availability	Outsourcing	Staff Engagement	Total	Summary
						Possibility	Impact						
Category 3: Indirect GHG Emissions from Transportation													
3.1	Emissions from upstream transport and distribution for goods	Not identified within the reporting scope											
3.2	Emissions from downstream Transport and distribution for goods	Waste transport	5	5	1	1	1	1	1	1	1	17	Medium
3.3	Emissions from employee commuting	Staff commuting	1	2	2	1	1	1	1	1	3	13	Medium
3.4	Emissions from client and visitor transport	Visitor transport	1	2	1	1	1	1	1	1	1	10	Insignificant
3.5	Business travel	Business travel — flight	5	5	2	1	1	1	1	1	1	18	Medium
		Business travel — train	5	5	2	1	1	1	1	1	1	18	Medium
		Business travel — hotel	5	5	2	1	1	1	1	1	1	18	Medium
		Business travel — local transport	1	5	1	1	1	1	1	1	1	13	Insignificant
Category 4: Indirect GHG Emissions from Products Used by the Organization													
4.1	Emissions from purchased goods	Cloud service	5	5	1	1	1	1	1	1	1	17	Medium
		Tap water	5	5	1	1	1	2	1	1	1	18	Medium
		Other purchased goods	2	1	1	1	1	2	1	1		10	Insignificant

Subcategory		Emission Sources	Quantitative Method	Emission Factor Availability	Influence	Risk		Opportu-nity	Sectoral Guidance Availability	Outsourcing	Staff Engagement	Total	Summary
						Possibility	Impact						
4.2	Emissions from capital goods	Not identified within the reporting scope											
4.3	Emissions from disposal of solid and liquid	Waste	2	5	2	2	2	1	1	1	3	19	Medium
		Sewage	1	5	1	1	1	1	1	1	1	13	Insignificant
		Oil separator	1	3	1	1	1	1	1	1	1	11	Insignificant
4.4	Emissions from use of assets	Not identified within the reporting scope											
Category 5: Indirect GHG Emissions Associated with the Use of Products from the Organization													
5.1	Emissions or removals from the use stage of the product	Not identified within the reporting scope											
5.2	Emissions from downstream leased assets	Not identified within the reporting scope											
5.3	Emissions from end-of-life stage of the product	Not identified within the reporting scope											
5.4	Emissions from investments	Not identified within the reporting scope											
Category 6: Indirect GHG Emissions from Other Sources													
6	Indirect ghg emissions from other sources	Not identified within the reporting scope											

3.2.3 Summary of Emissions Source Inclusions

Establishing operational limits for AIIB GHG emissions is mostly influenced by fossil fuel use in purchased electricity and energy consumption, refrigerant gas consumption in chillers and air conditioning units at the Permanent Headquarters, staff business travel, waste disposal, and other factors.

Table 2: Summary of Included Sources of Emissions, 2023

Emission Sources	Category	Data Source	Methodology
Diesel for emergency generator	Category 1 (Scope 1)	Fuel consumption statistics — Emergency generator engine operation record	Fuel use provided in liters
Corporate fleet		Fuel consumption statistics — Gasoline procurement records	Fuel use provided in liters and refrigerant refilled in kilograms (kg)
Natural gas		Fuel billing and meter record	Fuel use provided in cubic meters (m^3)
Release of refrigerant		Refrigerant billing	Fuel use provided in kg
Fire extinguisher		- Extinguisher quality and capacity - Fire drill records	Carbon dioxide (CO_2) and refrigerant refilled in kg
Septic tank		Total man-days and depth of tank	Assumed by Biochemical Oxygen Demand (BOD) conversion factor, tank depth, etc.
Heating	Category 2 (Scope 2)	Heating billing	Billing by gigajoules (GJ)
Hot water		Hot water billing	Billing by GJ
Centralized cooling		Cooling billing	Billing by kilowatt-hours (kWh)
Electricity from grid		Electricity billing	Billing by kWh
Staff commuting	Category 3 (Scope 3)	Survey	Staff provided information on their commuting methods
Business travel — flight		Provider reports on emissions	Direct emission reports
Business travel — train		Provider reports on emissions	Distance provided in kilometers (km)
Business travel — hotel		Provider reports on total room nights	Information on regional overnight stays provided by the travel agency
Waste transportation		Provider reports on vehicle information and transportation distance	Distance provided in km
Procurement — cloud service	Category 4 (Scope 3)	Provider reports on emissions	Direct emission reports
Waste disposal		Provider reports on tonnes	Assumed by tonnes of different types of waste
Procurement — tap water		Water billing	Billing by m^3

Regarding Categories 3 and 4, AIIB chose staff commuting, business travel (flights, trains, hotels), tap water and cloud service procurement, and waste disposal based on their relevance, applicability to AIIB, and availability of raw data.

Emissions derived from biomass have not been identified within the organization and reporting boundaries.

3.2.4 Summary of Emissions Source Exclusions

As defined in the 2021 and 2022 reports, the AIIB Carbon Footprint Report evaluates emission sources exclusively from its internal operations. AIIB's lending or technical support activities for its clients are not addressed by this report.

The following sources of emissions (Table 3) have been identified but are not included in the emissions inventory. Stakeholders and the context of the inventory do not deem these sources substantial or material, nor is it currently possible or viable to calculate them. These emission sources have been considered insignificant and excluded from this report, as shown in Table 1 on the Significance Score of the Direct and Indirect Emission Sources.

