



**IFF GLOBAL GREEN  
FINANCE AWARD**

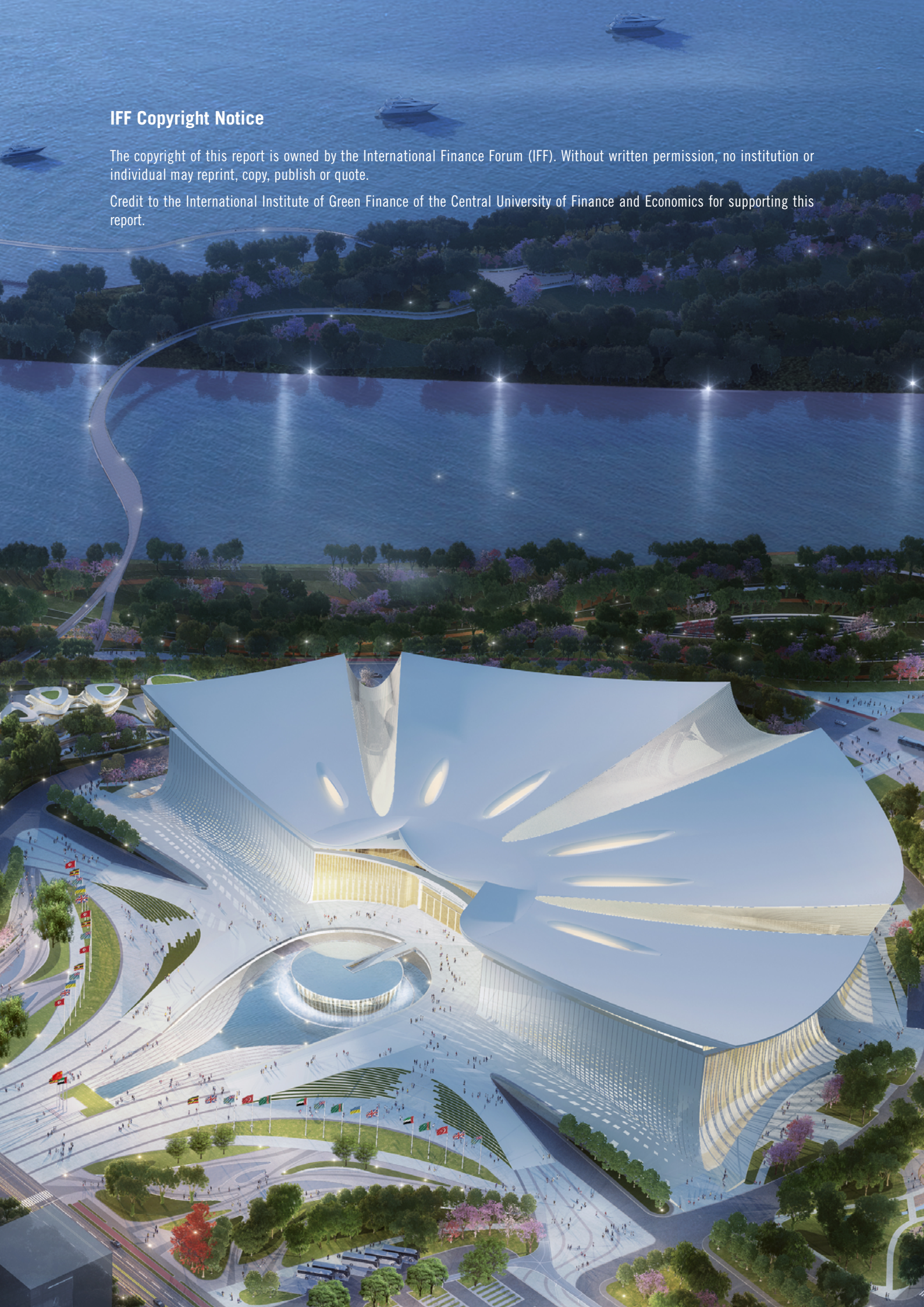


# **International Finance Forum (IFF) Global Green Finance Award Case Collection**

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# Preface

As climate change, biodiversity protection and pollution prevention attract unprecedented attention, the necessity of green, low-carbon and sustainable development have gradually reached global consensus. Supporting and advocating green and low carbon transition and development have become the mainstream for future economic and social work. Green finance as a vital tool that combines environmental protection and financial services is well placed to effectively support and facilitate the real economy's realization of green and low carbon transition. In recent years, we have seen promising developments in green policies, standard setting, risk management, tools and product innovation and implementation, as well as its associated areas.

The International Finance Forum (IFF) launched the IFF Global Green Finance Award in 2020 to encourage and advocate the world's leading innovative green finance products and solutions. Through a series of rigorous screening, competitive evaluation and award promotions for pioneer institutions and projects for their best green finance products and solutions, it aims to attract more financial institutions to proactively involve in green investment and financing activities, and steer more private capital towards sustainable development areas. In the meanwhile, the International Finance Forum (IFF), leveraging its global network and platform, continues its contributions in enhancing global dialogue and collaboration in green finance, and promotes experiences and best practices in its development.

Till date, the IFF Global Green Finance Award has been successfully held for 2 consecutive years, with collectively 20 projects awarded. To better promote the best practices, the International Finance Forum (IFF) Global

Green Finance Award Committee decided to compile a successful case study collection pack for the 2020 and 2021 awarded projects. The pack includes an introduction of award-winning projects, their respective best practices and accomplished results. It will serve as reference and inspiration for other financial institutions and stakeholders for their future work in green finance products and development of solutions.



**Han Seung-soo**

Chairman of International Finance Forum (IFF) Global Green Finance Award Jury  
President of the 56th Session of the UN General Assembly  
Former Prime Minister of the Republic of Korea



# Foreword

The IFF Global Green Finance Award was set up by the International Finance Forum (IFF) to recognize and reward global institutions for their outstanding contributions in developing innovative products and solutions for green finance development, especially in areas such as climate and biodiversity finance. It aims to facilitate the development of global climate solutions and real economy's sustainable transition. This deck summarizes the best practices of 20 IFF Global Green Finance Award-winning projects and provides detailed information about them. It also serves as a valuable reference for further adoption and development worldwide.

The 2021 and 2022 IFF Global Green Finance Awards were launched in September of that year. Applications were invited from the public sector, private sector, and non-profit organizations around the world. Based on the profound insights and extensive international cooperation experiences, the Secretariat of the IFF Global Green Finance Award determined the scoring criteria as Project Innovation, Replicability and Rescalability, Industry Contribution, Profitability and Sustainability, Public Good and Social Well-being Enhancement, and Regional Impact. The Secretariat also formulated systematic and rigorous award evaluation standards and procedures. The selection process lasted for more than three months, and included a preliminary screening for all entries, multiple rounds of scoring based on field research, expert review, public consultation and sometimes additional steps, as needed.

The IFF Global Green Finance Award Selection Committee comprised internationally renowned leaders and experts from financial, environmental and political realms to ensure that a diverse range of views were appropriately managed. The Committee upheld the principles of openness, fairness, and impartiality and carried out orderly and conscientious review, verification, and comprehensive evaluation before the awards were made.

Based on the records, applicants during the past two years came from a wide range of backgrounds, including

financial institutions such as banks, insurance companies and funds, as well as consulting companies, enterprises, research institutions, industry associations and stock exchanges. The candidate projects also encompassed a large range of innovative products and solutions such as a design of green finance toolkit, green financial data R&D, green financial system enhancement, and extension to blue finance and ecological protection finance. After validating the submitted materials, the Selection Committee Secretariat shortlisted 50 projects for further review, and selected 20 finalists for the Award. These were later included as case studies in this review.



**IFF GLOBAL GREEN  
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# Abbreviations and acronyms

ADB	Asian Development Bank
ASC	The Aquaculture Stewardship Council Certification
ESMS	The Environmental and Social Management System
ESG	Environmental, Social, and Governance
ETF	Exchange-Traded Fund
FC4S	Financial Centers for Sustainability
GBP	Green Bond Principles
GEF	Global Environmental Facility
GRASFI	The Global Research Alliance for Sustainable Finance and Investment
IFC	International Finance Corporation
IFF	International Finance Forum
ICMA	The International Capital Market Association
MOF	Ministry of Finance
MSC	The Marine Stewardship Council Certification
MSCI	Morgan Stanley Capital International
NDRC	National Development and Reform Commission
P4R	Program for Results
UCITS	Undertakings for Collective Investment in Transferable Securities
UNEP	United Nations Environment Programme
VOC	Volatile organic compounds
WRI	World Resources Institute

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An aerial photograph of a dense forest with a winding road. The image is overlaid with a semi-transparent dark grey trapezoidal shape that serves as a background for the text. Several white-outlined hexagons are scattered across the lower half of the image, some partially cut off by the edges.

# Chapter I

## The 2021 Global Green Finance Innovation Award Case Studies

# 1. China Construction Bank (CCB - Wind Green ESG Bond Issuance Index and Yield Curve)



## Introduction of the institution

China Construction Bank was established on October 1, 1954. It has nearly 15,000 branches, subsidiaries in various industries such as funds and leasing, and more than 200 overseas institutions at all levels, covering more than 30 countries and regions. By the end of 2021, the market value of China Construction Bank was about US\$175.3 billion, ranking the sixth among listed banks in the world. China Construction Bank continues to promote the organic integration of the concept of green and sustainable development with the group's strategy, operation management, and information disclosure and supports the cultivation of green industries through resource sharing and open empowerment.

## Project background

Since its launch in 2015, supported by the solid top-level design and governance of regulatory agencies and supported by the "Carbon Peaking and Carbon Neutrality" goals, China's domestic green bond market has grown rapidly to become the second-largest one in the world. In April 2021, the People's Bank of China, the National Development and Reform Commission, and the China Securities Regulatory Commission jointly issued the first domestically unified "Green Bond Endorsed Projects Catalogue (2021 Edition)" and further aligned domestic standards with international standards. The unification of green bond standards calls for establishing a domestic cross-market, quantifiable, and comparable green bond general index and the yield curve. To facilitate comparison of the cost of green bonds with other financial instruments of the issuers, enable tracking of green bond investment returns by investors, and improve the feedback mechanism on the effectiveness of domestic ESG investment and financing, CCB leveraged its professional advantages in

underwriting in the domestic bond market, cooperated with professional green ESG research institutions and the largest domestic bond market data platform to develop this index and yield curve.

## Project content

The CCB - Wind Green ESG Bond Issuance Index and Yield Curve were released simultaneously in Beijing and Luxembourg on May 20, 2021. It is regularly updated in the official website of CCB, Wind Information Terminal, and the Luxembourg Stock Exchange website. The index refers to domestic and foreign green bond standards. It uses the world's leading ESG evaluation system to evaluate and screen the carbon emission reduction benefits, green characteristics, and sustainable development of newly issued bonds in the Chinese market. By combining CCB's primary market issuance and pricing experience with the ESG evaluation methodology of the International Institute of Green Finance of the Central University of Finance and Economics, the index points and weighted calculations are drawn for the sample bonds to form the total index and three primary market yield curves of China's green bonds, carbon neutrality bonds, and ESG bonds.

## Project performance

While promoting its business development, this project can effectively guide the financial flow of the capital market to the green, ESG, and carbon-neutral fields and help encourage the low-carbon transformation of the capital market.

Additionally, the project has been displayed on the official homepage of China Construction Bank, the Wind Information Terminal, and the Luxembourg Stock Exchange homepage. As the first primary market bond

index focusing on “green, ESG, and carbon neutrality” in the whole market, its market influence and international demonstration effect are gradually emerging.

In terms of industry contribution, the project is mainly reflected in the following four points: First, it integrates domestic and international mainstream of green ESG bond standards to a large extent. Second, it records the trend of financing costs in China’s green bond market, providing a fair and visual value scale for China’s green bond market. Third, it enriches the variety of the indexes in China’s green bond market. Fourth, it objectively reflects the issuing advantages and development potential of green bonds.

In terms of profitability, the release of the green ESG bond index is beneficial for expanding the green bond underwriting business and tracking index-based investment opportunities, thereby continuously promoting the overall growth of the debt market.

Regarding public welfare, the green ESG bond index fills a market gap in the Chinese bond market. It unified the green ESG bond pricing index and the yield curve. The index further promotes and improves the infrastructure construction of China’s green bond market. It provides green ESG bond issuers and investors with a reference for evaluating the benefits of green investment and financing, which is highly recognized by regulatory agencies.

The innovative aspects are mainly reflected in the following points: firstly, it selects the latest green bond standard principles applicable to Chinese characteristics; secondly, it selects the bonds with characteristic labels and divides them into green bond pools, carbon-neutral bond pools, and ESG bond pools according to different purposes; and

thirdly, it integrates domestic and foreign mainstream green ESG standards to provide international investors with an important basis for pricing green bonds in the global market.

## Project overview

The release of the CCB - Wind Green ESG Bond Issuance Index coincided with the official release of the new version of the Green Bond Endorsed Projects Catalogue, which was released a month before the release of the index. This fact highlights the market value and significance of the index. It helps enrich China’s green financial products and service system and helps further explore and improve the price discovery mechanism of the domestic green bond market. The comparative advantage of issuing green ESG bonds can be directly conveyed to the market through indexation. On the one hand, it can guide bond issuers to actively expand the scale of domestic green bond supply. On the other hand, it can attract more domestic and foreign funds to invest in China’s green ESG bonds. As a result, it can enhance the breadth and depth of the construction of the domestic green bond market.

The Green ESG Bond Issuance Index and Yield Curve created by China Construction Bank is the first bond issuance index integrating green, carbon-neutral, and ESG concepts. It effectively fills the blank of green bond pricing references in the primary market. It provides international investors with an essential reference for the pricing of green bonds in the Chinese market. This project actively explored and contributed to the continuous improvement of the green bond pricing mechanism in China and globally. It also played an important role in supporting the development of the green bond market.

**Pic 1: Picture showing the release of the China Construction Bank Index**



Picture source: China Construction Bank



## 2. Bank of Qingdao (Blue Finance Project - Blue Bonds)

### Introduction of the institution

Bank of Qingdao Co., Ltd. (referred to as “Bank of Qingdao”) was established in November 1996. It was listed on the Hong Kong Stock Exchange and the Shenzhen Stock Exchange in December 2015 and January 2019. Headquartered in Qingdao, Bank of Qingdao is the largest local corporate bank in Shandong in terms of assets. Currently, its network covers major cities in Shandong Province, including 16 branches and 160 business outlets in Shandong Province.

In 2016, the Bank of Qingdao was among the first batch of pilot banks that issued green bonds. It successfully issued 8 billion RMB of green financial bonds in 2016 and has rich business experience in green bonds and green credit. By the end of 2021, the Bank of Qingdao had balance of nearly 19 billion RMB in green loans, accounting for 11% of its total corporate loans. Three major areas of its green investment portfolio - waste management, water supply, and nature conservation - are highly synergistic with the blue economy, laying a solid foundation for innovative exploration of blue bonds.

### Project background

As defined by the World Bank, the Blue Economy is the sustainable use of ocean resources for economic growth, improved livelihoods, and jobs while preserving the health of marine and coastal ecosystems. Pollution prevention and control, biodiversity conservation, marine ecological protection, and sustainable marine economic development are the core of the Blue Economy.

The Chinese government highly values the development of the blue economy. In November 2013, while inspecting the development in Shandong province, President Xi Jinping pointed out that “We must lead with the development of blue economy and efficient ecological economy to build important economic growth.” In April 2021, the Central Committee of the Chinese Communist Party and the State Council issued the “Opinions on Developing the Marine Economy and Promoting the Construction of Marine Power,” which are

comprehensively deployed and guided to develop the blue economy.

The Bank of Qingdao has actively responded to the policy and seeks to be the first pilot bank in China to promote “blue finance.” The Bank of Qingdao actively cooperates with international institutions and fully strengthens dialogue with relevant departments and institutions. Bank of Qingdao also adopts and references good international industry norms and practices and promotes marine protection and the sustainable development of the marine economy through financial means.

### Project content

By formulating blue finance strategic plans, the Bank of Qingdao actively explores the field of blue finance, which is mainly reflected in the classification of blue assets, preparation for the issuance of blue bonds, and blue finance business.

Based on the “United Nations Sustainable Development Goals” and “Sustainable Ocean Principles,” referring to the structure of “Green Bond Principles” of the International Capital Market Association (ICMA) and combining the regional characteristics of Shandong, Bank of Qingdao, and the International Finance Corporation (IFC) jointly formulated China’s first blue asset classification standard.

The forward-looking and practical blue asset classification standard defines the eligible activities of 37 sub-industries in 7 sectors supported by blue finance and blue bonds. For example, the standard clarifies that MSC and ASC certification is required in the fishery industry, and the index requirements are higher than the green bond catalog. The standard mentions that the water conservation rate needs to reach 20% in the water conservation field. This quantitative indicator is beneficial for the credibility and influence of blue bonds disclosure.

Based on the classification of blue assets, the Bank of Qingdao has formulated the “Blue Bond Framework of Bank of Qingdao.” The Framework includes critical components such as using and managing raised funds,

project evaluation, selection process, and reporting. It also prepared the Bank of Qingdao for the world's first blue bond issued by the private sector.

As for the blue financial business, at the beginning of 2021, the Bank of Qingdao released the "Blue Financial Business Promotion Plan of Bank of Qingdao in 2021". Through on-site visits to branches, research, and customer visits, the Bank of Qingdao carried out the results and promoted blue financial projects. After reviewing the business, the Bank of Qingdao has released two batches of blue financial key marketing project lists in the entire bank, reserved 108 key blue projects, and had blue assets exceeding 10 billion RMB. In 2021, blue financial loans provided by the Bank of Qingdao for supporting the development of the local marine economy increased by nearly 1.5 billion RMB.

## Project performance

The project actively explores the multi-practice of blue finance, including the formulation of blue asset classification standards, the promotion of blue credit business, and the preparation of blue bond issuance. It has an essential leading role and reference value for other domestic and foreign financial institutions to undertake blue financial business in terms of replicability, industry contribution, profitability, public welfare, and innovation.

In terms of replicability, the Bank of Qingdao has played a leading and exemplary role in the development of blue finance by bringing out the first domestic blue asset classification standard along with the International Finance Corporation (IFC) and used the practical experience from blue financial projects. Its experience can be used for global promotion of blue finance.

In terms of industry contribution, the Bank of Qingdao's blue asset classification standards sets higher requirements for asset certification of the marine environment and improves the standards of marine and fishery industries. At the same time, the Bank of Qingdao has also promoted the green transition of the marine and fishery industries from blue finance strategic planning, blue credit product project management, blue digital inclusive finance, environmental and social risk management, and blue knowledge management.

