

Environmental Information Disclosure (TCFD) Report 2022

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Declaration

Reporting Scope

This report covers China Construction Bank Corporation and its subsidiaries.

Reporting Period

This report covers the period from 1 January 2022 to 31 December 2022. To ensure consistency in reporting, part of the contents may contain information that is beyond the above mentioned period.

Compilation Basis

This report is prepared in accordance with the *Guidance on Environmental Information Disclosure of Financial Institutions* released by the People's Bank of China, and referred to the suggestions of the *Recommendations of the Task Force on Climate-related Financial Disclosures* released by the Task Force on Climate-Related Financial Disclosures (TCFD).

Reporting Principles

This report is disclosed by the principle of truthfulness, timeliness, consistency and continuity.

Data Explanation

The data in this report mainly covers the period from 1 January 2022 to 31 December 2022. Part of the data is beyond the above mentioned period and contains the data from previous years. The data of this report mainly comes from the internal document and relevant statistical material of the Bank.

Forms of Release

This report is released in electronic format, which is available on the official website of the Bank(<http://en.ccb.com/en/home/indexv3.html>).

Definition Explanation

In this report, unless the context otherwise requires, the following terms shall have the meanings set out below.

"CCB", "the Bank", "China Construction Bank"	China Construction Bank Corporation	"CCB Wealth Management"	CCB Wealth Management Co., Ltd.
"the Group"	China Construction Bank Corporation and its subsidiaries	"CCB Futures"	CCB Futures Co., Ltd.
"CCB Asia"	China Construction Bank (Asia) Corporation Limited	"CCB Life"	CCB Life Insurance Co., Ltd.
"CCB New Zealand"	China Construction Bank (New Zealand) Limited	"CCB Investment"	CCB Financial Asset Investment Co., Ltd.
"CCB Property & Casualty"	CCB Property & Casualty Insurance Co., Ltd.	"CCB Trust"	CCB Trust Co., Ltd.
"CCB Private Equity"	CCB Private Equity Investment Management Co., Ltd.	"CCB Pension"	CCB Pension Management Co., Ltd.
"CCB Principal Asset Management"	CCB Principal Asset Management Co., Ltd.	"CCB International"	CCB International (Holdings) Limited
"CCB Fintech"	CCB Financial Technology Co., Ltd.	"CCB Consulting"	CCB Engineering Consulting Co., Ltd.
"CCB Financial Leasing"	CCB Financial Leasing Co., Ltd.	"ESG"	Environmental, Social and Governance

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Chairman's Statement



Tian Guoli Chairman

Progress with sustainability, coexist with nature

As President Xi Jinping pointed out in the report to the 20th National Congress of the Communist Party of China, it is necessary to firmly establish and practise the concept of "lucid waters and lush mountains are invaluable assets", and to plan for development on the basis of a harmonious coexistence between humans and nature. The advocacy for green development is an inevitable requirement, and there is an intrinsic need for promoting economic transformation, upgrading, and high-quality development. It also conforms to the laws of nature and follows international trends. China Construction Bank adheres to the guidance of *Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era*, upholds the "the country's most fundamental interests", and continuously deepens the New Finance initiatives centred on the people. We prioritise innovation, seize opportunities through green practices, seek benefits through technologies, and pursue win-win outcomes through openness. With solid steps on the path of financial developments with Chinese characteristics, we strive to achieve harmony and prosperity between value creation and green development.

Taking multiple measures to deepen the practice of innovative green finance

Green transformation is a complex and long-term mission that tests our systemic thinking and strategic planning capabilities. We sought progress while maintaining stability and strengthened the coordination and collaboration among the Board of Directors, Management Committees, and business lines throughout the Bank. We further clarified responsibilities, improved long-term mechanisms, and solidly promoted the implementation of the strategic plan of green finance development and the action plans for carbon peak and carbon neutrality. We also developed environmental, social and governance (ESG) work plans based on the actual business situation and implemented such in a top-down approach. We continuously optimised the structure of resource allocation and increased support for key areas such as clean energy, green transportation, and energy conservation & emission reduction in traditional industries. As of the end of 2022, the balance of green loans reached RMB2.75 trillion, with a year-on-year increase of 40.09%. At the same time, we paid efforts to transform financial development and manage the pace of credit policy adjustments whilst continuing to provide financial services to ensure the secure supply of coal and coal-

fired energy and nurtured the relationship between the holistic and partial, as well as long-term and short-term relationships. We also focused on innovating green financial products and establishing a customer-oriented group-wide green financial product system to achieve the balanced development of green credit, green funds, green bonds, and green leasing, amongst other businesses. We strengthened the application of fintech, improved the digitalisation and refined management of green finance; supported the construction of carbon market infrastructure, as well as promoted resource efficiency, collaborative management, and intelligent operations. We cherished the green ecological space and paid close attention to biodiversity conservation by signing the *Common Action Plan for Banking Sector to Support Biodiversity Conservation*. We also supported key projects in ecosystem restoration and ecological environment governance, and constructed an eco-friendly investment and financing model. Leveraging the "CCB Match Plus" platform, we promoted cross-border cooperation in the green field and served over 1,700 companies in nearly 20 countries across four continents.

Launching New Finance initiatives to better serve green development

Green is the ecological background of new finance and has become an important aspect of China Construction Bank's New Finance concept, and the consensus for improving financial services during the "14th Five-year Plan". We integrated the concepts of green, environmental protection, and sustainability into our strategic advancement and service innovation.

We established the first national house rental fund to explore new models of real estate development, and completed a closed loop of financial services for the whole cycle of "investment, financing, management and withdrawal". We strongly supported rental housing supply, urban renewal, and old town gentrification, to prevent excessive land excavation and large-scale demolition and construction. By integrating existing real estate resources, we filled gaps in the house rental market. As of the end of the first quarter of 2023, the balance of loans for corporate house rental exceeded RMB290 billion. It supported over 1,000 leasing companies; and the projects provided over one million rental units for the society.

We promoted the expansion of inclusive finance, iteratively improved the digital and online business models, continuously enhanced our ability to activate low-spending customers and assess customer credit and achieved cost reduction whilst controlling risks. The upgraded 3.0 version of the "CCB Huidongni" app provided customers with more personalised financial services, effectively supporting small and micro enterprises in green, technological innovation, and agriculture-related sectors. As of the end of the first quarter of 2023, the number of inclusive finance loan customers reached nearly 2.8 million, with loan balance of RMB2.67 trillion, making China Construction Bank the largest global provider of inclusive finance.

We built "CCB Cloud" to advance the new digital infrastructure and empower fintech both internally and externally, aiming to transform from a participant in a closed financial system to a builder of an open financial ecosystem. Internally, we reshaped the Bank's service model, embraced the transformation of digital production methods, and shifted business from the service counters to the "cloud". Externally, we deepened cooperation amongst the government, banks, and enterprises by leveraging

smart governance to achieve the co-sharing and reuse of platform and resources, and stimulated synergies amongst the government, business, and consumer, to reduce the overall operating costs of the society.

We contributed to rural revitalisation as well as urban-rural coordination, and improved the "1211" comprehensive service system for rural revitalisation. With the power of finance, we innovated services for green agricultural development and the comprehensive ecology of urban and rural areas, leveraging the comparative advantages of beautiful rural landscapes to encourage urban residents to return to nature. We also improved the agricultural-related product system to attract financial resources to flow into rural areas, making lucid waters and lush mountains become mountains of silver and gold.

Resolutely safeguarding the security bottom line of green development

We strengthened the proactive management of environmental and climate risks, aiming to prevent both "black swan" and "green swan" events. While vigorously promoting green finance, we also prevented brown risks to ensure the asset quality of green loans is above the bank's average level. We accelerated the establishment of a climate risk stress testing methodology, expanding the breadth and depth of climate transition risk stress testing. We gradually established a comprehensive ESG risk management system for the credit, investment and financing businesses, integrating environmental and climate risk control requirements into the entire credit process management. We developed ESG rating tools applicable to corporate clients based on industry and scale, enabling differentiated evaluations for large and medium-sized enterprises as well as small and micro enterprises, and explored an evaluation indicator system that combines international standards with Chinese characteristics for the first time in the industry.

Proactively promoting the transformation of green and low-carbon operation

We strengthened carbon footprint management and emphasised on enhancing green operational management and energy consumption management capabilities, promoted paperless offices, and pursued energy conservation as well as emission reduction. In 2022, we had established and put into operation 33 green outlets. The Huadu Branch in Guangzhou achieved a carbon emission reduction of nearly 70 tonnes over the course of the year. The Xiamen Branch became the first "Carbon Neutrality" financial institution in the local area. Overseas branches including Sydney Branch, Zurich Branch, CCB New Zealand, and Frankfurt Branch were certified as "Carbon Neutrality" by their respective local authorities. We continuously optimised "Personal Carbon Account" financial services and created a shared personal carbon reduction measurement data service across the bank by taking authoritative carbon emission measurement rules into account. This service recorded individuals' carbon footprint from consumption and provided exclusive benefits for users striving for carbon emission reduction. We integrated low-carbon travel into the "CCB Life" app, encouraging customers to actively participate in public welfare projects; we leveraged the "Workers' Harbour" to conduct environmental awareness campaigns, fostering a positive ecosystem where the entire society participates in environmental governance.

A sound ecological environment is the fairest public product that benefits people's livelihood the most. Looking at the great country of China, the "spark" ignited by the New Finance illuminates the lucid waters and lush mountains in one province after another. In Shandong province, we supported the construction of the carbon dioxide enhanced oil recovery and storage demonstration project of Victory Oilfield, achieving a win-win result of increased oil production and carbon reduction. In the Longyuan Silk Road, we assisted in the construction of large-scale wind and solar power projects with a focus on the use of deserts, the Gobi, and wasteland, using financial "vitality" to nurture green entities. At canal towns in South of the Yangtze, we collaborated with the government to develop the "comprehensive evaluation system for green development of industrial enterprises in Wujiang District, Suzhou" and relied

on the financial "pioneers" to protect the beautiful ecology. In Chongqing, we innovated the carbon emission rights pledge financing model, promoting the activation of "carbon assets" for free enterprises. Step-by-step, hard work always pays off. If we humanity do not fail nature, nature will not fail us. The stories of "People who protect the natural environment will eventually benefit from the environment" vividly illustrate the development concept of "lucid waters and lush mountains are invaluable assets". When we look back at the poetic habitat of green mountains, clear waters, singing birds, and fragrant flowers years later, we will realise how fruitful the results were that new finance yielded.

Looking ahead, China Construction Bank will continue to uphold the principles of Xi Jinping's ecological civilisation, diligently implement the decisions and plans of the CPC Central Committee and the State Council, seize the opportunities of green development, and build on its traditional strengths. We will expand our new finance service models and business, further enrich the green definition of new finance, and contribute our wisdom and strength to the sustainable and high-quality development of the economy.

As a famous phrase from a classic Chinese poem stated, "As rivers meander endlessly, the lush mountains unfold in the distance". Together, we hold on to the beautiful promise between humans and nature. Let us walk hand-in-hand and embrace a prosperous and brighter future.

Tian Guoli
Chairman



Zhang Jinliang President



Wang Yongqing Chairman of the board of supervisors

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Annual Overview

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Corporate Introduction

China Construction Bank Corporation, headquartered in Beijing, is a leading large-scale commercial bank in China. Its predecessor, People's Construction Bank of China, was established in October 1954. It was listed on Hong Kong Stock Exchange in October 2005 (stock code: 939) and the Shanghai Stock Exchange in September 2007 (stock code: 601939). At the end of 2022, the Bank's market capitalisation approximated USD158,541million, ranking fourth among all listed banks in the world. The Group ranks second among global banks by Tier 1 capital.

The Bank provides customers with comprehensive financial services, including corporate finance business, personal finance business and treasury and asset management business. With 14,356 banking outlets and 352,588 staff members, the Bank serves 739 million personal and 9.35 million corporate customers. The Bank has subsidiaries in various sectors, including fund management, financial leasing, trust, insurance, futures, pension and investment banking, with 24,094 staff members. It has nearly 200 overseas entities covering 31 countries and regions.

The Group implements the new development concept fully, accurately and comprehensively and supports the fostering of a new development pattern to promote high-quality development. It consciously practices finance activities in a politically oriented and people-centred manner, focuses on the "Three Major Tasks", continuously enhances the "Three Capabilities", and further advances New Finance initiatives with the "Three Major Strategies" of housing rental, inclusive finance and FinTech. It deeply cultivates key areas of national economy and people's livelihood, such as smart government affairs, rural revitalisation, green development, elderly care and healthcare, consumer finance, mega wealth management, FinTech, and county-level business expansion, so as to maximise values to stakeholders, including customers, shareholders, employees and society, and create more magnificent chapters for New Finance through the Chinese path to modernisation.

At the end of 2022, the Bank's market capitalisation approximated

USD **158,541** million



ranking

4

among all listed banks in the world



banking outlets

14,356



staff members

352,588



serves personal customers

739 million



serves corporate customers

9.35 million



Environment-related Strategic Objectives

In 2022, the Bank formulated the *Environmental, Social and Governance Work Plan (2023-2025)* in accordance with the *Outline of Development Plan for the "14th Five-Year" Period Plan and Long-range Objectives through the Year 2035 of China Construction Bank*, combined with regulatory regulations and actual business conditions, to comprehensively improve environmental, social and governance levels and promote sustainable and high-quality development. To implement the requirements of the *Strategic Plan for Green Finance Development (2022-2025)* and the *Action Plan for Carbon Peaking and Carbon Neutrality*, the Bank improved the green governance structure, practiced environmental protection operations, and enriched the development of green financial products and services.

Strategic vision

Striving to become a world-leading sustainable development bank

Basic principles

Comprehensive coordination

To strengthen top-level design, promote the synergic development involving the Head Office, branches and sub-branches, the front, middle and back offices, parent company and subsidiaries, domestic and overseas organisations, and carry out green credit and non-credit business in a collaborative manner, so as to generate a synergy to drive green development.

Steady and orderly progress

To achieve balanced relationship between development and emission reduction, overall and partial development, as well as long-term and short-term goals, and maintain proper pace and intensity, the Bank serves for the green and low-carbon transformation of economic and social development in a powerful, orderly and effective manner.

Differentiated policies

To set up goals and tasks based on local conditions, accelerate development in key regions and sectors, to form a demonstration effect, building a new development framework for various areas based on experiences of key exemplar projects.

Innovation-driven development

To improve product and service innovation capability, strengthen technology application to close the gap between customer needs and existing financial service, enhancing the quality and efficiency of green financial services.

Key objectives and tasks

The Bank will intensify efforts to develop green finance, strengthen green operation management, and help prevent and control environmental pollution and promote low-carbon economic and social transformation. Focusing on business development, green transformation, product innovation, climate risk, own operation, green procurement and other major tasks, the Bank proposes specific development goals covering green finance management, comprehensive risk management and carbon footprint management.

To build a green balance sheet



Deepen the green financial business development, provide financial support for green area not less than RMB2 trillion from 2022 to 2025; Strengthen the assessment and supervision mechanism to quantify the environmental benefits of green finance; Enhance comprehensive financial service capacity, support regional development in green transformation, promote innovation in sustainable financial products, and strengthen external cooperation in green finance.

To properly address climate changes



Improve risk measurement tools and methodologies to strengthen environmental and climate risk management; From 2024 to 2025, based on the results of the climate risk stress test research project, arrange the climate risk stress test plan according to the priority and objective conditions; Promote the construction of a client ESG rating system and improve ESG risk due diligence.

To optimise carbon footprint management



Implement energy conservation and emission reduction requirements, and rationally dispose waste; From 2022 to 2026, the energy intensity and carbon emission intensity of the whole bank showing a downward trend; Optimise carbon footprint data management, continue to improve the "carbon emission management platform" system, and reach 100% utilisation rate of the primary branch, secondary branch and sub-branch system by 2025, and continue to promote green procurement.

Highlights and Awards

Improved the management mechanism

During the reporting period, the Bank's Leading Group for Carbon Peaking and Carbon Neutrality and the Green Finance Committee focused on the "carbon peak and carbon neutrality" strategic goal, reviewed and approved the *Action Plan for Carbon Peaking and Carbon Neutrality*, strengthened the allocation of green assets, and steadily addressed the environmental and climate challenges. The Committee for the Promotion of Environment, Society and Governance formulated the *Environmental, Social and Governance Work Plan (2023-2025)*, defined the development goals and key tasks related to ESG and carried out its management in an orderly manner.

Comprehensive development of green finance

Green credit

The Bank continuously optimised the credit structure, increased lending in key areas such as clean energy, energy conservation, and advanced carbon emission reduction technologies, supported energy conservation and carbon reduction in key areas, and continued to improve the ability to serve the green and low-carbon transformation of the energy and industrial structure. Product innovation was carried out in areas such as climate change, ecological environment remediation, biodiversity protection and value realisation of ecological products, to promote high-quality leapfrog development of green finance. As the end of 2022, the Bank balance of green loans¹ was RMB2.75 trillion, an increase of RMB786.976 billion over the end of the previous year, a growth rate of 40.09%; Green loans accounted for 13.54% of all loans², an increase of 2.56 percentage points over the end of the previous year; The non-performing rate is much lower than that of other corporate loans.

Green bonds

The Bank was active in green bond issuance, underwriting and investment. The Bank issued the first RMB10 billion green financial bond linked to sustainable development in China in 2022, linking the coupon rate to the completion of preset key performance indicator KPI and sustainable development performance goal SPT. Participated in the underwriting of 87 domestic and foreign green and sustainable development bonds with a total scale of RMB156.067 billion, an increase of 25.79% year on year. The Bank also underwrote the first batch of transformation bonds and the first three-label bond "Green + Rural revitalisation + sustainable development" in the market. More than 300 green bond investments and transactions have been carried out in total, the balance of green bonds held by foreign currency bond portfolio increased by more than 10% over the end of last year, and the balance of green bonds in the RMB bond portfolio increased by more than 110% over the end of last year. In addition, the Bank, together with Wind Information and International Institute of Green Finance released the *CCB-Wind ESG Bond Issuance Index 2021 Annual Operation Report*.

Other green finance business

The Bank gave full play to the advantages of owning comprehensive business licenses, encouraged and supported subsidiaries to develop diversified green financial products and services. For example, CCB Investment worked with large central enterprises to establish the first carbon neutral theme fund in the market. CCB Trust actively explored new models of supply chain finance and helped core enterprises in green industry to quickly build professional management systems and platforms. CCB Financial Leasing committed to cultivating new growth points of green business, such as clean energy and green manufacturing, with the amount of green business investment and the proportion of green assets reaching a record high.

¹ The green loan data is the China Banking and Insurance Regulatory Commission's 2020 green financing statistics.

² The loan data is the statistical caliber of the G01 report of the China Banking and Insurance Regulatory Commission.

Enhanced response to environmental and climate risks

The Bank optimised the climate risk analysis framework, integrated climate risk factors into traditional risk types, improving the overall risk management capacity. The Bank carried out in-depth stress tests on climate transition risks, studied and measured the repayment ability of clients in eight high-carbon industries under pressure scenarios, to improve the quantitative analysis level of climate risks. The Bank actively participated in the financial research and formulation of industry transformation standards organised by the People's Bank of China, led the construction industry related work, and explored new opportunities for green business. The bank developed ESG rating tools for corporate clients and pioneered the practice of ESG rating worldwide.

Adhered to green and low-carbon operation

The Bank developed and applied its carbon emission management system, carried out an energy consumption audit bankwide in 2022, to strengthen the management of operational carbon footprint. The Bank steadily promoted energy conservation and emission reduction measures in line with environmental targets, and regularly reviews progress in achieving these targets. The Bank advocated green office and intelligent operation, relying on energy-saving technology transformation to improve energy efficiency. To promote the green development of suppliers, the concept of green procurement was implemented and green evaluation standards for suppliers were set up. The Bank paid attention to the promotion of green environmental protection concept, improved staff awareness of energy saving and emission reduction. The head office of the Bank was awarded a 4-star rating in the Beijing Green Creation Activity for two consecutive years, becoming one of the first group of green creation companies.

Steadily carried out green pilots

The Bank continuously carried out the construction of head-office green finance pilot banks and climate investment and financing branches, strengthened policy support and resource guarantee for Zhejiang Huzhou, Guangzhou Huadu, Zhejiang Jiashan and other green finance pilot branches, promoted the benchmark effect of green finance pilot banks, and the development of Nansha Climate Branch in Guangzhou. To promote the construction of green operation institutions, 33 green domestic outlets were built and operated in 2022, with a total of 20 certificates issued by carbon emission exchanges and relevant institutions. The Sydney branch, Zurich branch, CCB New Zealand and Frankfurt branch were certified as "Carbon Neutrality" by their respective local authorities, and the Seoul branch was awarded the highest ESG rating of Korean financial institutions.

Actively promoted biodiversity conservation

The Bank jointly hosted a side meeting on the theme of "Banking Industry's Nature and Climate Action" at the second phase of the 15th Conference of the Parties to the *United Nations Convention on Biological Diversity* (COP15), signed the *Common Action Plan for Banking Sector to Support Biodiversity Conservation*, and increased funding for biodiversity conservation and climate change.

Internal and external empowered green finance

The Bank strengthened research on green finance, explored the cutting-edge trends of green finance through industry research, policy interpretation and forward-looking reports, and established a diversified green finance training system to improve the professional level of green finance. The Bank gave full play to our advantages in capital, technology, channels and human resources to help formulate standards for green finance in the industry, strengthened international exchanges and interactions, and promoted green innovation in the industry through integration and cooperation.

Green development related honours

The Bank's MSCI ESG rating consistently achieved an A rating for three consecutive year, China Securities ESG rating was rated AAA, and was consecutively selected in the Hang Seng (China A) Corporate Sustainability Benchmark Index. During the reporting period, the Bank received the following major awards for green finance development and innovation.

Special Contribution Company Advanced Company in Green Bank Evaluation China Banking Association	Global Green Finance Annual Award International Finance Forum	"Top 10 Green Finance Innovation Awards" The Banker
2022 [ESG Pioneer 60] ESG Green Finance Award of the Year Shanghai United Media Group Jiemian News	Best Environmental "E" Responsibility Award Best Bank for Responsible Investment Sina "China ESG Golden Awards 2022"	"Annual ESG Best Society Practice Enterprise" by CCB Life Insurance China.com
"Golden Bull Award for ESG themed products" by CCB Wealth Management China Securities Journal	"ESG competitiveness · Responsible finance award" by CCB Private Equity GoldenBee ThinkTank	Excellence and Vision Green Bond Framework "Pioneering Organisation in ESG Disclosure Enhancement" by CCB International Hong Kong Quality Assurance Agency

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Environment-related Governance Structure

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Adhering to the vision of "Striving to become a world-leading Sustainable development bank", the Bank continues to strengthen the top-level design related to the environment and is committed to building a long-term mechanism for green governance that is efficient, collaborative and fully engaged to achieve green and sustainable development.

Board of Directors

The Board of Directors of the Bank assumes the ultimate responsibility for the formulation and implementation of the Group's overall environment-related strategies. It defines the environment-related strategic objectives, key tasks, and management priorities, oversees the implementation effect of environment-related strategies, strengthens environment-related risk identification and assessment, and reviews the progress of green operation and green finance relevant objectives and achievements in a regular manner. It also regularly hears reports from its subordinate special committees and the management on environment-related issues and their progress, and guides the disclosure of relevant information. The Board of Directors promotes the integration of the concept of green development into the daily operation management and promotes the realisation of green and high-quality development.

Strategic Development Committee



- The committee is responsible for assisting the Board in formulating ESG strategic goals and fully considering ESG-related factors in the formulation of various strategic goals.
- The committee urges the management to deeply implement the concept of green development and guides the management to increase credit support for green development and other key areas, to promote sustainable and healthy development of strategic business.

Related Party Transaction, Social Responsibility and Consumer Protection Committee



- The committee is responsible for formulating ESG management policies and strategies, supervises and guides the Bank's performance on social responsibility, green finance, and other environment-related matters.
- The committee reviews the *Report on the Progress of Green Finance*, tracking the progress of core indicators of strategic plan for green finance development. It follows up on the Management's progress in climate risk management capabilities, and integration of environmental and climate risk management into the whole business process, improvement of risk measurement tools and methodologies, and quality enhancement of environmental information disclosure.
- The committee regularly listens to ESG special reports and evaluates relevant progress, continuously strengthens communication with external institutions, to promote the development of green finance and the sustainable development of the business for the Bank.

Risk Management Committee



- The committee guides ESG-related risk management, supervising the implementation of ESG-related risks reporting mechanism, guiding the conduction of climate transition risk stress testing, strengthening risk prevention and control in key areas, to promote the integration of ESG factors into the Bank's comprehensive risk management system.
- The committee regularly listens to environmental and climate risk analysis report, guides the management to incorporate green finance into risk appetite analysis, and enhances the digital management capabilities of green finance. It regularly follows up the progress of ESG-related risk quantification work, guides the management to adjust industry credit policies, and promotes the organic integration of ESG factors and client credit rating systems.
- The committee conducts special studies on personal information privacy protection and data security, guiding the management to strengthen client information authorisation management, to solidify data security and protection capabilities.
- The committee listens to various comprehensive risk reports and special reports, supervises the setting and execution of environmental and climate risk appetite, studies and analyses the challenges of green transformation, and places great emphasis on risks in key areas such as biodiversity and information technology.