There are no Category 6 emissions identified as falling within the reporting boundary.

Table 3: Summary of Excluded Sources of Emissions, 2023

Emission Sources	Category	Reason for Exclusion
Business travel – local transport, e.g., taxi	Category 3	AIIB's business travel expense reimbursement system, SAP Concur, can only record reimbursed cab expenditures without distance information. AIIB estimates this part of emissions to be below 1% of the total emissions. AIIB does not calculate the cost of a local cab for this report due to the wide pricing disparity between regions.
Emissions from waste transportation, Tianjin Office	Category 3	For the first time, the report incorporates data on emissions from waste transportation in Beijing, which is included under Category 3: Transportation. However, comparable data for the Tianjin office is not included at this time due to challenges in gathering information and the limited scale of its operations.
Emissions from client and visitor transport	Category 3	Visitors to the AIIB Permanent Headquarters are responsible for their own transportation reimbursement. AIIB estimates this portion of emissions to be below 1% of the total emissions.
Procurement – other goods and services	Category 4	In 2023, the top ten categories procured by AIIB were primarily consultancy services for information technologies. However, in 2024, AIIB launched a project to examine the emissions associated with these categories, including consulting and services. The next report will include all corporate procurement emissions. This report, like those for 2021 and 2022, focuses solely on emissions associated with tap water consumption and cloud services acquisition.
Sewage and oil separator	Category 4	Emissions resulting from sewage treatment and oil separator treatment are not accounted for because these processes are overseen by the building's property owner, making it challenging to ascertain AIIB's specific share of responsibility.
Emissions from investment	Category 5	The boundary does not encompass AIIB's investment projects or their associated upstream and downstream emissions. AIIB's carbon footprint from investment projects are managed and disclosed through other initiatives.

4: QUANTIFIED GREENHOUSE GAS INVENTORY OF EMISSIONS

4.1 Consolidated Statement of Greenhouse Gas Emissions

Table 4: Summary of CO_2e Emissions by ISO 14064-1:2018 (Categories 1–6)

Category 1	**Beijing CO_2e (tonne)**	**Tianjin CO_2e (tonne)**
	231.07	
Emergency generators	4.12	-
Kitchen cookers	62.67	-
Official vehicles	30.68	-
Vehicle refrigerants	0.00	-
Refrigerators	0.00	0.00
Air conditioners	0.00	0.00
Chillers	8.12	-
Carbon dioxide fire extinguishers	0.00	0.00
Septic tanks	120.53	4.96
Total	**202.01**	**4.96**
Category 2	**Beijing CO_2e (tonne)**	**Tianjin CO_2e (tonne)**
	7,565.13	
Municipal heating	2,242.78	49.46
Municipal hot water supply	71.83	-
Regional cooling	-	273.96
Electricity for office buildings	4,609.67	317.43
Total	**6,925.28**	**640.85**
Category 3	**Beijing CO_2e (tonne)**	**Tianjin CO_2e (tonne)**
	3,862.99	
Staff commuting (car, tram, metro, etc.)	101.27	-
Staff business travel (high-speed rail)	8.21	-
Staff business travel (by air)	3,488.03	-
Staff business accommodation	265.42	-
Waste transportation	0.06	0.00
Total	**3,862.99**	**0.00**
Category 4	**Beijing CO_2e (tonne)**	**Tianjin CO_2e (tonne)**
	135.94	
Cloud service	117.78	-
Waste disposal (food waste)	-7.71	-0.01
Waste disposal (other waste)	21.22	0.02
Waste disposal (recyclable)	0.01	0.00
Domestic water supply	4.61	0.03
Total	**135.91**	**0.03**
Total Emissions (Categories 1–6)	**11,149.25**	**645.83**
	11,795.12	

Table 5: Summary of CO_2 Emissions by Greenhouse Gas Protocol (Scopes 1-3)

Emission category by GHG Protocol	Total Emission Scopes 1–3 (tonne)
Scope 1	231.07
Scope 2	7,565.13
Scope 3	3,998.92
Total	**11,795.12**

This document does not provide any recommendations or requirements for removal.

4.2 Methodologies for the Collection and Quantification of Data

Although the majority of the data sources are part of FAS's everyday operations, the format and level of detail of the original data vary markedly because AIIB has only recently begun to collect fundamental data on carbon emissions from various service providers and sources. In accordance with the ISO 14064-1:2018 standard, the emissions summary consolidates and standardizes emissions data while providing a full explanation of the methods used and the estimations made.

The overview of emissions sources and their respective data sources are provided in Section 3.2.3. The best available data and computation methods are utilized when estimation is necessary.

The combustion process is characterized by the rapid oxidation of substances (e.g., fuels) resulting in the release of thermal energy (e.g., heat). Category 1 activities emit direct GHGs such as CO_2, CH_4, and N_2O, as well as ambient air pollutants. Emission of these gases from Category 1 sources depend on fuel characteristics, size, and with combustion technology. Emissions also vary with operation and maintenance practices. This guidance addresses direct emissions of the following types of GHGs: CO_2, CH_4, and N_2O.