In terms of profitability, at the end of 2021, the Bank of Qingdao has granted a total of about 11 billion RMB in credit to the marine industry. There is still a significant gap for growth in the blue economy in the future. According to the World Economic Forum estimates, the annual value of production of the blue economy can reach 1.5 trillion US dollars, roughly equivalent to the volume of the world's seventh-largest economy. As people continue to attach importance to the ocean, the concept of sustainable development continues to be etched firmly in people's hearts and the scale of the blue economy will continue to expand in the future.

In terms of public welfare, industries such as water

resources conservation and sustainable fishing supported by the Blue Finance Project of the Bank of Qingdao will promote the development of the local marine economy, improve the marine environment, and ultimately realize the sustainable development of the marine economy.

In terms of innovation, the blue financing project of the Bank of Qingdao is a precedent in the blue finance capacity building system, the environmental and social management system (ESMS) construction, the issuance of blue bonds, the classification standard of blue assets, and the placement of blue assets. Its development model is original. In particular, the Bank of Qingdao actively explored the issuance of blue bonds following the "Green Credit Guidelines" issued by the China Banking and Insurance Regulatory Commission. The Bank of Qingdao established an environmental and social risk management system for its corporate financing and blue bond portfolio. These innovative works can provide experiences in the definition, standards, and certification process of blue bonds and create a valuable reference for market participants.

## Project overview

The Bank of Qingdao launched the world's first "Blue Finance" pilot project to support six United Nations Sustainable Development Goals. It actively explored the issuance of blue bonds and the practice of blue carbon and marine ecological environment protection. It also fills the gap in the blue finance market by researching, formulating, and promoting international standards for sustainable blue finance. The Bank of Qingdao has also become the first joint-stock commercial bank in China to explore the blue finance market. At the same time, it is also actively building its ESG system and is committed to becoming the industry leader in green finance practices and innovations.

**Pic 2: Launch ceremony of the Blue Bond Project**



Picture source: The Bank of Qingdao

**Pic 3: Blue Bond Project workshop**



Picture source: The Bank of Qingdao

### 3. All-China Environment Federation (Green Inclusive Cloud - Carbon Emission Reduction Digital Account Book)

#### Introduction of the institution

The All-China Environment Federation (referred to as the “Federation”) is an institution approved by the State Council of the People’s Republic of China and registered by the Ministry of Civil Affairs. It is under the guidance, supervision, and management of the Ministry of Ecology and Environment and the Ministry of Civil Affairs. The Federation is a collaborative, national, and non-profit social organization voluntarily formed by enterprises, institutions, groups, and individuals enthusiastic about environmental protection. The Federation mainly provides decision-making suggestions for governments at all levels and relevant administrative departments; it organizes forums and summits in the field of ecological, environmental protection, and promotion and exhibition of new ecological and environmental protection technologies. It also conducts international communications and cooperation in the field of ecological environment.

#### Project background

Digital carbon reduction can activate the potential of data elements and drive changes in production methods, lifestyles, and governance methods as a whole through digital transformation. Therefore, promoting digital carbon reduction on the consumption side is of great significance to social and economic development, while establishing a quantifiable carbon reduction platform is even more important.

The All-China Environment Federation has established a personal green carbon emission reduction accounting standard for daily life with the support of the Ministry of Ecology and Environment and other departments. It has also set up a special committee for green recycling and inclusive benefits. At the same time, the Federation cooperated with Beijing Green Inclusive Network Technology Co., Ltd. to build a nationally applicable underlying interconnection platform, form a personal and corporate carbon ledger, explore a diversified model of an incentive mechanism for green finance feedback, and solve the problem of carbon emission reduction on the consumption side.

#### Project content

“Green Inclusive Cloud - Carbon Emission Reduction Digital Ledger” (referred to as the “Project”) is an interconnected platform based on individual behavior

emission reductions. It adopts unified individual behavior emission reduction standards to calculate emission reductions under different lifestyle scenarios, establishes personal carbon ledgers, and builds corporate carbon ledgers. The platform quantifies the carbon emission reduction of scattered consumer behavior and models the carbon emission reduction standards, thus opening up the digital and efficient operation of lifestyle-related supply chains such as logistics, e-commerce, recycling, and food waste. At the same time, with the participation of policies, public welfare, business, and finance, the platform is also an incentive to encourage the whole society to take part in the sustainable operation of a carbon-inclusion market.

The project mainly provides two types of services. One is the retail carbon emission reduction behavior standard. It has successively applied for the establishment of group standards such as “Guidelines for Quantifying Carbon Emission Reduction for Citizens’ Green Behavior” and “Accounting Guidelines for Emission Reduction of Alternative Materials for Plastic Packaging” and jointly released the “Online Conference Helps Quantitative Carbon Emission Reduction Research Report” with the Center for Environmental Education and Communications of the Ministry of Ecology and Environment. The second is the carbon ledger and carbon inclusive trading credit system. The project forms a related alliance and establishes a personal green carbon credit standard by establishing a carbon-inclusive incentive mechanism.

#### Project performance

The project can be generalized widely, and its industry contribution makes a good impact, providing a good Internet platform for carbon emission reduction and a certain degree of profitability. In addition, in terms of public welfare contribution, it generates a huge positive social impact by innovatively encouraging individuals to reduce carbon emissions.

The project can cooperate with carbon inclusive projects in other cities in terms of replicability. After the project is implemented in one city, it can be replicated in others quickly. Activities in the project have an interconnected platform backend, and the docking with other platforms can continuously launch activities and spread widely to reach a larger group. It can be used as a promotion case for enterprises, which can be quickly popularized in other enterprises.

In terms of industry contribution, the Green Inclusive Cloud Platform, as the underlying interconnected



technology platform, mobilizes enterprises in many industries and fields to participate. Its standards provide the rigor, scientific approach, and effective data calculation for green finance. It also establishes a solid foundation for a national and voluntary carbon emission reduction market of common benefit in the future. At the same time, the platform will connect with financial lenders and insurance companies to achieve high-tech green services. Finally, it will increase user activity and generate carbon ledgers for individuals, enterprises, and governments.

In terms of profitability, the Green Inclusive Cloud Platform establishes a digital ledger of carbon emission reduction with a Four-wheel Drive Incentive model of “Policy Support, Business Participation, Digital Cloud Platform Support, Public Welfare-business-finance-policy.” Among them, profitability comes from the carbon market value of carbon emission reductions, the convertible value of unified standards, the economic value of business participation, and the solutions provided for urban carbon neutrality governance. Sustainability comes from the combined efforts of the Ministry of Ecology and Environment, the Cyberspace Administration of China, transportation, and other related projects and under the support of the dual carbon target policy.

In terms of public welfare, Green Inclusive Cloud can reach personal behavior management, which is difficult for government policies. Through personal rewards, it can positively motivate the green transition of personal behavior to improve air quality, human health, and urban circulation, proving the great social value of the project. At the same time, it will guide the public to practice green actions and advocates green lifestyles on the consumption side, thereby promoting carbon emission reduction. It is of great significance for achieving China’s carbon peaking and carbon neutrality strategic goals.

The innovation is mainly reflected in four points. The first is solution innovation, which replaces the single carbon mechanism of common benefit with a diversified one. The second step is technological innovation, which can meet regulatory audit requirements through the digitization of individual carbon emission reduction behavior. The third step is unification of standards, formulating and establishing a new unified standard for quantifying carbon emission reductions for citizens’ green behavior and truly achieving fairness, justice, and open incentives. The fourth step is financial innovation, which involves guiding the establishment of personal green asset accounts and then realizing the market-oriented operation of carbon emission reduction.

## Project overview

As the largest and most influential national environmental protection organization in China, the All-China Environment Federation has incorporated the public into the process of realizing the dual carbon goals and carbon finance through the establishment of the Green Inclusive Cloud - Carbon Emission Reduction Digital Account Book. This project effectively complements the consumption-end carbon emission reduction with the government-led production-end carbon emission reduction. At the same time, the All-China Environment Federation also actively promotes the establishment of the Digital Carbon Neutrality Fund and the Digital Carbon Neutrality Alliance. It combines digital technology with carbon emission reduction and carbon accounting and actively develops and promotes the development of the application of carbon emission reduction standards on the consumption side.

Pic 4: Green Inclusive Cloud - Carbon Emission Reduction Digital Ledger



## 绿普惠云 — 碳减排数字账本

Picture source: All-China Environment Federation

Pic 5: Carbon emission reduction digital ledger operation management system and its effects

绿普惠云 运营管理系统

ad

累计		
减排用户 (人)	减排次数 (次)	减排量 (吨)
122134	53576812	12654.01
客户		
减排企业	政府客户	
14	4	
减排场景	减排应用	
8	7	

Picture source: All-China Environment Federation



## 4. Standard Chartered Bank (1st Sustainability-linked Loan to CSSC (Hong Kong) Shipping Company Ltd)

### Introduction of the institution

Standard Chartered Bank is a leading international banking group with a global network in 59 markets, serving clients from 144 markets. Standard Chartered banking service network is highly compatible with the markets along the “Belt and Road,” with an overlap of more than 75%. In April 2021, Standard Chartered Bank became a contracting member of the International Maritime Organization’s “Poseidon Principles,” providing support for the global shipping industry carbon emission reduction goals set by the United Nations. The Bank also launched the “Low-Carbon Transformation Financing Plan,” which provides financial solutions for sustainable financing for many shipping companies worldwide, using carbon emission intensity or energy efficiency indicators as one of the key indicators of lending.

### Project background

The shipping industry plays a vital role in international trade and economic development. But the development of the shipping industry is often accompanied by ocean pollution. The shipping industry produces about 2.2% of global greenhouse gas emissions globally. For China, the shipping industry is an integral part of its economy. The sustainable development of its shipping industry plays an essential role in China’s realization of its goal of “Carbon Peaking and Carbon Neutrality.”

This ship financing project is Standard Chartered Bank’s first sustainable development shipping finance loan in China and North Asia and CSSC’s first attempt in this field. The project has set new standards and models for in-depth cooperation, innovation, and green and sustainable

development between banks and enterprises in shipping finance.

### Project content

In June 2021, Standard Chartered Bank provided a 10-year ship mortgage term loan to CSSC (Hong Kong) Shipping Company Ltd (referred to as “CSSC”) with a total amount of US\$96 million for the mortgage financing of four container ships.

Unlike traditional ship financing loans, this loan is the first to adopt a sustainable development indicator-linked structure. It also continuously evaluates the average energy consumption efficiency of the financed ships and other sustainable development indicators during the loan period. In terms of sustainability linkage, Standard Chartered Bank requires the borrower to follow the “Sustainability Linked Loan Principles” requirements issued by the Asia-Pacific Loan Market Association. The requirement includes establishing and complying with core elements such as the relationship with the borrower’s overall sustainable development strategy, target setting, reporting, and auditing.

Specifically, after the loan agreement is signed, the project starts to verify the environmental indicators of the previous calendar year in the second calendar year. Standard Chartered Bank will require clients to provide annual sustainability compliance certificates and related reports to verify whether the sustainability indicators of the previous calendar year have met the standards. After confirming that the criteria are met, the bank will adjust the interest rate to the preferential price from the first interest accrual date after the confirmation date; otherwise, the interest rate will remain unchanged at the original loan interest rate for 12 months.

## Project performance

The project has strong potential in terms of promotion and is a pioneering measure for China's marine transportation industry to reduce emissions. It is highly innovative and combined with a rich global experience. In addition, in terms of public welfare, the financing deal also positively impacts the environment.

In terms of replicability, this 10-year sustainable shipping loan of US\$96 million is the first sustainable shipping loan of Standard Chartered Bank in Greater China and North Asia area, and is also a successful case to help Chinese shipping companies make the low-carbon transformation. It is expected that in the future, Standard Chartered Bank will improve and promote the project model, actively develop green and sustainable shipping financial products, and tailor suitable financing solutions for more Chinese shipping companies. Besides, the project can also be used as a benchmark product in the shipping industry to guide more fields to reduce shipping emissions and help China achieve its Carbon Peaking and Carbon Neutrality goals.

In terms of industry contribution, Standard Chartered Bank can combine its rich experience in serving the global shipping industry with its position as the world's leading sustainability-linked financing bank. It can provide customized sustainable financial solutions to the shipping industry to assist industrial transformation of the shipping industry. In addition, Standard Chartered Bank is a signatory of the International Maritime Organization's "Poseidon Principles," which provide the foundational framework for aligning ship finance with climate and sustainable development goals. One of the key goals of "Poseidon Principles" is to reduce the greenhouse gas emissions of the global shipping industry by at least 50% by 2050.

In terms of profitability, this is a sustainability-linked loan. Standard Chartered Bank will adjust the interest rate down or keep it unchanged according to whether CSSC's environmental protection indicators meet the standards. At the same time, the core financing arrangement incorporates the pricing mechanism related to sustainable development advocated by the "Poseidon Principle." And adjustments to prices will be linked to the fleet's carbon

efficiency and the company's sustainability governance. For CSSC, this is the first time a pricing mechanism linked to sustainable development has been adopted in the financing structure. The interest rate of this pricing mechanism is linked to carbon emission reductions.

In terms of public welfare, firstly, this financing transaction enables CSSC to create and promote many jobs, delivery of goods and services, tax revenue, etc., through the purchase of cargo ships that provide cargo-haul services. Second, the financing deal has contributed to a range of positive impacts on the environment. For example, one of the main sustainability-linked indicators is to satisfy the "shipping industry-specific decarbonization pathway," which is in the first principle of the "Poseidon Principles."

In terms of innovation, it is mainly reflected in the fact that the sustainable shipping finance loan is an attempt, an innovation, and an essential step in supporting the sustainable development of shipping. As the coordinator of the sustainable development structure and the only lender for this financing activity, Standard Chartered Bank designed the financing structure for sustainable shipping financing and provided exclusive financing. Also, it promoted the implementation of the project and provided financial assistance for the low-carbon transformation of Chinese shipping companies.

## Project overview

As the world's leading international bank, Standard Chartered Bank has actively implemented the concept of green finance and established a sustainable finance department. This project adopts the method of linking sustainable development indicators, so that it can continuously evaluate the average energy consumption efficiency of the financed ships and the company's other sustainable development indicators during the loan period. Standard Chartered Bank successfully issued a financing loan oriented to sustainable development indicators. This financing loan project has also successfully created a new model of bank-enterprise cooperation in the shipping finance field. Meanwhile, it provided an innovative green and sustainable financial performance evaluation in the transportation and shipping field.



**Pic 6: Handover ceremony of Standard Chartered Bank Financing Loan Project**



Picture source: Standard Chartered Bank

**Pic 7: Container ships secured by Standard Chartered Bank mortgage financing**



Picture source: Standard Chartered Bank



## 5. China Central Depository & Clearing Co., Ltd. (China Bond - Green Bond Environmental Benefit Disclosure Indicator System and Green Bond Database)

### Introduction of the institution

China Central Depository & Clearing Co., Ltd. (“CCDC or China Bond”) was established in December 1996. It is the only central financial enterprise specializing in financial infrastructure services, with a registered capital of 12.5 billion RMB.

Since its establishment, CCDC has faithfully fulfilled the responsibility of national financial infrastructure, fully and deeply participated in the cultivation and construction of China’s bond market. CCDC has become an important service platform for China’s bond market and a support service platform for implementing national macro policies and pricing benchmarks in China’s financial market. In addition to that, CCDC has acted as the main gateway for China’s bond market to open up to the world.

In recent years, the CCDC has undertaken the supervision and support functions entrusted by the state management department. Based on the corporate structure and professional advantages of financial infrastructure, the company has steadily built a transparent and convenient central registration platform for financial assets. It also established fully-owned China Wealth (Asset) Management Registry and Custody, China Bond Financial Valuation Center and China Bond Jinke Information Technology. CCDC also holds stakes in Bank Credit Assets Registration and Circulation Center, China Trust Registration. It also acts as a shareholder in Shanghai Clearing House and CCB Financial Technology Co Ltd.

### Project background

As a director company of the China Green Finance Committee and a permanent member of the Green Bond Standards Committee, the CCDC has carried

out many explorations in green finance research and practice, providing full life cycle services for green bonds and their scale is in the forefront of the domestic green bond market. By the end of 2021, CCDC registered and managed more than 3.5 trillion RMB investments in green bonds, accounting for over 75% of China’s green bond market.

With the vigorous development of the green bond market, the demand for environmental benefit information disclosure is also increasing. However, there are still gaps in the standards for environmental benefit information disclosure in fields such as green bonds. In 2018, entrusted by the China Green Finance Committee, CCDC cooperated with professional environmental institutions to complete the “Green Bond Environmental Benefit Information Disclosure Indicator System” project and preliminarily proposed to build a green bond environmental benefit indicator system. In 2021, CCDC explored and built a unified environmental benefit information disclosure indicator system and created an online investment in a green bond database and information disclosure platform.

### Project content

The project focuses on standard guidance and digital empowerment. It guides the digitization of green bond environmental benefit information disclosure among standards, service, and display. The green bond information disclosure indicator system highlights the environmental improvement effect of green projects. According to the latest catalog, this system is the first to design 30 general indicators and 13 special indicators (applicable to a single industry) for the subdivided 205 sub-sectors, all of which are quantifiable indicators. On this basis, the system calculates the environmental benefits corresponding to unit funds and bonds.

The green bond environmental benefit database has the characteristics of comprehensive data coverage, regular updates and iteration, and robust data comparing applicability. It uses standardization and digital reforms to solve bottlenecks in green bond environmental benefit information disclosure. The green bond database covers the basic and project information and environmental benefit data of the stock invested in green bonds from 2002 to 2021. Domestic and foreign users can query and download environmental benefit information through the green bond database.

## Project performance

This project provides a standard reference for environmental benefit information disclosure in the green bond market. It has practical significance in terms of replicability, industry contribution, profitability, promotion of public welfare, and innovation.

In terms of replicability, the project combines theory with practice and has broad applicability and reproducibility at home and abroad. The project has established a green bond environmental benefit information disclosure standard applicable before the offering and during the bond duration, filling the domestic and foreign gaps in the environmental benefit information disclosure standard in the green bond field. This indicator system is not only applicable to green bonds but can also be promoted and applied in green credit and green insurance in the future. The research results of this project have contributed positively to the development of local green finance and are currently promoting the incorporation into local and regional standards.

In terms of industry contribution, the project plays an important role for all parties in the green bond market. It encourages issuers to make disclosures in accordance with the indicator system standards, improves the quality of green bond environmental benefit information disclosure as well as prevents issuers from “greenwashing”. It also helps investors to reduce screening costs and enable funds to be invested in projects with more significant environmental benefits. Besides, it improves the accuracy and coverage of government-support for green development policies and provides a reference for regulatory authorities to statistically analyze environmental benefit data, especially carbon emission reduction data.

In terms of profitability, the project is public. It enables more market participants to use the project to improve the quality of green bond environmental benefit information disclosure. The project plans to adopt an application system that will be open to the public free of charge at the initial stage.

