



2016

**中国进出口银行绿色金融白皮书**

**White Paper** on Green Finance  
The Export-Import Bank of China



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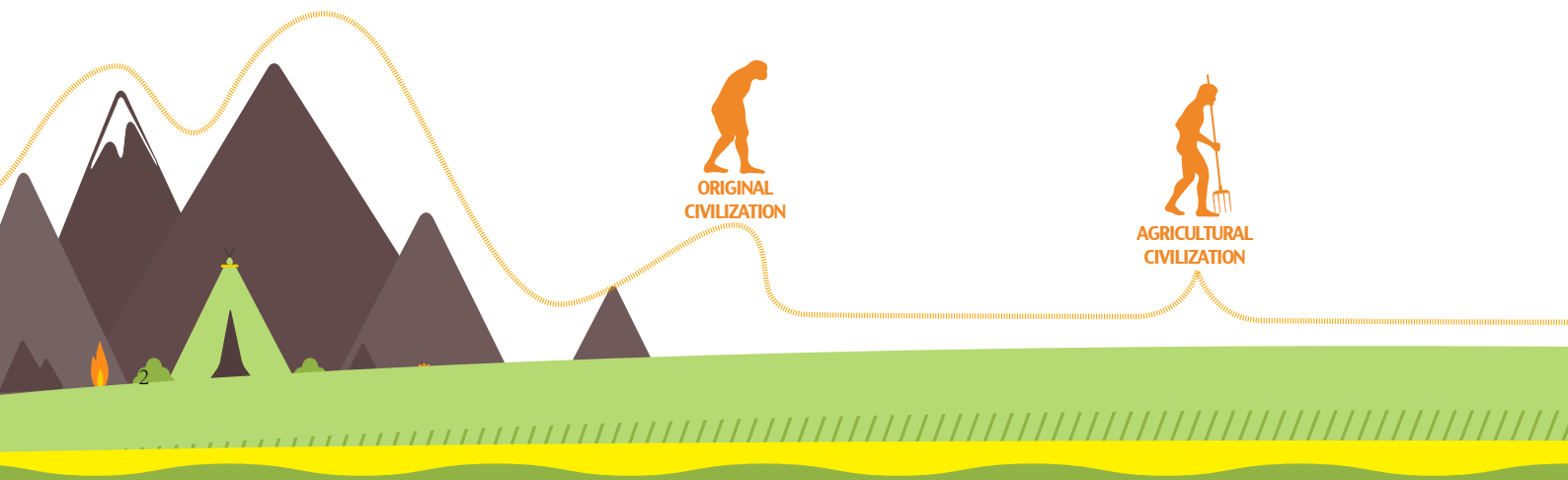
# Introduction

## Background

In modern times, advancement in industrial civilization has brought great changes to the human society. It has quickened the process of urbanization, given rise to new production forms and lifestyles, and deepened economic globalization. While promoting the rapid development of the human society, the development pattern featuring high factor input, high energy consumption and high pollutant emission has posed formidable threats to the global ecology, resulting in increasingly severe problems, such as global greenhouse gas emissions, ozone depletion and chemical pollution. In the 1980s, the international community developed the concept of sustainable development, with a view to striking a balance between the promotion of human welfare and the reduction of environmental risks. Green economy is an important means of achieving such a balance and realizing sustainable development. Today, the world has a consensus on green and sustainable development. It is particularly worth mentioning that after the last financial crisis more and more countries are taking the green development model as the powerhouse for their economic development, and making ecological progress has become a historical trend. To this end, the US introduced the "Green New Deal", the EU developed an Eco-Innovation Action Plan (2014-2020) and Japan launched a "Green Growth Strategy". In addition, emerging markets such as India and Brazil have also focused their efforts on promoting the development of the green industry.

As a responsible country and the world's largest developing country, China has profound awareness of making ecological progress. China

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made environmental protection a basic national policy in the 1980s and developed a sustainable development strategy which puts emphasis on the coordination between the environment and the economy in the 1990s. In the 21st century, China introduced the concept of Scientific Outlook on Development and set the goal of building a resource-saving and environment-friendly society during the Fifth Plenary Session of the 16th CPC Central Committee. China further established the concept of green and low-carbon development during the 12th Five-Year Plan period. The 18th National Congress of the CPC incorporated ecological progress into the "Five in One" general layout of the socialist cause with Chinese characteristics. Chinese President Xi Jinping has stressed on many occasions that clear water and green mountains are "gold mines" and protecting the ecological environment is to protect productivity and improving the ecological environment is to develop productivity. Moreover, the Fifth Plenary Session of the 18th CPC Central Committee elevated the concept of green development to a strategic height, specifying it as a fundamental concept that matters to the overall development of China and guides its economic and social development during the 13th Five-Year Plan period and beyond. Today, China is making unprecedented endeavors to promote ecological progress and green and sustainable development with a firm determination. As such, ecological protection is penetrating into every aspect of China's economic and social development.