This report aims to use regional emission factors instead of international emission factors. It uses the most relevant factors indicated by the following:

- China Greenhouse Gas Emission Coefficient Library for Product Life Cycle
- GB/T 2589-2020 General principles for calculation of total production energy consumption
- Guidelines for the Preparation of Provincial Greenhouse Gas Inventories
- Announcement by the China Ministry of Ecology and Environment and the National Bureau of Statistics on the Release of the 2021 Electricity CO_2 Emission Factors
- DB11/T 1787-2020 Requirements for carbon dioxide emission accounting and reporting other industrial enterprises
- IPCC Sixth Assessment Report Global Warming Potentials
- 2006 IPCC Guidelines for National Greenhouse Gas Inventories
- 2022 China Garbage Classification and Treatment Industry In-Depth Research and Analysis Report

4.2.1 Calculation of Greenhouse Gas Emissions, Beijing Headquarters

A fuel-based approach is applied to calculate GHG emissions. This method typically requires the collection of activity data, specifically the type and quantity of fuel consumed for combustion purposes. To calculate emissions using fuel type, fuel consumption, and emission factor data, the following equations are applied:

Emissions from Diesel Consumption:

Emission (tonnes of carbon dioxide equivalent [tCO_2e]) = consumption (liter [L]) * density (kilogram [kg]/L) * emission factor (t/t)/1,000
= 1,546.62 (L) * (0.835+0.855)/2 (kg/L) * 3.15 (t/t) /1,000
= 4.12 (tCO_2e)

Diesel is used exclusively in AIIB's emergency generator, with consumption data recorded in the generator's operating logs. Diesel density information, typically ranging from 0.835 to 0.855 kg/L, is provided by the diesel supplier's hotline. The GHG emission factors for diesel are calculated using the IPCC methodology, with the local calorific value (43.26 GJ/tonne) also provided by the diesel supplier.

Emissions from Petrol Consumption:

Emission (tCO_2e) = consumption (L) * density (kg/L) * emission factor (t/t) /1,000
= 13,472.05 (L) * (0.72+0.775)/2 (kg/L) * 3.1519 (t/t)/1,000
= 30.68 (tCO_2e)

Petrol is exclusively used in AIIB's corporate vehicles and is purchased from Sinopec. Consumption data is recorded in the procurement records. Petrol density information, with an average range of 0.720–0.775 g/cm^3, is sourced from the Sinopec website. The GHG emission factors for petrol are calculated using the IPCC methodology and local Chinese average petrol factors (43.07 GJ/tonne).

Emissions from Natural Gas Consumption:

Emission (tCO_2e) = consumption (m^3) * emission factor (kg/m^3)/1,000
= 31,410.00 (m^3) * 1.9952 (kg/m^3)/1,000
= 62.67 (tCO_2e)

Natural gas is exclusively used in AIIB's two canteen kitchens, with consumption data recorded by the natural gas meter. The GHG emission factors for natural gas are calculated using the IPCC methodology, and the local natural gas calorific value (35,902 MJ/Nm^3) is provided by the gas supplier, Beijing Gas, via their hotline.

Emissions from Fire Extinguishers:

Emission (tCO_2e) = Quantity of CO_2 refilled in 2023 (kg)/1,000 + quantity of heptafluoropropane refilled in 2023 (kg) * GWP of heptafluoropropane/1,000
= 0/1,000 + 0*3,600/1,000
= 0 (tCO_2e)

In 2023, only one fire drill was conducted at the Permanent Headquarters, using a dry powder fire extinguisher, which does not emit CO_2, resulting in no CO_2 emissions for the year.

Emissions from Refrigerant Make Up for Air Conditioners, Refrigerators and Chillers:

Emission (tCO_2e) = Quantity of refrigerant refilled in 2022 (kg) * Global Warming Potential [GWP]/1,000
= (3.6kg)*2,255.5/1,000 (tCO_2e)
= 8.12 (tCO_2e)

R134a, R404a, and R32, which are used in AIIB's refrigeration and air conditioning sectors, are GHGs with global warming potentials (GWP) much higher than that of CO_2. Therefore, the uncontrolled release of these gases into the atmosphere may have significant potential impact on climate change. However, because of two facilities without refrigerant charge information, the uncontrolled release of the gases to calculate the emissions cannot be used. Instead, the refrigerant refilling quantity was used. In 2023, 3.6kg of R410a were added to the water chiller. Emissions are calculated as above. Chapter 4.2.4 provides more information on GWP.

Emissions from the Septic Tank:

Emission (tons of methane [tCH_4]) = total people * total day * (BOD) generation (grams (g)/capita/day) BOD transfer factor (tCH_4/tBOD) * coefficient of correction emission (for 4.4m tank)/ 1,000/1,000 * secondary emission factor
= 900 (people) * 200 (day) * 40 g/capita/day * 0.6 * 0.8 /1,000/1,000 * 1.25
= 4.32 (tCH_4)

Emission (tCO_2e) = Emission (tCH_4) * CH4 GWP (tCO_2e/tCH_4)
= 3.46 (tCH_4) * 27.9 (tCO_2e/tCH_4)
= 120.53 (tCO_2e)

As monitored in 2021 and 2022, the depth of the septic tank is 4.4 meters, and the corresponding transfer factors for a 4.4-meter tank have been used. In 2023, AIIB did not track the total number of employees and service providers who visited the Permanent Headquarters. However, based on an estimate from AIIB's security team, an average of 900 employees and service providers worked in the office each day. In 2023, the Bank identified a secondary emission from the municipal pipe network that was not accounted for in previous reports. To address this, a secondary emission factor of 1.25 was applied.