In terms of public welfare, the project can guide more funds to be invested in green fields and help achieve Carbon Peaking and Carbon Neutrality goals. From an environmental impact perspective, the impact of the bond proceeds on the environment can be fully quantified. Judging from the disclosed environmental benefits,

according to the 1,530 “investment in green” credit bonds collected by CCDC in the early stage, it is estimated that the green projects invested by the raised funds can support carbon dioxide emission reductions of about 214 million tons/year, sulfur dioxide emission reductions of about 3.63 million tons/year, and nitrogen oxide emission reductions of about 3.21 million tons/year.

In terms of innovation, CCDC is the first to have built a green bond environmental benefit information disclosure indicator system. For the first time, CCDC has made a comprehensive and systematic summary of the practice of bond information disclosure. It is original and practical to obtain environmental benefit information such as carbon dioxide emission reduction of financially supported projects through quantitative indicators. The green bond database constructed according to the quantitative index system covers the information and environmental benefit data on projects invested by funds raised from various types of bonds. It is the first database in China based on the disclosure of green bond environmental benefits.

## Project overview

To improve the quality of green bond environmental benefit information disclosure, CCDC has researched and constructed a green bond environmental benefit information disclosure indicator system and a green bond database. It actively promotes the information of an experience that can be replicated and promoted nationally and internationally. The project solves the problem of “what to disclose, who to disclose, and how to disclose.” The indicator design covers 205 sub-sectors and can help identify the environmental benefit information of green bonds. Combined with the green bond database tool, all participants in the green bond market can identify and evaluate the quality of green bond environmental benefit information disclosure. The project results are forward-looking, universal, and for public welfare, which will help promote the transformation and upgrading of green development.



**Pic 8: China Bond - ICBC Green Bond Index successfully released**



Picture source: China Central Depository & Clearing Co., Ltd.



## 6. CECEP Fund Management Co., Ltd. (CECEP-ADB Green Financing Platform Project)

### Introduction of the institution

China Energy Conservation and Environmental Protection Group (CECEP) specializes in energy conservation and environmental protection. CECEP Fund Management Co., Ltd. (CECEP Fund) is a wholly-owned subsidiary of CECEP and was incorporated in Tianjin in June 2018.

CECEP Fund is a professional fund management company focusing on green investment and is committed to energy conservation, emissions reduction, and environmental protection. By the end of 2021, CECEP Fund had 4 funds, and their scale reached RMB 5 billion.

### Project background

To deal with haze pollution, the Ministry of Finance (MOF), the National Development and Reform Commission (NDRC) and the Asian Development Bank (ADB) have agreed that the ADB would commit a USD 500 million sovereign loan each year from 2015 to 2020 to help China address air pollution in the Beijing-Tianjin-Hebei (BTH) region.

In 2018, the ADB, MOF, and CECEP officially signed the funding project for Air Quality Improvement in the Greater Beijing-Tianjin-Hebei Region— (referred to as the “Green Financing Platform Project”). The CECEP-ADB Project uses the ADB’s \$500 million sovereign loan to improve air quality in the Greater BTH region (including Beijing and Tianjin municipalities; Hebei, Henan, Shandong, Shanxi and Liaoning provinces; and Inner Mongolia Autonomous Region) by setting up different funds to deploy high technologies that help with emission reduction and environmental protection in industrial, energy and transportation sectors.

### Project content

To implement the CECEP-ADB Project, CECEP Fund implemented three types of investment funds: one parent fund (CECEP-ADB Industrial Investment Fund),

one regional sub-fund (CECEP-ADB Blue Industrial Investment Fund), and two industry sub-funds (CECEP Jinxin Equity Investment Fund and CECEP Bohua Equity Investment Fund). CECEP Fund has invested RMB 2.2 billion in 14 projects and has leveraged other funds to invest RMB 11.7 billion to promote the application of advanced technologies to achieve breakthroughs in multiple fields, covering (i) replacing natural gas with hydrogen in industrial processes, (ii) VOC treatment, (iii) promotion of graphene heaters and sewage heat pump system, (iv) recycling and reuse of waste resources such as sewage and garbage, (v) reduction of energy consumption in electrolytic cells, (vi) development and utilization of biomass energy, and (vii) procurement of clean and low-emission transportation. In addition, it is also making efforts in geothermal energy, rooftop solar energy, smart micro-grids, ESCOs, and intelligent industrial parks.

### Project performance

The CECEP-ADB Project implemented by CECEP Fund can help improve air quality in the greater BTH region by establishing and managing multiple fund products and motivating multiple participants in energy emission reduction, renewable energy development, and pollution prevention and control.

In terms of replicability, the CECEP-ADB Project is designed by the government, enterprises and international financial institutions. The project refers to the industrial advantages of enterprises and fund operation experience and effectively leverages policy-based funds, so it is worth applying and promoting. The model of converting sovereign loans into funds established in this project has been adopted by the China Strategic Green and Low Carbon Investment Fund Project of World Bank and the Shandong Green Development Fund Project of ADB loans.

In terms of industry contribution, the CECEP-ADB Project fully considers environmental and social impacts, encourages positive externalities arising from energy conservation and environmental protection, and builds a green performance evaluation system of funds, which

helps green industries and funds industry cooperation. The project also guides social capital to support the application and promotion of advanced technologies for energy conservation and emission reduction. It promotes the green and low-carbon transformation of enterprises in the power, chemical, and transportation industries in the greater BTH region.

In terms of profitability, the CECEP-ADB Project will carry out rolling investment in the 15-year duration, with USD 500 million sovereign loans leveraging more than USD 1.5 billion social capital to invest in energy conservation and environmental protection. This method enhances the efficiency of capital use and diversifies investment risks.

In terms of public welfare, the CECEP-ADB Project introduces an international green framework, incorporates ADB environmental safeguards throughout all processes, and raises investee companies' focus on green, low-carbon, and sustainable development. The implementation of the project will reduce air pollutant emissions in the greater BTH region and mitigates the adverse effects of pollution. According to the environmental assessment reports and regular monitoring results, the invested projects can annually save 1.0404 million tons of coal, reach a 30.0262 million square meter clean heating area, and reduce 2.102 million tons of carbon dioxide, 18,100 tons of sulfur dioxide, 6,200 tons of nitrogen oxides and 1.2255

million tons of particulate matter by adopting advanced technologies such as graphene composites, wastewater source heat pumps, and lithium bromide absorption heat pumps. Future investment in new projects will further reduce energy consumption and pollutant emissions.

In terms of innovation, the Green Financing Platform Project transforms sovereign loans into funds. This innovation ensures the guiding role of policy-based funds and improves the profitability of policy-based fund investment through a market-oriented operation. At the same time, the project draws on the international evaluation system, incorporates environmental and social benefits into the investment decision-making process, builds a green investment mechanism, and continuously promotes green growth and sustainable development to stakeholders.

## Project overview

CECEP Fund has innovatively set up funds to utilize ADB's USD 500 million sovereign loans. This initiative attracts investors and technology providers for joint financing to help control air pollution in the greater BTH region and accelerate pollution reduction. The project with obvious environmental benefits has the features of long duration and outstanding profitability, and it will serve as a model for subsequent projects.



**Pic 9: Energy-saving renovation results of the Green Financing Platform Project**



Picture source: CECEP Fund

**Pic 10: The Green Financing Platform Project- CECEP Fund**



Picture source: CECEP Fund

## 7. The People's Insurance Company (Group) of China (Forestry Carbon Sink Insurance)

### Introduction of the institution

The People's Insurance Company (Group) of China Ltd. (PICC) is one of China's leading comprehensive insurance and financial groups. Founded in October 1949, PICC was listed on the Hong Kong Stock Exchange in December 2012 and on the Shanghai Stock Exchange in November 2018. As a comprehensive insurance and financial group, PICC's business covers property insurance, life insurance, reinsurance, asset management, real estate investment, alternative investment, and internet finance.

### Project background

As a new branch of forest insurance, forestry carbon sink insurance plays a vital role in achieving the Dual Carbon goals. However, forestry carbon sink insurance is mainly exposed to natural and market risks. As a matter of forestry carbon sink insurance, forests are exposed to natural risks such as conflagration, storms, floods, hail disaster, freeze, snow disaster, drought, mudslides, landslides, and forest pests. As for market risks, the price of forestry carbon sink trading has fluctuated dramatically, bringing uncertainty to the income of carbon sink forest plantation enterprises and foresters.

In response to the natural and market risks faced by forestry carbon sink insurance, PICC's forestry carbon sink insurance products are designed to reduce the losses caused by natural disasters and accidents during the growth of carbon sink forests and support replanting and ecological restoration of forests. The product can prevent the decline of carbon sink trading income, stabilize the income of forestry carbon sink trading, and improve forestry's economic and ecological value.

### Project content

PICC's forestry carbon sink insurance mainly provides protection services to enterprises/foresters (sellers) who plant forest trees and offer carbon credits. The subject of the insurance is the forest trees planted by the insured. When the price of carbon credits is lower than the pre-agreed price, the insured's income from carbon credits trading will decrease. And the insurance company will compensate the insured to guarantee their income from carbon trading. The insurance improves the enthusiasm of participants to carry out carbon trading.

At the same time, forestry carbon sink insurance is oriented to forestry carbon sink projects. The insurance can reduce

the losses due to natural disasters, help forestry carbon sink enterprises to resist natural risks, and guarantees the operation of carbon sink projects.

### Project performance

The forestry carbon sink insurance product provides a risk-averse financial tool for forestry carbon sink traders and facilitates forestry carbon sink projects by implementing multiple financial instruments. This green financial instrument is vital in replicability, industry contribution, profitability, promotion of public welfare, and innovation.

In terms of replicability, PICC has implemented forestry carbon sink insurance business in Fujian, Jiangxi, and Guangdong provinces. In Fujian Province, PICC, together with Industrial Bank and Haixia Equity Exchange, has created a new green finance model of "forestry carbon sink pledge + long-term carbon sink financing + forest carbon sink insurance." PICC provided carbon sink value insurance for the fir trees of Lyuan Ecological Forestry in Le'an County, Jiangxi Province. The forestry carbon sink insurance also protects economic and ecological value for the carbon sink afforestation project of state-owned Dayunwu Forestry in Yunfu City, Guangdong Province. The pilot projects provide a replicable experience for developing forestry carbon sink insurance.

In terms of industry contribution, PICC used the findings of the carbon sink project to conduct research on ecological insurance, green insurance, and forest insurance with experts from scientific research institutions and universities. The research helped promote forestry carbon sink insurance, enrich financial services, and deepen cooperation among government, enterprises, research institutes, and universities.

In terms of profitability, forestry carbon sink insurance faces the risks of a long development cycle, high professionalism, complex project management, and financial instability in forestry carbon sink projects. Currently, the pilot scope is relatively small to reach break-even. PICC underwrote carbon sink forests with an area of 170,600 mu, covering 187,600 tons of carbon sink and carbon sink value of RMB 4,139,900 (underwritten area multiply unit carbon sink value multiply unit insurance amount).

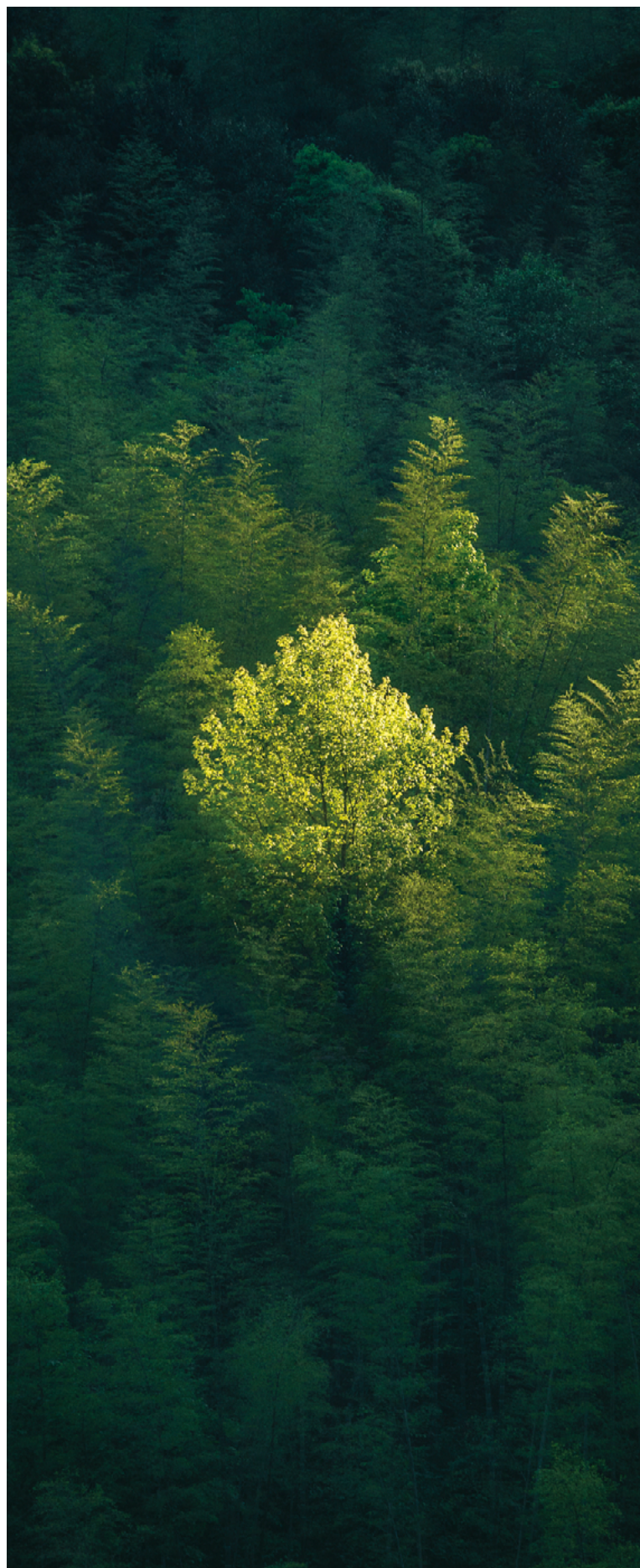
In terms of public welfare, forestry carbon sink trading is a method to internalize the external economy of ecological products, which is a vital tool to promote carbon emission reduction by using market mechanisms, and an effective means to provide compensation for the development of

ecological resources. The forestry carbon sink insurance promotes forestry carbon sink trading, activates the value of forest resources, drives poor households to participate in the production, operation, and protection of redeemed forests, and improves farmers' income. It is conducive to improving the life quality of residents while restoring the ecological environment.

In terms of innovation, PICC focuses on the vertical extension and horizontal expansion of forestry carbon sink projects. For pilot projects in Guangdong Province, PICC provides dual coverage for the economic and ecological value of forest trees. The combination of insurance and carbon sink project methodology is a pioneering one in China, enabling the vertical extension of forestry carbon sink insurance. PICC has created a new green finance model of "forestry carbon sink pledge + forward carbon sink financing + forestry carbon sink insurance" in Fujian Province, a horizontal expansion of forestry carbon sink projects. The new model integrates forest insurance with carbon sink pledge and carbon sink financing, increases the credit for carbon sink pledge loans, and enhances forestry industry financing.

### Project overview

PICC has innovatively developed a forestry carbon sink insurance product, which effectively controls the impact of extreme price fluctuations on carbon sink forest enterprises through insurance financial tools, stabilizes the income from forestry carbon sink transactions, and reduces the costs of the carbon sequestration capacity restoration. In addition, it protects the value of forestry, ecological and environmental protection, and carbon emission rights. The insurance product with environmental protection functions demonstrates the research and development of innovative green financial products in the insurance industry.



**Pic 11: Agriculture, the Countryside and Farmers Services of PICC**



Picture source: PICC

**Pic 12: PICC Forestry Carbon Sink Insurance Project**



Picture source: PICC



## 8. Postal Savings Bank of China (Finance Promotes the Value Realization of Ecological Products)

### Introduction of the institution

The postal savings business in China can be traced back to its start in 1919. In March 2007, the Postal Savings Bank of China (PSBC) was officially established. In January 2012, the Bank was transformed into a joint-stock limited liability company. In December 2015, the Bank introduced ten strategic investors from home and abroad. It was listed on the Hong Kong stock exchange and the Shanghai Stock Exchange in September 2016 and December 2019. With approximately 40,000 outlets and services covering over 600 million personal customers, the PSBC leverages its unique model featuring directly operated outlets and agency outlets to serve agriculture, the countryside and farmers, urban and rural residents, and SMEs.

### Project background

The “Liang Shan” (Two Mountains) theory—“Lucid Waters and Lush Mountains are Invaluable Assets” is the core of Xi Jinping Thought on Ecological Civilization. During his seventh study trip to Lishui city in 2006, President Xi (at that time serving as a Party Committee Secretary of the Zhejiang Province) said that “lucid waters and lush mountains are invaluable assets, especially for Lishui city.” As the birthplace and important practice site of the “Two Mountains” theory, Lishui is rich in natural resources and has a beautiful ecological environment. These conditions enabled Lishui to become the first pilot project of the ecological product value-realization mechanism in China.

Under this background, PSBC has actively assumed the

responsibility for green development, explored innovative financial tools, and provided financial instruments to realize the value of ecological products. The green financial products and services of PSBC can direct more financial products and services into addressing climate change and promoting biodiversity conservation.

### Project content

The “Liang Shan Loan” program launched by PSBC is based on the ecological credit system for individuals and enterprises. Liang Shan Loans take the ecological credit rating results as the reference basis for loan access, amount, rate, and other factors such as the loan’s convenience. For example, in Zhejiang “Zheliban” app, lenders can obtain their personal “green points” and use the ratings for various credits. The “Ecological Loan” provides loans using natural resource property rights as collateral and guarantee. In addition, PSBC’s ecological payment settlement system, represented by “PSBC Pay” and “Farmer Harvest Card,” guides farmers to benchmark advanced standards for agricultural products. It provides more convenient and affordable services for ecological product operators.

By the end of December 2021, the balance of “Liang Shan Loans” in the Lishui branch reached RMB 107 million; and the balance of “Ecological Loans” was RMB 2.17 billion. The “PSBC Pay” system reached 5,469 households in the Lishui branch. Among the 5,469 households, there were nearly 1,500 households in the acquiring list of the merchant traceability system.

## Project performance

The design, development, and promotion of financial products such as “Liang Shan Loans” and “Ecological Loan” of PSBC have contributed to the value-realization of ecological products, the improvement of the ecological environment, and rural vitalization. The loans are valuable in terms of replicability, industry contribution, profitability, promotion of public welfare, and innovation.

In terms of replicability, innovative credit products such as “Liang Shan Loans” have enabled PSBC Lishui Branch to be awarded the title of “Liang Shan Bank” by the Lishui Center Subbranch of the People’s Bank of China. This innovative tool provides a reference for other institutions and enterprises to explore the value-realization of ecological products.