Board of Supervisors

The Board of Supervisors performs its supervisory duties, oversees the performance of ESG-related and green finance-related strategy responsibilities of the Board of directors and the management. It continues to pay attention to the implementation and promotion of ESG strategy. The Board of Supervisors studies the progress of ESG work and gives supervision suggestions on strengthening top-level design, consolidating basic management, and improving capacity building.

The Board of supervisors listened to the report on the progress of ESG-related actions in 2022, and paid continuous attention to the implementation and promotion of ESG. It continued to follow up the implementation of climate risk stress tests and the application of the results, paid attention to the implementation of green credit policies of the Bank, the main direction and structure optimisation of green loans, and the construction of risk control system. The Board of Supervisors carried out a special survey on "financial serving scientific and innovative enterprises", which focused on green industries and visiting relevant enterprises, to study and discuss how commercial banks could better provide comprehensive financial services for green industries and support green and low-carbon transformation development.

Management

The management is responsible for formulating the environment-related goals and promoting the implementation, and guides relevant departments, domestic and overseas branches and subsidiaries to implement specific work, comprehensively improving environment-related and sustainability management.

ESG Promotion Committee



- The committee is responsible for promoting the Bank's ESG strategic planning, deployment and coordination, with the president serving as the chairman, 34 member departments (institutions), and consists of three working groups of environmental, social responsibility, information disclosure and investor relations. The ESG promotion committee has a clear division of responsibilities and close cooperation to effectively promote ESG-related work.
- The committee convened an annual meeting in 2022, reviewed and approved the *Environmental, Social and Governance Work Plan (2023-2025)*, and identified work focus for 2023. It required the Bank to strengthen ESG information disclosure, enhance green financial service capabilities, improve ESG risk management level, and use financial technology to empower ESG data governance capabilities. It continuously promoted group carbon footprint management and strengthened ESG talent team building, to fully integrate ESG concepts into business operations and risk management, striving to build a world-leading sustainable development bank.

Leading Group for Carbon Peaking and Carbon Neutrality



- Led by the chairman of the Board and assisted by the president of the Bank, the committee leverages New Finance initiatives to facilitate achieving the goals of carbon peak and carbon neutrality, promoting the comprehensive green and low-carbon transformation of the Bank.
- The committee convened two theme meetings throughout the year to discuss and deploy key tasks related to achieving carbon peak and carbon neutrality across the Bank. The meeting reviewed and approved the *Action Plan for Carbon Peaking and Carbon Neutrality in Full and Faithful Implementation of the New Development Philosophy*. The next steps were deployed with a requirement to integrate green finance into the entire process of business management, to improve the innovative system of green and low-carbon product services and the green finance evaluation system, and to enhance the constraint and guidance on resource allocation of the carbon peak and carbon neutrality work.

Green Finance Committee



- Chaired by the president, the committee is responsible for coordinating and promoting the development of green finance throughout the Bank, studying and making decisions on major issues related to the promotion of green finance business, as well as planning and deploying the key directions and measures for the development of green finance throughout the Bank.
- The committee convened theme meetings in 2022 to discuss key management tasks related to green finance, and deployed and arranged work for next steps. It required the Bank to increase the allocation of green assets, respond prudently to climate challenges and support traditional industries to achieve low-carbon transformation.

Work Promotion Mechanism

The Bank establishes group-wide green development coordination and promotion mechanism with a reasonable division of labor, clear rights and responsibilities, and effective implementation. Each professional department carries out and implements specific work related to the environment, steadily promotes environment-related corporate business, retail business, capital market business, risk management, disclosure and publicity, and carbon footprint management, etc., integrating green development requirements into daily operation and management. Domestic and foreign branches and subsidiaries combine their own business development characteristics and advantages to continuously enrich green financial products and services.

Risk Management and Internal Control Management Committee



- The committee is established with president serving as the chairman. ESG elements are integrated into business operation and risk management process, while environmental and climate risk are included into comprehensive risk management system. Clarifying professional management responsibilities of related departments, the committee regularly holds meetings to follow up the progress of work and deploy important matters, promoting continuous improvement of environmental and climate risk management capabilities.
- The committee convened four plenary sessions in 2022, particularly specialised research on businesses such as information technology. The sessions approved proposals including the work plan for preventing and resolving major financial risks, the proposal for improving the overall risk governance system and deployed next steps. It required the Bank to strengthen data governance and build a stronger risk and compliance management team.

03

Environment-related Policies and Systems

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The Bank strictly adheres to national environmental laws, regulations, and industry policies, actively participates in and supports international principles and initiatives related to the environment, continuously improving the management policies, systems, and process of green finance and green operations.

Laws and regulations

The Bank strictly complies with environmental laws and regulations such as the *Energy Conservation Law of the People's Republic of China*, the *Environmental Protection Law of the People's Republic of China*, etc., to practise green operation.

National and industrial policies

The Bank continuously implements the *Working Guidance for Carbon Peak and Carbon Neutrality in Full and Faithful Implementation of the New Development Philosophy, Integrated Reform Plan for Promoting Ecological Progress* by the CPC Central Committee and the State Council, the *Action Plan for Carbon Peak Before 2030* and the *Guiding Opinions on Accelerating the Establishment of a Sound Economic System with Green, Low-carbon and Circular Development* by the State Council, the *Guiding Opinions on Building a Green Financial System* jointly issued by seven national ministries and commissions including PBOC and Ministry of Finance, etc., and implements the *Implementation Plan to Meet the Requirements of Carbon Peak and Carbon Neutrality and Promote the Green and High-Quality Development of New Infrastructure such as Data Centres and 5G* issued by four departments including the National Development and Reform Commission, etc., the *plan for the Green Finance Evaluation of Banking Financial Institutions* issued by PBOC, the *Guidelines on Green Finance for the Banking and Insurance Industries* by former China Banking and Insurance Regulatory Commission and other relevant requirements and guiding opinions.

International principles and initiatives

As the founding member unit and governing organisation, the Bank joined the "Sustainable Markets Initiative" China Council. The Bank became one of the founding members of the Sino-British Green Finance Working Group's the *Green Investment Principles for "Belt and Road"*. The Bank also signed the *Common Action Plan for Banking Sector to Support Biodiversity Conservation*. Additionally, CCB actively responded to international standards and principles related to sustainable development and climate change, such as the *United Nations' Sustainable Development Goals (SDGs)* and the *United Nations Principles for Responsible Investment (PRI)*, the *Paris Agreement*, the *Recommendations of the Task Force on Climate-related Financial Disclosures*.



Chongqing Branch fully supported the construction of ecological civilization in Wulong District and the "lucid waters and lush mountains are invaluable assets" theory practice and innovation base.

Optimising the Regulatory Framework for Green Finance

Enhancing credit approval and assessment

The Bank further enhances the standardisation of green credit approval, encompassing approval management, credit qualification, and assessment requirements.

Strengthening approval management

The energy efficiency level, greenhouse gas emissions, and pollutant emissions are considered as important criteria for credit approval, and post-loan management for clients and projects in industries with high pollution and high energy consumption. Differential credit allocation, approval authority, and approval processes are implemented for clients and projects that meet green standards. A "green channel" is established to streamline approval procedures and enhance the efficiency of green business transactions. In 2022, approval guidelines were issued for sectors such as waste-to-energy, new energy vehicle power batteries, wind power generation, and crop seed industry to standardise approval criteria and processes in relevant industries.

Optimising green credit qualification

The Bank actively carries out green credit qualification and system optimisation, thoroughly studies and implements the green credit qualification requirements of regulatory agencies. It issued *Notification on Green Credit Qualification in Credit Approval*, which clearly defined the green credit qualification process for new corporate credit business under the special loan quota, strictly preventing greenwashing.

Refining assessment requirements

In the project assessment rules, new methods for green financial evaluation, refine assessment requirements related to energy conservation, environmental protection, carbon peak, carbon emission reduction, resource conservation and recycling, environmental and climate risks, etc. are introduced. Specific analyses on the impacts of "carbon peak" and "carbon neutrality" are required, adding explicit requirements for sensitivity analysis in quantifiable parts and strengthens qualitative analysis in non-quantifiable parts.

Supporting the development of key strategic areas

The Bank, in the 2022 credit policy, explicitly emphasised increasing the loan investment in key areas such as clean energy, energy conservation and environmental protection, and advanced carbon reduction technologies. This support was aimed at promoting energy conservation and carbon reduction in key areas, continuously improving the ability to serve the green and low-carbon transformation of the energy and industrial structures, and fostering product innovation in areas related to climate change, ecological environment restoration, biodiversity conservation, and the realisation of ecological product value. Additionally, in the field of green agricultural credit products, the Bank issued the *Notice on Strengthening the Innovation and Management of Credit Products for Rural Revitalisation*, aiming to enhance the quality and effectiveness of green agricultural credit product innovation.

Developing relevant industry credit policies

The Bank formulated and implemented 75 industry credit policies, covering key industries such as agriculture, electricity, forestry, mining, petrochemical, transportation, materials, and construction. The Bank conducts timely reviews and updates as necessary.

 Power industry	Coordinate energy supply guarantee and the green and low-carbon transformation of energy, specify requirements on pollutant discharge and coal consumption in the selection criteria of thermal power projects. Firmly downsize and withdraw from projects with capacity under 300,000 kW which will be phased out per national policy. Support the coal and electricity enterprises in the "Three Upgradings" (Coal-power carbon reduction upgrading, heating system upgrading, and flexibility upgrading). Regard clean energy industry as a priority industry to be supported, grant more credit and improve the proportion of the clean energy industry.
 Agriculture	Actively support the green development of agriculture. Specify requirements on compliant operation, environmental protection and quality safety, and exercised the "One-Vote Veto" policy over environmental and climate risks when selecting agricultural clients. Credits will not be granted for clients and programmes with significant environmental and climate risks. Prioritise agriculture and actively support agricultural entities in carrying out carbon reduction and carbon sequestration, comprehensive utilisation of resources, as well as the construction of efficient and watersaving irrigation and drainage facilities in farmland. Grant more agriculture-related credit loans for clients with good performance in agricultural energy conservation, such as those reducing the consumption of fertiliser, pesticides, water, and land.
 Green building industry	Actively support the development of green building and take active measures to promote the coordinated development of green finance, green urban construction and the promotion of green building, supporting energy conservation and emission reduction in construction. Take whether the projects have met the green building criteria as essential consideration when selecting real estate projects.
 Mining industry	Support green, clean and intelligent mining and consider various factors like production safety, environmental protection and resource utilisation to decide whether the client or project is eligible. Increasing support for the supply guarantee of strategic mineral resources, focus on supporting the supply of scarce and strategic new minerals that conform to green mines, energy and resource efficient, and environmentally friendly standards. Exercise the "One-Vote Veto" policy over environmental and climate risks. Credits will not be approved for clients and programmes with significant environmental and climate risks. Resolutely compress and withdraw support for non-compliant and outdated low-capacity enterprises acting against the national industrial policies, as well as those do not comply with the environmental protection and safety production standards.

 Transportation industry	Actively support the green transformation of transportation structure, focus on key green transportation projects such as urban public transport and rail transport. Support the green, low-carbon and high-quality development of the aviation industry, the development of new energy vehicle industry and the upgrading of vehicles towards electrification and clean design.
 Iron and steel industry	Support the green development and transformation and upgrading of the steel industry and consider various factors like energy efficiency and emission efficiency to decide whether the client and project was eligible. Pay close attention to the impact of project construction on the dual control of the total volume and intensity of energy consumption, carbon emission, ecological environment and biodiversity. Exercise the "One-Vote veto" policy over environmental and climate risks. Credits will not be approved for clients and programmes with significant environmental and climate risks. Resolutely withdraw support for projects against the national industrial planning and environmental policies and enterprises that are against the standards regarding environmental protection and production safety.
 Petrochemical industry	Support the green, low carbon and recyclable development of the petrochemical industry and consider various factors like production safety, clean production, energy consumption level and carbon emission intensity to decide whether the client and project is eligible, supporting petrochemical and chemical high-quality enterprises in energy-saving and carbon-reduction transformation and upgrading and technology R&D and application, equipment upgrading and transformation, product upgrading, upstream and downstream integrated development and capacity layout optimisation, as well as projects with leading energy efficiency levels in the four major petrochemical industry clusters and green industrial parks. Pay close attention to the impact of enterprise production and project construction on energy consumption, carbon emission, ecological environment and biodiversity, and exercise the "One-Vote Veto" policy over environmental and climate risks. Credits will not be approved to clients and programmes with significant environmental and climate risks. Avoid getting involved in new production capacity projects in key areas of air pollution prevention and control. Resolutely withdraw support for projects against the national industrial planning and environmental policies, as well as enterprises that violated the requirements of green and low-carbon development or with high environmental and climate risks. Compress and withdraw backward capacity and excess capacity projects, as well as projects that do not meet the energy efficiency level and cannot be upgraded on schedule.
 Forestry	Actively support the green development of forestry. Specify requirements on compliant operation, environmental protection and quality safety, and exercise the "One-Vote Veto" policy over environmental and climate risks when selecting forestry clients. Credits will not be granted for clients and programmes with significant environmental and climate risks. Prioritise forestry and grant more forestry-related credit. Support forestry management entities to carry out the construction of national reserve forests, ecological protection and restoration, and the return of cultivated land to forests and grasslands. Support key projects under the national forest operation planning, and the <i>Outline of "14th Five-Year Plan "for Forestry and Grassland Protection and Development</i> , serving to increase the forest stock volume and enhance the carbon-sink capacity.

Strengthening biodiversity conservation

The Bank incorporates biodiversity conservation into the overall strategy, and allocate increased funding to biodiversity conservation and climate change adaptation efforts. Clear requirements are set in credit policies for industries such as wind power and photovoltaic power generation, in which the Bank has outlined requirements on raising the awareness of ecological protection, strictly sticking to the red line of ecological protection, the bottom line of environmental quality, the upper limit of resource utilisation and the ecological environment access list. Additionally, close attention is given to the impact of project construction on the ecological environment and biodiversity.

Clarifying performance evaluation mechanisms

The Bank has incorporated sustainability-related indicators into the performance evaluation mechanisms for the Board of Directors, Board of Supervisors and management. Quantitative indicators include factors such as supporting emerging industries and ecological civilisation construction, specifically assessing the support provided by loans for emerging industries and green financing to industry development. Qualitative indicators specify requirements such as "improving the green financial service system and mobilising more resources towards green and low-carbon industries."

Improving incentives and evaluation for green finance

The Bank formulated the *Evaluation Scheme for the Progress of Green Finance in Domestic Branches and Subsidiaries* to strengthen the management of green finance evaluation in branch offices. This scheme establishes evaluation indicators in three aspects: business development, risk control, and social responsibility performance. The evaluation indicator system is optimised according to the characteristics of business development and stages of domestic branches and subsidiaries. Financial incentives are provided to outstanding branches and subsidiaries. In conjunction with the assessment and evaluation scheme for regional strategy implementation, assessments are conducted for branches in the Beijing-Tianjin-Hebei Urban Agglomeration, the Yangtze River Delta, and the Guangdong-Hong Kong-Macao Greater Bay Area. Branches are encouraged to proactively grasp the issuance plans for high-quality green bonds, screen and initiate special investment applications, and support green bond investments by regional institutions and enterprises. In the financial market business line, a special incentive for green bond investments is added, fully stimulating the enthusiasm of branches to actively apply for investment in high-quality green bond projects.

Practicing Low-carbon, Environmental-friendly, and Green Operation

Establishing a sound green procurement system

In 2022, the Bank continuously implemented provisions on green procurement in the *Management Measures for the Centralised Procurement* and the *Supplier Management Regulations*, clearly specifying the priority for purchasing energy-saving and environmentally friendly goods products. Additionally, the Bank studied and fomulated the *Green Procurement Product Catalogue* of the Bank, including 58 kinds of commodities and green qualification references in the catalog and putting forward work requirements for green procurement of institutions at all levels.

Strengthening green operation management

In 2022, further implementation of the *Guidance on Promoting the Building of Green Outlets* and the *Administrative Measures for Building of Outlets* was carried out to promote the low carbonisation of outlet construction and the digitisation of business services, empowering the green transformation and upgrading of outlets. The Bank enhanced data centre energy consumption management, developing the *Management Measures for Data Centre Infrastructure Capacity* and the *Management Measures for Data Centre Infrastructure Energy Efficiency*, as well as formulating the *Wuhan Production Park infrastructure green energy saving operation guidance*. The Bank promoted the concept of green environmental protection, a notice titled *Notice of Holding the 2022 Energy Conservation Promotion Week and Low-carbon Day Activities* was issued to the entire organisation, organising various forms of promotional activities at all-level institutions to enhance employees' awareness of energy conservation and emission reduction.

The Bank promoted the optimisation of green operation management methods at branch level, comprehensively implemented energy-saving and emission reduction measures throughout all branches:

Institution Name	Regulations of Green Operation
Shanxi Branch	Released the <i>Office Supplies Management Measures</i> and the <i>Notice on Further Implementing the Work of "Saving Food and Preventing Food Waste"</i> , emphasizing the requirements of saving paper and consumables and preventing food waste.
Jilin Branch	Developed the <i>Implementation Plan for Creating Energy-efficient Institutions</i> to promote the establishment of a comprehensive energy and resource conservation management system and advocate green office practices.
Zhejiang Branch	Developed the <i>Action Plan of Executive Office for Serving Group's Carbon Peak-ing and Carbon Neutrality</i> , setting straightforward goals for annual carbon emissions to meet the group's standards and remain below the average level. Formulated key work objectives and measures with a focus on "smart renovation and digital transformation".
Shandong Branch	Issued the <i>Management Standards for General-Purpose Office Buildings</i> , the <i>Quota Management Measures for Office Supplies</i> , the <i>Work Plan for Creating a Green and Economical Cafeteria</i> , the <i>Implementation Plan for Creating an Eco-nomical Institution</i> , the <i>Regulations on the Management of Business Vehicles (2022 Edition)</i> , the <i>Assessment Measures for Business Vehicle Management</i> , the <i>Notice on Further Strengthening Logistics Management in tier-two branches</i> , etc. Work position settings were established and improved.
Guangdong Branch	Developed the <i>Energy-saving Implementation Plan for Offices at CCB Buildings</i> and other initiatives to promote green and low-carbon office practices in the provincial headquarters by focusing on energy management, energy-saving measures for air conditioning systems, energy-saving measures for lighting systems, and water conservation measures, etc.
Guangxi Branch	Issued the <i>Green Operation Implementation Plan</i> and the <i>Notice on Promoting Ten Key Tasks for Green Operation in Guangxi Branches in 2022</i> , to promote the refinement of green operation management, clarify responsibilities, and speci-fy processes. The plan emphasised key tasks such as equipment upgrades and renovations, green infrastructure development, fostering energy-saving habits among employees, and enhancing performance assessment and guidance to reduce energy consumption and carbon emissions.
Sichuan Branch	Developed the <i>Key Points for Carbon Footprint Management in 2022</i> , the <i>Em-ployee Guide for Green and Low-carbon Office Practices</i> , and the <i>Initiative for Employee Green and Low-carbon Living</i> , to clarify the annual objectives and measures for carbon footprint management, with a focus on enhancing em-ployees' awareness of green and low-carbon practices.
Qinghai Branch	Issued the <i>Energy Conservation and Emission Reduction Management Standards</i> and the <i>Notice on Carrying Out Special Activities on Energy Conservation and Car-bon Reduction</i> , to define the relevant position settings and job responsibilities of various levels of institutions and conduct investigations into energy consumption in office premises.
Qingdao Branch	Developed the <i>Interim Measures for Energy Conservation Management</i> and the <i>Energy Statistics System</i> to reduce consumption, minimise losses, and prevent waste at various stages from energy production to consumption, aiming to utilise energy resources efficiently.

04

Environment-related Risks and Opportunities

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The Bank continuously improves the management of environmental risks and opportunities, optimises the identification, assessment and management process of environmental and climate-related risks, focuses on seizing environmental and climate-related development opportunities, and explores corresponding impact on its operations, business development, strategic planning and countermeasures, prudently responding to the global trend of climate change.

Environment-related Risk Management System

Establishing risk grading standards

The Bank continuously strengthens the assessment and review of business environmental risk management in operation, complies with the management provisions of the *Notice on Strengthening Environmental and Social Risk Management*, divides clients into high risk, medium risk and low risk according to the level of environmental and social risk, and requires them to fill in the *Environmental and Social Risk Classification and Identification Form* and strictly implements client classification management.

In the pre-loan investigation process

It is required to conduct targeted investigations on the industry, regional characteristics, and other relevant information of the client. The scope includes but is not limited to environmental and social risk measures that have been taken, environmental safety violations, and other related content.

High-risk clients: new clients are not allowed to access credit; the credit balance or loan balance of existing clients must not be increased (except for those that have increased due to the resolution of risks caused by accepting off-balance sheet businesses listed in the form).

Medium-risk clients: new clients to be engaged and existing clients who require additional credit balance (excluding low credit risk business), must be approved by the responsible executives of the first-tier branch and provide reasons in the approval application materials. The Bank reduces actual risk exposure by using methods such as syndicated loans, increasing capital ratios, and increasing qualified collateral.

Low-risk clients: Proceeding according to the Bank's normal credit approval regulations and procedures.

During the loan review process

Strict investigation is carried out for environmental violations, safety production accidents, and other related matters.

In the post-loan management stage

Regular risk inquiries are required, and timely re-examination and classification assessments are conducted. Clients with medium to high risks are included in the management list and subjected to stricter inspection requirements, including increasing the frequency of on-site inspections, and conducting dynamic evaluations every quarter.

Strengthening business risk management

In combination with environmental and social risks and environmental and climate risk management standards, the Bank develops differentiated credit approval procedures and strategies, gives full consideration to clients' environmental and climate risks in the process of credit approval and decision-making, and pays close attention to the implementation of clients' social, environmental and climate-related information investigation.

Differentiated authorisation management

For steel, cement, coal mining, thermal power and other sectors with high social, environmental and climate risks, the risk management escalation process will be implemented, and the approval authority of new project loans will be centralised in the head office, branches will be strictly prohibited from approving loans beyond their authority, and branches' authority will be expanded to approve credit business of key high-quality customers in the green credit whitelist.

Differentiated credit approval process

Projects that meet the green credit standards are included in the "green channel", and differentiated procedures are implemented, including one-time compliance review, parallel compliance review with approver review, optimisation of the approval method, simplification of the "one-vote veto" process, etc., to improve the efficiency of business handling. The Bank formulates differentiated policies and regulations for project evaluation, including delegating the power to branches to assess projects in key areas of green credit, expanding the scope of credit evaluation exemption, integrating the investigation and evaluation process of small and medium-sized projects, establishing a mechanism of compatibility for incomplete evaluation materials, and simplifying evaluation reports.

Differentiated credit approval strategies

For clients and projects that do not comply with national policies and regulatory requirements, violate laws and regulations and have not completed rectification, enterprises whose environmental credit evaluation are given as environmental protection warning or poor environmental protection, enterprises that are involved in litigation due to environmental and climate reasons and may have a relatively large adverse impact on enterprises, or those that are required to be shut down by competent government departments, and other clients and projects with major environmental and climate risks, the Bank implements an "one-vote veto" for environmental and climate risks, and credit access will not be granted. Before the completion of the rectification, the existing clients should not be allowed to increase the credit exposure, and the projects with serious problems, bad influence, repeated investigation and repeated breaches or unable to be rectified should be downsized in credit exposure or exited from.

Building ESG rating tool for corporate clients

In order to improve the ability to identify and evaluate the environmental, social and governance risks of corporate clients, the Bank, based on the national conditions and actual business needs, benchmarked the international advanced practice, and combined with fintech technology, to take the lead in developing an automated ESG Rating Tool applicable to a full range of corporate clients, setting a leading industry example in ESG rating practice at home and abroad. This tool was launched in December 2022 and promoted in the whole bank. It is conducive to scientifically evaluating the sustainable development ability of clients, conducting client selection and risk control in a forward-looking manner, and promoting the sustainable development of credit and investment business. It has the following features:

Extensive client base

It can be applied to full range of corporate clients. Currently, there are about 900,000 clients meeting the evaluation conditions. With the improvement on requirements, standards and data quality of clients' ESG-related data disclosure, the clients can be evaluated will be further expanded.

Highly refined

Based on the two dimensions of industry and size, 74 models are developed. For the first time in the industry, large and medium-sized enterprises, small and micro enterprises are evaluated differently, which breaks through the current situation that ESG rating in the industry is concentrated on large and medium-sized clients such as listed companies and bond issuing enterprises, effectively improving the granularity level of ESG evaluation.