Emissions from Electricity Consumption:

Emission (tCO_2e) = consumption (kwh) * emission factor (kg/kilowatt-hour [kwh]) /1,000
= 8,104,197.93 (kwh) * 0.5688 (kg/kWh) / 1,000
= 4,609.67 (tCO_2e)

Emission (tCO2) = Emission (tCO_2e)
= 4,609.67 (tCO_2)

The emission factor for electricity consumption has been renewed for this report. In April 2024, the Announcement by the Ministry of Ecology and Environment and the National Bureau of Statistics on the Release of the 2021 Electricity CO_2 Emission Factors was published with the latest regional electricity consumption emission factors. The updated emission factor for Beijing, which is 0.5688 kg/kWh, is applied.

Emissions from Heat and Hot Water Consumption

- Hot Water
  Emission (tCO_2e) = consumption (gigajoule [GJ]) * emission factor (kg/GJ)/1,000
  = 653 (GJ) * 110 (kg/GJ)/1,000
  = 71.83 (tCO_2e)

- Heat
  Emission (tCO_2e) = consumption (GJ) * emission factor (kg/GJ) /1,000
  = 20,388.89 (GJ) * 110 (kg/GJ) /1000
  = 2,242.78 (tCO_2e)

The 2021 report used the emission factor for heat and hot water from the study, *Carbon Dioxide Emission Factors of Nature Gas Boilers and Its Uncertainty in Beijing*, which noted how the generation of heat and hot water from natural gas can produce both CO_2 and CH_4. Starting with the 2022 report, the emission factors were updated to those in DB11/T 1787-2020. Although this study provides for nearly double the previous values, these new factors are considered more reliable. This 2023 report continues to use the 2022 factors, as there are no updated factors.

Emissions from Tap Water Consumption

Emission (tCO_2e) = consumption (m^3) * emission factor (kg/m^3)/1,000)
= 27,459.00 (m^3) * 0.168 (kg/m^3)/1000
= 4.61 (tCO_2e)
Emission (tCO_2) = Emission (tCO_2e)
= 4.61 (tCO_2)

The emission factor for water consumption has been renewed for this report. In 2024, the China Greenhouse Gas Emission Coefficient Library for Product Life Cycle was published with the latest water consumption emission factors. China's latest average emission factor of 0.168 kg/m^3 is applied.

Emissions from Business Travel – Flight and Train

Emission (tCO_2e) = Train + Flight
= 8.21 (tCO_2e) + 3,488.03 (tCO_2e)
= 3496.24

In 2023, AIIB's flight emissions data was calculated and provided by the travel service provider, CWT, which uses the Department for Environment, Food and Rural Affairs, Government of the United Kingdom's (DEFRA) GHG Conversion Factors to determine carbon emissions for each flight. This data was adopted after their methodologies were reviewed by AIIB and found to be reasonable.

- DEFRA publishes its factors yearly, typically in the middle of the year. To maintain consistency, the factors released in one year are applied to tickets issued in the subsequent year.
- CO_2e values are calculated at the flight segment level, and values reported at "higher" levels (subtrip and ticket) totaled based on the associated flight segments (coupons).
- Short-haul flights are those less than 785 km.
- Medium-haul flights are those greater than 785 km but less than 3,700 km.
- Long-haul flights are those greater than 3,700 km.

CWT also provided data for train travel. After reviewing their methodologies, it was found that 95% of AIIB's train travel occurred within China in 2023. Using the European train emission factor of 0.035 kg/km seemed unreasonable in this context. Therefore, the mileage data provided by CWT was used and China's average train emission factor of 0.026 kg/km from the China Greenhouse Gas Emission Coefficient Library for Product Life Cycle was applied.

Table 6: Summary of Travel Flight Emission Factors

Travel Type	Km Range	Cabin Class	2022 DEFRA Factors Applied to 2023 Bookings
Short-haul	From 0 to 785 km	All	0.16099
Medium-haul	From 785 to 3,700 km	Economy & Premium Economy	0.10794
Medium-haul	From 785 to 3,700 km	Business & First	0.16191
Long-haul	More than 3,700 km	Economy	0.07947
Long-haul	More than 3,700 km	Premium Economy	0.12716
Long-haul	More than 3,700 km	Business	0.23047
Long-haul	More than 3,700 km	First	0.31789

Emissions from Business Travel – Hotel

Emission = Σ nights in one country * emission factor/1,000 (kg/night)
= 265.42 (ton)

In 2022, as in 2023, the Bank recorded detailed country-specific information for hotels and began using country averages instead of global averages to achieve more precise results. In cases where hotel factors were unavailable for a country on the list, emission factors from neighboring countries were used instead. All country emission factors are sourced from the China Greenhouse Gas Emission Coefficient Library for Product Life Cycle.

Emissions from Waste Transportation

Emission (tCO_2e) = Σmass of waste (food waste, recycling waste, and other waste) * transportation mileage * emission factor (kg/km)/1,000
= 0.005 + 0.033 + 0.018
= 0.06

This year, in contrast to previous years, information on waste transportation in Beijing was obtained and these emissions have been included in Category 3: Transportation.