In terms of industry contribution, PSBC has actively helped establish a financial service platform for “Two Mountains” transformation, developed innovative ecological loan products, realized the value of ecological products, and practiced the “Two Mountains” theory. The “Liang Shan Loans” and “Ecological Loan” financial products provided by PSBC for rural customers have improved the rural ecological environment and alleviated rural financing issues.

In terms of profitability, the PSBC financial support project has helped increase farmers’ income and promoted the sustainable development of agriculture, the countryside, and farmers by revitalizing rural ecological resources and stimulating farmers’ awareness of ecological credit.

In terms of public welfare, PSBC guides customers to be

aware of ecological credit and helps local governments and regulatory authorities promote a rural credit system by announcing different credit limits. The ecological payment and settlement system, such as “PSBC Pay” and “Farmer Harvest Card,” contributes to rural vitalization. In terms of environmental protection, PSBC has launched products such as “Liang Shan Loans” and “Ecological Loan” to protect biodiversity.

In terms of innovation, “Liang Shan Loans” take ecological credit as a prerequisite for financial credit, “Ecological Loan” broadens the range of ecological assets. The “Ecological Theme Card” is an innovative service that supports eco-friendly agricultural production through payment and settlement tools. These innovative, inclusive financial products and services alleviate the financing problem in rural areas and promote market players, including farmers, to improve their personal ecological credit scores.

## Project overview

PSBC has been practicing the “Two Mountains” theory, exploring the methods of ecological product value-realization, innovating green financial products and services, and using finance to support the development of the mutual transformation of GEP and GDP. For example, “Liang Shan Loans” provide credit loans for farmers. “Ecological Loan” provides loans by using natural resource property rights as collateral and guarantee. The ecological payment settlement system represented by “PSBC Pay” and “Farmer Harvest Card” provides more convenient and affordable services for ecological product operators.



**Pic 13: Lishui “Two Mountains” Transformation Pilot Study - PSBC**



Picture source: Postal Savings Bank of China

**Pic 14: Research on a Tea Plantation - PSBC**



Picture source: Postal Savings Bank of China



## 9. China Asset Management Co., Ltd. (Globally First Cross-border Responsible Investment Fund of Chinese Equities)

### Introduction of the institution

Founded on April 9, 1998, China Asset Management Co. Ltd. (China AMC) is one of the first national fund management companies approved by the China Securities Regulatory Commission (CSRC). Headquartered in Beijing, the company currently has branches in Beijing, Shanghai, Shenzhen, Chengdu, and Nanjing. The company has three subsidiaries: China Asset Management (Hong Kong), China Capital Management, and China Wealth Investment Management. As a full-service asset manager, China AMC's services cover multiple asset classes, industries, and regions. The company has built a diversified asset management platform with public funds and institutional business as its core.

As of December 31, 2021, China AMC managed assets of RMB 1.73 trillion served 188 million individual investors and 82,400 institutional clients. It served national social insurance, corporate pension, special account clients, and overseas institutional clients such as sovereign funds, central banks, pension funds, asset management companies, and securities companies in many countries and regions.

### Project background

China's market has been opening up to the outside world quickly in recent years. However, Chinese assets account for less than 3% in MSCI Country Indexes. In addition, foreign investment accounts for only 3% of China's A-shares. With the globalization of China's capital markets, the share of foreign investment is expected to increase to 10% in the next decade.

ESG investing has become a significant trend in worldwide socio-economic development. In China, ESG investment is also witnessing booming growth. China AMC and NN Investment Partners (NNIP) entered into a strategic partnership in 2018. Relying on NNIP's experience and strengths in responsible investing, the world's first cross-border responsible investment fund product investing in Chinese equities came into being. The fund is also the first product under ESG principles managed by a mainland Chinese fund company compliant with the EU Undertakings for Collective Investment in Transferable Securities (UCITS).

### Project content

On March 30, 2020, China AMC and its strategic partner NNIP successfully launched the world's first ESG UCITS fund, which invests in the Chinese equity market in Luxembourg and the Netherlands. UCITS creates a harmonized regime throughout the EU for the cross-border regulation of open-ended funds. Funds that comply with UCITS are available to all kinds of investors from the EU, including retail, professional and institutional investors.

China AMC's UCITS fund product is offered to European investors to provide them with the benefits delivered by companies with outstanding sustainability scores in China's equity market. China AMC conducts a stock selection and portfolio management in accordance with the highest global standards of ESG investing framework and criteria. Combining international ESG investing strategies with China's equity market, China AMC selects high-quality companies with sustainability to achieve long-term returns and positive externalities for society and the environment.



## Project performance

By cooperating with foreign financial institutions, refining stock selection methods, and drawing on multiple ESG investors' experiences, China AMC has identified companies with sustainability values to contribute to the development of ESG investment in China.

In terms of replicability, based on the self-developed internal ESG fundamentals evaluation system covering the holding industry and supplemented by the advanced experience of NNIP in the international market, China AMC has carried out a qualitative and quantitative analysis on ESG issues specific to China. They formed industry-specific and company ratings that will serve as investment guidance. The cooperation model between China Asset Management and NNIP is suitable for Chinese asset management companies to conduct international ESG investment and suitable for overseas investment institutions expected to enter the Chinese market.

Regarding industry contribution, China AMC's UCITS fund product pioneered ESG investing in China's equity market, reflecting the international development of China's public fund industry. The fund product has been approved by overseas financial regulators and reported by many mainstream media at home and abroad, allowing more overseas institutions to recognize the potential of the Chinese market and the capabilities of Chinese fund management companies.

In terms of profitability, as of December 31, 2021, China AMC's UCITS fund product has a return rate of 85% since its inception in March 2020, outperforming the benchmark index by 23.1% and ranking in the top 10% globally among similar China funds over the same period. The fund portfolio has an MSCI ESG rating of BB, outperforming the benchmark index by one level. Through in-depth research, China AMC can identify outstanding companies that meet the advanced ESG investment strategies and can obtain long-term returns.

These data show that China AMC balanced profitability and sustainability factors when managing this fund.

In terms of public welfare, China AMC's UCITS fund products consider current Chinese issues during the design process. For example, in late 2019, before the announcement of Dual Carbon goals, the ESG team decided to ban investments in thermal coal and focus on the renewable energy industry, based on global and Chinese carbon emissions research. China AMC considers ESG-related risks and opportunities in stock selection, and the fund's portfolio has a positive environmental impact across multiple metrics. Based on the position data as of December 31, 2021, the fund portfolio had a positive impact on the environment in several indicators, including 31% below the benchmark index in industrial wastewater, 62% in carbon emissions, 80% in sulfur dioxide emissions, 79% in nitrogen oxide emissions, 67% in particulate matter emissions, and 85% in solid waste emissions.

In terms of innovation, China AMC's UCITS fund project is the first cooperation between Chinese and foreign fund management companies. The fund strictly follows the EU-standard responsible investment framework for stock selection. Compared with pan public thematic ESG funds in the same industry in the Chinese market, the fund products adopt a deep ESG integration approach, incorporating ESG investment strategies in the whole investment process. Therefore, it is possible to enhance the benefits of sustainability in a more targeted manner.

## Project overview

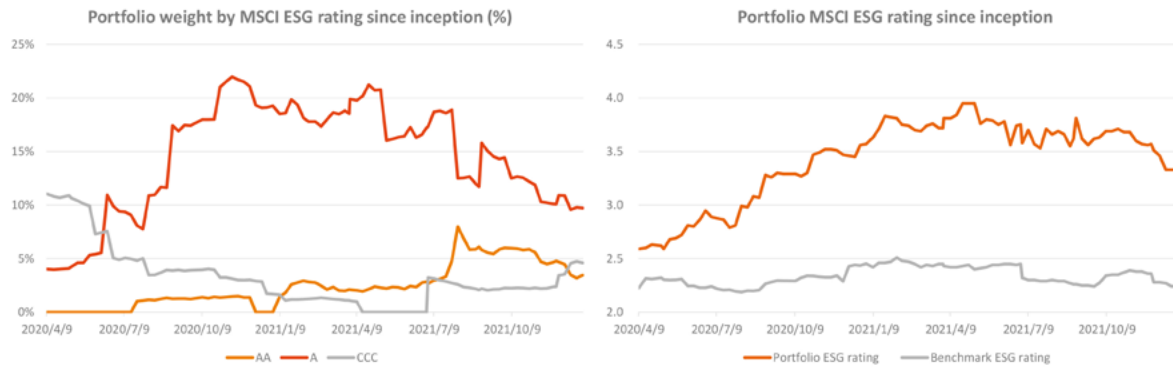
China AMC and its strategic partner NNIP issued the world's first ESG UCITS fund investing in China's equity market. The project strictly aligns with the EU standard responsible investment framework for stock selection. It integrates ESG factors into the whole investment process, which is the first practice of ESG investing in China's equity market.

Pic 15 Performance of China AMC's ESG UCITS Fund

## Performance review of NN (L) International China A-Share Equity Fund

The MSCI ESG rating of the portfolio is BB, superior to the B rating of the MSCI China A Onshore index.

- The MSCI ESG rating coverage of the portfolio has reached 92%.
- The CCC-rated weight remains at low single-digit level, while AA and A-rated weights increase.



Source: MSCI, ChinaAMC, as of 31 December, 2021



1

Picture source: China AMC

Pic 16: Ratings of China AMC's ESG UCITS

## Performance review of NN (L) International China A-Share Equity Fund

This portfolio delivers a full coverage of ESG ratings and is more concentrated compared to the benchmark ESG rating.



2

Picture source: China AMC



## 10. Deloitte Touche Tohmatsu Certified Public Accountants LLP (Improvement of the Green Finance Management and Green Finance Information System Consulting Project)

### Introduction of the institution

Deloitte Touche Tohmatsu Certified Public Accountants LLP is one of the world's leading professional service organizations, providing clients with audit and assurance, management consulting, financial consulting, risk consulting, taxation, and related services. Through a network of member firms and affiliates in more than 150 countries and regions, Deloitte provides professional services to approximately 80% of Fortune Global 500 companies. Deloitte officially launched its business in mainland China on January 1, 2013. Nowadays, Deloitte China provides comprehensive audit and assurance, management consulting, financial consulting, risk consulting, and tax services to local and multinational corporations and high-growth companies in China.

### Project background

To cooperate with the implementation of the State Council's "Air Pollution Prevention and Control Action Plan," "The Implementation Rules of the Action Plan for Prevention and Control of Air Pollution in Beijing-Tianjin-Hebei Region and the Surrounding Areas," and "Three-Year Action Plan for Winning the Blue-Sky Plan," the World Bank and Hua Xia Bank jointly carried out with the "the Innovative Financing for Air Pollution Control in Beijing-Tianjin-Hebei Region Program." The World Bank provided a Global Environmental Facility (GEF) grant to Hua Xia Bank for the promotion of the organization and result verification of the Program for Results (P4R) project and supports Hua Xia Bank in developing innovative green financial products and building capacity.

Based on this, Deloitte launched the "Green Financial Management Improvement and Green Financial Information System Consulting Project" for Hua Xia Bank to make full use of modern financial technology to optimize business processes, improve work efficiency, and build a green financial information system.

### Project content

Deloitte investigated Hua Xia Bank's existing information system architecture, system specifications, business processes, and environmental and social management. After that, Deloitte formulated green financial project standards applicable to Hua Xia Bank's own green financial information management requirements, proposed optimization of Hua Xia Bank's green loan intelligence identification, business management mechanism and processes, environmental and social risk management, data sharing platform, and other processes. It also proposed an overall plan and structure of the green financial information system and prepared a requirement specification to develop the bank's green financial information system. Project contents include:

a) Deloitte sorted out the definitions, standards, and scope of green finance at home and abroad and put forward the "Suggested Scope for Hua Xia Bank Green Finance Projects" and "Selection Criteria for Hua Xia Bank Green Projects" in combination with the principles of responsible banking.

b) According to domestic and foreign environmental benefit measurement methods, the "Hua Xia Bank Environmental Benefits Index System and Calculation Tool" was formulated for different project types.

c) Deloitte assisted Hua Xia Bank to sort out its existing system structure, system specifications, business processes, environmental and social management, and proposed "Suggestions for Optimization of the Hua Xia Bank Green Finance Management Process" by analyzing the working process of the related industries in China and abroad.

d) Deloitte proposed constructing the "Hua Xia Bank Green Financial Information System Science and Technology Construction Plan" with functions such as intelligent identification of green loans, business management, environmental and social risk management, and data sharing.

e) Deloitte described each function description and statement list and compiled the “Requirement Specifications for Development of Green Financial Information System of Hua Xia Bank”.

## Project performance

This project helped Hua Xia Bank sort out the foundations of its green financial system and identify potential development opportunities. The project can serve as a reference for other consulting institutions to provide green finance-related consulting services regarding replicability, industry contribution, profitability, promotion of public welfare, and innovation.

In terms of replicability, the project is envisaged from an overall strategic perspective. The results will be used to construct Hua Xia Bank’s green financial information system and improve green financial management processes. At present, Hua Xia Bank has carried out the construction of another system based on the project results and is expected to complete the system development this year.

In terms of industry contribution, the project analyzed the working mechanisms of many domestic and foreign peers, summarized and drew on advanced practices at home and abroad, such as intelligent identification of green loans, environmental benefits index system and calculation tools, social and ecological risk monitoring and other systems. The results can be used as a reference by large or medium-sized banks.

In terms of profitability, this consulting project can significantly improve financial institutions’ green financial business and management. The results of this project will help Hua Xia Bank to speed up the adjustment of its credit structure, accelerate its exit from high energy consumption, heavy pollution, and resource-dependent industries, and expand its presence in the emerging green and environmental protection fields.

In terms of public welfare, the project improves the efficiency of Hua Xia Bank’s green financial management, promotes the accounting and disclosure of environmental performance of green projects, and guides enterprises to focus on green environmental protection in production to direct funds to industries with economic, social and environmental benefits.

In terms of innovation, it is mainly reflected in the following our points. First, the green finance business process of Hua Xia Bank was sorted out and established. Green finance management was embedded into the whole process of credit investigation, credit approval, and lending, which established a mechanism to guarantee that the bank’s business personnel fully understood green finance. Secondly, it realized the online management of unique resources and special products and explored leveraging bank resources into green finance. Third, it incorporated international and domestic green standards combined with the characteristics of Hua Xia international cooperation in green finance and formulated

green financial standards for Hua Xia Bank. Fourth, the management of environmental and social risks has been strengthened through the information system. The measurement of environmental benefits has been improved, and the disclosure of environmental benefits information has been promoted by incorporating energy-saving and emission-reduction benefit measurement tools.

## Project overview

Deloitte has comprehensively sorted out green financial business processes, established a mechanism guarantee system, formulated green financial standards, and planned a green financial information management system for Hua Xia Bank. It also assisted Hua Xia Bank in improving its green finance system and promoted informatization, mainstreaming, and efficiency of its green financial business.



**Pic 17. Deloitte Green Finance Management Improvement and Green Finance Information System Consulting Project closing meeting**



Picture source: Deloitte



# Chapter 2

## The 2020 Global Green Finance Innovation Award Case Studies

# 1. Hua Xia Bank Co., Ltd. (The Quantifiable Environmental Benefit Result Driven Re-lending Project for Beijing-Tianjin-Hebei Air Pollution Control)

## Introduction of the institution

Hua Xia Bank Co., Ltd. (Hua Xia Bank) was established in 1992. It was the fifth listed bank in China. In 2017, it set up a Green Finance Center at its headquarters. In green finance space, the bank is dedicated to provide financing for four main areas that is energy efficiency, clean energy, environmental protection and eco-friendly equipment supply chains. It has built up an integrated product offering system including green credit, green leasing, green investment and green bonds underwriting. Since 2017, Hua Xia Bank has won a number of prestigious domestic and international awards in green finance.

## Project background

The quantifiable environmental benefit result driven re-lending project for Beijing-Tianjin – Hebei air pollution control was one of the World Bank's sub-lending collaborations with Hua Xia Bank. It was also World Bank's single largest project in China in terms of funding size. The project began in 2016 to support air pollution control work in Beijing-Tianjin-Hebei region and its surrounding areas. The project leveraged the World Bank's result-driven loan management framework, which linked the disbursement of funds according to the project's realization of environmental benefits. It aimed to increase linkage between economic returns and social goods. In addition, Hua Xia Bank developed a diverse range of green financial products (such as synthesized green project financing, emission rights supported credit enhancement and solar loans).

## Project content

In 2016, Hua Xia Bank and the World Bank teamed up, and under the supervision of the Ministry of Finance and the National Development and Reform Commission, established the Beijing-Tianjin-Hebei Air Pollution Prevention and Control Innovative Financing Project. The project was to support air pollution controls in the region and surrounding areas.

This project was the People's of Republic of China sovereign loan, which adopted an intermediary financial institution re-lending model. The World Bank issued EUR 460 million loans to the Hua Xia Bank via the Ministry of Finance of the People's Republic of China, and Hua Xia Bank made a matching EUR 460 million equivalent loan. The total value of the loan was more than EUR

920 million, with a total duration of 20 years (2016-2036). The use of proceeds covered areas including energy utilization efficiency enhancement retrofit; renewable energy projects such as electricity generation from wind, solar and biomass, as well as geothermal heating; and desulfurization and denitrification for flue gas treatments.

The project used the World Bank's invented results-driven (P4R, Program for Results) loan management framework, which combined the financial disbursement with environmental benefits throughout project implementation. It determined the loan repayment terms based on a balance of sub-projects' economic returns and realized quantifiable environmental benefits. This model effectively facilitated the convergence of the two, and subsequently enjoyed a number of benefits such as lower financing costs, longer lending time, greater subject matter expertise devotion and good social image. These, as a consequence, provided strong grounding for Hua Xia Bank to provide financing support for air pollution prevention and control work in Beijing-Tianjin-Hebei and surrounding areas.

## Project performance

The project focused on providing solutions in addressing climate change issues, which is a widespread concern for the international community. Removing coal was the primary objective throughout the financing cycle. Its outstanding contributions in project's scalability, industry replication, profitability modeling, promotion of public welfare, and innovation, made it a successful case in converting international financial institutions' best practices into domestic green finance projects' implementation.

In terms of the project's scalability value, it successfully transferred experiences across regions and industries. Hua Xia Bank continued to expand the project's influence through actively seeking same industries' implementation opportunities outside the region, and exploring feasibilities of other industries' adoption in realizing sustainable development. In addition, Hua Xia Bank seized numerous public promotion opportunities in sharing its methodology and practices with other peers.