Characteristic metrics system

Fully integrating the experience of well-known institutions and internal experts, the Bank forms an evaluation metrics system with both international standards and Chinese characteristics based on the trend of "carbon peak and carbon neutrality" policy and relevant characteristic ESG data in the domestic market. It covers ESG key competency indicators such as energy management, green operation, green product opportunities, green supply chain, emission management, human resource management, product quality and operational responsibility.

Fintech empowerment

First, the big data technology is deployed in the comprehensive analysis, in-depth mining of internal and external ESG related information and the introduction of external data. The system automatically generates customer ESG evaluation results. The second is to design and deploy a visual display interface for users in the investment and financing lines of business and management personnel to easily view customer ESG rating analysis, ESG risk alerts, comparative analysis of similar customers, ESG overall performance in key business areas and regional ESG risk characteristics.

ESG rating tool for corporate clients

Environmental

- Energy management
- Green product opportunity
- Green financing behaviour
- Climate change
- Green supply chain
- Solid waste management
- Gas emission management
- Water resource management
- Forest protection

Social

- Human resource management
- Product and business responsibility
- R&D innovation
- Responsible customer relation
- Social responsibility contribution
- Supply chain management

Corporate governance

- Shareholder
- Tax performance
- Operating performance
- Code of conduct
- Financial strategy
- Management
- Audit and internal control

Metrics source

Government and Regulators: The State Council, the National Development and Reform Commission, the Ministry of Industry and Information Technology, the Ministry of Ecology and Environment, the Ministry of Transport, the Ministry of Agriculture and Rural Affairs, the Ministry of Housing and Urban-Rural Development, the People's Bank of China, the former China Banking and Insurance Regulatory Commission, etc.

Stock exchanges: NASDAQ, Hong Kong Stock Exchange, Shanghai Stock Exchange

International initiatives: Global Reporting Initiative (GRI), TCFD, Carbon Disclosure Project (CDP), Sustainable Accounting Standards Board (SASB), Climate Disclosure Standards Board (CDSB), World Economic Forum (WEF)

Industry research institutions: securities research institutions, Qianzhan Research Institute, First LeadLeo Research Institute, etc.

Trade association: Associations of various trades

ESG rating agencies: MSCI, Thomson Reuters, S&P, Fitch, Moody's, FTSE Russell, Sustainalytics, Harvest, SynTao Green Finance, Centre Testing International, IIGF, China Securities, WIND

Identification and Response to Environmental Risks and Opportunities

The Bank continuously conducts in-depth research and analysis on the impact of environmental and climate-related risks, integrates climate risk factors into traditional risk types, analyses the transmission path of climate risk factors affecting traditional risks, and develops sound coping strategies to strengthen the management of climate risks.

Risk identification and response

The examples of main environmental and climate-related risks identified by the Bank and corresponding measures include:

Credit risk

Risk factor

Regulatory requirements are strengthened/new environmental protection policies are introduced/environmental protection standards are raised, etc.

Business involved

Investment and financing business

Major impact

In the process of economic and social green and low-carbon transition, high-carbon industries may face declining revenue, rising costs and declining profits, leading to rising risk of corporate default and posing challenges to asset quality management.

Time range¹

Short/medium/long term

Impact²

Depending on specific projects.

Response

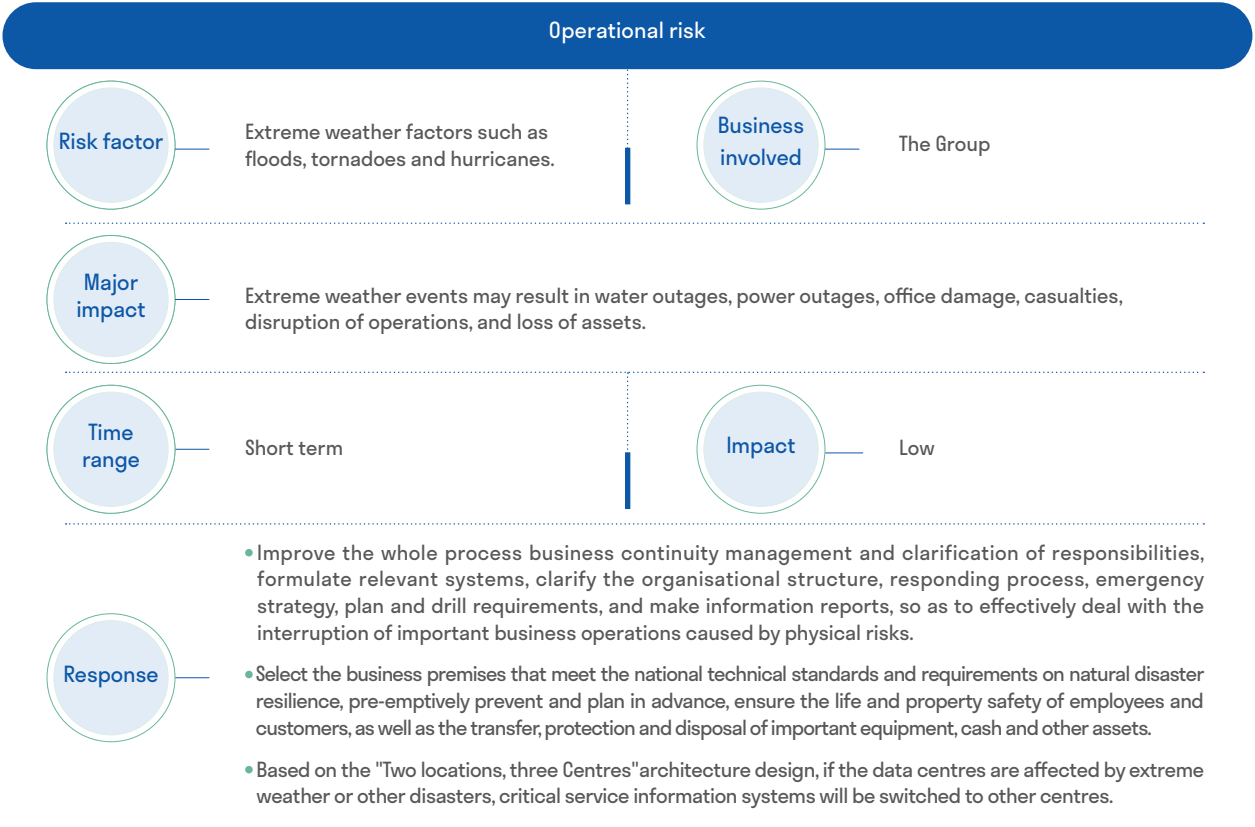
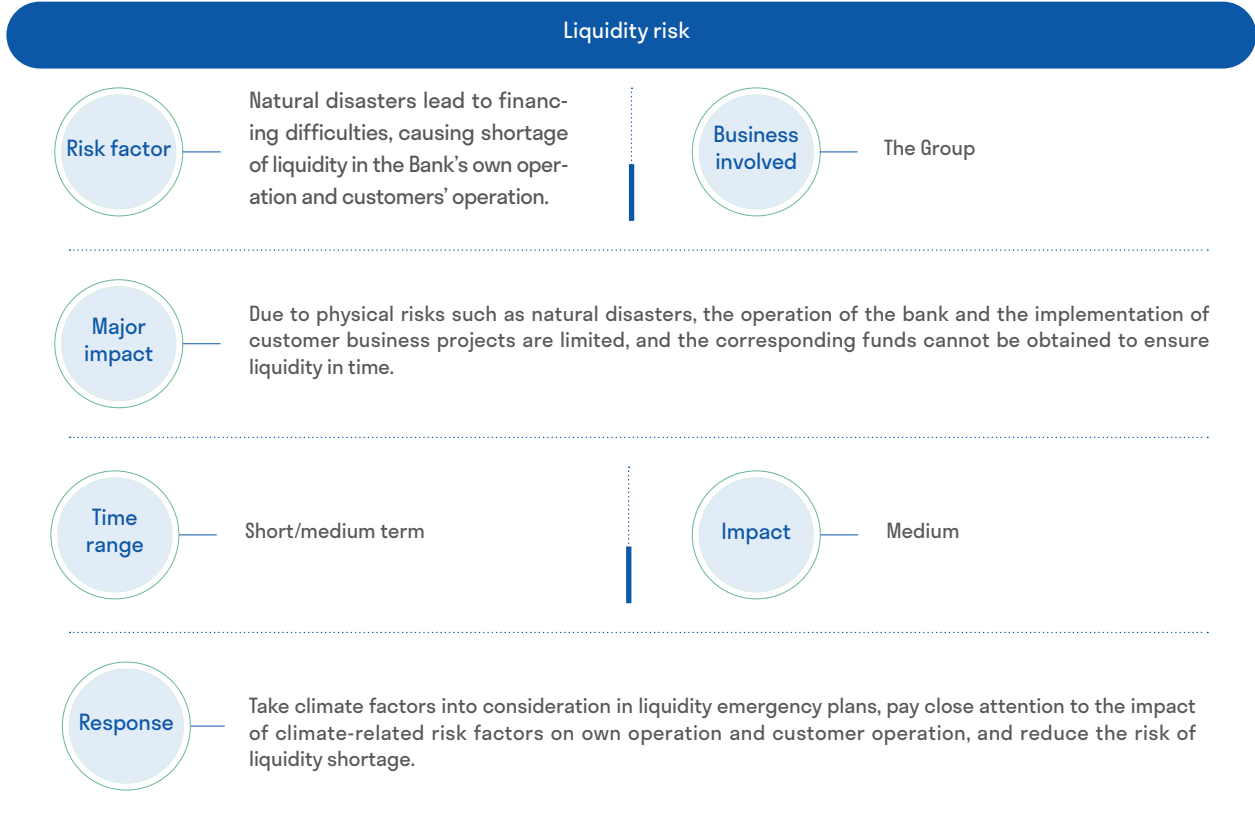
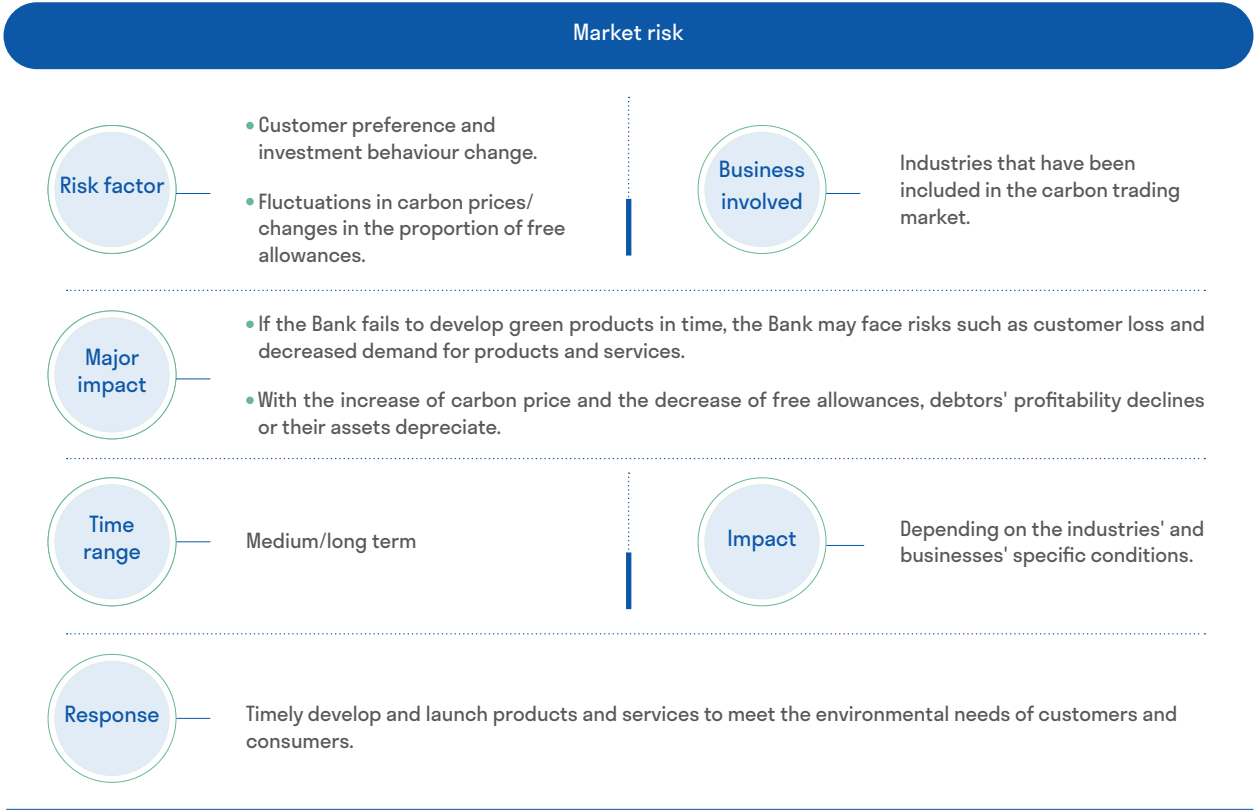
- Strengthen management of credit, investment and financing of industries with high energy consumption and high emissions, and take energy efficiency, greenhouse gas emissions and pollutant emissions as important basis for customer and project selection, credit approval and post-loan management.
- In the credit policy, it explicitly supports the building of the renewable energy supply, storage and consumption system based on large wind, photovoltaic and solar power bases, supported by clean, efficient, advanced and energy-saving coal power in their surrounding areas, and supported by stable, safe and reliable UHV transmission and transformation lines.

¹ Time frame: short term (1-3 years), medium term (3-5 years), long term (5-10 years).
² Impact: high, medium, low.

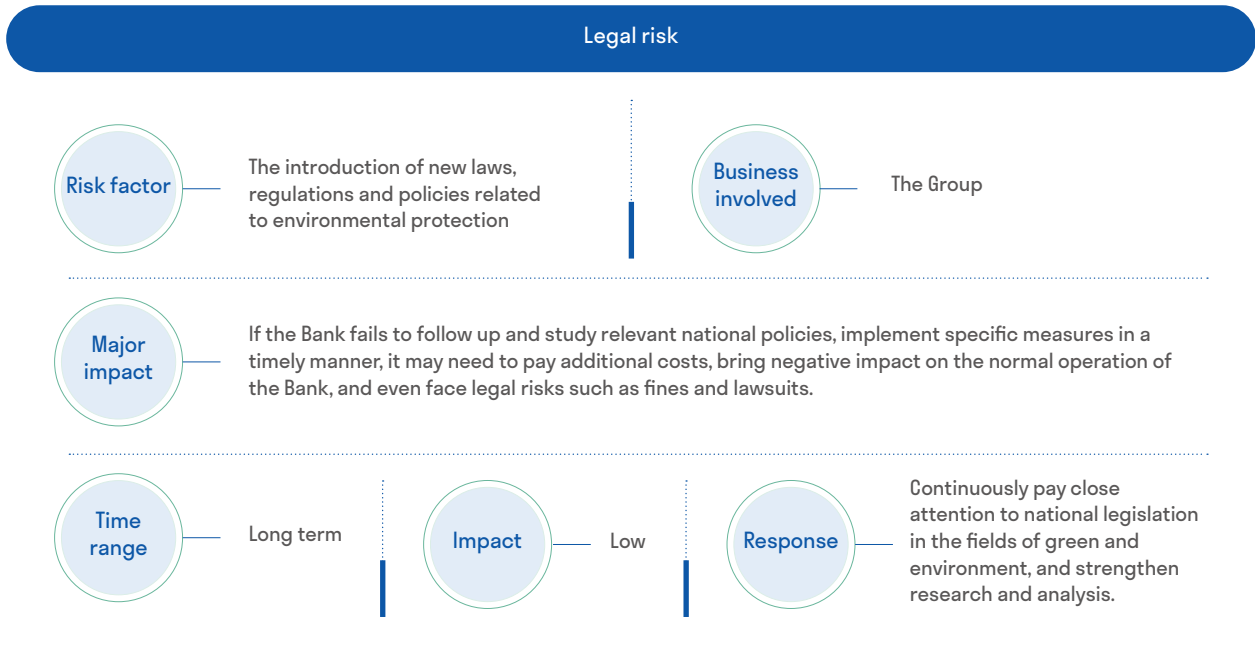
Interface of ESG rating tool for corporate clients

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³It is determined by the source risk of reputational events, but in general the accumulation of reputational capital and the repair of reputational damage are long-term.



Enhancing risk response level

Improving the systematic environmental risk response strategy

In the *Environmental, Social and Governance Work Plan (2023-2025)*, it defines the key objectives and tasks related to "prudently addressing climate change", optimising the work requirements on risk measurement tools and methods, strengthening environmental and climate risk management, promoting the construction of customer evaluation system, and improving environmental risk due diligence. The Bank integrates environmental and climate risk management into the whole business process, and strengthened risk identification, risk quantitative assessment, risk early warning and risk disposal. The *Fixed Asset Investment Project Evaluation Method (2022 Edition)* was formulated to refine the assessment criteria for environmental and climate-related risks. The *Marketing Guidelines for the Green Building Industry* and the *Marketing Guidelines for the Wind Power and Photovoltaic Power Generation Industry* were issued to increase green financial support for energy conservation, emission reduction, clean energy, clean transportation, and pollution prevention and control.

Regular audit to build three solid defence lines against environmental risks

In terms of green credit audit, the audit is carried out on domestic branches and some overseas institutions, centring on strategic planning, policy formulation, process transformation, information disclosure, etc. The audits focused on green credit supporting the "carbon peak and carbon neutrality" goal, serving green and low-carbon development, and preventing environmental and social risks, and timely raised recommendations for problems and deficiencies in business development and management. In terms of green bond audit, the Bank focused on the transmission and implementation of national policies in relevant audit projects, the compliance of bond underwriting and investment, as well as the soundness and rationality of green bond underwriting promotion measures, supporting systems and performance evaluation policies.

Thematic training to enhance employees' professional ability in risk management

To benchmark leading international practices in climate risk management, the Bank invited external experts to conduct thematic training on the climate change macro scenario methodology spearheaded by the Network of Central Banks and Supervisors for Greening the Financial System (NGFS), an international authority on green finance. The training elaborated the significance of macro scenario of climate change to bank risk assessment and strengthened the understanding of the importance of scenario analysis. The main international climate change risk assessment models were reviewed in detail, and the data basis, model assumptions, model construction and model result output were compared and analysed. The transition risk scenarios caused by climate policy changes and physical risk scenarios directly caused by climate change in the future was analysed, focusing on scenario indicators such as carbon price, carbon emission path, energy structure changes, and disaster loss changes, so as to expand employees' understanding of climate risk changes, keep up with international leading practices, and develop new ideas for green finance analysis and climate risk assessment.

Identify and grasp opportunities

Climate change opportunities refer to the implementation of energy conservation and emission reduction in combination with green low-carbon technologies, and the development of low-carbon products and services in combination with their own business, resulting in opportunities for cost control, business expansion, influence enhancement and other opportunities. In other words, operational and business-related opportunities are explored in a proactive manner. Examples of environmental and climate-related opportunities identified of the Bank are as follows:

Develop green products and services	Rely on the advantages of the industry, actively respond to the "carbon peak and carbon neutrality" strategy, vigorously develop green financial products and services. While consolidating businesses such as green credit and green bond, further expand diversified products and services such as green funds, green finance, green consulting and green supply chain, create a comprehensive and wide-ranging green financial development system and enhance market competitiveness, to meet customers' various product needs.
Enhance corporate reputation	Strengthen green operation management, comprehensively develop green finance business, while practicing green and low-carbon actions, give full play to its own advantages to help the transformation of low-carbon economy and society, establish a good image among the public, customers, investors and other stakeholders, and improve corporate reputation and social reputation.
Promote low-carbon development of data centres	Accelerate the development of green technologies, implement energy-saving and emission reduction measures, and build leading green data centres in the industry.
Enhance emergency response capacity	Continue to improve the disaster recovery capability, strengthen the construction of remote disaster recovery system, carry out disaster recovery drills, and establish a leading business continuity system in the industry.
Reduce operating cost	Further raise energy efficiency, reduce energy consumption and lower operating cost through energy-saving and emission reduction measures, energy-saving equipment and technology upgrading and strengthening employee's environmental awareness.

Quantitative Analysis of Environmental Risks

The Bank continuously expands the breadth and depth of climate risk stress tests, improves the quantitative analysis of environment-related risks, and provides sufficient theoretical support for the stable development of business.

Climate risk measurement methods

Through independent research, the Bank has built a systematic framework for quantitative analysis and pressure tests for several high-carbon emission industries.

Basic model

Based on carbon trading, the Bank adopts the "bottom-up" model to carry out the analysis, calculating enterprise carbon emissions, setting carbon price and the free quota proportion, measuring the cost that the enterprise need to pay for purchasing additional carbon emissions quota. After the cost of enterprises increases, the financial statements and related financial indicators change in tandem, leading to the increase of default probability and expected loss, and further leading to the change in non-performing loan ratio and capital adequacy ratio of the Bank.

Scenario design

Scenario factors mainly include the carbon price and the free quota proportion, etc. Scenario design used the historical simulation method, expert judgment or a combination of both. For example, the carbon price could be determined by referring to the price of the national carbon trading market, the historical price of the regional carbon trading pilot or the historical carbon price of the European Union, the global warming scenarios of the Network of Central Banks and Supervisors for Greening the Financial System (NGFS), or the future carbon price level predicted by external institutions. The proportion of free allowances can be determined by reference to the quota allocation scheme in pilot carbon trading areas.

Carbon emissions measurement

The information disclosure of listed companies is relatively complete, of which annual reports or CSR reports that commonly information related to carbon emission. Non-listed companies disclose relatively less carbon emission information, which are generally calculated in accordance with the *Greenhouse Gas Emission Accounting Methods and Reporting Guidelines*. The calculation process involves a large number of non-financial data and professional technical parameters of enterprises, which need to be investigated and collected account by account. In current practice, carbon emission data and production technical parameters are mainly obtained by means of survey and collection of account managers. In terms of carbon emission data, for industrial enterprises that has been included in the national carbon trading market, the account manager directly collects the carbon emission data submitted to the Ministry of Ecology and Environment. For enterprises that has not calculated or cannot provide carbon emission data, production estimation method or business revenue estimation method should be used to calculate and determine carbon emission according to the characteristics of the industry.

Risk transmission path

In the case of carbon trading, enterprises would pay extra costs if they bought carbon emission quota beyond the free quota. That is, scenario pressure such as carbon price and proportion of free quota could be transmitted to some accounts of enterprises' financial statements through the risk transmission path, and then the balance sheet, income statement and cash flow statement of enterprises under pressure could be obtained through relevant rules and models. Next, the financial indicators of enterprises under pressure would be calculated, and then the default probability of enterprises under pressure would be evaluated by the internal model of the Bank. In this process, the setting of the rules on the change of enterprise financial indicators is particularly critical, which requires comprehensive consideration of accounting standards, enterprise production and operation mode, bank internal model and other factors.

Progress in climate risk stress testing

In 2022, the Bank made outstanding progress in stress testing of climate transition risks:

Making industry measurement plan

By means of industry and enterprise research, discussion with professional institutions, the Bank had in-depth understanding of the current situation and future development trend of the industries and enterprises, researched and formulated climate transition risk calculation schemes for thermal power, aviation, airport and petrochemical industries, etc., and submitted them to the People's Bank of China as industry calculation templates to provide support for promoting the stress test of climate risk sensitivity in the banking industry.

Setting up a system of test method

The Bank explored and established a stress test method system for climate transition risk in high-carbon industries such as thermal power, steel, building materials, petrochemical, chemical industry, paper, civil aviation and non-ferrous metal smelting that was in line with the actual conditions of the Bank, expanded the depth and breadth of the stress test, and accumulated experience for scientific, systematic and intelligent climate risk stress test.