Emissions from Waste

Emission (tCO_2e) = Σ mass of waste (Food waste, recycling waste and other waste) * emission factor (kg/tonne [t])/1,000 (km) * emission factor (kg/km)
= -7.71 + 21.22 + 0.01
= 13.52 (t CO_2e)

AIIB's Permanent Headquarters strictly adheres to Beijing's waste classification management policy. Waste is categorized into recyclable waste, food waste, hazardous waste, and other waste. Throughout 2023, the Permanent Headquarters did not generate any hazardous waste. The number of barrels produced and the average weight per barrel were recorded for recyclable waste, food waste, and other waste.

This report notes that waste treatment can produce both CO_2 and CH_4. However, the China Greenhouse Gas Emission Coefficient Library for Product Life Cycle only provides CO_2e emission factors for waste incineration and cogeneration. There are no other sources providing emission factors for all GHGs. Therefore, this report only calculates CO_2e emissions for waste treatment (incineration and cogeneration).

Emissions from Commuting

Emission (tCO_2e) = Σ commuting method * emission factor of this method (kg/kilometer [km])/1,000
= 101.27 (ton)

AIIB developed a five-question survey to understand staff commuting methods. More than 10% of AIIB staff participated in the survey, with a total of over 100 responses. AIIB staff commuting methods include walking, cycling, and using vehicles such as taxis, motorcycles, buses, private cars (electric vehicles and petroleum cars), and the subway.

This report understands that commuting by bus, private car, subway, motorcyle, and taxi can produce CO_2, CH_4, and N_2O. However, the China Greenhouse Gas Emission Coefficient Library for Product Life Cycle only

provides CO_2e emission factors for each commuting method, and there are no other sources providing emission factors for all GHGs. Consequently, this report only calculates CO_2e emissions for staff commuting.

Emissions from Cloud Service

As in previous years, there are two cloud service providers: Microsoft Azure and Amazon Web Services (AWS). Both can help AIIB's calculate its carbon footprint using their cloud services.

Emission (tCO_2e) = Microsoft Azure CO_2e + AWS CO_2e
= 31.91 (tCO_2e) + 85.87 (tCO_2e)
= 117.78 (tCO_2e)

4.2.2 Calculation of Greenhouse Gas Emissions, Tianjin Backup Office

A fuel-based approach is also used for the Tianjin backup office. As this marks the second year of monitoring emissions for the Tianjin office, data quality and readiness have significantly improved compared to the previous year. For instance, there are now separate meters for electricity and water consumption. Additionally, the quantities of food waste, recyclable waste, and other dry waste are recorded separately.

There are no corporate vehicles specifically for the Tianjin office. Emissions from staff travel, staff commuting, and cloud services have been calculated together with the HQ office. Furthermore, unlike the HQ office, there are no air conditioners and cooling chillers (instead, the Tianjin office uses regional central cooling, so the energy consumed has been calculated), and there is no kitchen (thus, no natural gas consumption). Hot water is electrically heated, and this consumption is included in the electricity calculation.

Emissions from Refrigerant Make Up for Refrigerators:

Emission (tCO_2e) = Quantity of refrigerant refilled in 2022 (kg) * GWP/1,000
= 0 (tCO_2e)

R134a and R404a are used in AIIB's refrigeration at the Tianjin office. To align with the methodology used in Beijing, the refrigerant refilling quantity was used to calculate emissions. In 2023, no refrigerant was added to the refrigerator.

Emissions from the Septic Tank:

Emission (tCH_4) = total people * total day * BOD generation (g/capita/day) BOD transfer factor (tCH_4/tBOD) * coefficient of correction emission (for 5.6m tank)/1,000/1,000 * 1.25
= (7+30) (people) * 200 (day) * 40 (g/capita/day) * 0.6 * 0.8/1,000/1,000 * 1.25
= 0.18 (tCH_4)

Emission (tCO_2e) = Emission (tCH_4) * CH_4 GWP (tCO_2e/tCH_4)
= 0.18 (tCH_4) * 27.9 (tCO_2e/tCH_4)
= 4.96 (tCO_2e)

The depth of the septic tank at the Tianjin office is 5.6 meters. In 2023, approximately 30 AIIB staff were assigned to the Tianjin office each month, and seven full-time onsite service providers worked there in 2022 to maintain daily operations, including reception, security, facility, and IT management. Their emissions have been calculated.

Similar to Beijing, in 2023, AIIB identified a secondary emission from the municipal pipe network that had not been accounted for in previous reports. To address this, the Bank applied a secondary emission factor of 1.25.

Emissions from Heat Consumption

Emission (tCO_2e) = consumption (GJ) * emission factor (kg/GJ)/1,000
= 449.64 (GJ) * 110 (kg/GJ)/1,000
= 49.46 (tCO_2e)

The heating meter was installed in the second half of 2023. From January to March 2023, due to the lack of a separate heating meter, consumption for this period was initially allocated proportionally based on the total building consumption and the office area percentage (4,258.38 m^3 compared to a total of 85,888.45 m^3).

After July, data could be directly obtained with the installation of a heating meter to monitor AIIB's consumption separately. However, upon comparison, AIIB found that using the allocated data was not advisable, as the estimated average monthly heating volume in H1 2023 was significantly larger than the monitored average monthly volume in H2 2023. Therefore, the Bank used the heating consumption volume in H1 2024 as a proxy for that in H1 2023.