For its industry contribution, it realized green finance support for industry innovation, strengthened industry's social and environmental awareness, and enhanced third-party green service providers' capabilities. It effectively contributed to the prevention and control of air pollution in the Beijing-Tianjin-Hebei region through its innovative

financing mechanism and making direct linkages with environmental performance. Specifically, as it promoted "linking financing terms with supporting projects' proven environmental benefits", it not only facilitated technology innovation and deployment, it also led to a high-quality industry development trend. Due to a direct linkage between loan repayment interest rates and the environmental benefits realization, industries became more conscious in their investments' social and environment impacts. In addition, the verification of environmental performance also enhanced independent third-party institutional capability and triggered the development of green consulting services.

For the profitability front, Hua Xia Bank and its clients thrived for a win-win situation. As Hua Xia Bank efficiently accomplished its required targets, it also maximized its withdrawal rights from the World Bank. As it raised its utilization of the returned funds, it also yielded greater returns for its funds. During these three years' time since it embarked on this work, all loan status remained healthy. This project's risk-weighted returns were above Hua Xia Bank's general average rate. For the clients who relied on the World Bank's low-cost funding, their loan's interest payment was lower than the market average, with a maximum duration of 20 years. This effectively reduced the financing cost for projects such as energy efficiency enhancement, renewable energy deployment, pollution prevention and control work, and subsequently improved business profitability.

Multiple socio-economic and environmental benefits were achieved through increased public well-being. The project implementation helped green technology developers obtain longer-term financing with lower funding costs, which in turn empowered industry development; The supported green technologies and industries can effectively improve people's living standards and reduce poverty; the supported energy-saving renovation projects provided additional employment opportunities; the project helped reduce greenhouse gas emissions and contributed to the development of global climate change mitigation.

There were innovations achieved in five dimensions. Firstly, the loan's key attributes were innovative. It was a re-lending from the World Bank, which was innovative, illustrative, and international. Secondly, the concept and mechanism was innovative. The project creatively adopted a result-driven loan payment model. It set withdrawal limits based on the accomplishment of key indicators, according to its result evaluation index. This ensured the completion of the project set indicators, and synergized economic returns with social benefits. Thirdly, it was methodology and framework innovation. Hua Xia Bank put forward a quantifiable result indicator system closely integrated with the project objectives throughout implementation. Fourthly, it achieved innovation in implementation. The project covered prevention from the origin of air pollution sources to the end treatment of multiple industries. It prioritized heavy polluting industries and areas. Last but not the least, it focused on product and services' innovation. The project triggered a number of new green finance products and solutions such as synthesized green project financing, emission rights supported credit enhancement and solar loans.

### Project overview

The project adopted a result driven loan management framework. It created two No.1s for the World Bank in terms of financial innovation. This project was the World Bank's first partnership with a non-governmental organization, and first result-driven framework implementation in energy conservation, environmental protection and renewable energy adoption. It was also the first result-driven re-lending project of its kind in China. The project designed a quantifiable environmental benefits indicator evaluation framework through projects' conception phase, evaluation, implementation and KPI reviews, and based on its achievements of the key indicators to determine its withdrawal limits, as an effective mechanism to ensure the invested projects, while achieving economic returns, also making matching social and environmental impacts.



**Pic 18: Huaxia Bank Shandong Jiqing Expressway Distributed Photovoltaic Project**



Picture source: Huaxia Bank

**Pic 19. Huaxia Bank Hebei Cangzhou Huanghua Hua Nan 100MW Wind Power Project**



Picture source: Huaxia Bank



## 2. Policy Research Center for Environment and Economy, Ministry of Ecology and Environment of the People's Republic of China (Policy Innovation in China's Environmental Pollution Liability Insurance and Its Practice in Guizhou Province)

### Introduction of the institution

Established in 1989, the Policy Research Center for Environment and Economy (PRCEE) supports national ecology and environmental protection macro-level decision-making and management in China. The Policy Research Center provides policy recommendations and consultancy services to the Ministry of Ecology and Environment (MEE). It focuses on research, performance evaluation, and technical support on ecological and environmental strategies, policies, laws, regulations and institutional systems etc.

### Project background

Since 2015, PRCEE has carried out theory research and policy innovation work on establishing a compulsory environmental liability insurance system for high environmental pollution risk areas, and launched pilot projects in Guizhou province. Based on the environmental pollution liability insurance policy innovation work and results from the Guizhou pilot projects, Guizhou's Department of Ecology and Environment issued and implemented the 'Clauses Regarding Environmental Pollution Liability Insurance' and the 'Guidance for Environmental Pollution Liability Insurance Risk Assessment (for trial implementation)', which were developed by the Policy Research Center. In addition, the Policy Research Center joined up with insurance companies and built an Environmental Pollution Liability Insurance Services Platform<sup>①</sup>, which are already in operation.

### Project content

In September 2015, the Central Committee of the Communist Party of China and the State Council issued an 'Overall Plan for the Reform of Ecological Civilization System', which stated 'establishing a compulsory liability insurance system for environmental pollution in areas with high environmental risks'. The Political Research Center actively carried out theory research and policy innovation work. At the end of 2017, it jointly launched the Guizhou Provincial Environmental Pollution Liability Insurance Pilot with the Guizhou Provincial Department of Ecology and Environment. The work focused on the following three modules:

Module 1: Carrying out in-depth international experience and relevant theory research to provide decision-making support to China's Ministry of Ecology and Environment of China for setting up the environmental pollution liability insurance legislation.

Module 2: Combining theory research with results from the Guizhou Environmental Pollution Liability Insurance pilot, Guizhou started developing and implementing environmental pollution liability insurance clauses. Based on the development of China's ecological and environmental damage compensation system, environmental pollution liability insurance included compensation for ecological and environmental damage in insurance coverage.

Module 3: Developing technical guidance for environmental pollution liability insurance risk assessment

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<sup>①</sup> The website of the Environmental Liability Insurance Platform is [www.huanzhexian.cn](http://www.huanzhexian.cn)

and conducting training for insurance institutions on environmental risk management techniques, and enhance the technical capabilities of the insurance industry to actively participate in environmental risk management.

The two policies developed by the project and the Environmental Pollution Liability Insurance Service Platform were successfully launched and implemented by the Department of Ecology and Environment of Guizhou Province. It became an outstanding case in combining green finance theory research and platform implementation.

## ◆ Project performance

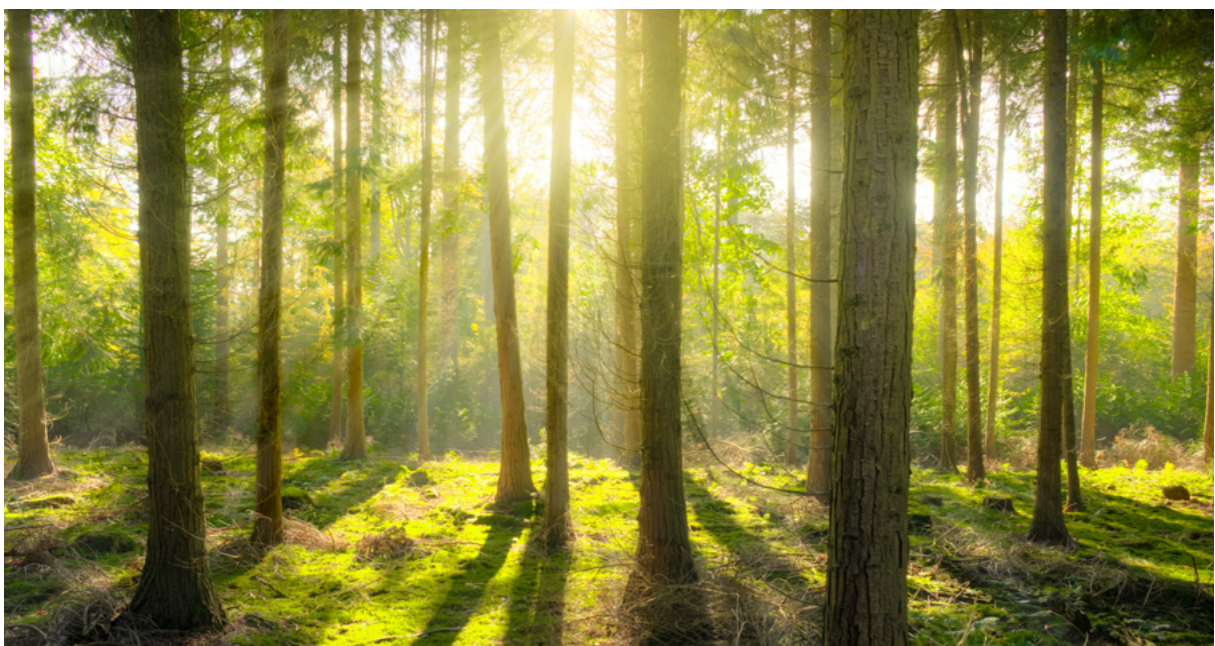
The project combined theory with practice, and effectively explored a set of policy measures and a management platform for environmental pollution liability insurance that conforms to regional characteristics. This project had a positive demonstration impact for other provinces and cities, and had benefits such as project rescalability, industry contribution, public wellbeing enhancement and product innovation.

For rescalability, a number of regions successfully replicated the practice. Since the Guizhou Department of Ecology and Environment developed and published the 'Clause' and 'Assessment Guidance (for trial implementation)', a number of places such as Shenzhen, Hainan, Shandong and Jiangsu adopted the Environment Pollution Reliability Insurance Clause proposed insurance coverage. In addition, all insurance companies came under Guizhou Province's environmental pollution liability clause of providing formal records to the China Banking and Insurance Regulatory Commission. After this, the Political Research Center and insurance institutions jointly developed an environmental pollution liability insurance service platform that started operations.

In terms of industry contribution, it successfully promoted greening the insurance clauses. The Environmental Pollution Liability Insurance Clauses, developed by this project, added green considerations into insurance management terms. Also, the 'Assessment Guidance (for trial implementation)' was straightforward and easy to implement. It effectively enhanced insurance institutions' ability to manage environmental risks. In addition, as the insurance companies registered and reviewed risk assessment materials through the Environmental Pollution Liability Insurance Service Platform, it effectively maintained consistent management standards and evaluation efficiency.

Competitive insurance rate increased the project's profitability. According to the Political Research Center's estimates, the average rate of environmental pollution liability insurance was 1.03% in 2017. As the insurance coverage expanded, the quality of its risk management improved. The pilot province, Guizhou, enjoyed a higher than national average rate of environmental pollution liability insurance. According to the classification of corporate environmental risks, Guizhou had five levels of liability limits and rates for the insured companies. As the risk level increased, the liability limits and rates also started going up.

The project made public well-being improvements including achieving a series of social, economic, and environmental benefits. It provided a feasible plan for setting-up China's environmental pollution liability insurance legislation, which acted as a financial protection for environmental damage compensation. It improved the insurance industry's willingness and capability to actively participate in environmental risk management. Meanwhile, as it promoted the revision of the Solid Waste Law, the project provided pollution liability risk protection for high-risk enterprises. It carried out services in environmental risk assessment and hidden environmental





risk investigation. It made significant impact in promoting sustainable development of the real economy, the society, and the environment.

There were two main accomplished results for innovation. One was adding ecological environment damage into the Environmental Pollution Liability Clauses coverage. Prior to 2018, the environmental pollution liability insurance in the Chinese market only covered property damage and personal injury as a result of environmental pollution. The other one was the Assessment Guidance (for trial implementation) which raised the concept of ‘environmental pollution liability risk’, and then made a direct linkage with the risk profile, insurance premium and environmental pollution liability limits. It created an assessment procedure and evaluation framework for environmental pollution liability risks.

### Project overview

The project facilitated environmental pollution liability insurance’s development and filled the gap of a Chinese green environmental insurance market. It significantly promoted the innovative development of the green insurance industry in China and diversified pollution control and regulatory policies. The Political Research Center combined theory research with practice, and explored a feasible development path for the reform and practice of environmental pollution liability insurance through innovative financial tools and corresponding policy plans in Guizhou Province. The city had important demonstration significance. It was also conducive in refining other national policies and measures.

**Pic 20: MEE and PRCEE Environmental Pollution Liability Insurance training site**



Picture source: the Ministry of Ecology and Environment and the Policy Research Center for Environment and Economy

### 3. International Institute of Green Finance, Central University of Finance and Economics (Environment, Social and Governance (ESG) Index - A Guiding Tool for Green Investment)

#### ● Introduction of the institution

The International Institute of Green Finance of Central University of Finance and Economics (IIGF) is China's first international research institute dedicated to green finance development. It not only formed academic and ministry-level partnership with the Ministry of Finance, but also actively participated in a number of domestic and international green finance advocacy and associations. IIGF is an observer of the Conference of the Parties to the United Nations Framework Convention on Climate Change, an initiating member of the Global Research Alliance for Sustainable Finance and Investment (GRASFI), the executive director of the Green Finance Committee of the Chinese Society of Finance, the first Chinese institutional observer of the International Capital Market Association's (ICMA) Green Bond Principles (GBP), a secretary-general institution of the Green Securities Committee of the Securities Association of China, and secretariat institution for the Investment and Financing Committee of China Association of Environmental Protection Industry.

#### ● Project background

IIGF developed an ESG investment toolkit which adopted world-leading ESG methodology and experiences, and integrated it with Chinese characteristics. The toolkit included an ESG rating model, ESG database and a range of ESG financial products, and it provided advices to regulatory authorities on ESG information disclosure infrastructure setup etc. The toolkit can effectively filter out green and sustainable target investments, act as a green investment screening tool for banks and asset managers, and serve as a reference for regulators to build a green system, that supports a synergizing domestic and international green language system.

#### ● Project content

The project independently developed an ESG indicator system that integrated China's local circumstances. Building on top of the ESG database, it derived an ESG rating model, and a series of ESG financial products. Through this comprehensive green investment guidance tool, it effectively helped banks and asset managers screen targets which comply with green and sustainable requirements. In addition, as the project was implemented, the model continually evolved by leveraging domestic and international experiences and research findings. It provided valuable reference for regulatory authorities in designing a green system, and assisted in the construction of an ESG information disclosure framework.

Specifically, the tool's 'ESG evaluation system' comprehensively determined and measured companies' ESG levels from four dimensions that is environmental protection, social responsibility, corporate governance and negative behavior and risk, which encompasses four pillars that is 'China ESG Listed Company Rating System', 'Three Excellent Credit (ESG) Model 2.0', 'China ESG Public Fund Rating System' and 'ESG Policy Service System'. Based on the indicator framework, it offered a comprehensive toolkit of guiding ESG green investment services offering encompassed ESG information products, ESG financial products and ESG policy services for companies, institutional investors, and regulatory authorities. At the end, as it integrated 'finance and technology' through building an ESG big data platform, it established a comprehensive services system, combined with ESG technical methodologies, offering a series solutions to effectively and accurately support ESG sustainable investment.



## Project performance

The project built an ESG database, rating model and a set of investment tools that combined China's local characteristics with world leading ESG methodologies. It had invaluable practical values in terms of project scalability, industry contribution, profitability, public welfare enhancement, and innovation.

For rescalability, it realized wide industry collaborations. The tool teamed up with Wind, Xinhua News Agency, China Economic Information Service, and other institutions to provide their findings through respective application services. It also partnered with Deutsche Börse Group to promote outstanding local ESG rated companies for overseas listings. As regulatory policies gradually tightened the Science and Technology Innovation Board listed companies' ESG requirements, this project provided a differentiated ESG tool to relevant parties from different dimensions.

In terms of industry contribution, the tool empowered stakeholders' ESG management capabilities. Through its corporate ESG rating, it assisted companies to improve ESG information disclosure skills and standard, market capitalization management, and reduce ESG risks in order to meet investors and other stakeholders' ESG demands. Through the ESG rating of public funds, it urged asset management industry to gradually shift emphasis on information disclosure, investor relations, relevant rights' protection, and risk control. As the bank's credit evaluation system added ESG indicators, it guided loan's issuance to include green rating factors in order to facilitate the greening process of bank loans. Based on systematic analysis of domestic companies' ESG performance, it formed ESG development and information disclosure promotion recommendations, to support policy formulation.

In terms of profitability, the project realized income generation through market-based product services. By providing advisory services to companies, governments and financial institutions, the project published an ESG database, ESG rating results, ESG biweekly updates and ESG index products, which could be applied to asset management, banking and other sectors, involving various types of financial products such as equities, funds and bonds.

In promoting public well-being, it achieved the goal of assisting more stakeholders to engage in sustainable development practices. The toolkit series developed by the project provided data and methodologies to attract more investors to focus on and support public well-being. The project's core indicators were designed with China's green development needs and characteristics in mind, incorporating concepts such as inclusive finance and poverty alleviation into the indicator system. For example, social indicators such as working conditions and safety at work were included, and innovative qualitative and quantitative social indicators such as charity and poverty alleviation and disaster relief were set. At the same time, based on the regular analysis and monitoring of the project's data results, policy recommendations or opinion articles were formed from time to time for reporting or publication, providing academic support for the high-quality development of ESG in China with empirical results.

In terms of innovation, it achieved three core features. Firstly, it relies on its self-developed ESG assessment methodology, which considers the three ESG dimensions, qualitative and quantitative indicators, as well as the negative behaviour and risks of companies, to establish an ESG rating system and comprehensively measure companies' ESG levels. Secondly, it was based on China's local capital market and took into account China's policy environment and market characteristics, adding indicators that were in line with China's economic development, such as poverty alleviation, technology innovation and state-owned enterprises. Thirdly, it owned the pioneering ESG database in China, covering nearly 8,000 companies, including all A-share listed companies, some Hong Kong-listed companies and some unlisted debt issuers.<sup>②</sup>

## Project overview

The IIGF developed China ESG Indicator System drew on the experiences of international ESG methodologies and made useful attempts to incorporate indicators that are in line with the local characteristics of China's economic development. The project not only built the leading ESG database and the only ESG evaluation system for public funds in China, but also used the 'technology + finance' services model to promote and facilitate the continuous improvement of China's local ESG investment methodology, providing a useful reference for further practice by financial and regulatory institutions.

<sup>②</sup> The data was the project's latest as of the award year.



Pic 21. Release of ESG Index and ESG Database of the International Institute of Green Finance, Central University of Finance and Economics



Picture source: International Institute of Green Finance, Central University of Finance and Economics

Pic 22: ESG Database from International Institute of Green Finance, Central University of Finance and Economics



Picture source: International Institute of Green Finance, Central University of Finance and Economics

## 4. Gui'an New Area Green Finance Port Management Committee (Specific practice of the Gui'an New Area Green Finance Pilot Zone and design of the green finance system in Guizhou Province)

### Introduction of the institution

Guizhou Province is one of the first national pilot zones for green financial reform and innovation. According to the 'Overall Plan for Building a Pilot Zone for Green Financial Reform and Innovation in Guizhou Province's Gui'an New Area' jointly issued by the People's Bank of China and seven other departments, the Gui'an New Area Green Financial Port Management Committee (hereinafter referred to as the Management Committee) has been established. The Management Committee was established in 2017 and its functions include the management of green finance in Gui'an New Area, technical design, market expansion and the introduction of green financial institutions.