Consolidating quantitative theoretical support

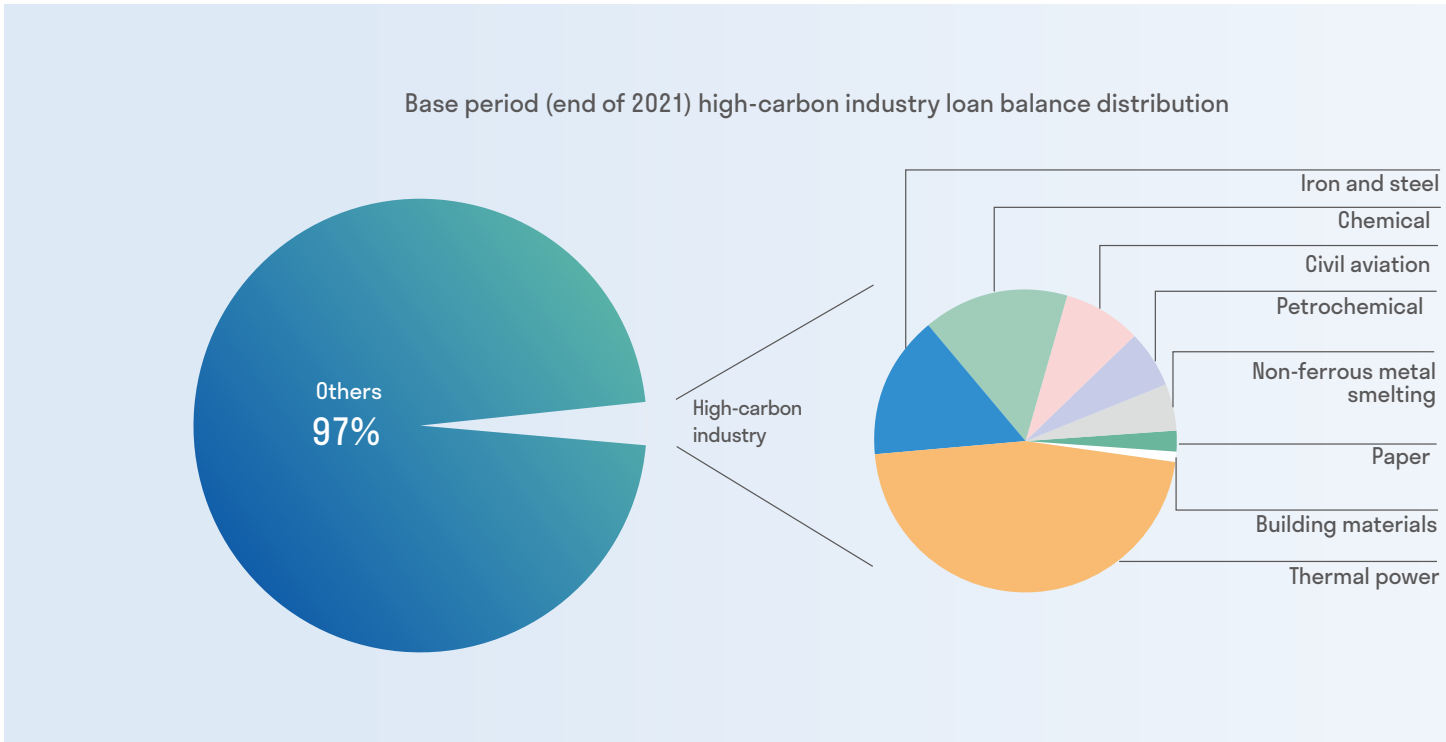
The "bottom-up" stress test method was used to quantify the resilience of the Bank's high-carbon industry clients to climate transition risks, as well as the bank's risk tolerance capacity in the face of credit risks caused by climate risks, providing support for credit policy formulation and coordinated risk prevention and control.

Improving climate risk awareness

The Bank deepened the systematic understanding on environment and climate issues. In the process of carrying out the stress test of climate transition risks, the Bank collected data through the branches and conveyed the concept of climate risk management to the whole group, which laid a solid foundation for improving the forward-looking management and control ability of climate risks.

Climate risk stress tests for eight high-carbon industries

The Bank adopted international mainstream methods, based on internal rating models, estimated corporate carbon emissions according to certain methods client by client, and quantitatively evaluated the impact of climate transition risks on customers' financial costs and credit ratings. It was assumed that during the test period, the client needed to pay a certain amount of carbon emission fees, and continued to operate according to the current technical level, without bargaining power with the upstream and downstream. The possible impact on its repayment ability was investigated, which was reflected in the change of default probability and credit rating. The test referred to the carbon price changes in the domestic carbon emission trading market and the carbon price scenarios of the Network of Central Banks and Supervisors for Greening the Financial System (NGFS), and set three stress scenarios: mild, moderate and severe. With a base period at the end of 2021 and a test period from 2022 to 2030, the test covered 2,898 enterprises with a loan balance of RMB588.451 billion.

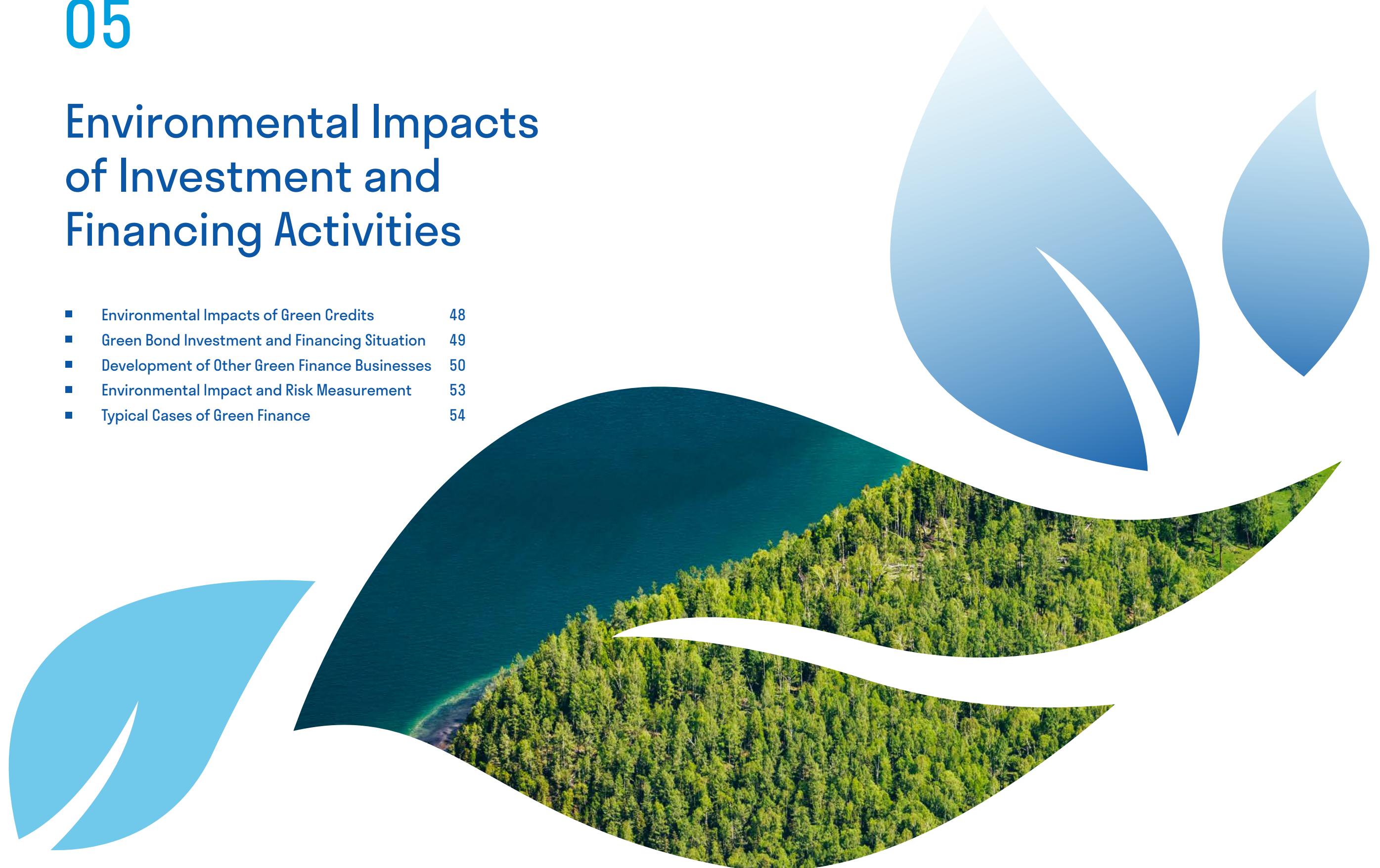


The test results showed that customers in eight high-carbon industries (thermal power, iron and steel, building materials, petrochemical, chemical, paper, civil aviation and non-ferrous metal smelting) all showed varying degrees of decline in repayment ability under the pressure scenario, with the default probability rising and the rating moving down, but the overall risk was controllable. Among them, thermal power, aviation, non-ferrous metal smelting and chemical industry, four industries were hit relatively harder. Under the three scenarios of mild, moderate and severe stress, the bank's capital adequacy ratio would decrease by 1.58, 1.62 and 1.65 percentage points respectively by 2030, all of which were higher than the regulatory requirements.

05

Environmental Impacts of Investment and Financing Activities

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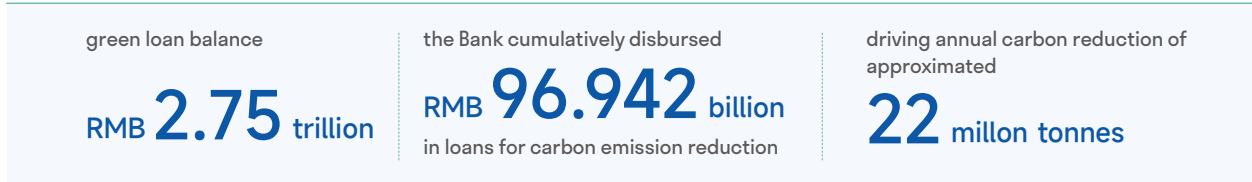


The Bank fully leverages the advantages of financial technology and its comprehensive banking license to actively expand its green finance business. It comprehensively utilises tools such as green credits, green bonds, green leasing, green trusts, and green funds to support the green and low-carbon transformation of the economy and society.

Environmental Impacts of Green Credits

The Bank continues to promote the development of its green credit business with the goal of becoming a global leader in sustainable development banking. It actively implements the *Strategic Plan for Green Finance Development (2022-2025)* and the *Action Plan for Carbon Peaking and Carbon Neutrality*. As of the end of 2022, the Bank's green loan balance reached RMB2.75 trillion, an increase of RMB786.976 billion compared to the end of the previous year, with a growth rate of 40.09%, primarily supporting areas such as clean energy, energy conservation and environmental protection, and contributing to carbon emission reduction. Green loans accounted for 13.54% of all loans, an increase of 2.56 percentage points over the end of the previous year. The non-performing rate was much lower than that of corporate loans.

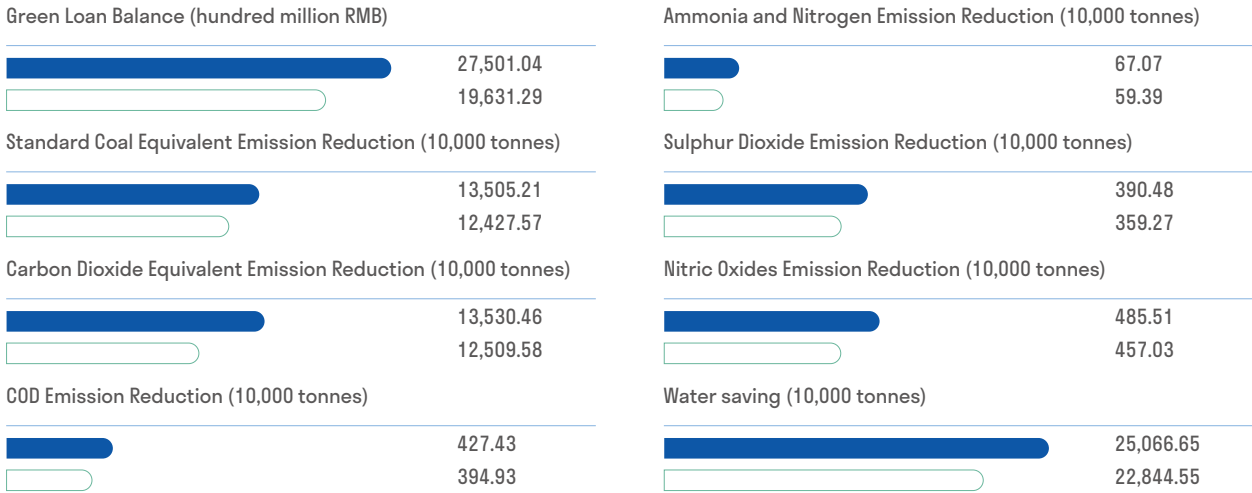
The Bank actively utilises monetary policy tools from the central bank to facilitate the targeted allocation of low-cost funds towards low-carbon and environmental protection sectors. As of the end of 2022, the Bank cumulatively disbursed RMB96.942 billion in loans for carbon emission reduction, driving annual carbon reduction of approximated 22 million tonnes, and disbursed RMB8.654 billion in the special relending for clean and efficient utilisation of coal. These efforts provided strong support for projects in clean energy, energy conservation, environmental protection, carbon emission reduction technologies, and the clean utilisation of coal. The Bank continuously optimises the green credit whitelist mechanism, increasing support for green enterprises and projects. It has cumulatively provided RMB782.546 billion in green loans to whitelist clients.



The environmental impact of green credit

In accordance with the reporting rules and calculation guidelines for energy conservation and emission reduction of the former China Banking and Insurance Regulatory Commission titled *Notice on Green Financing Statistical System* (Banking and Insurance Regulatory Letter [2020] No. 739), and based on the approval documents and feasibility study reports of green credit projects, the Bank calculates the environmental impact of green credits.

2022 2021



Green Bond Investment and Financing Situation

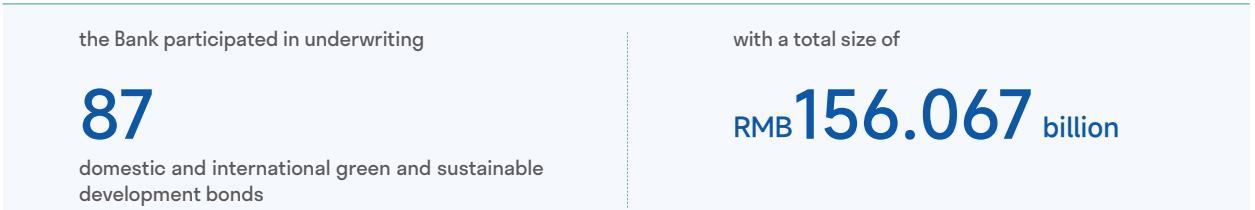
The Bank attaches importance to the comprehensive development of green bond business, steadily expanding the scale of underwriting green bonds and diversifying green bond investment and trading models to support the development of green and low-carbon industries.

Green bond issuance

In 2022, the Bank issued the first domestic sustainability-linked green financial bond with a size of RMB10 billion, linking the coupon rate to predefined key performance indicator (KPI) and sustainability performance target (SPT). This issuance showcased the Bank's comprehensive financial support in the green sector to both society and investors. Additionally, the Bank issued USD1 billion and RMB1 billion "Belt and Road" themed green bonds overseas, raising funds equivalent to USD1.15 billion, supporting the country's "Belt and Road" development strategy.

Green bond underwriting

In 2022, the Bank participated in underwriting 87 domestic and international green and sustainable development bonds, with a total size of RMB156.067 billion, representing a 25.79% year-on-year growth. In the interbank market, the Bank underwrote 40 sustainable development and innovation bonds, including sustainable development-linked bonds, rural revitalisation bonds, and science and technology innovation bills, with a total underwriting size of RMB18.759 billion, an increase of approximately 50% compared to the previous year. The Bank facilitated the launch of the first green REIT (Real Estate Investment Trust) for photovoltaic assets, wind power assets, and the first "green + science and technology" dual-label asset-backed securities, contributing to the construction of clean energy, promoting low-carbon transformation in industries, and providing innovative services for green development. The Bank also facilitated the issuance of the first batch of transformation bonds in the market and underwrote the market's first green, rural revitalisation, and sustainable development-linked triple-label bonds. Furthermore, the bank successfully assisted the Hungarian Ministry of Finance in issuing RMB2 billion of green sovereign panda bonds, raising funds for green development initiatives by sovereign institutions. The Bank underwrote eight tranches of green policy financial bonds (including follow-on issuances) with a total issuance amount of approximately RMB76.7 billion. CCB International underwrote 12 ESG bonds (all green bonds) with a total underwriting amount of RMB1.453 billion.



Green bond investment

The Bank established a "responsible investment system for the RMB credit bond investment portfolio", which covered strategy formulation, trading execution, post-investment management, and fundamental research. ESG elements were incorporated into the annual business strategy, and the environmental performance of issuers was considered as an important factor in credit evaluation and investment decisions. Resources were allocated to key areas and high-quality issuers that contributed to the green and sustainable development of the real economy. The Bank adhered to the investment philosophy of "responsibility + value" and strived to achieve an ESG evaluation average for issuers in the portfolio that was consistently higher than the market average.

In 2022, the Bank conducted over 300 transactions and investments in green bonds. The foreign currency bond portfolio saw a growth of over 10% in the holdings of green bonds compared to the end of the previous year, while the local currency bond portfolio witnessed a growth of over 110% in the holdings of green bonds.

Green bond consulting

The Bank actively offers green consulting and advisory services to clients, providing analysis and interpretation of green bond policies for issuers. The Bank assists issuers in identifying areas of policy alignment within their development strategies and core business, and helps them select suitable green project assets that align with the designated use of proceeds. Additionally, the Bank guides enterprises in adhering to the specified utilisation of raised funds as outlined in the issuance documents.

Development of Other Green Finance Businesses

The Bank consists on expanding the types of green finance products and services to promote diversified business in the field of green finance and meet the diverse needs of customers.

Green trade financing

The Bank has continued to enhance its capabilities in providing green cross-border investment and financing services, further increasing the funding for green trade financing. In 2022, the balance of green trade financing increased by more than 92% compared with the end of last year, and fully supported customers in green industries such as energy conservation, environmental protection and clean energy.

Green housing and personal financial services

The Bank actively implemented the labelling system for green personal new housing loans, guided incremental loans to support green building projects, explored the application of personal consumption loans in the field of green consumption scenarios and promotes the establishment of a green evaluation system for retail credit. CCB Housing engaged in green and low-carbon housing rental business, optimising the product line of long-term rental apartments. It established clear design and assembly standards for distributed long-term rental apartments, strengthened business access management, and integrated green and low-carbon concepts into the design, construction, decoration, and operation of housing rental projects, enriching the green elements in long-term rental communities.

Green supply chain

The Bank regarded "green development" as one of the development principles for supply chain finance. Fully leveraging the comprehensive operational advantages of the Group, the Bank focused on key areas such as clean energy, green buildings, and green transportation, to tailor personalised solutions to improve the efficiency of the industrial chain circulation. CCB Trust innovated green supply chain service models. Relying on the successful experience of "Liantongbao" products, it helped core enterprises in green industry quickly build professional management systems and platforms, and improved the efficiency of supply chain management through one-stop services covering upstream and downstream management of supply chain and on-chain financing. By the end of 2022, the existing business balance was RMB173 million.

Green wealth management

The Bank has continued to increase its investment in green assets and enrich the supply of green products. It has issued carbon peak and carbon neutrality wealth management products to ensure rapid growth in the investment of wealth management funds in green assets throughout the year. As of the end of 2022, the total balance of green business in CCB Wealth Management reached RMB39.48 billion, with an average annual growth rate of 260% over the past two years. A total of 11 ESG wealth management products were issued, with a year-end balance of RMB12.2 billion.

Green investment

CCB Trust has continued to develop its private equity investment business, with a focus on energy conservation, environmental protection, and new energy sectors. In 2022, the business scale invested in the green industry reached RMB2.775 billion, representing a 17% year-on-year growth. CCB Investment actively promoted multiple investment projects in wind power, solar power, and lithium-ion battery sectors. As of the end of 2022, the cumulative investment in the green sector reached RMB20.245 billion, with an additional RMB5.23 billion invested during the year. CCB Private Equity had invested a total of RMB850 million in the photovoltaic and lithium-ion battery industries.

Green funds

The Bank actively conducted green fund custody business. As of the end of 2022, a total of 34 green fund products were under its custody, with a total scale of RMB67.312 billion, representing a year-on-year growth of 7.75%. This included the custody of the first batch of "Dual-Carbon ETF" funds in the market. CCB Principal Asset Management had cumulatively invested RMB23.585 billion through equity investment in clean energy, energy conservation and environmental protection, clean production, green infrastructure upgrades, ecological environment, green services, and other sectors, with an increase of RMB1.452 billion from the beginning of the year. CCB Investment established two green-themed funds, including the market's first carbon neutrality-themed fund.

Green trusts

CCB Trust leveraged its leading advantage in asset securitisation to expand high-quality green financial underlying assets, assisting more enterprises in activating green assets and improving the efficiency of capital utilisation. In 2022, the entrusted management of green asset securitisation reached a balance of RMB6.302 billion.

Green futures

CCB Futures strengthened its green product industry chain services based on its brokerage business, enhanced its green asset management research and investment capabilities, and optimised the investment allocation of green asset management products. It actively served green industry clients, continued to implement differential pricing, and reduced clients' trading costs. As of the end of 2022, the cumulative balance of margin occupied by the green futures brokerage business was RMB1.946 billion, the balance of green asset management business was RMB0.654 billion, and the balance of reduced fees and commissions for green products was RMB10 million.

Green leasing

CCB Financial Leasing maintained its advantage in green businesses such as rail transportation, green vehicles, and environmental governance, while cultivating new growth opportunities in clean energy and green manufacturing. As of the end of 2022, the green leasing financing reached RMB20.1 billion, and the balance of green assets reached RMB44.1 billion, both reaching historical record in terms of the amount of green business financing and the proportion of green assets.

Green insurance

CCB Life leveraged its advantages in insurance fund utilisation and increased the allocation of insurance funds to green industries, green technologies, and green projects. It customised exclusive insurance products for the green transportation customer segment. CCB Property & Casualty developed green insurance products such as energy-efficient construction liability insurance and carbon asset loss insurance. As of the end of 2022, CCB Life and CCB Property & Casualty achieved a total sum insured of RMB29.51 billion in green insurance business.

Green pension

CCB Pension vigorously developed green businesses, enhanced financing support for the green finance sector, and clearly defined green finance-related guidance requirements in non-standard asset investment guidelines. It supported investments in new energy, energy conservation, environmental protection, and other green industries, giving priority to acceptance and expedited approval.

Green consulting

CCB Consulting has continued to explore and develop innovative green consulting products, creating a distinctive "Green Finance + Consulting" service model. Cooperating with the parent bank by introducing a third-party consulting institution in the early stage, it provided differentiated green finance services and actively promoted project pilot work. In 2022, four projects were landed, helping to achieve RMB880 million of green credit.

CCB Principal Asset Management incorporated UN PRI principles into its corporate strategy

The Bank actively promoted the deep integration of UN PRI principles and development strategies in CCB Principal Asset Management. After joining the UN PRI in July 2021, CCB Principal Asset Management incorporated the integration of responsible investment construction and ESG investment into the company's strategy, and fully embedded it in the entire operation and management process of investment research, marketing, products, risks, brands and culture. In terms of corporate governance, a three-level structure was established. The first layer was the Strategic Committee of the Board of Directors, which played the role of leading decision-making, organising coordination and strategic traction in responsible investment. At the second level, there was an ESG special working group under the executive level, headed by the president of CCB Principal Asset Management and responsible for making decisions on major matters related to ESG investment. The third layer was the member unit of the ESG special working group, which involved various departments such as investment, research, risk control, human resources and audit, and provided organisational support for ESG investment work.



In terms of equity investment, ESG evaluation would be integrated with the existing stock pool; the application of ESG evaluation in internal investment research would be implemented; and an independent ESG control management system would be added in terms of risk management. In terms of performance evaluation, ESG portfolio feedback and performance evaluation were pre-added, and ESG responsible investment management was improved.

Environmental Impact and Risk Measurement

The environmental benefit data of the Bank's investment and financing activities primarily come from project approval documents, feasibility study reports, environmental impact assessment reports, and other documents. If the documents do not provide the corresponding data, calculations are conducted based on the calculation formula for environmental impact of green credit projects as outlined in the revised *Guidelines for Calculating Energy Saving and Emission Reduction for Green Credit Projects* issued by the former China Banking and Insurance Regulatory Commission in May 2020.

The Bank calculates the annual energy-saving and emission reduction resulting from green credits based on the total investment amount and energy-saving and emission reduction data of the project group entered by the relationship manager in the business system, in combination with the loan balance within the Bank. This calculation is performed by using the formula provided in the aforementioned guidelines to determine the annual energy-saving and emission reduction generated by green credits.

The annual energy saving and emission reduction facilitated by the loan

=

The balance of the Bank's loan to the project

Total investment in the project

x

The annual energy saving and emission reduction after the completion of the project



The Bank formed an internal syndicate to support the construction of Baihetan hydropower station project on the Jinsha River.

Typical Cases of Green Finance

Typical cases of green loans

Case: Supporting carbon storage and oil displacement to promote the green development of the Yellow River basin

The Bank supported the demonstration project of carbon dioxide oil displacement and storage in Shengli Oilfield as its exclusive financing bank. As of 2022, it invested RMB450 million in green loans and successfully declared RMB270 million in carbon emission reduction support tool funds. The project was a key project to support the ecological protection and high-quality development of the Yellow River basin. After completion, it was expected to absorb 700,000 tonnes of carbon dioxide annually, increase crude oil production by 3.59 million tonnes, and have an environmental effect equivalent to planting about 6 million trees or stopping 400,000 economy cars for one year. The project became the largest full chain carbon capture, utilisation and storage (CCUS) base and the first million-ton CCUS commercial operation project in China, achieving a win-win situation of increasing petroleum production and carbon emission reduction.



Shandong Branch provided credit for supporting the construction of the first megaton CCUS project in China.