Emissions from Centralized Cooling

Emission (tCO_2e) = consumption (kwh) * emission factor (kg/kwh)/1,000
= 372,484.00 (kwh) * 0.7355 (kg/kwh)/1000
= 273.96 (tCO_2e)

Binhai New District provides regional centralized cooling. The Tianjin electricity emission factor was used for calculations, sourced from the Announcement by the Ministry of Ecology and Environment and the National Bureau of Statistics on the Release of the 2021 Electricity CO_2 Emission Factors.

Emissions from Electricity Consumption:

Emission (tCO_2e) = consumption (kwh) * emission factor (kg/kwh)/1,000
= 431,581 (kwh) * 0.7355 (kg/kWh)/1,000
= 317.43 (tCO_2e)
Emission (tCO_2) = Emission (tCO_2e)
= 317.43 (tCO_2)

Emissions from Waste

Emission (tCO_2e) = Σ mass of waste (food waste, recycling waste, and other waste) * emission factor (kg/tonne [t])/1,000
= 0.01 (tCO_2e)

The AIIB Tianjin office strictly adheres to Tianjin's waste classification management policy. Waste is categorized into recyclable waste, kitchen wet waste (food waste), hazardous waste, and dry waste (other waste). Since last year, after implementing the suggestions, the office began recording the mass of each type of waste. As a result, the total weight of each waste type is now much more accurate compared to 2022.

Unlike Beijing, the Tianjin office does not record waste transportation information. As a result, emissions from waste transportation were not calculated.

This report notes that waste treatment can produce both CO_2 and CH_4. However, the China Greenhouse Gas Emission Coefficient Library for Product Life Cycle only provides CO_2e emission factors for waste incineration and cogeneration. As no other sources provide emission factors for all GHGs, this report only calculates CO2e emissions for waste treatment (incineration and cogeneration).

Emissions from Tap Water Consumption

Emission (tCO_2e) = consumption (m^3) * emission factor (kg/m^3)/1,000)
= 156 (m^3) * 0.168 (kg/m^3)/1,000
= 0.03 (tCO_2e)
Emission (tCO_2) = Emission (tCO_2e)
= 0.03 (tCO_2)

4.2.3 Change in Methodologies from Prior Year/Base Year

This report, covering the calendar year 2023, is the verified GHG report produced by AIIB. As the 2021 report remains the baseline for future evaluations, there is no change to the base year calculation in this reporting period.

The year 2021 is the first full operational year following the June 2020 relocation of AIIB's headquarters to its new, permanent location. AIIB discovered that conditions and emissions vary significantly between its former and current headquarters. Therefore, 2021 is temporarily regarded as the emission base year, serving as a benchmark for future emission comparisons and preserving data set integrity.

The scope of the 2022 report remains the same as in 2021 for Beijing, with the addition of the Tianjin office. This is because 2022 marked the first full operational year for the Tianjin backup office. Consequently, the Tianjin emissions data from the 2022 report will serve as the Tianjin's baseline for future evaluations.

The scope of the 2023 report remains unchanged for Beijing, consistent with 2021 and 2022, and remains the same as 2022 for Tianjin.

As mentioned in the previous reports, it is recognized that the sudden and nearly complete shutdown of passenger air travel in 2020 due to COVID-19 had a significant impact on the Bank's carbon footprint. Therefore, 2021 is not a typical benchmark year for the long term. Since December 2022, when China relaxed its travel policies, business travel, especially international travel, has been gradually restored. Emissions from business travel rebounded in 2023 and 2024. AIIB is taking steps to encourage employees to use lower-carbon transportation options and will also consider selecting a more appropriate year as the base year in the future.

Recalculation of the base year will be applied where necessary to maintain an effective comparison. Reasons for this might include the following:

- if the emission factors used change significantly and are relevant to prior years.
- if the total emission changes significantly due to changes to policies and/or calculation scope.
- if a significant estimation method has been changed/improved.
- if a significant data sourcing strategy has been changed/improved.
- if the scope of the inventory is changed (e.g., inclusion of emissions from other offices).

4.2.4 Calculation and Source for Global Warming Potential

According to the requirement of ISO 14064-1:2018, seven GHGs include CO_2, CH_4, N_2O, HFCs, PFCs, SF_6, and NF_3.

Quantities of GHG emissions are presented in tonnes of CO_2e using the GWP from the IPCC Sixth Assessment Report (AR6) over a 100-year time frame. Sources of direct emissions (Category 1) are reported as both CO_2e and a thorough breakdown of their GHG emissions, including the GWP value. The most notable GHGs include:

Table 7: Global Warming Potential Value

Carbon Dioxide (CO_2)	1
Methane (CH_4)	27.9
Nitrous Oxide (N_2O)	273
Nitrogen Triflouride (NF_3)	17,400
Sulfur Hexaflouride (SF_6)	25,200
R125	3,740
R143a	5,810
R134a	1,530
R152a	164
R32	771
R23	14,600
R404a	4,728
R407c	1,985
R410a	2,255.5
Heptafluoropropane	3,600

4.2.5 Review, Internal Audit, and Improvement

As outlined in the 2021 and 2022 reports, primary data collection on all key sources of emissions has been prioritized. Where data is absent or incomparable, conservative estimation methods have been used, encouraging continuous improvement in the ratio of source data to estimates—such as estimating the number of staff attending the offices each day.

In future years, AIIB plans to use this section to highlight enhancements to its framework and methodology for capturing and calculating emissions figures, aiming to reduce ambiguity. Furthermore, as mentioned in section 3.2.4, some minor emissions have been temporarily excluded from the current inventory for several reasons but will need to be included in the future to make the inventory more comprehensive. For example, AIIB is beginning to examine emissions from corporate procurement, which will be included in the next carbon footprint report.