### Project background

The specific practice of the Green Finance Pilot Zone in Gui'an New Area and the Guizhou Province Green Finance System Design Project (hereinafter referred to as the Project) was supported and guided by the Management Committee, which actively promoted the construction of a multi-level green finance system, policy support system, product innovation and service system, risk control system and green standard certification system in Gui'an New Area, and supported Guizhou Province in formulating a series of standards for the development of the green finance industry. These include a series of documents such as 'Guizhou Province Green Finance Project Standards and Assessment Measures (for trial implementation)', 'Guizhou Province Green Finance Key Support Industries Guidance Standards (for trial implementation)' and 'Guizhou Province Green Finance Supported Major Green Projects Assessment Measures (for trial implementation)'.

### Project content

With the support and guidance of the Management Committee, the project actively promoted the construction of a multi-level green finance system, policy support system, product innovation and service system,

risk control system and green standard certification system, and steadily promoted the construction of a national green finance reform and innovation pilot zone. Details are as below,

- (1) Developed industrial standards for green finance projects in Guizhou Province. These include a series of documents such as 'the Guizhou Province Green Finance Project Standards and Assessment Measures (for trial implementation)', 'Guizhou Province Green Finance Key Support Industries Guiding Standards (for trial implementation)' and 'Guizhou Province Green Finance Supported Major Green Projects Assessment Measures (for trial implementation)'.
- (2) Constructed a bank for green finance projects in Guizhou Province, with more than 200 projects currently in the bank and a total intended financing amount of more than RMB 200 billion.
- (3) Actively promoted the informationization of green finance project standards and assessment methods, and built a 'green finance + big data' comprehensive green finance service platform with Guizhou characteristics.
- (4) Took a distinctive and international route, relying on the large number of pristine green projects in the Yunnan-Guizhou plateau to attract green capital from abroad.
- (5) Focused on domestic and international exchanges and cooperation to form complementary advantages.

### Project performance

The project effectively explored the development of relevant policy theories and reserved a series of quality green projects in the green finance pilot zones, actively promoted the information management of green finance project standards and assessment methods, and provided reference for other regions which were also developing local specialized green finance development paths in terms of rescalability, industry contribution, profitability, promotion of public well-being and innovation.

In terms of rescalability, it shared a feasible path for regional green finance differentiation. As a pilot area in a developing region, Gui'an New Area is an underdeveloped area with an abundant ecological environment. More than four years after the implementation of the green finance reform, the project promoted the high-quality economic development of Gui'an New Area and explored a new modern development path that was different from that of economically developed regions in eastern China. This modern development path of developing a green economy by investing in green mountains and water would also be a new model that can be explored and replicated in corresponding regions of China and the world.

In terms of industry contribution, it showcased a new development model that fostered economic growth. Gui'an New Area creatively explored the development of green finance in a relatively economically backward region. It provided a replicable, learnable and referenceable Gui'an experience for the development of green finance in other relatively economically backward regions, as well as creating new methods and ideas for global economic development. Through practical exploration, it proved that green finance system design can attract domestic and international capital for quality green finance projects, creating a new model of green finance development that works from the demand side.

In terms of profitability, it realized the benefits of revitalizing green finance business and reducing green financing costs. By designing financial products and service systems, the management committee increased the availability of funds for green projects, expanded the profit margin of green projects, and increased tax revenue for Gui'an New Area by increasing the volume of green finance business for financial institutions in the area. For example, in 2019, Gui'an New Area collected taxes amounting to RMB 208 million from green finance businesses. It attracted more than RMB 70 billion of international and domestic low-interest green funds, with the lowest cost of green funds at 4.35% and the highest at 5.225%. It effectively reduced the cost of financing for green projects and increased green projects' profit margin by 3% to 4%, given the average financing cost was 8% to 9% in Guizhou Province<sup>③</sup>.

In terms of public welfare promotion, it provided support to the development of green industries in the region.

Under the Management Committee's institutional design, the green finance system and technology supported the nurturing of green industries such as eco-agriculture, green buildings and renewable energy. As green capital flowed into green industries, there were significant reductions in carbon dioxide emissions, an increase in carbon absorption and sequestration capacity, all of which helped in the realization of net zero carbon emissions. Using the example of green assets backed Securitization in supporting multi complementary distributed energy projects, this project significantly promoted local clean heating. Compared with conventional water-cooled units + gas boiler systems, it had greater ecological and environmental values. The effects for local carbon emission reduction and ecological environment improvement were obvious, with 6.3% and 7.9% reduction in CO<sub>2</sub> emissions per unit of GDP in Gui'an New Area from 2019 to 2020. By the end of 2020, the proportion of good air quality days in Gui'an New Area were 99.1%, up 2 percentage points from 2017. From 2017 to 2020, the proportion of surface water better than the three types of water bodies was 100%.

In terms of innovation, the top-down strategic design was effectively realized through a detailed working plan. By aligning different regulators, Gui'an New Area was able to effectively implement green finance policies. Through this bottom up use of 'reputation effect' in the development of green finance, it successfully enhanced the influence and spread of local explorations, and established a market-oriented green finance development model, which will facilitate the green finance development to continuously explore, deepen and innovate.

## Project overview

The Management Committee provided a 'bottom-up' green financial system and system design for Gui'an New Area and Guizhou Province to steadily promote the construction of a national green financial reform and innovation pilot zone. With Gui'an New Area as a successful case, the project provided an invaluable reference for the province to develop a comprehensive and three-dimensional green financial system. It also provided valuable experience for some relatively less economically privileged inland areas to develop green finance, especially those with rich ecological resources.



<sup>③</sup> The data was the project's latest as of the award year

**Pic 23. Gui'an New Area Telecom Cloud Computing Guizhou Information Park**



Picture source: Gui'an New Area Green Financial Port Management Committee

**Pic 24: Tencent Seven Star Lake Data Center in Gui'an New Area**



Picture source: Gui'an New Area Green Financial Port Management Committee

## 5. Ernst & Young Hua Ming LLP (Green Finance-Oriented Consulting Services for Sustainability Bond and ESG Strategy)

### Introduction of the institution

Ernst & Young Hua Ming (EY) is one of the world's leading professional services firms providing audit, tax, transaction and advisory professional services for over 100 years. Ernst & Young is one of the largest professional services firms in Greater China, with nearly 50 years of professional services experience in China.

### Project background

EY actively engaged in sustainability consulting services. It worked closely with domestic and international companies to provide ESG disclosure, ESG investment funds and green industry funds for financial institutions and companies, conduct pre-investment due diligence, post-investment environmental and social impact assessment, assisted investors to evaluate projects with excellent ESG performance or companies to issue annual impact analysis reports. In addition, as a third-party verification organization, EY provided pre-issuance certification for a number of major state-owned banks to successfully issue the industry's first batch of sustainability bonds (such as Bank of China Macau Branch's pandemic support themed social responsibility bond, and Bank of China's dual-currency Blue Bond, etc.).

### Project content

In the course of everyday ESG strategy advisory services, EY assisted institutional investors to incorporate ESG factors into the company's investment decision-making framework. By helping institutional investors to establish an ESG investment management framework, EY promoted private capital investment in sustainable development and contributed to the sustainable transformation of the society and various industries. In the meanwhile, EY helped investors understand project associated complex environmental and social risks, and used the Green Fintech big data platform to leverage information, platform and intelligent capabilities to manage project risks and improve investment returns. EY also guided clients in making ESG disclosures to conform with regulatory requirements, avoid potential compliance penalties caused by companies' inadequate ESG disclosure, and other compliance risks.

In addition, EY developed and provided assurance services for a number of bonds in the sustainability sector for both domestic and foreign issuers. Benchmark projects included but were not limited to assisting Bank of China Macau Branch to issue the first overseas anti-epidemic

themed bond, which was also the first social responsibility bond of its kind by a Chinese institution; assisting China Development Bank to issue a green bond, which met both domestic green financial bond standards and international climate bond standards, and was the first interest rate bond with climate bond posting in China; assisting Bank of China to issue a green themed bond (also known as blue bond) in the marine sector, which actively promoted the development of a sustainable marine economy.

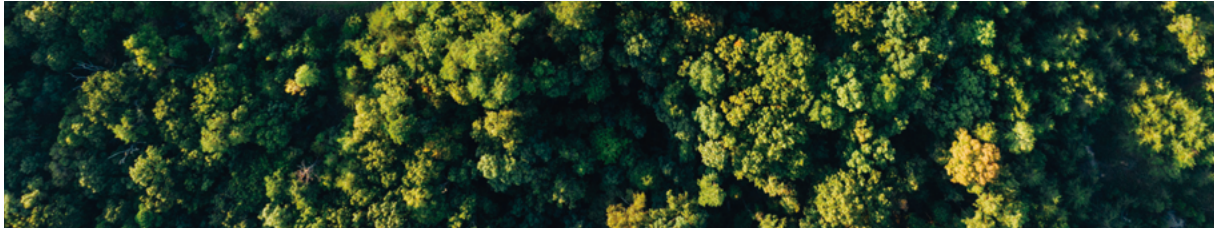
### Project performance

By providing professional ESG strategy consulting services and landing the industry's leading sustainability bond certification program, EY's project service experience was an important reference in terms of rescalability, industry contribution, profitability, public welfare enhancement and innovation.

In terms of rescalability, EY realized the issuance and renewal of sustainable development bonds. The Bank of China pandemic support themed bond was a type of sustainable development bond, which complied with the UN sustainable development goals and had extremely broad applicability and rescalability. CDB's bond focused on the construction of a financial market and socially topical areas. It utilized the advantages of development finance and through innovation, triggered the development and opening of the debt market, and set a new model for the development of green bond market at home and abroad. The Bank's blue bonds had a promising future and were much in line with the new strategy of maintaining the marine ecological environment and promoting the development of blue economy. It provided a strong reference for other financial institutions to issue blue bonds.

For industry contribution, the project provided additional types of sustainability bonds. The three sustainable development bonds that EY provided services for were the first innovation batch of its kind in the industry. The issuance of sustainability bonds was of great value to China's green finance development in terms of green finance promotion and construction of an ecological civilization. By providing sustainable development bond financing projects in different sectors, the company helped various green finance projects to meet the sustainability performance requirement of their respective sectors, and subsequently obtain the most optimal financing costs.

In terms of profitability, it reduced the cost of financing for green projects. The three EY certified innovative sustainable development bonds all had promising



profitability. The Bank of China Macau Branch Social Responsibility Bond was oversubscribed by investors. The CDB Green Bond with a three-year maturity had a bid winning interest rate of only 2.4984% which was well received by the market with a 15.52 times subscription multiple. The Bank of China Blue Bond, consisting of two varieties, a three-year USD 500 million and a two-year RMB 3 billion, was issued by Bank of China Paris Branch and Bank of China Macau Branch, respectively, with interest rates below market rates. Both the issues were oversubscribed.

For public welfare promotion, the project leveraged green finance to empower social environment's sustainable development. The EY assisted pandemic support themed bonds, issued by BOC Macau Branch, promptly offered Macau SMES' emergency financing needs. It helped SMEs which were severely affected by the pandemic to navigate through the tough period, and supported local economy's stable recovery. The China Development Bank green bond, assisted by EY, raised funds for green projects such as low-carbon transportation, which effectively supported climate mitigation and adaptation, reduced pollutant emissions, and improved urban infrastructure such as a comprehensive transportation network in the Yangtze River Delta area and helped in integrated high-quality development of the area. Bank of China issued blue bonds effectively enhanced the overall management of marine environment. It increased the utilization of marine resources and facilitated clean energy development, all of which had positive impacts on marine protection.

In terms of innovation, it realized the results of ESG strategy and tactics, and actively promoted the implementation of several sustainable bond-type projects. In providing ESG strategy consulting and strategic planning for market participants, EY fully understood market and client needs and continued to develop innovative products including environmental and social risk management system construction and green finance management system building to help companies and investment institutions identify projects with environmental and social effects and create investments' positive externality benefits. In the forensic work of providing sustainable development bonds for large state-owned banks, it realized the first thematic bond issuance within different sustainable development themes.

### Project overview

Leveraging EY's international professional services experience, it successfully developed and designed a variety of ESG green financing products for many financial institutions in China, assisted many financial institutions in the assessment and certification of relevant green bonds, and established a set of effective assessment and certification methods and procedures in the certification process. It provided useful practices for China's financial and securities regulators, with many of the specific project practices having good rescalability and innovation, which provided good reference for similar assessment and certification by peer institutions.

**Pic 25. Example diagram of Ernst & Young's Green Financial Management System**



Picture source: Ernst & Young Hua Ming

## 6. China National Investment and Guaranty Corporation(Beijing-Tianjin-Hebei Regional Air Pollution Prevention and Control Investment and Financing Promotion Project)

### Introduction of the institution

Established in 1993, China National Investment and Guaranty Corporation (I&G) is the first national professional guarantee agency in China, the first chairman of China Association of Financial Guarantee Industry, and now a member of China Development & Investment Group Corporation. As the flagship enterprise of China's guarantee industry, I&G has actively promoted business and product innovation, forming business lines across currency market, stock market and bond market. As of the end of December 2020, the company's total accumulated guarantee amounted to RMB 533 billion, making it one of the strongest guarantee institutions in China in terms of business scale, product and customer resources, and comprehensive strength.

### Project background

The Investment and Financing Promotion of Beijing-Tianjin-Hebei Regional Air Pollution Prevention and Control Project (the Project) is financed by a sovereign loan from the Asian Development Bank (ADB), and the funds are operated and managed by I&G in the form of sub-lending, using various financial instruments such as guarantee credit enhancement, entrusted loans and equity investment to provide financial support for energy conservation and emission reduction, clean energy, green transportation and waste-to-energy in Beijing, Tianjin, Hebei and eight surrounding provinces and autonomous regions. The project was selected as an example of good practices at the UN Climate Action Summit 2019 for its outstanding synergies in pollution prevention and combating climate change.

### Project content

The total cost of the Project was 458 million euros. I&G, the project implementation agency, used the funds to improve air quality in the target region and for the construction of a credit system for small and medium-sized enterprises. The green financial services and products offered include guaranteed credit enhancement, direct investment in entrusted loans, refinancing of finance leasing companies and equity investment. In addition, the project also adopts ADB's comprehensive environmental and social management system assessment programme, which helps the donor companies and related financial institutions to improve the institutionalization of their own environmental and social management risks and promote their internal green development transformation.

As of June 2020, ADB's project platform has withdrawn a total of €350 million, or 76.42% of the total loans, and the platform has approved 53 sub-projects and supported the construction of 41 sub-projects, achieving full coverage of the target regions and target areas of the projects. Among them, 39 sub-projects with a loan amount of 2.329 billion yuan were used, and 2 sub-projects were guaranteed and supported, with a guaranteed amount of 584 million yuan. It is expected to drive a total social investment of 27 billion yuan during the implementation period of the project, which is expected to reduce the consumption of standard coal by 40.2 million tons and reduce carbon dioxide emissions by about 8.55 million tons accordingly.

### Project performance

The project is a green finance innovation practice jointly designed by the government, enterprises, and the Asian

Development Bank, and the project plan, implementation path, and design framework have high replicability and scalability. As a typical example of financial support for green projects, it has been selected as a case study by the United Nations Climate Action Summit, and as a demonstration project, it has been publicized and included by the National Development and Reform Commission, the Ministry of Finance, and the Clean Fund, and won the "ADB 2018 Best Performance Project Award".

In terms of scalability, extensive dialogue and model promotion of financial institution cooperation has been realized. In the process of implementation, I&G has widely shared its experience and suggestions for replication of the project through presentations, meetings, training and other forms of communication. At the same time, I&G actively carried out dialogue with international financial institutions such as KfW and the New Development Bank to strive for future cooperation in green finance.

In terms of industry contribution, it has achieved an innovative investment and financing model and leveraged more social funds to flow into the field of green environmental protection. During the project implementation process, I&G not only focused on developing its own and its partners' green project management capabilities and actively practiced international, advanced green finance standards, but also deepened its research on the energy saving and environmental protection industry, completed more than 20 research reports on energy storage, photovoltaic and wind power industries, as well as conducted a number of external research projects. The research results are based on analysis and policy recommendations from the perspective of financial institutions, which are conducive to the healthy and rapid development of the industry.

In terms of profitability, the project focuses on the safety of capital and the sustainability of its operations, striving to maximize the utility of capital on the premise of controlled risk. The project adopts a market-based risk control concept and commercializes quasi-policy funds to provide relatively favorable financing costs for enterprises. As of June 2020, ADB's sub-projects have been fully repaid on time and in full, with a total social investment of \$8 billion and an annual return on investment of \$1 billion<sup>4</sup>.

Multiple benefits of social, environmental, and economic benefits have been realized in the promotion of public well-being. The project is of great significance to improving air quality, safeguarding public health, and promoting the construction of ecological civilization in the Beijing-Tianjin-Hebei region, and the green sub-projects that have been undertaken will help reduce air pollution in the project locations. As of June 2020, 41 ADB-supported sub-projects have achieved full coverage of the target areas, directly benefiting more than 400 million people. The project actively use co-financing, guarantees, refinancing and other forms to channel more

social funds into the green field, help enterprises to obtain assistance through market-oriented models. In addition to the financial support, the project also strengthened the capacity building of enterprises in technology application, environmental assessment, financial evaluation, post-loan management and other aspects of technology application, etc., to improve the success rate of corporate financing.