Case: Credit services for green exports and seeing the "Risen Energy" again

The Bank supported the construction of the first overseas PV production base for Ningbo Risen Energy Co., LTD, a global leading enterprise in the pv industry with an investment of USD298 million and provided it with export buyer's credit facility with a financing amount of USD90 million and 6-year term, and export buyer's credit policy was issued by Sinosure. The project possessed an annual production capacity of 3,000MW and was expected to achieve an annual carbon emission reduction of 3.6 million tonnes, which was the first green export credit project successfully signed by the Bank and the first export credit project led by overseas branches of the Bank with the participation of domestic branches.

Case: Multi-dimensional support for green and low-carbon transformation of industrial enterprises in Suzhou

In 2022, Suzhou Branch signed a strategic cooperation agreement with Suzhou Wujiang District Government to provide industrial enterprises in Wujiang District with a financing line of no less than RMB50 billion in the next five years, fully supporting the green and low-carbon transformation and upgrading of the region; collaborated with the Ministry of Industry and Information Technology of Wujiang District to compile the "Comprehensive Evaluation System for Green Development of Industrial Enterprises in Wujiang District of CCB" and created a comprehensive service system of "1+N"; launched financial service products such as "Green Development Loan" and "Green Smart Manufacturing Loan", and provided differentiated credit policies to provide CCB solutions for the high-quality development of the real economy in Wujiang District. In addition, to support the transformation of green production mode of local small and micro enterprises, Suzhou Branch, on the basis of fully investigating the operation mode and energy demand of distributed photovoltaic power stations of enterprises, developed exclusive service plan of distributed photovoltaic power generation equipment, innovated "Green Equipment Loan", and helped a company in Changshu to achieve an average annual distributed photovoltaic power generation of 1,604,600 kWh. According to the estimate of 25 years of service life, the total power generation is expected to reach 40.114 million kWh, bringing significant economic and social benefits to the enterprise.



Suzhou Branch supported the construction of Wujiang distributed photovoltaic power generation project with credit.

Case: Assisting the deep development of clean energy in Wulong District of Chongqing

Chongqing Branch actively participated in the deep development of clean energy in Wulong District of Chongqing, integrating green finance with the strengths of local ecosystem resources. As of the end of 2022, it supported multiple wind power, shale gas and waste-to-energy projects in Wulong District, with a total credit amount of RMB1.486 billion, and a loan balance of RMB390 million. The supported power generation projects consisted of a total installed capacity of 0.228 million kW and a combined annual power generation of 580 million kWh. Among them, the first wind power project in Southwest China supported by credit held an annual carbon dioxide reduction capacity of approximately 100,000 tonnes calculated based on annual power generation capacity, equivalent to the environmental effect of adding 20,000 acre of forest.

Case: "Fishery and PV industry complementation" green credit

Guangdong Branch provided a 15-year preferential interest rate loan of RMB390 million for the construction and operation of "Fishery and PV industry complementation" project of Guangdong subsidiary of Huadian New Energy Group Corporation Limited, and successfully applied for the first green loan of carbon emission reduction support tool in Zhaoqing City. In this project, 100 MW photovoltaic panels covering an area of more than 2,000 acre were set up in the fishponds of Ma'an Community, Gangzao Community and the surrounding areas in Zhaoqing City to build a new model combining fish farming with photovoltaic power generation. After completion, the project was expected to provide 110 million kWh of clean electricity every year, save about 35,000 tonnes of standard coal, reduce about 100,000 tonnes of carbon dioxide, 600 tonnes of sulfur dioxide and 300 tonnes of nitrogen oxides, with obvious ecological benefits. Based on the experience of this project, Zhaoqing Branch signed a cooperation agreement with Guangdong Sihui Municipal Government and Guangdong subsidiary of Huadian New Energy Group Corporation Limited to jointly promote the construction of agricultural-PV complementary and distributed wind power projects with an amount of RMB11.6 billion.



Guangdong Branch supported the building of a new model combining agriculture and photovoltaic power generation.

Case: Supporting the key construction project of "animal husbandry + planting + photovoltaic" in Yunnan Province

Yunnan Branch actively carried out green credit projects in the photovoltaic industry and opened a green credit approval channel for the new energy key construction project of Yunnan Province themed "Ensuring Supply and Promoting Investment" - Zhanyi Lingjiao 350,000 kWh of agricultural photovoltaic power generation project, providing a credit line of RMB375 million. The project adopted the model of "animal husbandry + planting + photovoltaic" to achieve the agricultural-PV complementary effect, which was in line with the carbon peak and carbon neutrality and possessed significant ecological, economic and social benefits. After completion, it was expected to provide 167 million kWh of clean electricity to the power grid each year, saving 51,100 tonnes of standard coal each year. Compared with a coal-fired power plant of the same scale, reducing carbon dioxide emissions by 115,300 tonnes and sulfur dioxide emissions by 1500 tonnes each year.



Yunnan Branch supported project of Zhanyi Lingjiao agricultural photovoltaic power generation.

Case: Serving the Hexi Corridor "Photothermal energy storage +" demonstration project

Gansu Branch supported the national "14th Five-Year Plan" modern energy system planning key construction project - first batch of "Photothermal energy storage +" demonstration project in the Gansu Hexi Corridor Clean Energy Base, and opened the credit review "green channel", lending nearly RMB20.61 million by the end of 2022 to help the project construction. The project was included in the list of key projects of the national policy infrastructure fund, and it was adjusted by the solar thermal energy storage power station to reduce the abandonment of light and wind, improved the quality of power, achieved friendly access to the grid, applied advanced technology, and achieved system integration innovative.

Case: Innovating "new rural support loan" to help eco-agriculture development

An ecological project in Hunan Province utilised rice-shrimp symbiosis to reduce the water consumption of farmed crawfish and reduce nitrogen oxide emissions. The Hunan Branch actively applied the innovative product "new rural support loan" and issued RMB350 million of loan for the project, supporting the development of local ecological agriculture. It was estimated that this project was able to reduce nitrogen oxide emissions by 20 tonnes and save water by 1,000 tonnes.



Hunan Branch supported project of Yiyang ecological rice-shrimp-farming industry Demonstration Park.

Case: "Carbon quota" pledge financing helped enterprises reactivate "carbon assets"

Chongqing Branch helped enterprises activate and realise idle "carbon assets" through "carbon quota" pledge financing. The leading wooden door manufacturing enterprise in Chongqing was one of the key controlled emission enterprises in Chongqing. It had financing needs but lacked sufficient collateral. After knowing the situation, Chongqing Branch based on the relevant management requirements of government agencies on carbon quota issuance, trading, pledge and settlement, innovated the financing model of carbon emission right pledge, took the carbon quota held by enterprises in the local Resources and Environment Trading Centre as a credit enhancement measure, and provided them with loan support of RMB24 million. The realisation of "quota realisation" helped enterprises adhere to the long-term development route of leading technology and provided priority to environmental protection, technology and provided, continuously carried out technological improvement and environmental monitoring, and ensured that their products were environmentally friendly, green and sustainable.

Case: Cross-regional syndication synergy supported green projects in transportation infrastructure

To support the national and local governments' construction of green and low-carbon freight economy and solve the cross-regional financing problems of railway clients, the Guangxi Autonomous Region Branch built a green channel with timely response and effective feedback in terms of implementing loan issuance conditions, following up the progress of government project fund appropriation and loan issuance, and successfully issued a fixed asset loan of RMB500 million for a railway project. The implementation of the project effectively solved the capital demand for the construction of the cross-city section of the railway, and formed a new development mode of green finance in which the government, the Bank and the enterprise cooperated closely and contributed joint efforts.



Guangxi Branch supported freight railway projects with credit to contribute to green and low-carbon transportation.

Case: Promoting the transformation of the old and new dynamics of transportation in Ji'nan

A tunnel project in Ji'nan was the main channel connecting the main urban area of Ji'nan and the new urban area north of the Yellow River. It was a key project supporting the development of the northern new city of Ji'nan and facilitating the development of the pilot area for the conversion of old and new dynamics. The Shandong Branch determined the credit scheme through scientific evaluation, and invested RMB2 billion for the project by means of sale and leaseback, which effectively revitalised the fixed assets of the project and supported the initial construction of the project. After the completion of the project, it would greatly ease the traffic pressure between the main urban area of Jinan and the northern new town, and facilitated the operation of rail transit and bus roads. It was estimated that the tunnel could save 62,780 tonnes of standard coal and reduce 125,560 tonnes of carbon dioxide emissions annually, which meant a great significance for the construction of urban transportation network and transportation energy conservation and environmental protection.



The construction site of Ji'nan tunnel project supported by Shandong Branch.

Typical cases of green bonds

Case: Issuing of dual currency "Belt and Road" green bonds overseas

In May 2022, the London Branch issued dual-currency "Belt and Road" themed green bonds overseas. A total of USD1.15 billion was raised, representing the latest practice in advancing the development of green finance. The bond underlying-assets selection included clean energy and green construction projects in countries along the "Belt and Road" initiative, as well as key domestic provinces. It complied with the relevant standards of the International Capital Market Association (ICMA)'s Green Bond Principles and received professional third-party certification.

Case: Issuing of the First Domestic Sustainable Linked Green Financial Bonds

In May 2022, the Bank successfully issued the first tranche of the 2022 sustainable linked green finance bond of RMB10 billion. This tranche of bonds focused on urban rail transit construction in the Yangtze River Delta and the Guangdong-Hong Kong-Macao Greater Bay Area, as well as domestic household waste incineration power generation projects in Chengdu-Chongqing and other places. The funds raised from this issuance were expected to contribute to an annual reduction of 105,900 tonnes of carbon dioxide emissions, saved 52,500 tonnes of standard coal, reduced 21.90 tonnes of nitrogen oxide emissions, and decreased particulate matter emissions by 0.41 tonnes. These projects demonstrated significant environmental benefits. As the first domestic sustainable development-linked financial bond, this tranche of bonds was designed with Key Performance Indicator (KPI) and Sustainability Performance Target (SPT). Through a relatively smaller issuance size, the objective was to drive the larger-scale development of green credit businesses linked to sustainability and inject new vitality into the green bond market.

Case: Underwriting the first "green + rural revitalization + sustainable development linked" triple-labeled Bonds in the market

In July 2022, the "Huaneng Lancang River Hydropower Co., Ltd. 2022 First Tranche Green Medium-Term Notes (Sustainable Linked/Rural Revitalization)" was successfully issued with the Bank as the lead underwriter. The bond possessed a triple label featuring "green bond + rural revitalisation + sustainable development linked", with the raised funds allocated to carbon reduction and rural revitalization projects. The bond utilised an innovative structural design that linked the coupon rate to sustainable development performance targets. The issuer was required to commit to adding clean energy generation capacity, such as hydropower, wind power, and photovoltaic, with a minimum of 1 million kW within the agreed-upon timeframe. This commitment effectively demonstrated the support of social capital towards green initiatives. The project was expected to achieve an annual reduction of 499,000 tonnes of carbon dioxide emissions, saving 299,000 tonnes of standard coal, reducing 156.92 tonnes of sulfur dioxide emissions, 175.56 tonnes of nitrogen oxide emissions, and 31.38 tonnes of particulate matter emissions.



The Miaowei Hydropower Station project on the Lancang River in Yunnan Province was completed and put into operation.

Case: Underwriting the first batch of transition bonds in China

In June 2022, the Bank innovatively underwrote the first batch of domestic transition bonds for China Datang Group Co., LTD. The funds raised from this issuance were dedicated to a natural gas combined heat and power project, aimed at reducing sulfur dioxide, particulate matter, and carbon dioxide emissions from natural gas units. Under the rated heating load conditions, the project was expected to achieve an annual savings of 377,200 tonnes of standard coal and reduce carbon dioxide emissions by 100,300 tonnes per year.

Case: Underwriting National Development Bank's "Upgrading Green Infrastructure" thematic green finance bond

The Bank participated in underwriting the "Bond Connect" green finance bond of the National Development Bank under the theme of "Upgrading Green Infrastructure", contributing to a total direct financing of RMB12 billion. The funds raised from this bond issuance were entirely allocated to infrastructure green upgrading projects, such as urban rail transit, sewage treatment and pipeline networks, water ecological governance, etc. It was projected to achieve an annual reduction of 59,200 tonnes of carbon dioxide emissions, save 29,500 tonnes of standard coal, reduce 91,542 tonnes of Chemical Oxygen Demand (COD) in water pollutants, and cover a water ecological treatment area of 3,907 hectares annually.

Case: Underwriting "iDeal-ePrime Interconnection Bond Connect" green financial bond of China Exim Bank

In July 2022, the Bank's overseas branches participated in the bidding through the ePrime system and underwrote the "iDeal-ePrime Interconnection Bond Connect" green financial bond of China Exim Bank. The initiative assisted China Exim Bank in providing a practical example for overseas investors to participate in the China green bond market. The bond achieved a direct financing of RMB3 billion, with all the funds raised dedicated to supporting green industry projects in the categories of "Clean Energy - Construction and Operation of Renewable Energy Facilities - Large-scale Hydropower Facility Construction and Operation" and "Clean Energy - Construction and Operation of Renewable Energy Facilities - Wind Power Facility Construction and Operation". After the relevant projects officially reached production and operation, it was estimated that the amount of alternative fossil energy would be about 19,217 million tonnes of standard coal per year, the emission reduction of carbon dioxide would be about 37,268 million tonnes per year, the emission reduction of sulfur dioxide would be about 548,800 tonnes per year, and the emission reduction of nitrogen oxide would be about 88,800 tonnes per year.

Case: Facilitating issuance of the first green asset-backed commercial notes (Quasi-REITs) in Hunan Province

Hunan Branch and CCB Wealth Management collaborated to assist a customer in issuing green asset-backed notes (Quasi-REITs) of RMB1.82 billion, with a term of 18 years. This asset-backed note was the first interbank quasi-REITs project in Hunan Province and the first green quasi-REITs project in Hunan market. It was expected to achieve 474,600 tonnes of carbon dioxide emission reduction, 175,600 tonnes of fossil energy replacement standard coal, 92.89 tonnes of sulfur dioxide emission reduction and 103.93 tonnes of nitrogen oxide emission reduction, and the smoke emission was reduced by 18.58 tonnes, which would have obvious environmental benefits.



Hunan Branch and CCB Wealth Management jointly assisted the issuance of the first local Quasi-REITs.

Case: Assisting issuing the first green "carbon neutral" ABS bond in Xiong'an New Area

The Bank successfully issued the first green "carbon neutral" ABS bond in Xiong'an New Area for Sinopec Green Energy, with a scale of RMB300 million and a term of "3+2" years. The funds were used for the development and utilisation of Sinopec geothermal resources and technology research and development in geothermal related fields. This bond issued for Sinopec Green Energy reduced its financial cost, enhanced its capital market influence.

Case: Participated in the first Batch of ESG foreign currency repurchase transactions

The Bank actively participated in the foreign currency repurchase business launched by the China Foreign Exchange Trade System using ESG bond baskets as collateral. In September 2022, as one of the first participating institutions, the Bank concluded the transaction, financing USD10 million, with a term of 1 month. The collateral of this business was green bonds, and the funds raised were used for relevant green projects that meet international standards. It was a beneficial attempt to actively expand green products and services, facilitate the innovative development of green finance in the inter-bank market, and deepen international cooperation in green finance.

Case: Consulting services for overseas USD green bonds

CCB International, as the exclusive green structuring advisor, exclusive rating advisor, and exclusive global coordinator for a provincial capital's urban rail transit group, collaborated with the client's provincial branch and adhered to the requirements outlined in ICMA's "Green Bond Principles" to screen eligible green projects and form a financing pool. The Bank extensively explored the company's highlights in green financing and established a green bond framework. This project successfully assisted the company in obtaining the S&P Green Evaluation, a second-party opinion on green financing. It laid the foundation for CCB International to assist the company in pricing a USD200 million green bond and received the prestigious "Excellence in Visionary Green Bond Framework" award from the Hong Kong Quality Assurance Agency.

Other typical cases of green finance

Case: Custodianship of the largest carbon neutral theme fund in China

Shanghai Branch provided custody and fund-raising supervision services for "Baowu Green Carbon Private Equity Investment Fund", the largest carbon neutral theme fund in China. The fund focused on new energy, green technology, environmental protection and pollution prevention and control, and several projects were implemented in 2022. Among them, the project of Baowu Group Environmental Resources Technology Co., Ltd. was particularly notable. It served as the sole specialised platform for solid waste and hazardous waste disposal in Baowu Group's resources and environmental business sector. The project achieved favorable profitability, with excellent location advantages, stable resource support, and economies of scale. The company's products effectively contributed to reducing carbon emissions in the steel and related industries.



China Baowu Steel Exhibition and Expo Center

Case: Implementing of electric separation hybrid leasing project for new energy buses

CCB Financial Leasing cooperated with branches in Shenzhen, Sichuan, Guangdong and Fujian provinces to explore the purchasing vehicle and renting battery mixed leasing mode of new energy bus, and provided financing support for 1,642 new energy buses of 10 bus companies in the four places. As of the end of 2022, CCB Financial Leasing reached strategic cooperation with 7 leading electric vehicle enterprises and established long-term and stable cooperative relations with 79 prefecture-level bus and vehicle operators, covering 41 cities, with a total of 18,000 new energy buses, 18,000 new energy online ride-hailing cars and 5,000 shared cars. It was expected to reduce carbon dioxide emissions by 1.844 million tonnes per year. Among them, the new 18,000 energy buses saved 403,000 tonnes of standard coal, replacing 380,000 tonnes of petroleum, reduced the emission of nitrogen oxide, non-methane hydrogen, particulate matter and other pollutants by 475.2 tonnes per year. The environmental benefits would be equivalent to 33,000 hectares of green vegetation.



CCB Financial Leasing cooperated with four provincial branches to provide financing support for local new energy buses.

Case: Implementing of residential photovoltaic financing leasing project

The Bank signed a financial lease agreement for distributed photovoltaic development with a subsidiary of a central enterprise group in the power industry, with a financing amount of RMB544 million. With the project operating at full capacity, the project could produce about 586,122.4MWh of clean electricity annually, reduce carbon dioxide emissions by 370,000 tonnes, and increase the income of participating farmers by RMB734 per household, benefiting nearly 15,000 farmers in Lankao County, Henan Province.



The residential photovoltaic power generation project supported by the Bank in Lankao County.

Case: Steadily promoting "Personal Carbon Account" scenario service

The Bank has continued to optimise "Personal Carbon Account" scenario services, combining authoritative carbon emission measurement rules and leveraging digital technologies such as big data and artificial intelligence. The Bank developed a personal carbon reduction measurement data service based on data middle platform to track individuals' carbon footprints on the consumer end. As of the end of 2022, the personal carbon account scenario service was put into operation in some external scenarios such as mobile banking, "CCB Lifestyle" APP and Zhengzhou Metro, and the number of personal carbon account users reached 560,000, and 18 carbon emission reduction measurement models were implemented, with a total carbon emission reduction of 10,395.4 thousand in the year, which was industry-leading. In March 2022, this project was selected as a financial technology innovation regulatory tool by the People's Bank of China and received coverage from multiple media outlets, including People's Daily, Economic Daily, Securities Daily, Beijing Youth Daily, and 21st Century Business Herald.

Case: Facilitating the implementation of the first CCER deal by digital RMB payment

The Sichuan Branch assisted Sichuan United Environmental Exchange "Diandian" carbon neutrality platform to open the digital RMB payment function. Sichuan Electronic Information Industry Technology Research Institute utilised digital RMB payment to purchase Chinese Certified Emission Reduction (CCER) and offset the carbon emissions generated by its own conference activities, achieving carbon neutrality of the current conference activities. This transaction was the first online payment of digital RMB in the field of carbon neutrality, and "Diandian" carbon neutrality platform also become the first carbon neutrality service platform connected to the application scenario of digital RMB in China.

Case: Parent company and subsidiary collaboration in implementing Shouguang rural revitalisation green industry investment project

In 2022, CCB Trust in collaboration with the Shandong Branch, transplanted the asset management logic of "acquisition + holding + operation" in real estate investment to the field of facility agriculture. CCB Trust established a project company to acquire nearly 1,000 mu of winter warm vegetable greenhouses held by regional industrial enterprises. Greenhouse facilities utilised the greenhouse effect and isolation effect for agricultural production, provided spatial isolation and off-seasonal adjustment, which contributed to the utilisation of green energy and reduce carbon emissions, and promoted ecological circular agriculture development. This investment project effectively revitalised the existing infrastructure assets of regional industrial enterprises and provided financial support for their subsequent development.

Case: Strategic investment in the mixed-ownership reform project of a technology company of a domestic automobile brand

CCB Investment, as a strategic investor, introduced the mixed-ownership reform project of a leading new energy vehicle manufacturer in China. The investment helped the company accelerate the R&D investment in battery, motor, electric control and intelligence, the development of vehicle and new models and capacity construction. It promoted the R&D and manufacturing of core components of the new energy vehicles and contributed to the industrial transformation and upgrading of the auto company.



New energy vehicle manufacturers were carrying out fully automatic car combination.

Case: International green finance structural advisory

The Bank introduced the intelligent product "International Green Finance Structure Advisory", in which the overseas institutions of the Bank acted as the international green finance structure advisory of the enterprises in need, designed green indicators, assisted them to obtain external evaluation reports, made the financing products meet the international green finance standards, helped clients optimise the financing structure, reduced financing costs, and expanded overseas financing channels. In 2022, CCB Asia served as a green finance structural advisor for 20 projects, achieving a total loan contract amount of HKD18 billion. The achievement was recognized by the Hong Kong Quality Assurance Agency, which awarded CCB Asia six Green and Sustainable Finance Annual Awards. Among them, "Syngenta Group (HK) Holdings Company Limited USD4.5 billion Sustainability Linked Syndicated Loan", with the Bank as the sustainability structural advisor, was the largest sustainability linked Syndicated Loan in the Asia-Pacific region.

06

Environmental Impacts of Operation Activities

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The Bank integrates the green and low-carbon concept into its production and business activities, continuously optimises energy conservation and environmental protection measures in the construction of office spaces and outlets, as well as the business scenarios, improves the waste disposal process, strengthens low-carbon and environmental friendly procurement management, and gives publicity extensively to the concept of environmental protection among the employees. The Bank accelerates the promotion of intelligent operation, improves the monitoring and diagnosis, energy audit and maintenance systems, establishes a classified statistical ledger of energy consumption data, and further taps into the energy-saving potential through regular statistical analysis to build an eco-friendly bank.

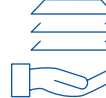
Calculation of Environmental Impacts

Key Environmental impact Indicators of Business Activities

Total Greenhouse Gas (GHG) Emissions (Scope 1 and 2) (tCO ₂ e)	2021	1,692,538.66		
	2022	1,682,812.20		
Greenhouse Gas Emission per Employee (Scope 1 and 2) (tCO ₂ e/person)	2021	4.74		
	2022	4.73		
Energy Consumption (tonnes of standard coal)	2021	339,598.61		
	2022	325,657.59		
Annual Energy Consumption per Employee (tonnes of standard coal/person)	2021	0.95		
	2022	0.92		

1. The statistical scope of greenhouse gas emissions, energy consumption, water consumption and office paper related indicators include the Head Office, 37 domestic branches, Northeastern China College and Eastern China College of CCB Learning Centre, Beijing Production Park and Wuhan Production Park.

2. Based on the nature of the Group's business, greenhouse gas emissions are mainly from purchased electricity and fossil fuel combustion, and greenhouse gas emissions are calculated in accordance with the requirements on activity level data and emission factors as specified in the *Guidelines for Accounting Methods and Reporting of Greenhouse Gas Emissions of the Operating Unit (Company) of Public Buildings (Trial)*, *ISO14064-1 Greenhouse gases — Part 1: Specification with Guidance at the Organisation Level for Quantification and Reporting of Greenhouse Gas Emissions and Removals*, and *2011 and 2012 Average Carbon Dioxide Emission Factors for Regional Power Grids in China*.

Water Consumption (tonnes)	2021	21,106,648.09		
	2022	18,246,296.32		
Annual Water Consumption per Employee (tonnes/person)	2021	59.17		
	2022	51.27		
Office Paper Consumption (tonnes)	2021	10,094.78		
	2022	8,841.62		
Annual Office Paper Consumption per Employee (tonnes/person)	2021	0.028		
	2022	0.025		
Proportion of Off-counter Account Transactions (%)	2021	99.58		
	2022	99.64		
Financial Transaction Migration Rate via Electronic Channels (%)	2021	97.34		
	2022	97.87		

3. The Group's major sources of energy consumption include direct energy and indirect energy, of which direct energy is mainly natural gas, liquefied petroleum gas, coal, diesel, petrol, and others (ethanol, fuel oil, etc.), and indirect energy is mainly purchased electricity.

4. The energy consumption is calculated based on power and fuel consumption and relevant conversion factors provided in the *General Rules for Calculation of Comprehensive Energy Consumption (GB/T2589-2008)*.