Compared with the 2022 report, the 2023 report has the following improvements:

- The data for Tianjin is more accurate due to the installation of electricity, heating, and water meters. This demonstrates the Bank's commitment to covering as many emission sources as possible and achieving accuracy within its operations.
- Emissions from fossil fuels are more accurate in this report, as the fuel density and calorific value information are sourced directly from the fuel providers rather than relying on national averages.
- Emissions from business travel accommodations are now more accurate due to the use of regional emission factors instead of a global average factor.
- Total emissions increased as expected due to the rise in travel following the COVID-19 pandemic. However, aside from travel, other emissions decreased in 2023 compared to previous years.

4.2.6 Removals and Reductions/Increases

There are no emission cuts to report for the current reporting period.


CO2

5: GREENHOUSE GAS INVENTORY QUALITY MANAGEMENT

The GHG emission data is derived from raw data supplied by various sources. To ensure the accuracy of the calculation procedures and findings, GHG data is managed in strict accordance with the ISO 14064-1:2018 standard.

The assessment rating is positively correlated with the accuracy of data for each emission source and the quantity of emissions relative to the total emissions. Two indicators are used to evaluate the performance of each emission source: the activity data error level and the emission factor error level. Sub-scores are assigned to each emission source based on these two indicators, ranging from 1 to 3, with lower scores indicating better data quality. For example, organizations are advised to use automatically and continuously measured activity data (score 1). If such data is unavailable, intermittent measurements can be used (score 2). If both types of data are missing, self-estimation is permitted, resulting in the highest score of 3.

Overall scores and ratings are determined by the subscores, categorized into three levels: Level 1 (overall score of 1-3), Level 2 (overall score of 4-6), and Level 3 (overall score of 7-10), with lower scores indicating better data quality.

In 2023, the computed average score, according to the standard, is 3.73, corresponding to Level 1. This score is significantly lower than those from 2021 (4.95) and 2022 (4.20), highlighting the substantial efforts made in recent years to improve data quality, alongside efforts to reduce the carbon footprint itself, as discussed in Section 4.2.5.

The specific calculation process is as follows:

Table 8: Inventory Quality Score

Activity	Fuel	Emission (t)	Percentage (%)	Score
Emergency generators	Diesel	4.12	0.03	0.001
Kitchen cookers	Natural gas	62.67	0.53	0.011
Official vehicles	Petrol	30.68	0.26	0.010
Freezers	R134a	0.00	0.00	0.000
Freezers	R404a	0.00	0.00	0.000
Split air conditioners	R32	0.00	0.00	0.000
Chillers	R134a	0.00	0.00	0.000
Chillers	R410a	8.12	0.07	0.001
Carbon dioxide fire extinguishers	CO_2	0.00	0.00	0.000
Septic tanks	CH_4	125.48	1.06	0.064
Category 1: Direct GHG Emissions and Removals				**0.087**
Municipal heating	Natural gas	2,292.24	19.43	0.411
Municipal hot water supply	Natural gas	71.83	0.61	0.012
Centralized cooling	Electricity	273.96	2.32	0.046
Electricity for office buildings	Electricity supply to the grid	4,927.10	41.77	2.470
Category 2: Indirect GHG Emissions from Imported Energy				**2.954**
Staff commuting (car, tram, metro, etc.)	Electricity, petrol, diesel, etc.	101.27	0.86	0.052
Staff business travel (high-speed rail)	Electricity	8.21	0.07	0.001
Staff business travel (by air)	Aviation diesel, etc.	3,488.03	29.57	0.591
Staff business accommodation	Electricity, etc.	265.42	2.25	0.045
Waste transportation	Electricity	0.06	0.00	0.000
Category 3: Indirect GHG Emissions from Transportation				**0.689**
Waste disposal (food waste)	CH_4	-7.72	-0.07	-0.004
Waste disposal (other waste)	CH_4	21.24	0.18	0.011
Waste disposal (recycling)	CH_4	0.01	0.00	0.000
Cloud service	Electricity	117.78	1.00	0.020
Domestic water supply	Electricity	4.64	0.04	0.001
Category 4: Indirect GHG Emissions from Products Used by the Organization				**0.028**
Total				**3.758**

6: MITIGATION ACTIVITIES IN 2023

Part of AIIB's mitigation efforts include ongoing efforts to reduce GHG emissions from its building and facilities, including the use of fire suppression, refrigeration, and air conditioning systems that comply with the Montreal Protocol.

AIIB has implemented an integrated program for operating and maintaining its offices, aiming to meet Leadership in Energy and Environmental Design (LEED) specifications for resource conservation. The Bank achieved LEED EBOM (Existing Building Operation and Maintenance) Platinum certification in 2022. Indirect sources of GHG emissions, such as electricity, heating, and water, have declined between 2020 and 2023 after the move to the Bank's Permanent Headquarters, despite the increase to business size and scale.