## MAKING ECOLOGICAL PROGRESS IN CHINA

China made environmental protection a basic national policy in the 1980s

China developed a sustainable development strategy which puts emphasis on the coordination between the environment and the economy in the 1990s

In the 21st century, China introduced the concept of Scientific Outlook on Development

China set the goal of building a resource-saving and environment-friendly society during the Fifth Plenary Session of the 16th CPC Central Committee

The Fifth Plenary Session of the 18th CPC Central Committee elevated the concept of green development to a strategic height, specifying it as a fundamental concept that matters to the overall development of China and guides its economic and social development during the 13th Five-Year Plan period and beyond

The 18th National Congress of the CPC incorporated ecological progress into the "Five in One" general layout of the socialist cause with Chinese characteristics

China further established the concept of green and low-carbon development during the 12th Five-Year Plan period



The development of green economy requires a combination of measures, including the indispensable means of government guidance, regulation and policy support, as well as funding support from financial institutions. In China's financial system, the banking industry serves as an important medium for the allocation of financial resources. More importantly, it carries the mission of promoting green industries and sustainable development. Capital is the blood of business operation, and both investment and financing activities of a business take place in the financial system of the society. Therefore, financial means have special advantages in terms of monitoring, regulating and guiding enterprises in their environmental protection actions and promoting green development. The financial sector has enormous economic, social and environmental impacts and may become one of the most effective micro-powerhouses and driving forces for sustainable development. In addition, developing green finance may help the banking industry reduce its credit risks and optimize its credit placement. It also represents an important direction for the transformation and development of the industry. Therefore, strengthening the management of environmental and social risks has become an important development trend for the modern financial industry.

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As early as in 1992, UNEP issued the Statement by Financial Institutions on the Environment and Sustainable Development to urge financial institutions to implement green finance. In 2003, ten banks in seven countries employed International Finance Corporation's guidelines and environmental and social policies to formulate the Equator Principles in an attempt to ensure that investment projects and enterprises comply with the requirements on environmental protection and sustainable development. So far, 82 financial institutions in 36 countries have adopted the Equator Principles, covering 70% of the financing projects in the world.

Thanks to years of efforts, China has seen initial success in its efforts to build a green financial system, which has made great contribution to China's ecological progress, as well as the harmonious and sustainable development of the Chinese economy, environment and society.

## BY THE END OF 2015

The green credit balance of financial institutions in the banking industry had reached **RMB 8.08 trillion**, of which **RMB 7.01 trillion** was contributed by 21 main financial institutions,

an increase of

**16.42%**

as compared with the beginning of the year.

### PROJECTS BACKED BY LOANS CONTRIBUTED TO AN ANNUAL

SAVING OF

**221** MILLION TONS OF COAL EQUIVALENT

REDUCTION OF

**550** MILLION TONS IN CO<sub>2</sub> EMISSION EQUIVALENT

SAVING OF

**756** MILLION TONS OF WATER

REDUCTION OF

**4,849,600** TONS IN SO<sub>2</sub> EMISSION

Data resource: Social Responsibility Report of Chinese Banking Industry 2015

In China, green finance carried out by the banking industry has played an irreplaceable role in promoting ecological progress, propelling the economic transformation and upgrading and creating an enabling environment for production and living.

As a policy bank that supports stable growth, structural adjustment and international economic cooperation, the Export-Import Bank of China always places high priority on environmental protection and its social responsibility and is fully committed to promoting the sustainable development of China and the world. Committed to sustainable development since its foundation 22 years ago, the Export-Import Bank of China has engaged in developing green financial products, improving the green credit system and creating the green finance culture and has implemented a great number of major projects in the green finance field. By doing so, the Bank has not only brought into play the complementary and guiding role of policy finance but also produced remarkable social benefits, thus making great contribution to the harmonious development between the mankind and the nature.

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The *White Paper on Green Finance of the Export-Import Bank of China* has been formulated with a view to enabling the domestic and international parties concerned to gain a thorough understanding of the Bank's constructive efforts in the field of green finance.

## II. Objective

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With the aim to promote the development of green finance and the sustainable development of China and the world, *the White Paper on Green Finance of the Export-Import Bank of China* discloses the Bank's guiding principles, efforts and achievements in green finance, with a view to helping people from all walks of life to gain a comprehensive and profound understanding of China's policy financial institutions.