5. The statistical scope of water consumption for 2021 is municipal water supply and reclaimed water; for 2022, it includes municipal water supply, reclaimed water and drinking water.

6. The statistical scope of office paper for 2021 is A4 copy paper, and for 2022, it is A3 and A4 copy paper.

Progress of Green Operation Goals

Focusing on the goal of green operation environment, the Bank actively optimises the path to achieve the goal, implements energy conservation and environmental protection measures, and steadily improves the level of green operation management.

Emission reduction goals	Progress in 2022
- The Bank will organise bank-wide low-carbon publicity activities and carbon peaking and carbon neutrality professional training every year, in combination with the World Environment Day, World Water Day, and the National Energy Conservation Awareness Week, to enhance employees' awareness of emission reduction and energy conservation. - From 2022 to 2026, the Bank will conduct bank-wide energy auditing. Based on the results of the energy auditing, the Bank will gradually carry out energy-saving renovation projects. LED fixtures will be preferred when adding or replacing lighting fixtures. It is expected that by 2026, 100% of lighting fixtures in the buildings owned by the Bank will use LED fixtures. - The Bank will continuously construct "green outlets". From 2022 to 2026, the percentage of recyclable materials used in renovated or new outlets will reach more than 60%. - The Bank will prioritise the new energy vehicles as the new official vehicles. From 2022 to 2026, the proportion of new energy official vehicles in the Bank will be gradually increased to promote green commuting. - From 2022 to 2026, the PUE (Power Usage Effectiveness) value of the data centres will be gradually reduced.	- Arranged bank-wide publicity weeks with the themes of "Saving energy to start a green and low carbon life" and "Implementing the action, building a beautiful home together". - In 2022, a inventory of the energy and resource consumption was carried out, and the results of the inventory data were disclosed to the public. The tender of energy audit has completed and the program is being implemented as planned. - In 2022, 33 green outlets were constructed. During the design and construction of these outlets, green and low-carbon construction material were chosen and used, and increased the proportion of reusable and recyclable material. - In 2022, the Bank purchased 996 vehicles for replacement, of which 495 were new energy vehicles, accounting for 50% of the purchase. - In 2022, the PUE value of Wuhan Park decreased by 5.35% year-on-year; The PUE value of Beijing Daoxianghu Park decreased by 6.84% year-on-year.
Energy conservation goals	Progress in 2022
- From 2022 to 2026, the energy consumption and carbon emission intensity across the Bank will be on a decreasing trend. - The Bank will strengthen its capacity to reduce carbon emissions across the Bank, establish a bank-wide "carbon emission management platform", construct a solid database of the energy consumption, and improve the capabilities to collect, analyse and apply the data on energy and resource consumption of institutions at all levels.	- In 2022, the comprehensive energy consumption of the Bank decreased by 4.11% year-on-year, and carbon dioxide emissions decreased by 0.57% year-on-year. - The Bank's carbon emission management system was officially launched in July 2022, and system operation trainings were organised.

Waste reduction goals	Progress in 2022
- From 2022 to 2026, 100% of the Bank's waste IT assets will be delivered to enterprises with the qualification to dispose of electronic wastes and are registered on the website of the government's environmental protection department for green and eco-friendly treatment. - From 2022 to 2026, 100% of the Bank's retired self-service equipment, such as ATMs, will be recycled annually by suppliers with relevant qualification. - The Bank will promote a paperless office, improve the recycling rate of office supplies, and reduce the generation of office supplies waste. From 2022 to 2026, the office paper consumption per employee in the Head Office will be lowered by 5%.	- In 2022, 1,796 devices in 53 categories of waste IT assets, including servers, networks, and security equipment, were retired and scrapped, and 100% of the devices were recycled by qualified suppliers. - In 2022, 42,817 self-service equipment units were retired and scrapped, 100% of which were recycled by qualified equipment suppliers. - Compared to 2021, the office paper consumption per capita decreased drastically by about 6.25% of the Head Office headquarters.
Water conservation goals	Progress in 2022
- From 2022 to 2026, water-saving appliances will be selected for replacement and new installations to gradually increase the coverage of water-saving appliances, and water-saving education activities will also be held across the Bank. - From 2022 to 2026, the Bank will organise water conservation promotion activities at least once a year at the Head Office of the Bank. - From 2022 to 2026, the Bank will promote pilot projects on rejuvenated water recycling in branches with appropriate conditions.	- In 2022, water-saving appliances were used for the new and replaced water equipment in the head office with gradually increased utilization rate of water-saving appliances throughout the whole bank. - In 2022, the Head Office launched the water-saving publicity campaign. - The promotion and utilisation of recycled water was carried out in some tier one branches and Production Park.

Energy Saving and Environmental Protection Measures and Achievements

Green and low-carbon operations

The Bank implements the concept of green office and intelligent operation, supports the research, development and application of energy-saving and consumption-reducing technologies, promotes the construction of "carbon neutral" operation sites, and strengthens the state of green operation of data centres. In 2022, the Bank became one of the first batch of Green Creation units in Beijing and was rated a 4-star unit in Beijing Green Creation Activities.

Implementations of Environmental Protection Measures



Green
office

- Promote digital office.** The Bank iteratively optimises automated office systems, simplifies the operation process, realises the electronic processing of official documents and business information, reduces resource consumption, and explores the full life cycle management of electronic official documents based on the blockchain technology. The Bank optimises and upgrades online processes of the risk reporting system, human resources system, and business travel system to improve the efficiency of information sharing and filing & approval. The Bank expands the technical applications of the "Long Video" system to increase the usage of video conference system. In 2022, approximately 7,230 meetings were held through the internal video system, and approximately 315,700 meetings were held through the Long Video system. The Bank makes full use of Email and instant messaging to transfer files and advocated double-sided printing with paper to reduce paper consumption.
- Implement energy-saving and emission-reduction measures.** The Bank selects high-efficiency environmental protection equipments, uses energy-saving lights, promotes energy-saving renovation and upgrading of office equipments such as the air conditioning equipments and elevators, dynamically controls the operating time and temperature of central air conditioning, and reduces the stopping floors of the elevators during the peak periods. The office space eliminates the "everlasting light" and reduces the standby energy consumption of computers. The Bank explores the use of clean energy such as solar energy to promote energy conservation and emission reduction.



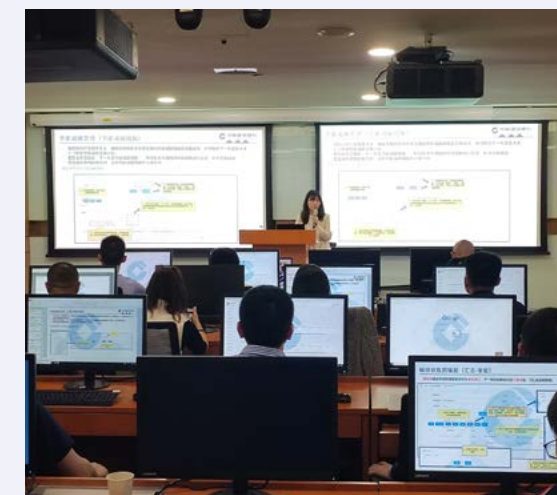
Green
services

- Enrich paperless business handling scenarios.** The Bank promotes electronic branch transactions, expands the scope of electronic application of receipts, vouchers, and seals, and supports the whole process of electronic contracts to be completed online, including more than 20 business scenarios such as Longjicai, quick loans for SMEs, legal texts, electronic letters of guarantee, and SMART Custody, greatly reducing the use of paper contracts and improving business processing efficiency. The Bank strengthens online and offline collaborative service capabilities, improves the workflow for customer to make appointment online for service at home or at the branch, and empowers business green operation transformation and upgrading.
- Improve the level of electronic business transactions.** The Bank replaces credit card paper form input and billing media, optimises the input channel bill sending method rules, WeChat transaction sticking, electronic bill publicity, and other methods to improve the electronic bill replacement rate. In 2022, credit card paper form input accounted for 7.8%, which decreased by 4.8% year-on-year; electronic bill replacement rate reached 90.98%, which experienced a year-on-year increase of 0.69%. Cumulatively, 3.38 billion paper bills were avoided. The proportion of CCB Life paper policy printing decreased to 2.42%, which decreased by 8.69% year-on-year. The electronic application rate of individual insurance claims was 93.50%, which increased by 1.44 percentage points year-on-year, and the electronic application rate of group insurance claims was 71.34%, which increased by 12.37 percentage points year-on-year.

Case

Launching the carbon emission management system

To strengthen the concept of technological carbon management, the Bank developed and launched its carbon emission management system in July 2022 with functions such as carbon emission data filling, data collection, carbon emission data calculation, multi-dimensional data summary, graphic display of emissions and emission intensity, maintenance of facility information, and emission factor management. Through the preliminary carbon inventory work, the historical data of 2016-2021 had been entered into the system to realise systematic management of carbon emissions. At the same time, the Bank organised all tier-one branches, CCB Training Centre, directly affiliated institutions, and domestic subsidiaries to carry out trainings on operation of the carbon emission management system, issued system operation manuals for learning about the functions of the system, including carbon emission data filling, facility information filling, monitoring equipment information filling, carbon emission data reporting, energy conservation and carbon reduction measures, emission factor, and other business parameter maintenance, etc., to promote the realisation of online reporting and automatic accounting function for carbon emission data, and help to improve carbon emission management capabilities.



The site of the Bank's employees participating in the carbon emission management system training.

Case

Pilot work on the promotion and utilisation of rejuvenated water

The Bank has gradually carried out pilot work on the promotion and utilisation of rejuvenated water. Shandong Branch built a membrane bioreactor (MBR) reclaimed water treatment project, which could collect and treat the wastewater of the office building for garage flushing, road flushing and landscape water spraying, with a daily treatment and recovery capacity of 73.77 cubic meters. Anhui Branch, Wuhan Production Park, and Beijing Production Park made full use of the stormwater collection system which precipitates, filters, and pressurises stormwater for greenspace irrigation and water landscape pools. 60% of the land area of Beijing Production Park did not discharge stormwater. Instead, Beijing Production Park set up a 500 cubic meter reservoir which connected the park's reserved reclaimed water pipeline interface with the municipal reclaimed water pipe network, and established reclaimed water treatment equipments and facilities for water quality pretreatment and pressurisation, and the utilisation rate of non-traditional water sources on the Park after the transformation exceeded 40%.



Beijing Production Park used rainwater collection system to irrigate green plants in the park.

Case Exploring the use of clean solar energy

Huadu Branch of Guangzhou Green Finance Reform and Innovation Pilot Zone landed the first self-sufficient photovoltaic power generation project, promoted the integrated application of photovoltaic power generation and building, which can achieve an average daily carbon reduction of 200kg, and carbon emission reduction by about 70 tons throughout the year. Xiamen Government Affairs Centre Sub-Branch used the idle space on the roof to install photovoltaic facilities with a power generation of 8.8 kW, achieving an average monthly power generation of about 900 kWh and a power replacement rate of more than 20%. Constantly monitoring of power generation and querying of historical power generation could be archived through mobile apps. The Beijing Production Park converted solar energy into heat through rooftop solar energy collectors, which collaborated with gas boilers to provides hot water for daily life. The system used a total of 566 sets of glass-metal structure vacuum tube solar energy collectors, with a heat collection area of 1,322 square meters, which can effectively reduce carbon dioxide emission.



Xiamen Government Affairs Centre Sub-branch installed photovoltaic equipment on the roof to generate electricity.

Case Reusing and recycling waste paper

Guangdong Branch signed a cooperation agreement with a local paper industry leading enterprise. Under the premise of meeting the confidentiality requirements, the non-secret grade paper documents were transported to the enterprise for destruction, and used as raw materials for pulp and paper recycling. In the past two years, nearly 30 tons of waste paper was processed and recycled, realising the recycling of waste paper and properly handling of paper materials.

Building Green Operation Institutions

The Bank vigorously promotes the construction of green outlets, selects green and low-carbon building materials in the site selection and decoration of new outlets, reduces energy load, fully integrates the concept of green and environmental protection into the design and construction, and actively expands the use of renewable energy. In 2022, 33 domestic green outlets were built and put into operation, and 20 certifications issued by carbon emission exchanges and relevant institutions were obtained. Among the overseas institutions, the Sydney Branch, Zurich Branch, CCB New Zealand and Frankfurt Branch obtained the local "carbon neutral certificate", and the Seoul Branch was awarded the highest ESG rating among Korean financial institutions.



The "Carbon Neutrality" certification of Zurich Branch.

Case The first climate bank outlet in China

The Bank's Guangzhou Nansha Climate Sub-branch is the first climate outlet in China, which deeply has integrated green finance business with green operation concepts. Equipped with a professional climate investment and financing team and customer service zone, Nansha Climate Sub-branch has continuously optimised the business structure of green finance since its establishment, made breakthroughs in the fields of green upgrading of sewage treatment, new energy vehicles and ecological agriculture, and increased green loans by nearly RMB100 million, and the amount of credit extension was expected to exceed RMB1 billion, providing firm support for the green transformation and upgrading of many small and micro enterprises.

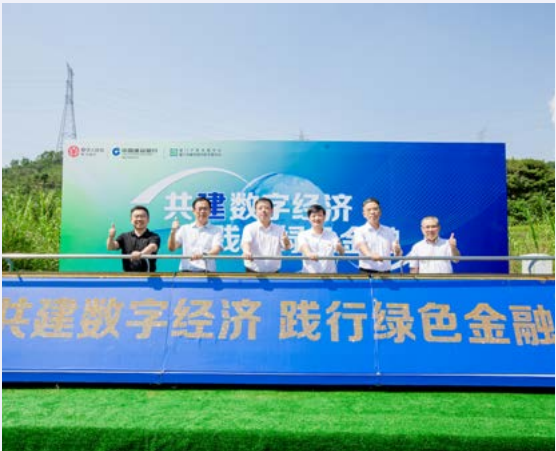
The construction of the outlet was fully combined with the green concept and cutting-edge technologies. An intelligent interactive area providing climate knowledge is set up in the lobby, and touchscreen and voice interaction were realised through naked-eye 3D and other technologies. The outlet adopted an intelligent environmental control system, enabling fine management operation of energy consumption data and a more efficient green office model. The outlet continuously broadcasted green industry information, carbon emissions and indexes, green finance and other information, synchronously displayed weather, PM index, air quality, carbon trading price, carbon emission and other information at the STM area, and widely deployed green finance, low-carbon environmental protection, carbon neutrality and other knowledge publicity materials, signs and posters to strengthen the promotion of green and low-carbon concepts.



The first climate bank outlet in China - Guangzhou Nansha Climate Sub-branch.

Case Xiamen's first "carbon neutral" financial institution in the banking industry

Xiamen Branch cooperated with the local property rights trading centre for "carbon neutral" projects and realised carbon emission offsetting for all operating sites under its jurisdiction through agricultural carbon sink trading, becoming the first "carbon neutral" banking financial institution in Xiamen. It worked with the local government and regulators and jointly launched the "Building a Digital Economy and Practicing Green Finance" activity, calling on citizens and financial peers to join "carbon neutrality" and e-CNY promotion actions. It also cooperated with local government to launch the carbon sink trading activity. Customers who pay 1 cent of e-CNY through the "Yueshenghuo" or "Yunongtong" APP could get 3 tonnes of agricultural carbon sink worth RMB30 in Xinxu Town, Xiang'an District, Xiamen with the support of the branch, which could be used to offset the carbon emissions generated by the daily life of households. All transaction amounts would be transferred to the rural collective account of Xinxu Town in Xiang'an District, to revitalise rural green production factors through carbon sink trading.



The Launch ceremony of carbon sink trading.

Case The first "carbon-neutral" green smart outlet in Central China

Qiuchangjie Branch in Wuhan, Hubei adhered to the concept of "green and low carbon" in the process of redecoration and design. Firstly, Qiuchangjie Branch stuck to green construction, bringing green environmental protection, energy saving and emission reduction into the decoration procurement process. Aluminum honeycomb panels were used to replace vitrefied bricks on the walls, reinforced cement panels were used to replace cement mortar on the ground, and environment-friendly materials were used for the ceiling and interior decoration. The goal of overall emission reduction "during the construction" was achieved via shortened project hours and economizing on building materials. Second, the Branch stuck to green operation, and introduced the first "carbon operation" energy consumption monitoring platform into the financial institution system of Hubei Province. By deploying branches in different areas and collecting electricity usage of branches in real time, energy consumption monitoring, Internet of Things (IoT) coverage, data visualisation and energy consumption data conversion into carbon emissions certified by national standards were realised, thus achieving "operational" carbon neutrality. Third, the Branch stuck to green publicity and built the interactive scene of "carbon footprint environmental protection tree". By scanning the QR code on the large screen, customers can donate their Wechat steps and calculate the carbon emission reduction, promoting the new social trend of green travel in

the interactive entertainment. Fourth, green image design. The photovoltaic lintel has become the first green power sign of financial institutions in Hubei Province to achieve "zero energy consumption", and won the green power certificate issued by the National Renewable Energy Information Management Centre.



The "carbon operation" smart energy consumption monitoring platform.

Case Integrating regional culture and building the first green flagship outlet in Hunan Province

Through outlet upgrading and renovation, Hunan Changsha Hexi Sub-branch integrated local characteristic elements, such as Yuelu Academy, Aiwan Pavilion, and University Town, with the Bank's corporate culture and created the first flagship green outlet in the province, and it successfully obtained the "carbon neutral" certificate from Hubei Carbon Emission Trading Centre. The outlet utilised green energy extensively during construction, used environmentally friendly and recyclable building materials, and generated more than 11,000 kilowatt-hours of electricity per year from rooftop photovoltaic solar panels, reducing no less than 10 tonnes of carbon dioxide generated by purchased electricity per year. Through the monitoring and analysis of energy usage with the IoT technology, the large screen of "CCB Forest" in the outlet could display the operation of key energy consumption systems and equipment in real time around the clock, as well as data such as electricity consumption, photovoltaic power generation, and carbon emissions of the outlet. In addition, the outlet has set up green publicity walls, placed classified garbage bins, and arranged WeChat interactive interfaces, through which customers can donate steps, accumulate green points, and redeem gifts.



The first green flagship outlet in Hunan Province - Hunan Changsha Hexi Sub-branch.

Case Creating green outlets with innovation

Adhering to the concept of "green, low-carbon, environmental protection and energy saving", Jiangsu Branch innovatively built the green outlet of Nanjing Yanchuang Park Sub-branch. The furniture of the outlet adopted recyclable and environmentally friendly materials. The walls of the outlet were waterproof, heat-resistant, and noise-reducing. The outlet has used intelligent lighting control system, the lighting of each area of the outlet could be adjusted for different scenes, to implement the concept of environmental protection and energy conservation into subtleties.

Building Green Data Centres

The Bank vigorously promotes the construction of green and low-carbon financial data centres. The Bank set up a professional green data centre research group to develop scientific and intelligent emission reduction measures based on equipment energy consumption analysis methods and the development of new technologies in the data room. The Bank carried out smart data room system construction, realised integrated monitoring and real-time display of information of multi-location and multi-centre data room environments and IT equipments, and improved the efficiency of operation and maintenance management. Through various measures such as cold aisle closure, near-end cooling, and optimised lighting, the Bank reduced energy consumption and improved energy efficiency to achieve safe, stable, green and sustainable operation.

The Bank regards energy conservation and emission reduction as a key evaluation index for the construction of new data centres. For the two newly planned data centres in Inner Mongolia and Guizhou, PUE is considered a core evaluation index, and the design goal for it is no more than 1.2. Green buildings and green power applications are taken as important goals, and the necessary requirements for energy conservation are put forward in terms of power facilities, air conditioning and refrigeration, and intelligent data rooms.

Wuhan Production Park



Based on the actual state of production and operation, Wuhan Production Park has continued to strengthen refined daily management, energy recycling, optimisation of operating parameters, green and low-carbon culture publicity and work in other fields, supervises the implementation of employee conservation awareness education and use and management responsibilities, saves water and electricity, reduces energy consumption, and strengthens green operation level. Compared with 2021, the energy efficiency of Wuhan Production Park was significantly improved in 2022, and about 13,000 MWh of electricity was saved throughout the year.

• Natural cooling of air conditioning in the data rooms.

In winter and transition seasons, the plate heat exchangers makes full use of the external natural cooling source to achieve natural cooling of the data rooms, minimise the mechanical cooling time, and reduce the energy consumption of the air conditioning system.

• Waste heat recovery and utilisation of data rooms.

Using water source heat pump technology, heat generated in the data rooms is recycled and supplied to the office area for winter heating and year-round hot water for daily use.

• Refined management of equipment and facilities in the data rooms.

The park has strictly implemented the maintenance plan, replaced the wear parts in time, added lubricating oil, ensured that the infrastructure equipments is in good condition to achieve continuous and efficient operation, and reduce unnecessary loss. The Data Centre has also achieved real-time control of cooling water quality, effectively reduced heat exchanger fouling, and improved heat exchange efficiency.

• Optimisation of operating parameters.

On the basis of ensuring the safe and stable operation of the system, the operating parameters of the infrastructure system have been optimised for energy saving, including increasing the temperature of chilled water supply and return, optimising the air supply volume of the air conditioning system, and adjusting the range of the lighting switch in the data room.

• Energy consumption analysis management mechanism.

Through measures such as energy consumption data collection, baseline assessment, and regular meeting analysis, the energy consumption analysis mechanism of the data rooms based on operation data has been preliminarily established, which could provide a data basis for various operation optimisation.

• Energy saving and consumption reduction initiatives.

The elevators, terminal air conditioning devices, and information releasing devices in the data rooms have been programmed to perform different actions for various occasions, so that during off-hours, weekends, and holidays, they are completely closed or partially turned on to reduce the energy consumption of operation.

Beijing Production Park



The Beijing Daoxianghu Production Park fully implements energy conservation and emission reduction measures, and vigorously promotes the construction of green data centres through measures such as applying energy-saving and environmental protection technologies, renovating and upgrading facilities and equipment, optimising energy recovery and utilisation mechanisms, exploring the use of renewable energy, and strengthening the refined management of energy consumption.

Energy saving measures in data room areas

- The air conditioning system has applied "free cooling" technology to rely entirely on cold outdoor air for heat reduction during winter.
- Improving the heat recovery function of the data rooms, which can transfer the heat generated by some of the data rooms in winter for office heating.
- The air conditioning system of the data rooms has adopted medium temperature cooling technology, and the chilled water supply is 12°C, compared with the ordinary 7°C water cooling system, it can effectively reduce energy consumption.
- The data rooms have adopted cold aisle sealing technology to segregate the cold and hot air flow and reduce the loss of cold capacity.

Energy saving measures in non-data room areas

- Expanded use of renewable energy. Solar energy is converted into heat energy through rooftop solar energy collectors, which were combined with gas boilers to provide the required hot water for daily use. The system has used a total of 566 glass-metal structure vacuum tube solar energy collectors, with a heat collection area of 1,322 square meters, an annual carbon dioxide emission reduction of 250 tonnes, and an annual saving of about RMB360,000 in gas purchase.

- Green roof design. The total green roof area is 6,300 square meters, which has effectively increased the green area and improved the ecological quality. Green roof can reduce the temperature of the surface of the roof structure, effectively improve the indoor environment beneath the roof, and then reduce the energy consumption of air conditioning in summer, which is expected to save 40 MWh of electricity per year.
- Intelligent lighting systems. The system can perform dimming control, scene control and centralised monitoring in public areas, office areas, conference rooms, cafeteria, outdoor lighting, and other places, achieving automatic lighting control and energy saving.
- Integrated energy-saving management system. The scientific supervision is used for building energy consumption and energy-using floors, realising the functions of energy-consuming equipment monitoring, information collection, energy consumption analysis, and energy consumption information reporting.
- Ice storage technology. The park has used three sets of 723 KW dual duty cooler and one set of 480 KW baseload coolers to use electric refrigeration mechanism cooling technology during the trough period of electricity consumption at night, and the cooling capacity is stored in the form of ice. During the day, when the power load is high, the ice is melted to release the cold capacity in order to partially or fully meet the electricity demand of the building's air conditioning. By regulating day-night power peak-valley demand and reducing power consumption, it is expected to save about 1,400 MWh of electricity per year compared to conventional air conditioning systems.

Optimising waste disposal

The Bank continuously optimises the disposal of all kinds of hazardous and non-hazardous wastes to ensure the safety and control of the whole disposal process. The Bank strictly reviews the qualification of waste disposal suppliers, and conducts focused reviews for suppliers' qualifications and filings such as waste electrical and electronic product disposal qualification certificates, hazardous waste business licenses, pollution discharge permits, environmental management system certifications, and quality management system certifications to ensure that the shortlisted suppliers meet the national green environmental protection disposal requirements.

In 2022, 100% of the Bank's scrapped self-service equipments and IT assets was recycled by qualified suppliers, and hazardous waste such as UPS batteries was mainly handled by UPS battery suppliers and professional recycling enterprises with hazardous waste business licenses, strengthening the accurate filling and closed-loop management of detailed information of electronic product disposal and promoting the recycling of waste equipment. The Bank vigorously promoted energy conservation and waste reduction in kitchens, performed refined food preparation and supply management in canteens to limit catering waste and reduce waste generation.