The largest emission source from internal operation is electricity. Beginning in January 1, 2024, AIIB has made a significant commitment to sustainability by gradually sourcing the office electricity of the Permanent Headquarters from renewable and green energy sources. This initiative will significantly reduce AIIB's Scope 2 GHG emissions compared to the previous practice of sourcing electricity from the China State Grid, where approximately 60% of the energy is derived from coal.[3]

Before this determination, in 2023, the Bank conducted extensive market research with its facility management team, property management team, corporate procurement team, and third-party think tanks to explore methods for gradually achieving 100% green electricity. After a series of feasibility studies and a thorough discussion on green electricity resources, AIIB has opted for a combination of green power trading in the electricity market and Energy Attribute Certificates (EACs).

Another significant emission source is transport. While commuting emissions may seem to fall under individual responsibility compared to business travel, they are, in fact, part of AIIB's overall carbon footprint. To track these emissions, the Bank has initiated an annual commuting survey starting in 2022, aimed at gathering data on AIIB staff's commuting patterns and identifying ways to promote greener commuting.

Cycling is considered a zero-carbon commuting method and has a much lower carbon footprint than other modes of transport, including driving private cars and taking taxis. Interestingly, the 2024 commuting survey revealed that approximately 30% of AIIB staff are using cycling for commuting for the past three years. This figure is higher than Beijing's average cycling commuting rate of 17%. This trend is believed to be partly attributed to the comfortable cycling facilities provided to staff and the friendly cycling routes near the office.

AIIB initiated the Act Green Together (AGT) initiative for its largest event outside the office every year—the Annual Meeting—starting in 2019 in Luxembourg. The AGT initiative serves as AIIB's sustainable event management framework, incorporating key learnings from international best practices in sustainable event management and environment footprint accounting standard.

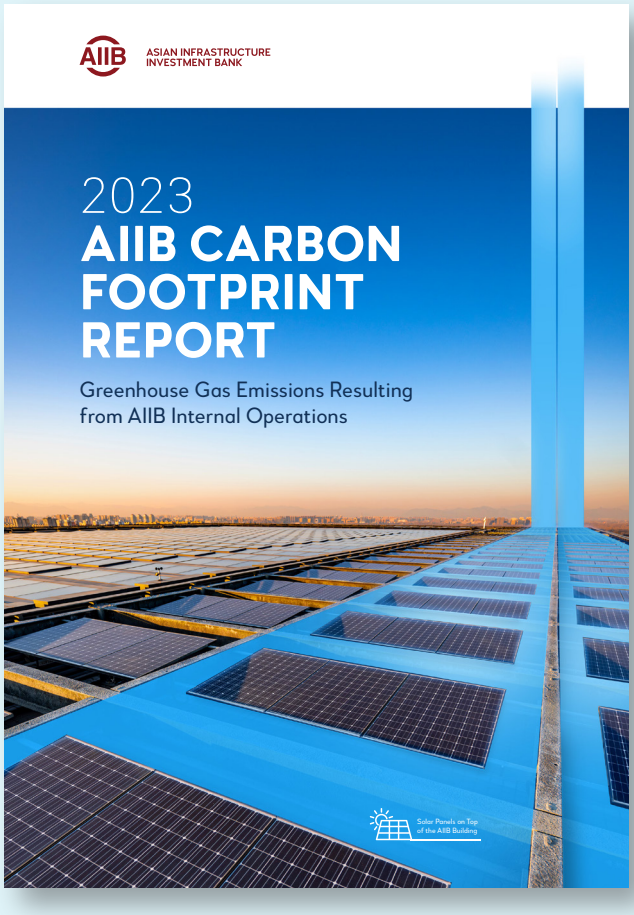
The framework focuses on four components: (1) sustainable event management, (2) carbon emissions measurement and offsetting, (3) training and participant action, and (4) communications and reporting. AGT's vision is not only to regulate its own activities but also to support host countries in their green transition.

For each Annual Meeting, AIIB strives to assist host countries in recording data to track the environmental impact of the event, providing training for local vendors to understand and record relevant data, finding ways for vendors and participants to minimize their footprint, and offsetting residual emissions.

From the 2019 Luxembourg meeting to the 2024 Uzbekistan meeting, the AGT framework has broadened its scope from focusing solely on carbon emissions to encompass all aspects of sustainability, including impacts on biodiversity, the community, local risks, the regional environment, and more.

AIIB will continue to use ISO 14064-1:2018 and other relevant international standards as guides, leveraging the influence of responsible investment to promote more sustainable internal operations through its actions.

[3] Ivy Yin. Jan. 31, 2024. Coal still accounted for nearly 60% of China's electricity supply in 2023: CEC. S&P Global.



The Asian Infrastructure Investment Bank (AIIB) aims to lead by example in managing its carbon emissions and disclosing the impact of its internal operations. It analyzed carbon emission impacts associated with its internal operations for the first time in September 2020 (for its 2017–2019 emissions) and then again in September 2021 (for the 2020 emissions), tracking the carbon footprint from scopes linked with its internal operations. Starting from the report of 2021 activities, AIIB has been continuously monitoring and verifying its carbon emissions annually and discloses this information to the public.

This report, as the third verified AIIB Carbon Footprint Report, provides a comprehensive analysis of the carbon footprint generated by the internal operations of AIIB's Permanent Headquarters in Beijing and its backup office in Tianjin. It presents annual data for the 12-month period from Jan. 1 to Dec. 31, 2023. This report describes the methodology for selecting and collecting data and computing carbon emissions for all relevant emission categories using internal and external documentation, interviews from key AIIB personnel and service suppliers, and source data. This report does not cover AIIB's lending or technical support activities for its clients.

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