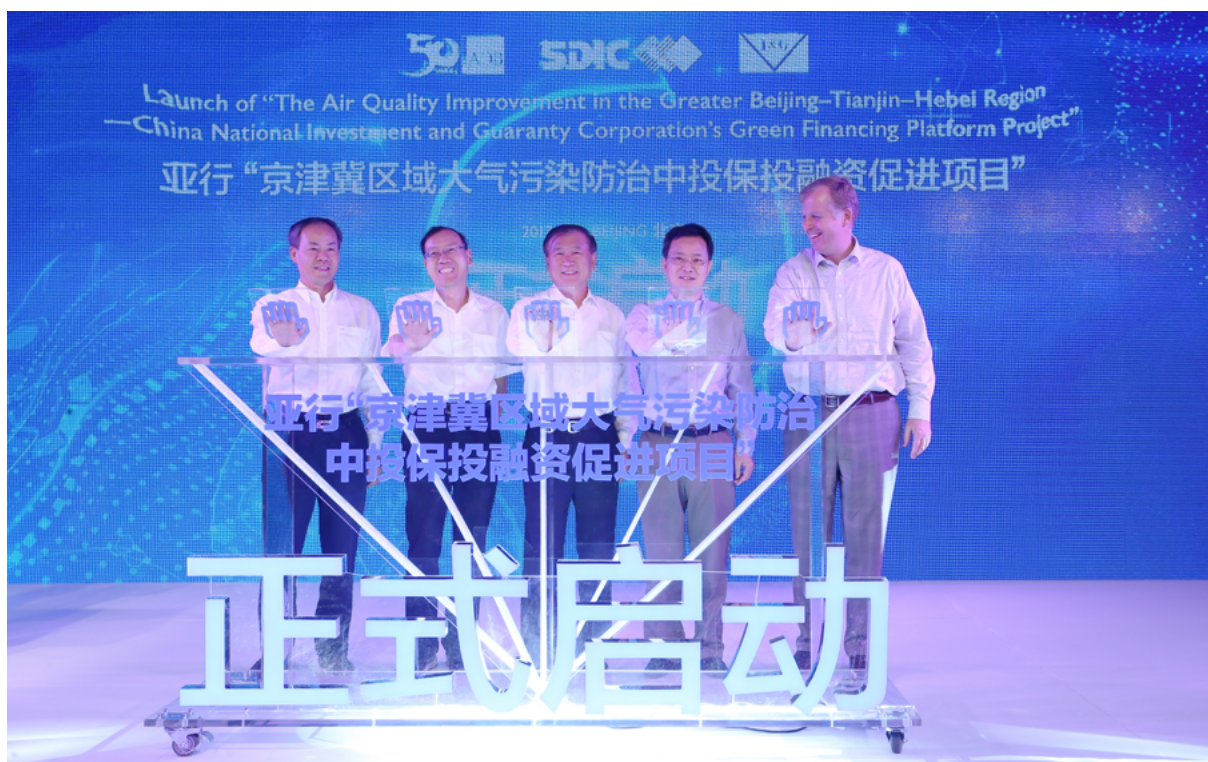
In terms of innovation, four key achievements have been achieved. First was the adoption of the concept of commercial risk control and operating quasi-policy funds; second, was the reliance on the credit enhancement policy of I&G, leveraging the use of ADB loans to support project investment and financing, and cooperate with multiple parties to leverage more social capital into the environmental protection industry; third was tailor-made financial services in terms of financing amount, maturity and repayment methods that were carried out, tailored to the borrower's characteristics; fourth was implementation of ADB's environmental and social management system, and implementing the promotion of international, advanced green investment standards and green project management models.

## Project overview

The project is one of ADB's largest single projects in China in terms of funding volume. Through the all-round cooperation with ADB, I&G has established a sustainable green investment and financing platform, which not only provides strong financial support for the construction and implementation of air pollution prevention and control projects, but also forms a good publicity and demonstration effect, providing innovative ideas and feasible paths for more financial institutions to achieve sustainable development in the green field. And the project is of great significance in accelerating energy transition and addressing climate change. Based on the economic, environmental and social benefits achieved by the project, I&G and ADB further deepened their cooperation and applied for a US\$150 million incremental loan from ADB in 2019 to implement the second phase of the project. The two phases of the project will further expand the influence of I&G's green investment and financing platform and help achieve the national carbon peak and carbon neutrality targets.

<sup>4</sup> Data of the year of the project winning (2020)

**Pic 26: Launch ceremony of the I&G and ADB project**



Picture source: China National Investment and Guaranty Corporation

**Pic 27: On-site due diligence of the I&G and ADB lending projects**



Picture source: China National Investment and Guaranty Corporation



## 7. China Emissions Exchange (Shenzhen)(Building the Green Finance System and Promoting Green Finance Legislation in Shenzhen)

### Introduction of the institution

China Emissions Exchange (Shenzhen) was established on August 20th, 2010, as a holding company of Shenzhen Exchange Group, and is the only legal platform for carbon trading in Shenzhen and the first trading platform operating a carbon market in a developing country in the world. In 2019, CEEX (Shenzhen) launched the "Laboratory of Green Finance Servers for the Real Economy", in collaboration with the International Network of Financial Centers for Sustainability (FC4S) initiated under the leadership of United Nations Environment Programme (UNEP). The Laboratory is responsible for formulation of national standards for green private equity investment funds, the establishment of the National Climate Investment and Financing Promotion Centre programme, and the drafting of Shenzhen's green finance legislation.

### Project background

In August 2019, the Central Committee of the Communist Party of China (CPC) and the State Council issued the "Opinions on Supporting Shenzhen in Building a Pioneering Demonstration Zone of Socialism with Chinese Characteristics", which calls for Shenzhen to become a "pioneer of sustainable development" and explicitly proposes the development of green finance. CEEX (Shenzhen) first proposed green finance legislation in Shenzhen to support enterprises and financial institutions engaging in green finance in the jurisdiction. The Regulations on Green Finance of Shenzhen Special Economic Zone drafted by CEEX (Shenzhen) was adopted by the Standing Committee of the Sixth People's Congress of Shenzhen at its 45th meeting on 29 October 2020, effective from March 1, 2021.

### Project content

After the release of the "Opinions on Supporting Shenzhen in Building a Pioneering Demonstration Zone of Socialism with Chinese Characteristics", the CEEX (Shenzhen) innovatively proposed that Shenzhen can try to carry out green finance legislation, lay the foundation for the rule of law for the development of green finance in Shenzhen, and create a leading green enterprise and green finance business environment in the country. The Exchange, together with the Green Finance Development Research Center of Tsinghua University and professional lawyers and senior experts, formed a project team to participate in the legislative process such as drafting, consulting opinion, revision, and deliberation of relevant legislative work.

In the whole process of project promotion, the Exchange organized more than ten consultation events, translated more than 500,000 words of international materials, analyzed the theories, policies, experiences, and cases of green finance in detail, sorted out and analyzed the background information, professional knowledge and practical practices related to green finance involved in the policy decision-making process. At the same time, the exchange also researched many local green finance reform and innovation pilot zones, conducted thorough work exchanges and discussions, organized the drafting of the Regulations, clarified the framework structure of the draft Regulations, established the leadership mechanism for the development of green finance in Shenzhen, and set the rights and obligations of green finance stakeholders.

### Project performance

The project highly summarized and refined the development status and main issues of green finance in



Shenzhen, proposed future goals and strategic directions. Combining the domestic and international experience of green finance development and the future development requirements of Shenzhen, the project sorted out the key legislative points which are important references for other domestic and international green finance pilot zones in terms of scalability, industry contribution, profitability, public welfare promotion, and innovation.

In terms of scalability, it realized the value of reference and reference for the state and provinces and cities with corresponding legislative powers. The Regulations is an example of Shenzhen's pioneering experiment in the field of green finance, creating the best climate investment and financing environment for Shenzhen, and conducive to the establishment of Shenzhen's "Climate Investment and Financing Promotion Center" and "National Climate Investment and Financing Fund". After the implementation of the project, some provinces and cities have already visited Shenzhen to study the drafting and formulation of the "Regulations", which has created a certain social impact. At the UNEP FC4S Members' Conference, Shenzhen also briefed all FC4S members on the legislative situation and important breakthroughs of the Regulations.

In terms of industry contribution, it made a breakthrough in legislation in the field of green finance. The Regulations are the second known laws and regulations in the field of green finance in China after the EU Sustainable Finance Classification Standards Act<sup>5</sup>, and have made significant breakthroughs in specific provisions.

In terms of profitability, it realized the indirect value of channeling financial resources towards low-carbon green assets. By creating a legal environment conducive to the development of green finance, the Regulation has formed strong legal support for the development of green enterprises and green financial institutions. It can promote the allocation of financial resources to green industries, reduce the flow of financial resources to brown industries, and promote the construction of ecological civilization and the green transformation of the economy and society.

In terms of promoting public welfare, it has achieved an open and fair business environment with an open rule of law. The Regulation takes the lead in establishing a world-class legalized business environment required for the development of green entities and green financial institutions, attracting global and national enterprises and financial institutions committed to green development to take root and develop in Shenzhen. At the same time, it will also provide valuable experiences for the follow-up national green finance legalization.

Four important breakthroughs have been made in terms of innovation. First, in the definition of green finance, it will support "responding to climate change", which will be a first in China; second, it emphasized the requirement that financial institutions that meet specific conditions and asset size disclose their environmental information, which is the strictest requirement in the world at that time; third, it emphasized that financial institutions are required to carry out green investment assessment of project investments that meet specific conditions, which is a global advanced practice; fourth, it emphasizes the requirement that financial institutions establish an internal green financial management system, which is among the strictest requirements in the world.

## Project overview

The Regulation formulated by Shenzhen, the pioneer of the reform and opening up in China's coastal areas, not only incorporated the best practices of green finance domestically and internationally, but also embodied innovation in environment-related information disclosure, supervision, management, and legal liability. The legislation blazed a trail for a law-based green finance framework in China's developed coastal areas. The Shenzhen Municipal Government has taken the lead in improving the green finance system in the form of legislation, thereby ensuring that green finance has laws and rules to follow, contributing to valuable practical experiences in the practice of green finance by local governments nationwide, especially in developed coastal regions.

<sup>5</sup> Data of the year of the project winning (2020)

**Pic 28: CEEX (Shenzhen) implements the Regulations on Green Finance of Shenzhen Special Economic Zone**



Picture Source: CEEX (Shenzhen)



## 8. World Resources Institute (An Innovative Contracting and Financing Model for Electric Bus Procurement in Santiago, Chile)

### Introduction of the institution

World Resources Institute (WRI) is an independent research organization that works on practical solutions for environmental protection, economic growth and improving people's lives. WRI is spread over 50 countries, with more than 700 experts and staff working in Brazil, China, Europe, India, Indonesia, Mexico, and the United States offices. WRI focuses on six urgent challenges: water, food, forests, energy, cities, and climate. WRI finds solutions to these challenges in part through its expertise in business, economics, finance, and governance.

### Project background

In recent years, the World Resources Institute has been carrying out research on pure electric buses around the world. It has achieved remarkable results in breaking down technical and financing barriers and accelerating the promotion and application, as well as the research and demonstration of its operation mode, financing mechanism, policy roadmap and other fields. Based on concrete survey and research, including the summary of international experiences, research on the model for new energy electric bus procurement in China, and specific analysis of local conditions in Latin America, WRI proposed a new bus contracting and financing model for electric bus procurement in Santiago, Chile. The creative sustainable financing model involves financial leasing which reduces the cost of bus operation, introducing the third party to share the risk of financing and operation, combined with the previous policy support from the local government to jointly promote the adoption of electric buses.

### Project content

The aging bus fleets of many cities in Latin America create air pollution problems and increases greenhouse gas emissions, and pure electric buses have become one of the important means to solve the problem of local air pollution due to the natural advantage of zero emissions during operation. The World Resources Institute's research

found that one of the biggest obstacles to the late start and promotion of pure electric buses in Latin American countries is their high purchase costs, and the problem behind this is the lack of financing options to reduce or share costs.

In the Chilean New Energy Bus International Bidding Procurement and Financing Model Innovation Project (hereinafter referred to as the "Project"), the World Resources Institute conducted in-depth research on the business model of pure electric buses, and innovatively proposed a sustainable financing model for pure electric buses, that is, to reduce the purchase costs of bus operators through financial leasing, introduce third-party institutions to share financing and operational risks, and combine the early support policies of the local government to jointly promote the introduction and deployment of pure electric buses. Finally, with the joint efforts of partners (such as the Inter-American Development Bank, etc.), WRI assisted the Municipality of Santiago by introducing a third-party agency, adopting a scalable, sustainable and innovative bus procurement mechanism, and purchased more than 600 electric buses by the end of 2020, helping Santiago to establish the second-largest electric bus fleet in the world after China. The city of Santiago has thus become a benchmark for the application of pure electric bus vehicles in other Latin American countries. The model has been successively used in other cities, such as Bogotá, which has the world's third-largest electric bus fleet, and accelerated the internationalization of China's electric vehicle industry.

### Project performance

With the help of its solid research results in the field of pure electric buses, combined with international experience and China's new energy bus procurement model, the World Resources Institute has effectively deployed electric bus projects in Latin America that meet local conditions, providing effective solutions for environmental and social problems such as local atmospheric environmental pollution and aging public transportation facilities.

In terms of replicability, it has achieved an operating model in which leading experience is combined with

local realities. The model explored and established by the project is based on solid domestic and foreign research and research in the field of electric buses, and the electric bus operation procurement model developed by the project has been successfully adopted in Santiago. In the future, it can also provide clean technology financing innovations for many cities around the world, popularize electric buses around the world, and improve the utilization of electric buses.

In terms of industry contribution, it has realized an innovative financing model for public support facilities. The project model clearly defines the responsibilities of different stakeholders in the procurement process of electric buses, laying a good foundation for incentivizing the participation of all parties and achieving the goals. The clarification and separation of rights and responsibilities will help share the risks rather than on a single entity. In addition, the innovative financing mechanism provided by this model has changed the single model of financing and management of the bus industry followed by many cities in the past, mostly led by the government, and provided innovative financing solutions.

In terms of profitability, the profitability of the public transport system has improved. The model brings three improvements to the profitability of the bus system. Firstly, it reduces the cost of the bus system. Secondly, it increases the number of passengers in the bus system. Thirdly, it generates new revenue streams to related third parties, who can obtain income by being responsible for purchasing and leasing buses, building infrastructure, etc.

Multiple benefits such as environmental benefits, social well-being, and economic growth have also been realized apart from the promotion of public well-being. Under the project mode, Santiago operates electric buses more widely, helping to improve local air quality. The increase

in the penetration rate and passenger volume of electric bus operations has brought conveniences and improved the well-being of the local, low-income people and those who rely on public transportation for jobs and other daily necessities. In addition, the promotion and application of this project model to other regions will help contribute to the spread of e-mobility systems and reduce global greenhouse gas emissions.

Innovative public-private partnership financing mechanisms have also been realized. In this project, WRI provided an innovative and sustainable financing model for the procurement and operation of electric buses in Santiago, Chile. The model clarifies the responsibilities of the different stakeholders and encourages new financing mechanisms to change the locally inherent participation model of the public sector (government and transport sector) and the private sector (bus operators). Under this model, the separation of duties will form a professional division of labor, which will help improve efficiency and reduce costs, better allocate assets and reduce operational risks.

## Project overview

World Resources Institute (WRI), internationally well recognized for its robust global network and integrated research capabilities, plays a leading role in facilitating green finance around the world. Through this Project, WRI established a sustainable, innovative, and replicable procurement and financing mechanism of electric buses in Santiago, Chile, which is feasible and replicable worldwide. As the second-largest electric bus project actively launched by WRI outside China, it sets an example for electric buses adoption in other Latin American countries, thus contributing to the development of the electric bus industry across the globe.



**Pic 29: Chilean New Energy Buses in 2019**



Picture Source: Metbus Company in Chile

**Pic 30: Chilean New Energy Bus Hub**



Picture Source: Metbus Company in Chile

## 9. GD Power Development Co., Ltd. (Green Asset Securitization Featuring Green Underlying Assets and Green Raised Funds)

### Introduction of the institution

Founded in 1992, GD Power is a core subsidiary of China Guodian Corporation and was listed on the Shanghai Stock Exchange in 1997. The company's core operations are spread over 24 provinces, municipalities and autonomous regions, with 91 directly affiliated and holding enterprises. The company's shares have performed well in the secondary market, and have been included in the Shanghai 50 Index, the Shanghai 180 Index, the CSI 300 Index and the Forbes list of the world's most trusted companies, maintaining the status of domestic A-share blue chips and being among the Fortune China 500 companies for 10 consecutive years.

### Project background

The "double green" innovative product project of green asset securitization (hereinafter referred to as the project) is based on the subsidy rights for due power bills for renewable energy projects such as wind power and solar power generation in the Guodian power system. A total of 6 green asset-backed securitization businesses were carried out. The project provides innovative financing solutions for renewable energy projects, and the funds raised are used to support renewable energy projects such as wind power generation. "Double Green" refers to Green Underlying Assets and the Green Raised Funds.

### Project content

The project is a green asset securitization business carried out by Guodian Power to actively implement the green development concept of the Party Central Committee and is based on renewable energy power generation projects, providing innovative financing solutions for renewable energy projects. In recent years, the Party Central Committee and the State Council have successively issued policies to encourage state-owned enterprises to carry out the activity of "pressing two gold and reducing leverage", reducing the pressure on enterprise capital turnover and improving the quality and profitability of enterprise operations. On the other hand, in the context of the construction of ecological civilization and the development of green transformation, green finance, which supports social and economic development has become an important trend. But the financing gap is large, and it is difficult to rely on finance to meet the requirements. Guodian Power gives priority to exploring innovative financial products and services around renewable energy financing projects for pollutants in the operation of wind

power, solar power, and so on.

Since 2019, Guodian Power System (including wholly-owned subsidiaries Ningxia New Energy, Hebei New Energy, and Shanxi New Energy) has carried out 4 green asset-backed securitization businesses based on the right to receive electricity subsidies, and it is expected that in 2020, it will carry out two green asset-backed note businesses as issuers, and intends to introduce international investors, explore the use of foreign capital to promote renewable energy development and promote international cooperation in green finance. In addition, Guodian Electric Power has formulated the "Management System for the Storage and Use of Funds Raised by Guodian Electric Power Development Co., Ltd." and other bond issuance and management systems, and has also formulated the "Internal Management Measures for the Green Bonds Funds Raised by Guodian Electric Power Development Co., Ltd.", which aims to establish institutional norms for the issuance and management of green bonds.

### Project performance

By actively responding to the call of the national government and catering to the low-carbon development trend of the real industry, Guodian Power explores the "double green" innovative product project of green asset securitization, which has important practical values in terms of replicability, industry contribution, profitability, public welfare, and innovation.

In terms of replicability, the exploration of new models of project financing in the renewable energy industry has been realized. The solution provided by the project using green asset securitization has explored a sustainable development path for the renewable energy industry to develop green finance, which can be widely used in China and seven countries along the "Belt and Road" to promote global renewable energy investment and financing and jointly tackle the challenge of climate change.

In terms of industry contribution, it has attracted more key participants to meet the needs of green investment and financing. At present, China's green financing demand is very large, and it is difficult to make up for it only by relying on financing mechanisms. Guodian Power adopted the form of green asset securitization in the project to realize the revitalization of enterprise stock assets and attract more funds to help the development of the renewable energy industry.