Case Promoting the application of "smart canteen"

Henan Branch actively explored the construction of "smart canteen" and promoted it throughout the branch. It innovatively used IoT, face recognition and video surveillance technologies, applied weighing and measurement equipment terminals, accurately monitored the number of diners per day, effectively formulated accurate procurement plans, and scientifically adjusted the types and quantities of dishes. Since the launch of the "smart canteen", the procurement cost of canteens has been reduced by more than 20%, and kitchen waste has been reduced by more than 80%.

Green and environmental-friendly procurement

The Bank integrates the concept of green, low-carbon and sustainable procurement into the corporate value chain, practising the concept of green procurement throughout the process. The Bank sets green evaluation indicators in model selection tests, supplier qualification review and procurement execution, pays attention to the green qualifications of suppliers and commodities, and gives priority to suppliers with green qualifications in procurement activities. In the procurement projects for desktop computers, printing, furniture and other equipment, green and low-carbon, energy conservation and environmental protection indicators are included in the scope of supplier evaluation. Under the premise of ensuring controllable risks, the Bank promotes online business negotiations, contract signing, etc., and improves the quality and efficiency of green procurement.

The Bank strengthens the promotion of green procurement, publishes the *Green Procurement Work Brief* and green procurement trends in the "Green Procurement" column of its internal website, shares and promotes green procurement concepts and methods, and enhances employees' awareness of green procurement.

Promotion of green concept

The Bank organises a variety of green environmental protection concept publicity and public welfare activities to promote employees to practice energy conservation and environmental protection measures, and help the public raise their awareness of green and low carbon. In conjunction with World Environment Day, World Water Day and National Energy Conservation Publicity Week, the Bank organised energy-saving publicity week activities with the themes of "Saving energy to start a green and low carbon life" and "Implementing the 'Carbon Peak and Carbon Neutrality' action, building a beautiful home together", and carried out various green and low-carbon publicity activities such as energy-saving knowledge competitions, environmental protection themed photography, employee proposals, "Empty Plate Campaign" for food and beverage and watching promotional videos. Relying on the digital library to introduce high-quality books on green and low-carbon related topics, the Bank planned and organised the "carbon peak and carbon neutrality" themed reading activity, with a cumulative number of 20,000 visits and a cumulative reading time of 1,336 hours.

Giving full play to the advantages of the public welfare brand of "Workers' Harbour", the Bank organised all business outlets to carry out publicity and popularisation of knowledge on environmental protection, resource conservation, waste sorting, and other related topics. Relying on the network radiating over the surrounding areas, the Bank went into communities, streets, rural areas, schools, etc., and integrated "energy conservation + business" through the distribution of leaflets and publicity cases and conveyed the concept of green and healthy life to the public. The Bank organised employees to participate in the "green volunteer" activities, set up green volunteer teams, and carried out public welfare publicity practices by picking up garbage, distributing cards of green knowledge, knowledge publicity and explanations, etc.



Chongqing Yuzhong Jiefangbei Sub-branch held Arbor Day children painting competition.



Fujian Quanzhou Nan'an Sub-branch carried out "Workers' Harbour+" environmental education activities.



Guangdong Foshan Branch held "Workers' Harbour" low carbon publicity.



Gansu Wuwei Branch organised employees to carry out sand fixation and tree planting activities.

07

Data Sorting, Verification and Protection

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The Bank continuously improves its data governance organisational structure, clarifies the responsibilities and requirements of data governance at all levels, establishes systematic data management related regulations and standards, optimises statistical verification processes and controls, enhances the level of data and information security incident emergency management, and strengthens data management capabilities.

Optimising Data Governance Framework

The Risk Management Committee of Board of Directors of the Bank attaches great importance to data security risk management. It listened to reports on personal information protection and data security risk management, and followed up on the progress of implementing the *Plan for Implementing Data Security Management*. The committee reviewed the report on information technology risk management to understand the basic situation of the information technology risk management system, identification and assessment, control and mitigation, current situation and issues, and the next steps. The committee also listened to a report on network security risks to supervise network security governance, analysis of network security risk situation, network security risk management, and the next steps to be taken. In addition, the committee reviewed major risk assessment reports, which encompassed the internal audit of key risks, such as information technology risks.

The FinTech and Digitalisation Promotion Committee of the Bank is responsible for implementing the strategic requirements and decisions of the Party Committee, the Board of Directors and the Executive President's Office of the Head Office, and regularly reports the relevant work progress to the Risk Management Committee of the Board of Directors, coordinating and making decisions on the overall promotion of financial technology and digital operations within the Group, which include work related to information and data security, financial data statistics, etc. In 2022, a total of 5 plenary sessions and 3 thematic meetings were held. Among them, the discussion of the meeting covered data security prevention and control, emphasizing the importance of data governance and data security.

The Bank's Data Management Department is responsible for leading and overseeing data security across the Bank. It is responsible for planning and implementing data security management, as well as organising data security emergency responses. The Fintech Department, Data Operation Centre, and other departments are responsible for implementing data security measures in the field of information technology. Each business department is responsible for implementing data security management requirements within their respective business areas. The Risk Management Department and Internal Control & Compliance Department are responsible for implementing data security risk management, internal control evaluation, accountability, and remediation within their respective scopes of responsibility. The Audit Department is responsible for conducting data security audits.

Implementing Data Sorting and Verification

The Bank relies on the data quality platform to continuously enhance its data governance capabilities. In terms of environmental benefits data, the Bank has set environmental benefit data quality inspection rules and specified the detailed inspection requirements to ensure the accuracy and authenticity of the data. Environmental benefits data was included in the 2022 financial statistics inspection to strengthen supervision and management. A top-down mechanism for data inspection, rectification, and operation has been established. In daily operations, if any issues related to data security and information protection are identified in the branches, immediate investigation and rectification are required, and the progress of handling would be continuously monitored.

In terms of carbon footprint management and green operation data, the Bank has followed the requirements of relevant guidelines and standards on activity level data and emission factors, and worked with experts in the field of carbon emissions to determine the data collection, monitoring, statistics and reporting mechanisms that are in line with the Bank's actual energy consumption status. The Bank engaged external professional third-party organisations to assist in conducting carbon inventory and on-site investigations, systematically reviewing the Bank's major energy resource consumption, understanding the energy and carbon emission management mechanisms of each provincial branch, as well as the application of carbon emission management systems. The Bank compiled and analysed the overall carbon emissions for the year 2022, compared and researched the composition, characteristics, and trends of carbon emission data in recent years, and explored the potential for energy conservation and carbon reduction. Based on the inventory results, the Bank's overall carbon emissions, comprehensive energy consumption, and carbon intensity have shown a steady downward trend. This can be attributed to the improvement of the Bank's energy management system, strengthened management of official vehicles, and the use of renewable energy by some branches, among other factors. The Bank's green operation and carbon footprint management have made steady progress.



Strengthening Data and Information Security Management

The Bank strictly complies with laws, regulations and regulatory requirements such as the *Cybersecurity Law of the People's Republic of China*, the *Data Security Law of the People's Republic of China*, the *Personal Information Protection Law of the People's Republic of China*, the *Notice of the General Office of the China Banking and Insurance Regulatory Commission on Printing and Distributing the Standardisation Standards for Regulatory Data of Banking Financial Institutions (2021 Edition)* and the *Guidelines for Data Governance of Banking Financial Institutions*, continuously improving the capability of data and information security management.



Solidifying data and information security standards

- The Bank formulated the *2022 Client Information Protection Work Plan* and promoted the implementation of 21 measures of personal information protection throughout its entire lifecycle, covering six stages of "collection, storage, using and processing, transmission, public disclosure, and deletion".
- The Bank conducted a comprehensive review of regulations and policies related to personal information protection. A total of 49 regulations and policies has been developed or revised, covering various areas such as personal client information management, employee behaviour management, and data analysis management. Continued revisions were made to personal information protection policies, privacy authorisation agreements, and other related agreement texts for channels and product services, improving the "inform-authorise" business processing, and granting individuals the right to control their data.
- The Bank developed the *Third-Party Internet Application Access Security Management Regulations (2022 Edition)* to clarify the third-party internet application access process, the data security responsibilities of relevant parties, and management boundaries, strengthening the data security protection and management of third-party internet applications.
- The Bank developed the *Data Security Management Work Plan*, and built a data security management system framework from dimensions such as "data security management" "data security protection" and "data security operations and maintenance", clarifying the responsibilities and implementation plans for data security work in each department, and re-examining and revising the relevant regulations and rules, such as the *Data Security Management Measures*. The Bank strengthened data security management from multiple dimensions such as data governance, data risk, and data security classification, so as to fully protect client personal information and data security.
- The Bank organised data security self-assessment, formulated comprehensive data security assessment plans, completed self-assessment in key business areas, promoted the implementation of data security assessments in the context of new product launches, and added requirements for data security assessment in the new saleable product process and execute the assessment.



Promoting data security protection measures

- The Bank promoted fast system optimisation based on four main lines of work: channels, product services, data management and basic technology. It developed an enterprise-level IT solution for personal privacy protection based on the privacy authorisation common components, covering client information access control and corporate client information desensitisation, etc.
- The Bank built a data access control security platform to achieve precise access control and dynamic desensitisation of personal information data during its use. The Bank established a secure computing platform for data access, to ensure the security of third-party data usage. To address various data security application scenarios such as data development, testing, production and operations, the Bank adopted the enterprise-level data security technology to implement differentiated data security protection measures.
- The Bank built a data security technical protection system covering the entire data lifecycle and implemented a "prevention of external attacks and theft, prevention of internal data leakage, and comprehensive security monitoring" approach. This system integrated various technical measures such as user permission management, data permission control, data desensitization, control of bulk data downloads, application data security access control, and regular monitoring of employee abnormal queries to effectively protect client information and data security in the information system.
- The Bank regularly conducts internet system penetration testing, comprehensively covering network security and data security, proactively identifying threats and improving the data security protection level of the information system. The Bank organised group-wide network security attack and defence drills to verify the effectiveness of the network and data security protection technology system of information system through actual combat and to enhance the security protection capabilities.

Conducting data security audits

- In terms of internal audit, the Bank conducted special audits on data security annually, with a three-year cycle to achieve full coverage of information technology audits for the head office, branches and the CCB Fintech. In 2022, the Bank conducted a special audit in the field of financial technology for 12 head office departments, 10 tier-1 branches, the headquarters of CCB Fintech and related business groups, covering business continuity, network and information security, data governance and data security, and personal information protection, achieving full coverage of key institutions of the bank.
- In terms of external audit, the Bank conducted annual audits based on the SOC2 criteria published by the American Institute of Certified Public Accountants. Third-party auditors were hired to conduct audit and assurance on IT controls over personal data protection provided by the head office to overseas institutions. The auditors issued the ISAE 3402 assurance report on the head office's IT service capability. In addition, based on the national standard of Cybersecurity Classified Protection 2.0 for the financial industry, the Bank engaged qualified third-party assessment agency every year to conduct protection capability evaluation for the filing systems at or above Grade III, and the evaluation results were excellent.

Enhancing data and information security capabilities

- The Bank developed and disseminated the teaching material *Interpretation of Domestic Network and Information Security Standards - Data Security and Personal Information Protection*. Training programs were organised for all bank employees. Additionally, online security training focusing on data security technologies were provided to promote employees' awareness and skills of information security.
- The Bank conducted data security-related courses through various channels such as "CCB Learning" platform and WeCom. Training courses were provided to all employees of the group, including domestic subsidiaries and branch staff, as well as contract employees to conduct data security training and awareness. The training covered interpretation of domestic laws and regulations, industry standards, and provided information on the current status of data security management, construction plans, and key technologies. The training materials have been accessed by over 40,000 person-times.
- The Bank strengthened the training of data and information security professionals, adding data security courses to the data analyst certification training programme covering the data line personnel of the head office, improving the data security training system; held CISP (Certified information security professional) certification training courses, CTF skills training courses, security attack and defence practical training courses, and security research and technology training courses for information security practitioners. During the reporting period, nearly 1,000 employees participated in the training.

Enhancing Security Incident Emergency Management

The Bank is committed to building an integrated and intelligent security operation platform across the group, aiming to achieve the whole process, automated, and intelligent machine-controlled response and collaborative coordination for security incident handling. The Bank strengthened the development of integrated capabilities for security operations, improved security controls in the stage of security threat analysis, security solution design, and security testing.

Standardising the security incident management process

The Bank revised and issued the *Information System Production Incident Management Regulations (2022 Edition)* to standardise each stage of incident management, to clarify accountability and responsibility handling for incidents, and to establish a systematic risk control approach of "prevention and preparation, emergency response and handling, post-analysis and assessment". The Bank established an incident evaluation indicator system, regularly promoted security production monthly meetings, and set up a "red-yellow light" management mechanism to strengthen the accountability for risk management.

Optimising business continuity management

The Bank organised business impact analysis, created optimisation analysis standards, objectively and prudently determined important business recovery strategies of the whole bank, and helped to improve refined level of business continuity management. In 2022, the Bank achieved a 100% coverage rate for off-site disaster recovery of critical systems and ensured sustainable service capability for important business areas. The disaster recovery construction goals for critical systems were fully accomplished. In compliance with regulatory requirements, six batches of practical drills for basic banking operations were conducted, achieving a 100% coverage rate for drills involving critical systems.

Implementing emergency plans and drills

The Bank carried out internal offensive and defensive practical exercises and regular penetration testing covering network security and data security, intensified efforts in discovering and addressing key data security issues such as data leakage and application privileges abuse. The Bank clarified the requirements for handling data security incidents, revised and refined data security incident response plans, and organized internal offensive and defensive exercises to verify their effectiveness.



08

Innovative Practices and Research Achievements

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Innovative Practices of Green Finance Products and Services

The Bank actively promotes and participates in the innovation of green financial products and services, enriche the variety of products and services in practice, explore the transformation and upgrading methods of products and services, and facilitate the development of green and low-carbon industries.

Innovative achievements in green credit products and services

"Transition finance loans"

innovation

Zhejiang Huzhou Branch launched "transition finance loans", helping a local leading textile printing and dyeing enterprise to achieve low-carbon transformation. In order to create new industrial competitive advantages and to achieve sustainable development, the enterprise decided to relocate and transform, and adopted advanced production processes and technologies to improve energy consumption efficiency and to reduce energy consumption per unit product. In order to solve the financing difficulties of the enterprise, Huzhou Branch, through visits, research and analysis, found that its use of efficient heat conduction technology was in line with the classification of Huzhou's transformation financial support catalogue. Through the innovation of "transition finance loans", Huzhou Branch not only helped enterprises to overcome difficulties, also further expanded the scope of green finance services. As of the end of 2022, seven "transition finance loans" totaling RMB1.758 billion were issued.

"Green low-carbon decoration instalment consumption loans"

innovation

Anhua Sub-branch of Beijing Branch carefully developed the "Green low-carbon decoration instalment" experience hall centring on the concept of "green, circular, low-carbon and environmental protection". The main body of the experience hall was the passive house, also known as the "ultra-low energy building", adapting to climatic characteristics and natural conditions, making full use of renewable energy, and providing a more comfortable indoor environment with the least energy consumption. Compared with current energy saving standards, the passive house could save more than 90% energy at most.

On the basis of the experience hall, Anhua Sub-branch created the "Green low-carbon decoration instalment consumption loan" as an innovation and linked green needs of three parties. In the whole house customisation mode, from scheme design, decoration and assembly, project delivery, acceptance and certification to post-sales service, the B-end construction company provides tailor-made ultra-low energy consumption decoration solutions for users; the C-end users get a balanced temperature, fresh air, comfortable space, energy saving and intelligent home experience; the G-end local government research institute integrates energy-saving and environmental protection technologies into low-carbon construction projects, speeds up product research and development iterations, and improves technological advancement.

"Green power loan"

innovation

In July 2022, Fujian Power Trading Centre issued the *Implementation Rules of Green Power Trading in Fujian Province (Trial)* to promote the development of local green electricity. After learning that a customer had demands for green power trading, Fujian Branch actively visited Fujian Power Distribution and Sales Company, sorted out the specific process and transaction price of green power trading in Fujian province, and supported the innovation of "Green Power Loan". Based on the enterprise green electricity procurement plan and electricity settlement details, the product gave preferential interest rate to enterprises purchasing green electricity and successfully issued a loan of RMB4.5 million to a corporate customer, which was directed to pay the green electricity bill, granting the first green electricity loan in the province. "Green Power Loan" guides green electricity consumption in a market-oriented way, encourages enterprises to broaden emission reduction paths and accelerates low-carbon transformation.

"Tanyoudai"

innovation

Based on the corporate carbon account matrix system established by the local branch of People's Bank of China, Zhejiang Branch innovated "Tanyoudai" business, combined the carbon account matrix of clients with the Bank's credit business, and achieved system docking, which strongly supported low-carbon production of local enterprises, and issued a total of 3.44 billion yuan of "Tanyoudai" in 2022.

Intelligent evaluation systems for photovoltaic and wind power projects

innovation

In July and September 2022, the Bank launched the intelligent evaluation system for photovoltaic power generation projects and the intelligent evaluation system for wind power generation projects, established standardised evaluation parameters and evaluation methods, and realised the unification of evaluation data sources, evaluation and calculation methods and risk appetite, which was conducive to reducing labor load, streamlining evaluation process and evaluation reporting. The Bank improved the automation level and evaluation quality and efficiency, and helped the rapid granting of green credit business. Since its launch, evaluators used the intelligent evaluation system in 205 photovoltaic power generation projects and 37 wind power generation projects.

"Green certificate income right financing loan"

innovation

Hubei Branch carried out innovation of green certificate income right financing and clarified the business requirements, pledge conditions and pledge process of using green certificate income right for pledge financing. In September 2022, a subsidiary company of a central enterprise in Hubei Province successfully applied for the first batch of green parity certificates, and the Branch issued the first loan of RMB50 million in China with the income right of green power certificate as additional risk mitigation, to facilitate customer's clean energy project construction. The extension of green certificate income right pledge loan broke the traditional financing guarantee concept, effectively revitalised the environmental benefit and interests of new energy projects, satisfied the financing needs of enterprises, and reduced the financing cost of enterprises.



Hubei Branch innovated green power certificate income right loan service program.

"Green credit + Green low-carbon building + Green supervision and management" innovation service model

innovation

In order to solve the problem between green identification and financing demand of green building projects, Beijing Branch, together with the local branch of People's Bank of China, Science and Technology and Industrialization Development Centre of the Ministry of Housing and Urban-Rural Development and other units, jointly carried out the innovative mode of "Green credit + Green low-carbon building + Green supervision and management". Through the whole process management of credit and construction and the identification management of project evaluation standards, incentives and constraints were integrated into the market mechanism, and the problem of time mismatch between green building identification and loan issuance was effectively solved under the premise of market dominance, fairness and willingness. At the same time, it helped to improve and expand the evaluation standards for green renovation of existing buildings and prefabricated buildings, so as to meet the needs of green credit evaluation and identification for various types of projects in key areas of green development in urban and rural construction.



Investigating the implementation plan of "Green low-carbon building + Green supervision and management" project in a new city.

 Innovative achievements in green bond products and services

The first green finance bond investment themed rural revitalisation by domestic commercial banks

innovation

The Bank participated in the first green finance bond investment on the theme of rural revitalisation among domestic commercial banks, leveraging direct financing of RMB5 billion. The funds raised will be used for county-level green industry projects in line with the *Green Bond Endorsed Projects Catalogue (2021 Edition)* in accordance with applicable laws and the approval of regulatory authorities, to strengthen financial services to support rural revitalisation. The proposed investment project is expected to save 3,445.5 thousand tonnes of standard coal, 9,168.7 thousand tonnes of carbon dioxide emissions, 16,207.59 tonnes of sulfur dioxide emissions, 17,509.49 tonnes of nitrogen oxide emissions, 946.95 tonnes of soot emissions and 14.9 thousand tonnes of ash and slag annually.

The first carbon neutral green financial bond investment by domestic commercial banks

innovation

The Bank participated in the investment of the first carbon neutral green financial bond by domestic commercial banks leveraging direct financing of RMB10 billion. The funds raised by this bond was invested in 6 wind power facility construction and operation industrial projects, which are expected to reduce carbon dioxide emissions by 6,845.8 thousand tonnes, save standard coal by 2,540.4 thousand tonnes, reduce sulfur dioxide emissions by 1,333.09 tonnes, nitrogen oxide emissions by 1,491.40 tonnes, and soot emissions by 266.61 tonnes per year.

The first public issuance of "science and technology innovation + green asset-backed" notes in the market

innovation

A waterproof technology company in Beijing had several scientific and technological innovation certifications. Beijing branch launched the first public issuance of "science and technology innovation + green asset-backed notes" of RMB500 million for it in the market to support green waterproof building materials manufacturing. The successful issuance of this bond will help customers to continuously enrich the categories of green building materials, to optimise and upgrade the product structure, and to explore and cultivate new engines of innovation-driven development in the field of new materials.

Other innovative achievements in green financial products and services

"Green Finance GIS Management Platform 1.0"

innovation

Suzhou Branch successfully developed "Green Finance GIS Management Platform 1.0". The platform adopted open functional module design, and tailor-made five functional modules including intelligent green credit management, AI intelligent aided cognition, enterprise environmental risk monitoring, regional environmental monitoring and carbon emission indicator monitoring. The platform provided support for the front, middle and back office's different positions in green finance customer expansion, green credit management, environmental and climate risk monitoring, and early warning, and enhanced green finance business capabilities, environmental and climate risk management capabilities, and the competitiveness of "carbon finance" through scientific and technological means.



Green Finance GIS Management Platform 1.0.

Green scenario insurance services

innovation

CCB Life provided exclusive insurance services for employees of green industry enterprises and applied the "green enterprise" factor to the floating management mechanism of insurance product rates, reducing the insurance protection cost of green industry enterprises. At the same time, three accident insurance products with green elements were launched to provide risk protection for customers using shared bicycles, electric bicycles, and other means of transportation.

Launch digital credit cards

innovation

The Bank promoted the digital migration of credit cards and the research and development of new products in an orderly way. In 2022, it launched "CCB Lifestyle Credit Card", "CCB Enjoy Long Card", "CCB Youth Credit Long Card" and other digital credit card star products to meet the diversified needs of the public and issued a total of 5.66 million digital credit cards. The Bank creatively developed digital functions of credit cards, providing digital card services such as authorisation activation, silent binding of cards, and virtual and real application. Relying on mobile banking, "CCB Lifestyle" App and other enterprise platforms, created a financial service ecology of "product + scenario", providing customers with card-free and digital card usage experience in the whole process, and effectively improving customers' card convenience.

"Building Energy Efficiency Liability Insurance"

innovation

CCB Property & Casualty innovatively launched the "Building Energy Efficiency Liability Insurance" for energy-saving renovation of existing buildings. The energy-saving transformation of existing buildings had the characteristics of "large stock, high energy consumption and slow progress", while in the market-oriented energy-saving transformation of buildings, the identification of energy saving and whether the transformation can be successful were the focus of the negotiation between energy-using enterprises and energy-saving service enterprises. The insurance promoted the achievement of energy saving goals through whole-process risk management and control services; in the case of failure to meet the standard, the risk compensation mechanism solved the worries of energy-using enterprises, so as to accelerate the promotion and implementation of energy-saving renovation of existing buildings.

"Carbon Asset Loss Insurance"

innovation

CCB Property & Casualty focused on carbon emission rights trading and innovatively launched "Carbon Asset Loss Insurance". This product proposed an insurance solution for the situation that key emission enterprises included in the carbon emission trading quota management failed to pay the carbon emission quota on time and in full due to the damage of carbon emission reduction equipment caused by natural disasters and accidents in the process of production and operation.

"CCB Green and Low-carbon Credit Long Card"

innovation

The Bank innovatively launched the "CCB Green and Low-carbon Credit Long Card", leading consumers to practice green public welfare in consumption. The card surface adopted PETG environmental protection material certified by international environmental protection organisations, which could be recycled multiple times. It formed water and carbon dioxide after degradation to avoid white pollution to the environment. The credit card closely focused on environmental protection consumption, low-carbon travel, and other life needs, and provided four green and low-carbon scenario-based rights and interests, advocating green travel of the public and leading a better low-carbon daily life.



CCB Green and Low-carbon Credit Long Card.

"Mastercard Low-carbon Workshop"

innovation

The Bank set up the "Mastercard Low-carbon Workshop", actively designed and developed low-carbon Mastercard products. It gradually explored to provide customers with green card gift, green energy gift service, tree planting public welfare activities, etc. In the future, the Bank will continue to expand the development of carbon emission reduction services and low-carbon zone services to promote the innovation of green finance products.