In terms of profitability, the key results of financing costs and efficiency improvements have been achieved. In 2019,

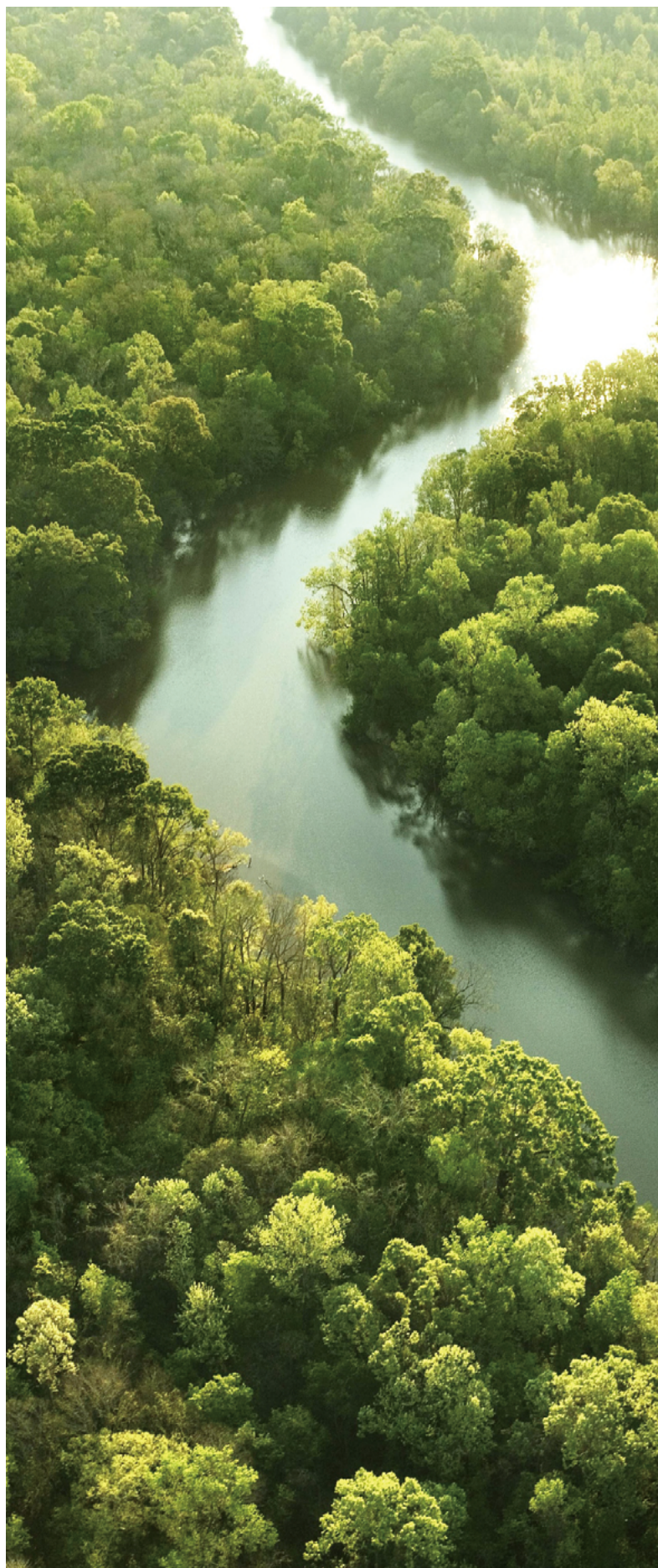
Guodian Power led the issuance of four green asset-backed securities with a total amount of 1.802 billion yuan, realizing the release of 1.995 billion yuan of subsidies receivable, optimizing the asset structure, and effectively realizing the early realization of assets that generate cash flow in the future, such as accounts receivable of Guodian system. In addition, the project broadened financing channels, reduced financing costs, and saved at least 25.67 million yuan in financing costs according to the benchmark interest rate.

Harmonization of economic and environmental benefits in the promotion of public welfare has been achieved. The funds raised by this project will fully repay the company's borrowings related to the construction of wind power projects and supplementary operating funds, and provide development funds for wind power generation. In addition, the project uses actual production and operation activities to create a green and low-carbon enterprise with "blue sky, clear water, and pure land", and can continue to play a demonstration role in the green and low-carbon development of enterprises.

Four key initiatives have been realized in terms of innovation. First, the project for the first time enabled the asset-backed business to meet the new accounting standard requirements for balance sheet benefits, helped issue of green bonds within the company's system, and promoted the development of green finance with low financing costs of products. Second, the project is based on the right to electricity charges from renewable energy projects such as wind power generation, solar power generation and other renewable energy projects, and the raised funds are still used to support renewable energy projects such as wind power generation, which is a "double green" innovative product of the underlying assets and raised funds. Third, the project partly adopts the innovative model of "Green Entity Certification" to reduce the cost of green financial product development, and also help Guodian's subsidiaries to further improve their green management capabilities. Fourth, the green asset-backed securities issued in 2020 were planned to introduce international investors to explore the use of foreign capital to promote renewable energy development and promote international cooperation in green finance.

## Project Overview

As a large state-owned listed energy enterprise in China, GD Power took the lead to innovate green financing and refinancing tools to support renewable energy development and fulfill its social and environmental responsibility. Its innovative practices in green underlying assets and green raised funds is highly replicable and serves as a good reference for other similar large-scale domestic energy companies.



**Pic 31: Photo of construction projects of Guodian Power**



Picture Source: Guodian Power Development Co., Ltd.

**Pic 32: Photo of Guodian Power projects**



Picture Source: Guodian Power Development Co., Ltd.



## 10. Greater Bay Area Treelion Blockchain Research Institute Limited (Treelion Green Finance-Oriented Digital Trading Platform)

### Introduction of the institution

Registered in Hong Kong, the Institute works with strategic partners to build a blockchain-based platform for production, management, and circulation of green digital assets. It is engaged in standardizing the value of ecological assets (ecological services, carbon credits, etc.)

### Project background

Green economy, as one of the key measures in dealing with the challenges of sustainable development, mainly depends on the funds of government and non-profit organizations. Green assets are facing challenges such as low liquidity and lack of unified certification standards. In response to the above challenges, Treelion has established a green financial ecosystem based on blockchain technology to realize the standardization of green assets. At present, the value of individual carbon sinks is chained in the form of non-homogeneous e-Cert (NFTs), which can be traded legally and in compliance with the carbon financial market before the opening of the carbon financial market, jointly establish accreditation standards and systems for green assets, and improve national and part of the international ecological governance database and other businesses.

### Project content

Treelion is a green digital trading platform based on blockchain technology, which aims to realize the certification, circulation, and trading of green assets through a new business model, and build a borderless, scalable, extensive, and inclusive green financial ecosystem. Based on big data, AI, blockchain, and other distributed technologies, Treelion creates a "decentralized" green

economy ecosystem for exclusive users, to bring liquidity to green assets that are difficult to trade at this stage (such as ecological assets and carbon sinks), reducing the cost and risk of green asset management, and improving the financial attributes and value of green assets. The green finance products and services provided by Treelion include:

- a) Digitization through non-homogenized e-Cert (NFTs) to represent the green assets and their value accumulated by individuals or companies from their business activities.
- b) Online Green Passport APP/3060 Mini Program is a tool used to record the green behavior, green consumption, green points and carbon assets of organizations and individuals. It integrates environmental protection information, green points, activity participation, environmental protection community and green mall, providing full service to users from clothing, food, accommodation and transportation, promoting a new green way of life, and comprehensively digitizing activities publicity, donation channels, member management and other functions.
- c) The Treelion trading system is building cross-chain or same-chain atomic transaction functions in the secure environment of smart contracts, upgrading APP to a highly secure, scalable and trusted APP that records carbon sinks (CCER/VER) created by individuals and organizations, and registers, manages, uses and trades carbon sequestration values on the blockchain. In the future, these accumulated carbon assets can be priced and traded through carbon finance and carbon asset trading platforms.
- d) My Forest cooperates with international organizations to certify and register physical forests as negotiable digital assets, assisting forest owners (governments or civil society

organizations) to issue their non-homogeneous tokens (NFTs), each of which corresponds to a certain proportion of the forest share, and can obtain special funds for forest conservation on the Treelion trading platform.

## Project performance

Treelion is a digital trading platform that combines leading technology and green concepts and has been invited to participate in many global conferences such as China Responsible Investment Week and the 7th China Responsible Investment Forum Annual Conference, the 2019 Hong Kong Climate Finance and Sustainable Investment Summit, the IFIC Global Fintech Innovation Summit in Seoul, South Korea, and the IFIC Global Fintech Innovation Summit Tokyo, to promote and introduce leading technologies and innovative business models in the field of green finance.

In terms of replicability, Treelion worked with Chongqing Liangjiang New District Management Committee, China Information and Communications Research Institute, and Beijing Taier Yingfu Technology Co., Ltd. to plan and build the backbone node of "Spark chain Network" (green financial industry), including infrastructure platform construction and application service platform construction. Treelion has officially obtained the construction, operation and management rights of the backbone nodes of the "Spark chain Network" (green financial industry), and obtained the national new infrastructure track qualification, which has helped improve the business scope and development modes.

In terms of industry contribution, it has realized a new channel for SMEs and individuals to participate in the development of green finance. Through financial technology, Treelion solves the problems of traditional green finance focusing on the issuance of green bonds and trust products, the low participation of small and medium-sized enterprises and individuals, and the relative immaturity of participation methods and incentive mechanisms for green projects. Treelion assists clients in issuing non-homogeneous tokens (NFTs) for green projects, recording, and trading of green assets or values accumulated by individuals or companies from various activities.

In terms of profitability, it has achieved the results of multiple profit models to generate income. First, the carbon sink transaction fee, through the extraction of the platform transaction carbon sink fee as the basic income. Second is the other ecological assets digital transaction income, which helps a third party to digitize other ecological assets by charging technical fees. Third is the green blockchain project incubation technology fees, that charges an incubation project technical consultancy fees or using technology in the project to earn project follow-up income. Fourth is the green digital public chain miner fees (Gas Fee), charging all the costs generated by on-chain, transactions, bookkeeping, and other behavior. Fifth, Ecological big data database data sharing income or charging annual fees or single visit fees. Sixth is

project equity financing or the income equity financing intermediary fees.

In terms of promoting public welfare, the effectiveness of introducing more social capital into ecological and environmental protection undertakings has been achieved. By attracting more capital and forces, including governments, non-profit organizations, traditional financial institutions, family offices, and even all organizations and individuals practicing environmental and corporate social responsibility, Treelion can create a sustainable green economic development model and directly contribute to the alleviation of global climate change and environmental problems.

Two important breakthroughs have been made in terms of innovation. First, Treelion for the first time lowered the entry threshold of green finance through blockchain technology, directly on the public chain for faster, safer, and lower cost transactions. Second is to improve the security, integrity, and transparency of green asset transactions. Treelion can issue non-homogeneous tokens (NFTs) to organizations or individuals to enable green asset authentication, on-chain registration, value exchange, distributed data storage, peer-to-peer transmission, and transactions using cryptographic algorithms.

## Project overview

By using blockchain and the other advanced techniques, the project built a brand-new business model to realize the certification, circulation, and trading of green assets. It enabled the standardization of green assets and enhanced the financial future and value of green assets. The project facilitated the circulation of green assets (such as ecological resources and carbon emissions) that used to be difficult to trade and engaged the private sector in the green finance market.

**Pic 33: Treelion green finance projects discussion**



Picture source: Greater Bay Area Treelion Blockchain Research Institute Limited

**Pic 34: Treelion green finance workshop**



Picture source: Greater Bay Area Treelion Blockchain Research Institute Limited



# Appendix 1. Award Jury Members

## Introduction of the 2021 Global Green Finance Award Jury

### Chairman



**Han Seung-soo**

IFF Co-chairman  
The 56th President of UN General  
Assembly  
Former Prime Minister of Republic  
of Korea



IFF GLOBAL GREEN  
FINANCE AWARD

### Co-Chair



**Herman Van Rompuy**

IFF Co-chairman  
President Emeritus of European  
Council  
Former Prime Minister of Belgium



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**Jenny Shipley**

IFF Board Member  
Co-chair of Silk Road International  
Association  
Former Prime Minister of New  
Zealand



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## Executive Chairman



**Li Xiaohong**

IFF Executive Vice-chairman  
Former Vice-chairman, CPPCC  
Beijing Committee



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**Erik Solheim**

Former Under-Secretary-General of  
the United Nations  
Former Executive Director of the UN  
Environment Programme (UNEP)



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## Jury Member



**Chen Wenhui**

IFF Vice chairman  
Vice Chair of National Council for  
Social Security Fund  
Former Vice Chairman of China  
Banking and Insurance Regulatory  
Commission



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**Fu Chengyu**

Board Member of the United Nations  
Global Compact (UNGC)  
Former Chairman of SINOPEC Group



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**Deborah Lehr**

IFF Board Member  
Vice Chairman and Executive  
Director, Paulson Institute



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**Lionel Leong**

IFF Vice-president  
Former Secretary for Economy  
and Finance of Macao Special  
Administrative Region



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**Antony Leung**

IFF Vice-president  
Former Financial Secretary, Hong  
Kong Special Administrative Region



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**Li Zhengqiang**

IFF Academic Committee Member  
Former Chairman of Dalian  
Commodity Exchange  
Researcher of Finance Department,  
School of International Trade  
and Economics, University of  
International Business and  
Economics



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**Lin Jianhai**

IFF Vice-president  
Former Secretary of IMF and the  
IMF's International Monetary and  
Financial Committee



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**Liu Yanhua**

Former Vice Minister of Ministry of  
Science and Technology  
Honorary Director of the Expert  
Committee at National Climate  
Change Committee



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<p><b>Bindu N. Lohani</b></p> <p>IFF Academic Committee Member Former Vice President of the Asian Development Bank</p>	 <p>IFF GLOBAL GREEN FINANCE AWARD</p>	<p><b>Nie Qingping</b></p> <p>IFF Academic Committee Member Chairman of China Securities Finance Corporation</p>	 <p>IFF GLOBAL GREEN FINANCE AWARD</p>
			
<p><b>Qi Ye</b></p> <p>IFF Academic Committee Member Professor of School of Public Policy and Management, Tsinghua University Director of Institute for Public Policy Hong Kong University of Science and Technology</p>	 <p>IFF GLOBAL GREEN FINANCE AWARD</p>	<p><b>Frank Rijsberman</b></p> <p>IFF Board Member Director-General of Global Green Growth Institute (GGGI)</p>	 <p>IFF GLOBAL GREEN FINANCE AWARD</p>
			
<p><b>Domenico Siniscalco</b></p> <p>IFF Vice President Former Minister of Economy and Finance of Italy Vice Chairman of Morgan Stanley International Limited</p>	 <p>IFF GLOBAL GREEN FINANCE AWARD</p>	<p><b>Tang Dingding</b></p> <p>IFF Academic Committee Member Former Chair for the Compliance Review Panel of the Asian Development Bank (ADB)</p>	 <p>IFF GLOBAL GREEN FINANCE AWARD</p>



**Wang Yi**

IFF Academic Committee Member  
Member of NPC Standing Committee  
Deputy Director of Institutes of  
Science and Development at  
Chinese Academy of Sciences



IFF GLOBAL GREEN  
FINANCE AWARD



**Wu Xiaoqing**

Member of the CPPCC Standing  
Committee  
Vice chair of the CPPCC Agriculture  
and Rural Affairs Committee  
Former Vice Minister of Ministry of  
Environmental Protection, P.R.C.



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**Zhang Shenfeng**

Vice Chairman of China Council for  
the Promotion of International Trade



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FINANCE AWARD



**Zhou Yanli**

Member of CPPCC Standing  
Committee  
Former Vice Chairman, China  
Insurance Regulatory Commission



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**Zhu Xian**

IFF Vice-president and Secretary-  
General  
Former Vice-president, New  
Development Bank  
Former Vice-president, the World  
Bank



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**Zhuang Juzhong**

IFF Co-Chief Economist  
Former Deputy Chief Economist of  
Asian Development Bank



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# Introduction of the 2020 Global Green Finance Award Jury

## Chairman



**Han Seung-soo**

IFF Co-chairman  
The 56th President of UN General  
Assembly  
Former Prime Minister of Republic  
of Korea



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## Co-Chair



**Herman Van Rompuy**

IFF Co-chairman  
President Emeritus of European  
Council  
Former Prime Minister of Belgium



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**Jenny Shipley**

IFF Board Member  
Co-chair of Silk Road International  
Association  
Former Prime Minister of New  
Zealand



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FINANCE AWARD

## Jury Member



**Chen Wenhui**

IFF Vice chairman  
Vice Chair of National Council for  
Social Security Fund  
Former Vice Chairman of China  
Banking and Insurance Regulatory  
Commission



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**Zhou Hanmin**

IFF Vice-president  
Vice Chairman of CPPCC Shanghai  
Committee



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**Zhu Xian**

IFF Vice-president and Secretary-  
General  
Former Vice-president, New  
Development Bank  
Former Vice-president, the World  
Bank



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**Antony Leung**

IFF Vice-president  
Former Financial Secretary, Hong  
Kong Special Administrative Region



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**Domenico Siniscalco**

IFF Vice-president  
Former Minister of Economy and  
Finance of Italy  
Vice Chairman, Morgan Stanley  
International Limited



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**Deborah Lehr**

IFF Board Member  
Vice Chairman and Executive  
Director, Paulson Institute



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<p><b>Frank Rijsberman</b></p> <p>IFF Board Member Director-general of Global Green Growth Institute (GGGI)</p>	 <p>IFF GLOBAL GREEN FINANCE AWARD</p>	<p><b>Bindu N. Lohani</b></p> <p>IFF Academic Committee Member Former Vice President of the Asian Development Bank</p>	 <p>IFF GLOBAL GREEN FINANCE AWARD</p>
			
<p><b>Wu Xiaoqing</b></p> <p>Member of the CPPCC Standing Committee Vice chair of the CPPCC Agriculture and Rural Affairs Committee Former Vice Minister of Ministry of Environmental Protection, P.R.C.</p>	 <p>IFF GLOBAL GREEN FINANCE AWARD</p>	<p><b>Zhao Xiaoyu</b></p> <p>Former Vice President of the Asian Development Bank (ADB)</p>	 <p>IFF GLOBAL GREEN FINANCE AWARD</p>
			
<p><b>Zhang Shenfeng</b></p> <p>Vice Chairman of China Council for the Promotion of International Trade</p>	 <p>IFF GLOBAL GREEN FINANCE AWARD</p>	<p><b>Zhang Hongjun</b></p> <p>IFF Board Member Board Chair of the Energy Foundation Partner at Holland &amp; Knight LLP</p>	 <p>IFF GLOBAL GREEN FINANCE AWARD</p>



# Appendix 2

## Award Appraisal Methodology

## The scoring criteria of the International Finance Forum (IFF) Global Green Finance Award - Project Innovation Award is listed below:

Weight	First level indicators	Secondary indicators
22%	Innovation efforts	Originality
		Degree of Innovation and Influence
13%	Promotion and replication	Promotion
		Replication
13%	Industry contribution	Awareness
		Transition
13%	Profitability	Profitability Level
		Profitability Stability
13%	Sustainability	Operational Sustainability
		Resilience
13%	Public services and social well-being	Social impact
		Environmental impact
13%	Global and regional impact	Global or regional contribution
		Sustainability topics contribution



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*Global Finance 20 (F20)*

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