"CCB Lifestyle" APP — One-step Service for Low-carbon Travel

innovation

Integrated low-carbon travel platform

Beijing Branch actively engaged with Beijing Municipal Commission of Transport to build an integrated low-carbon travel platform in the APP, providing a full range of life services, travel services, information services and payment services. Through the cooperation with MaaS (Mobility as a Service) platform, it can obtain the travel data of users participating in low-carbon travel activities by bus and subway and calculate the officially certified carbon emission reduction of users based on the core algorithm of the platform. When users exchanged their rights and interests, the Bank can trade in the carbon trading market, forming a green closed loop.

Low-carbon Travel free Co-branded Card

"CCB Lifestyle" Beijing Station innovatively launched a low-carbon travel free co-branded card, providing a municipal transportation one-card service embedded in the APP. Users can apply for and open NFC virtual bus card, recharge, query and other functions in the APP, and get the first order discount, recharge discount, trip carbon emission reduction incentive, etc.

Public welfare forest project

Beijing Branch cooperated with Beijing Municipal Forestry and Parks Bureau to implant the forestry carbon sink project into the low-carbon travel section of the APP. The project applied the carbon inclusive incentive mechanism and the forest carbon storage function to support users to exchange the carbon emission reduction generated by taking bus and subway into saplings and participate in CCB's public welfare forest cultivation project.

Green travel insurance

"CCB Lifestyle" Beijing Station customised a green insurance product - "Travel Insurance" for green travellers, which can be exchanged for insurance rights and deducted from payable premiums through carbon emission reduction.



As of the end of 2022

the total number of registrants in the low-carbon travel section of "CCB Lifestyle" has reached more than

90,000

generating more than

460,000

green trips

and achieving more than

1,500 tonnes

of carbon emission reduction

"CCB Match Plus" platform

innovation

The Bank launched the "CCB Match Plus", a B2B intelligent cross-border matchmaking platform, actively promoting the Chinese and foreign enterprises in the field of green development in depth of cross-border exchanges and cooperation, altogether casting the sustainable ecosystem. As of the end of 2022, "CCB Match Plus" platform participated in and held nearly 30 cross-border matchmaking activities themed on green industries such as clean energy, green building and emission reduction technology, serving more than 1,700 enterprises from nearly 20 countries on four continents. It held green themed forums, promotion meetings and seminars for many times, deeply engaged in phrpovoltaic, energy conservation and emission reduction and other industrial fields, and provided information guidance for domestic and foreign companies to participate in green business and to understand green industrial policies and development status quo.

From February to March 2022

the Bank jointly held three "UK Offshore Wind Power Webinar" with the China-Britain Business Council, and concentrated showcased the product skills and production experience of a number of UK companies in areas such as offshore wind power.

In May 2022

the Bank held the online matchmaking activity of "Getting better with CCB - 2022 Canadian Green Building Industry Special Roadshow", and five Canadian green building benchmark enterprises covering different segments were invited to conduct the roadshow. Professional introduction and sharing were made from multiple dimensions such as planning, design, intelligent control, engineering solutions, building materials, heating, ventilation, and air conditioning.

In May 2022

the Bank successfully assisted several domestic photovoltaic enterprises to participate in the "Poland International Renewable Energy Photovoltaic Industry Expo", and recommended high-quality photovoltaic products and renewable energy solutions in China to purchasers in Europe.

From July to August, 2022

two sessions of "China-Malaysia Green Development Forum" were held, during which time several guests were invited to address on policies and development status of the green industry in Malaysia, and a memorandum of cooperation was signed with MGTC of Malaysia to facilitate the investment of outstanding green enterprises in China and Malaysia.

In September 2022

"China-EU Photovoltaic Industry Investment and Trade Cloud Fair" and "China-Australia Cooperation and development series of lithium battery recycling technology industrialisation and investment in China matching Event" were held, introducing the main business and demand of enterprises, industrial investment environment and financial services of CCB, promoting exchanges and cooperation between the two sides.

In October 2022

the "Focus on Green China" cross-border matchmaking event was held, inviting government agencies, energy companies and industry investors to share insights with China's green development as the focus, helping more Chinese and Australian companies to understand and identify opportunities in China's green industry sector.

Research Achievements Related to Green Finance

Strengthening internal research

Focusing on green finance policies and business development, the Bank takes the initiative to carry out research on risk management, business strategy and industry dynamics, shares excellent research results within the group and actively releases them to the public.

Research on risk management

The Bank launched the climate risk research project, carried out in-depth research on transition risk, physical risk, carbon finance and biodiversity, continuously enriched and improved risk measurement tools, and accelerated the construction of climate risk stress testing system framework. The Bank carried out "Proactive Risk Management of Climate Change" research on environmental and climate risks, strengthened systematic understanding and forward-looking management of environmental and climate risks, and actively explored ways to promote the realisation of the "carbon peak and carbon neutrality" goal. The Bank sorted out and compiled research results, internally published special editions such as "ESG management and information disclosure", "Carbon financial market" and "Environmental and climate risk measurement", and published nine special research reports on ESG rating, carbon trading, climate transition risk, climate physical risk and greenhouse gas accounting.

Research on business strategy

The Bank continues to refine guidelines on credit approval in green finance related fields. In 2022, the Bank studied and formulated approval guidelines for waste power generation, new energy vehicle power batteries, wind power generation, crop seed industry and other fields. The Bank released the research results of credit granting strategies of coal power, coal, steel, new energy vehicle manufacturing and traditional automobile manufacturing industries under the "carbon peak and carbon neutrality" goal, as well as the 26 pieces of interpretation of regulatory policies related to the approval of credit granting, and put forward credit granting concerns according to relevant policies. The Bank carried out research on green investment topics, built quantitative models, deeply explored the theoretical and empirical support of ESG performance and its impact of bond issuers. In 2022, the Bank conducted bank-wide training on *Green Bond Development Analysis and Policy Suggestions* in the second "Financial Street 25 Forum".

Research on industry dynamics

The Bank carried out independent research on climate change, energy situation, international carbon control policies, climate information disclosure, industrial transformation and upgrading, ecological asset value accounting, green finance, transition finance, carbon finance and other fields, forming more than ten special research reports. It published dozens of research papers and articles such as *Research on China's Carbon Emission Trading Price Fluctuation and its influencing factors*, *New Energy Power Consumption and China's New Power System Construction*, and *finance Helping Energy Security and Low-carbon Transformation* in journals such as *Price: Theory & Practice*, *Engineering Economy*, *China Banking*, *Financial Times* and so on. The paper *Research on Green and Low-carbon Cultural Construction of Commercial Banks* won the "Excellence Award for Excellent Research Results of Ideological and Political Work and Cultural Construction of the National Financial System". In addition, the Bank continuously tracked international ESG information published by global banking regulators and monetary policy makers, and collated key insights, leading practices and strategies to be shared across the Group.



The Bank cooperated with the Agence Française Développement to provide a EUR60 million offshore financing loan for the comprehensive management of Wuliangsu Sea in Inner Mongolia, helping improve ecological environment and protect biodiversity.

Promoting collaborative research

Giving full play to professional advantages, the Bank actively participates in cooperative research in the field of green finance, promotes the formulation of industry standards, and contributes to the improvement and innovation of green finance products and services.

Participating in the research of the PBOC on the financial standards for the transformation of the building materials industry

The Bank participated in the research on transition finance standards launched by the PBOC being, responsible for carrying out the research on transition finance standards in the building materials industry and led the establishment of an inter-bank working group jointly with the Housing and Urban-Rural Construction Commission and China National Building Material Group Co., Ltd., led by the chief risk officer of the Bank. In 2022, the Bank led the working group to deeply participate in the work plan formulation of financial standard research for the transformation of the building materials industry, customer research and relevant report drafting, revision and discussion, etc. Experts in relevant fields were invited to carry out a series of themed training for all members of the working group, such as "Transformation and Upgrading of the Building Field under the Goal of Carbon Peak and Carbon Neutrality", "Technical Path and Financial Demand for Carbon Peak and Carbon Neutrality in the Building Materials Industry", "Practice Sharing of Financial Services for Green Building Transformation in Huzhou".

Leading the research of Transition Finance Working Group of China Society for Finance & Banking

The Bank led the establishment of the Transition Finance Working Group of China Society for Finance & Banking and jointly issued the *Research Report on Transition Finance* with 25 institutions, including relevant financial institutions, leading enterprises in the industry, well-known research and consulting institutions and international organisations. The Bank also put forward two relevant standard suggestions, *Guidance on Classification and Assessment of Transition Activities (Proposed Draft)* and *Implementation Guidance on Information Disclosure in Transition Finance (Proposed Draft)*.

Research Report on Transition Finance:

It explains the connotation and significance of "transition finance", clarifies its relationship with sustainable finance and green finance, and puts forward four transformation principles: "substantial contribution", "insignificant damage", "just transformation" and "avoiding carbon lock-in". It researches and analyses transition finance standards and paths, product and service systems, information disclosure, risk management and incentive mechanisms, etc., compilation of domestic and foreign cases of transition finance related products and services, and puts forward policy suggestions from the aspects of monetary instruments, regulatory assessment, land fiscal and tax policies, etc.

Guidance on Classification and Assessment of Transition Activities (Proposed Draft):

In terms of classification, it focuses on eight high-carbon industries, including thermal power, steel, cement, chemicals, non-ferrous metal smelting, papermaking, aviation and fossil energy, and the main supporting industries of transition finance, and defines transition finance from qualitative and quantitative perspectives based on the latest industry standards and energy efficiency levels.



Implementation Guidance on Information Disclosure in Transition Finance (Proposed Draft):

It elaborates on the disclosure norms from the aspects of scientific carbon reduction targets and paths, transformation strategies and corporate governance, and environmental performance indicators related to transformation, and is committed to solving the problem of information asymmetry.

Participating in the formulation of China Green Bond Principles

As a non-permanent member of the Green Bond Standards Committee, the Bank participated in the drafting and issuance of *China Green Bond Principles*. The Principles were formed by the Green Bond Standards Committee based on extensive solicitation of opinions from bond market participants and relevant institutions. With full reference to the relevant international green bond mechanisms and combined with the practice of domestic bond market, the four core mechanisms of the use of funds raised by green bonds, project evaluation and selection, management of funds raised, and duration information disclosure were clarified. It established a unified standard for domestic green bond issuance, which promoted China's green bond market to a new stage of normalisation, standardisation, and international development.

Releasing the CCB-Wind Green ESG Bond Issuance Index 2021 Annual Operation Report

In March 2022, the Bank, together with Wind Information and International Institute of Green Finance, released the *CCB-Wind Green ESG Bond Issuance Index 2021 Annual Operation Report* to the market, making a comprehensive analysis of the index trend, sample components and financing cost advantages of green ESG bonds in 2021. It was helpful to provide interest rate trend and pricing reference for issuers and investors of green investment.

Jointly formulating local Green Building Project Loan Certification Standards

In order to solve the obstruction of the coordinated development of green finance and green building, Zhejiang Branch developed the group standard *Green Building Project Loan Certification Standards* after extensively solicitations from internal and external opinions, industry publicity and expert review organised by Zhejiang Society for Finance & Banking. On September 27, 2022, Zhejiang Society for Finance & Banking officially released the group standard document of *Green Building Project Loan Certification Standards*, solving the problem of maturity mismatch existing in the original identification standard, strengthening the whole process control of risks, and promoting the coordinated development of green building industry and green finance.



Zhejiang Branch loaned RMB500 million for a hospital's green building project according to *Green Building Project Loan Certification Standards*.

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Construction of Environment-related Capabilities

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Strengthening External Exchanges

The Bank deeply participates in external exchanges related to green finance, draws on and sharing relevant practices and experiences in green finance, and helps promote communication and cooperation in the field of international and domestic green development.

● Participating in the 15th Asian Financial Forum

On January 10, 2022, the 15th Asian Financial Forum opened online under the theme of "Navigating the Next Normal Towards a Sustainable Future". Chairman Mr. Tian Guoli attended and delivered a speech by video. Based on the exploration and practice of CCB, he proposed that commercial banks could play three roles in improving economic resilience and promoting sustainable economic development, including "promoting inclusive growth with inclusive finance, supporting sustainable development with green finance, and facilitating the cycle of economic development with scientific and technological innovation". Mr. Tian expressed the Bank's willingness to work with relevant institutions in various countries, and would jointly explore new products, models and standards of green finance, making greater contributions to sustainable development with the power of inclusive, green and technological power.

● Participating in the Beijing Urban Regeneration Forum and the launch ceremony of Beijing Urban Regeneration Union

On July 12, 2022, the first Beijing Urban Regeneration Forum and the launch ceremony of Beijing Urban Regeneration Union were held in Shougang Park, Beijing. Mr. Tian Guoli, chairman of the Board, made a speech on behalf of the rotating chairman of the first alliance, saying that Beijing's urban renewal needed to gather all forces and wisdom, and built an industrial alliance and ecology with the concept of innovative, coordinated, green, open and shared development. In the process of participating in urban regeneration and housing rental projects, CCB had in-depth cooperation with various professional institutions, such as cooperating with the professional design institutions affiliated to Tsinghua University to create green, low-carbon, smart and liveable high-quality rental housing. Together with the Science, Technology and Industrialisation Development Centre of the Ministry of Housing and Urban-Rural Development, CCB explored the new mode of "green credit + green building + green supervision".

● Jointly hosting the COP15 thematic side event on "Natural Climate Action by Banks and Businesses"

On December 14, 2022, the Bank jointly hosted a thematic side event on "Natural Climate Action by Banks and Businesses" at the second phase of the 15th Meeting of the Conference of the Parties (COP 15) to the *Convention on Biological Diversity*. The executive president Mr. Zhang Jinliang attended and spoke by video, indicating that supporting biodiversity conservation and responding to climate change were the inevitable choice for sustainable development of financial institutions. He proposed to enhance the awareness of supporting biodiversity conservation, take the initiative to spread green concepts and promote biodiversity conservation, and integrate biodiversity concepts and requirements into the whole process of business development. He proposed to enhance the ability to support biodiversity conservation, continuously increase financial input in green fields such as biodiversity conservation and provide integrated financial services for related projects. He called for expanding cooperation in support of biodiversity conservation, giving full play to the advantages of global management, gathering strength with all stakeholders, and tightening the common bond of international cooperation on biodiversity conservation. The Bank signed the *Common Action Plan for Banking Sector to Support Biodiversity Conservation* and pledged to provide a total of no less than RMB2 trillion of financial support to the green sector from 2022-2025, integrate biodiversity conservation into the overall strategic picture, and strive to build a climate-friendly and eco-friendly bank.

● Assisting in the release of the *China Green Bond Principles*

On July 29, 2022, the *China Green Bond Principles*, which the Bank participated in formulating, was officially released. The executive vice president Mr. Cui Yong attended the release ceremony and made a speech, saying that the release of the principles realised the "rule-based" approach, improved the level of financing standardisation, and filled the institutional gap in the management framework of domestic green bond issuance. The principles were an "evidence-based" practice, which enhanced the confidence of green investors, helped to strengthen the protection of investors, and improved the quality and efficiency of green capital docking. It demonstrated that "tolerance is a great virtue", innovation led international development, and laid a good foundation for promoting the opening and integrated development of the green bond market.

● Participating in the 6th China New Financial Summit Forum

On January 9, 2022, the 6th China New Financial Summit Forum sponsored by Liaowang Institution of Xinhua News Agency was held in Beijing. The executive vice president Mr. Ji Zhihong attended the forum and delivered a keynote speech, proposing that the core concept of modern corporate governance was to achieve the matching of the company's intrinsic value and social value, and practicing ESG investment and vigorously developing green and low-carbon finance had become the consensus of the financial industry. He pointed that a growing body of research showed that strengthening responsible investment, green investment, and investing in sustainable development could help improve financial performance, and the concept of ESG enabled financial investors to change from focusing on traditional financial indicators to taking into account both financial performance and social benefits, making financial investment more adaptable to new development philosophy of "innovative, coordinated, green, open and shared development".

● Jointly hosting the China-UK Seminar on Green and Sustainable Finance

On June 17, 2022, the Bank and HSBC Group jointly hosted the China-UK Seminar on Green and Sustainable Finance. The executive vice president Mr. Li Yun delivered a welcoming speech, saying that green finance had become an important area of cooperation between China and the UK. In the future, financial and professional institutions of the two countries should seize the historical opportunity, strengthen dialogue and cooperation, seek green development paths, share green finance practices, and discuss green finance governance standards. The seminar conducted in-depth discussions on issues such as carbon market and carbon trading, transition finance, green finance product innovation, green finance standards and ESG information disclosure. During the period, the London Branch, the Institute of Green Finance and Sustainability and the Carbon Trust Consulting Co., Ltd. signed the *Memorandum on Promoting China-UK Green and Low-carbon Technology Investment and Financing Cooperation* to further promote the cooperation between the two countries in green and low-carbon technology, services and infrastructure investment and financing.

● Attending the 5th China-Singapore Financial Summit

On 20-21 April 2023, the 5th China-Singapore (Chongqing) Strategic Connectivity Demonstration Project Finance Summit was held simultaneously in Chongqing and Singapore. Vice president Wang Bing was invited to attend the opening ceremony of the summit and delivered a keynote speech at the sub-forum "Promoting Green Finance Reform and Innovation and Promoting Green and Low-carbon Transformation and Development", saying that Chongqing, as the first green finance reform and innovation pilot zone in China, should undertake the major mission of green and sustainable development, which not only injected new connotations into the China-Singapore connectivity project, but also provided a broad space for CCB's new financial actions, and CCB gave full play to its advantages in financial technology and comprehensive services, contributing to the joint construction of an ecological civilization community in which human and nature lived in harmony and a closer regional community with a shared future. During the opening ceremony, the Bank and Chongqing Municipal People's Government signed the *Strategic Cooperation Agreement on Promoting the Construction of Green Finance Reform and Innovation Pilot Zone*.

● Participating in ESG Professional Committee Work Conference of CAPCO

On November 3, 2022, China Association for Public Companies (CAPCO) held the inaugural meeting and the first working meeting of ESG Professional Committee in Beijing. Mr. Hu Changmiao, secretary to the Board, attended the meeting as vice Chairman of the Committee, shared the ESG development concept and practical results of CCB, and put forward relevant suggestions on the work of the Committee, indicating that CCB was willing to join hands with all parties to explore an indicator system and evaluation system based on national conditions, and took the road of ESG development with Chinese characteristics and international exchanges. Representatives of members of public companies from finance, energy, construction and other industries, as well as representatives of exchanges, industry associations and expert members had in-depth exchanges on ESG-related understanding, practice and work suggestions, saying that they would continue to strengthen ESG governance, actively practice the concept of green development, constantly strengthen information disclosure, and promote the improvement of comprehensive economic, social and environmental value.

● Joining the SMI China Council

On Aug 24, 2022, the inauguration of Sustainable Markets Initiative (SMI) China Council was held in Jiujiang, Jiangxi province. As a founding member and council member of the SMI China Council, the Bank actively performed its duties as a council member, participated in exchanges and discussions on climate change, low-carbon transformation, green finance and other fields under the SMI for many times, and promoted the further integration of Chinese business community into the global governance process.



The Inauguration of "Sustainable Markets Initiative(SMI)" China Council.

● Holding the "China-EU Green ESG Bond Market Connectivity" forum

On June 21, 2022, the Bank held the online forum on "China-EU Green ESG Bond Market Connectivity -- Opportunities under the Common Ground Taxonomy", and invited expert representatives from China Society for Finance & Banking, the Climate Bonds Initiative, Luxembourg Stock Exchange, S&P Global Ratings and Eurizon SLJ Capital to attend and speak at the forum. The forum made a professional analysis of the background, working principles and basic contents of the China-Eu *Sustainable Finance - Common Ground Taxonomy*, expounded the application scenarios and future work direction, and held special discussions on topics such as the labelling of Chinese overseas ESG bonds, the latest developments of China-Eu green ESG bond market, and the multi-service system of CCB's global green capital market.



The "China-EU Green ESG Bond Market Connectivity" online forum.

● Participating in the symposium on "Capital Market Supporting Green and Low-carbon Development"

On October 13, 2022, the Shenzhen Stock Exchange held the symposium on "Capital Market Supporting Green and Low-carbon Development". CCB Wealth Management attended and spoke at the meeting as a representative, introduced the investment situation and investment standards of green bonds, as well as the system construction for green business development at the company level, and put forward relevant suggestions on the future development of green bonds and green infrastructure public REITs. CCB Wealth Management indicated that it would continue to increase investment in green assets and promote the comprehensive green transformation of the company.

● Participating in the public welfare salon themed "Project Investment and Financing and ESG Evaluation"

In September 2022, the Investment and Financing Committee of China National Association of Engineering Consultants as the sponsor and CCB Consulting as the organiser successfully held the first public welfare salon themed "Project Investment and Financing and ESG Evaluation", and organised the industry to discuss the integration of investment and financing consulting as well as ESG evaluation, to promote the establishment and improvement of green, low-carbon and circular economic system.

Enhancing Internal Empowerment

The Bank attaches great importance to the knowledge accumulation and quality cultivation of employees in environment-related fields, building green finance learning channels, spreading green finance concepts, and sharing green lifestyle knowledge. The Bank invests resources into areas of training programs, teaching and research development, scientific research topics, industry-university-research practice, external empowerment, etc, and creates a new ecology of green finance learning for co-construction and sharing.

● Lectures on green development

With the theme of "Learning from the 20th CPC National Congress Spirit Forging ahead on a new journey of green development", the Bank held green development lectures centring on clean energy, fiscal and tax policies, green development of urban and rural construction, national carbon peak and carbon neutrality policy, carbon market construction and other directions. The activity attracted the attention of many internal and external media, and the number of readers of a single activity exceeded 1 million. The number of students took the course exceeded 88,000 within a month of its launch.



Lectures on green development - Climate Investment and Financing Forum.

● Lectures on green finance

Focusing on green finance, policy essentials and case studies of developing green finance, general situation and trend of international carbon peak and carbon neutrality strategy and green finance development, risk and supervision of green finance, ESG information disclosure and assessment, world changes and relations between major countries and other topics under the background of "carbon peak and carbon neutrality", the Bank actively carried out a series of green finance lectures to promote employees' insight into green macro environment of financial development.

● "Carbon neutrality, Green bonds, Sustainable development" theme learning

The Bank continued to carry out in-depth cooperation with Chinese Financial Association of Hong Kong and the Chinese University of Hong Kong. The Bank invited industry elites and experts to introduce themed learning programs such as "Carbon Neutrality, Green Bonds, Sustainable Development" based on hot issues and combining theory and practice, and carried out 4 special lectures for employees of the Group.

● Green course teaching and research development

The Bank compiled a collection of core views of experts in green development lectures, and formed 12 opinion-gathering materials of the collection of views, with a total of 111,000 words. The Bank produced micro courses on the theme of green development, and summarised and extracted the results of the series of lectures on "carbon peak and carbon neutrality". It developed the course *Practicing the New Mission of Green Finance and Drawing a New Background for the Development of CCB*, which focused on the strategic positioning, development status and future development direction of green finance, aiming to broaden the horizons of employees and further promote the implementation of green finance strategy.

● Expert lectures on green financial products

The Bank held 8 expert lectures on green financial products, inviting business experts from the head office and subsidiaries to give lectures on green financial products and services, including green credit, green bonds, green funds, green leasing, green trust, green insurance, green investment and other aspects, with more than 11,000 participants.



Expert lectures on green financial products.

● Online special courses on green credit policy interpretation

The Bank held online special courses on green credit policy interpretation for employees, systematically introducing the meaning, connotation, and development opportunities of green finance, explaining the Bank's green credit guidance in 2022 in detail, and focusing on the credit policies in the green credit industry, so as to strengthen the understanding and grasp of green credit policies of all employees from both the theoretical and practical dimensions.

● Green finance "Encyclopaedia" series of micro courses

In order to facilitate employees to acquire green finance knowledge, the Bank provided employees with all-weather mobile and convenient learning of green finance "Encyclopaedia" series of micro courses. The courses mainly included five modules: basic concept of green finance, green industry, green product, green market and risk management, a total of 36 online micro courses, which could be used by employees to learn at anytime and anywhere.

Outlook

In the future, the Bank will always adhere to the strategic vision of "Striving to become a world-leading sustainable development bank" and continue to advance the *Strategic Plan for Green Finance Development (2022-2025)*, the *Action Plan for Carbon Peaking and Carbon Neutrality*, and the *Environmental, Social and Governance Work Plan (2023-2025)* around the strategic objective of carbon peak and carbon neutrality. The Bank will continue to deepen the green ecological background of new finance, accelerate the development of green finance business, increase the investment in green industries and projects, continue to improve the ability of green transformation of service industry structure, enrich the series of carbon-neutral products with the highest service carbon, enhance the awareness of innovation, stimulate the driving force of innovation, and build green finance into a new pillar of high-quality development and a new advantage in market competition of the whole bank. The Bank will prudently address environmental and climate risks, strengthen the application of enabling technology, continuously improve green operation management, implement energy-saving and emission reduction measures, and build an eco-friendly bank, contributing the wisdom and strength of CCB to the economic and social sustainability and high quality.



Appendix I:

 Index of Guidelines for Financial Institutions Environmental Information Disclosure

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