## III. Definition

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Green finance, also known as environmental or sustainable finance, requires that the financial sector sees environmental protection as a fundamental policy and integrates environment-related potential returns, risks and costs into day-to-day business operations, including investment and financing decisions. It requires the financial sector to pay attention to protecting the ecological environment, treating environmental pollution and increasing the efficiency of non-renewable energy resources while vigorously developing renewable energy and adjusting the energy structure during related operations. It also guides the social and economic resources to serve the sustainable development of the society. In a broad sense, green finance not only includes green securities, green funds, green bonds, green credit, green trust and green insurance, but also the low-carbon and environment-friendly operation of financial institutions themselves. In a narrow sense, green finance mainly refers to green credit. For the purpose of this White Paper, green finance is defined in its broad sense.

■ ■ In a broad sense, green finance not only includes green securities, green funds, green bonds, green credit, green trust and green insurance, but also the low-carbon and environment-friendly operation of financial institutions themselves. ■ ■

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## **IV. Access**

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This White Paper is made in both printed and electronic forms. The printed copies are available at the headquarters of the Export-Import Bank of China, while the electronic version is available on the official website of the Bank ([www.eximbank.gov.cn](http://www.eximbank.gov.cn)).

## **V. Contact Information**

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The Headquarters of the Export-Import Bank of China

Address: No. 30 Fuxingmennei Street, Xicheng District, Beijing

Postal Code: 100031

Tel: +86 (10) 8357 9988

Fax: +86 (10) 6606 0636



# Message from the Chairman

The tide of history moves forward with great strength and vigor. Through primitive, agricultural and industrial civilizations, mankind has fully realized the importance of green and sustainable development, marking the society's entry in the era of ecological civilization. Developing green economy and building a green homeland have become the common aspiration of the human society. Green development is not only a concept, but also, more importantly, a responsibility that we have to the natural environment and the future of all humanity – one that should be shouldered by the international community, all countries in the world and every citizen and institution on earth. Without green development, there would be no harmonious coexistence of mankind and nature, no sustainable development of the human civilization and no grounds for individual and institutional safety.

As the core of modern economy and "powerhouse" for the real economy, banking and financing institutions are bearing unshakable responsibilities and duties for the promotion of green and sustainable development. To support the development of green economy, policy banks, serving the national strategies, need to improve themselves both internally and externally. They should not only allow the concept of green development to take roots in their heart but also apply the concept by launching concrete projects. Adhering to the concept that "knowledge and action should be integrated", the Export-Import Bank of China has endeavored over the years to leverage its advantages to promote the transformation of China's economic development model and support Chinese enterprises in participating in international economic cooperation. By doing so, the Bank has boosted the sustainable development of China and the world.

Looking into the future, the Bank, now standing at a new starting point, will continue to fulfill its responsibilities, step up efforts to develop green finance and strengthen international green cooperation, thus making sure that the Earth, our common homeland, has blue sky, green land and clear water.

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The Chairman:



# Message from the President

Civilization rises and falls together with ecology. Green development matters not only to the long-term development of China but also to the destiny and future of the entire world. The Export-Import Bank of China, serving as an important bond between the Chinese economy and the world, attaches great importance to promoting the green and sustainable development of China and the world.

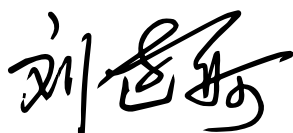
Adhering to the concept of green development, the Bank has been gradually developing and improving its green credit system for 22 years since its establishment, with a view to strengthening innovation in green finance in line with specific local conditions. It has also been intensifying exchange and cooperation with peer institutions. Furthermore, by applying a series of instruments, including loan, investment and consultation, which reflect the features of policy-based finance and respond to the changes of the market demand, the Bank has fully played the supplementary and guiding role of policy-based finance, and has supported Chinese enterprises in carrying out several green finance projects both at home and abroad. These projects have boosted the development of green economy and ecological protection. In 2015, the projects backed by the Bank's green credit generated remarkable environmental and social benefits, leading to a reduction of coal equivalent consumption by 5,057,200 tons, CO<sub>2</sub> emission equivalence by 14,019,900 tons, SO<sub>2</sub> emissions by 24,100 tons and nitrogen oxide emissions by 4,790.29 tons, and conservation of 13,281,200 tons of water. The Bank also actively advocates green operation by launching online banking and building green office, organizing its employees to carry out green public welfare campaigns and striving to minimize the negative impact of its operations on the ecological environment.

In the future, the Bank will continue to implement the green development concept, consciously fulfill its environmental and social responsibilities, vigorously support green industries, and make greater contribution to both economic development and ecological protection.

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■ ■ In the future, the Bank will continue to implement the green development concept, consciously fulfill its environmental and social responsibilities, vigorously support green industries, and make greater contribution to both economic development and ecological protection. ■ ■

The President:



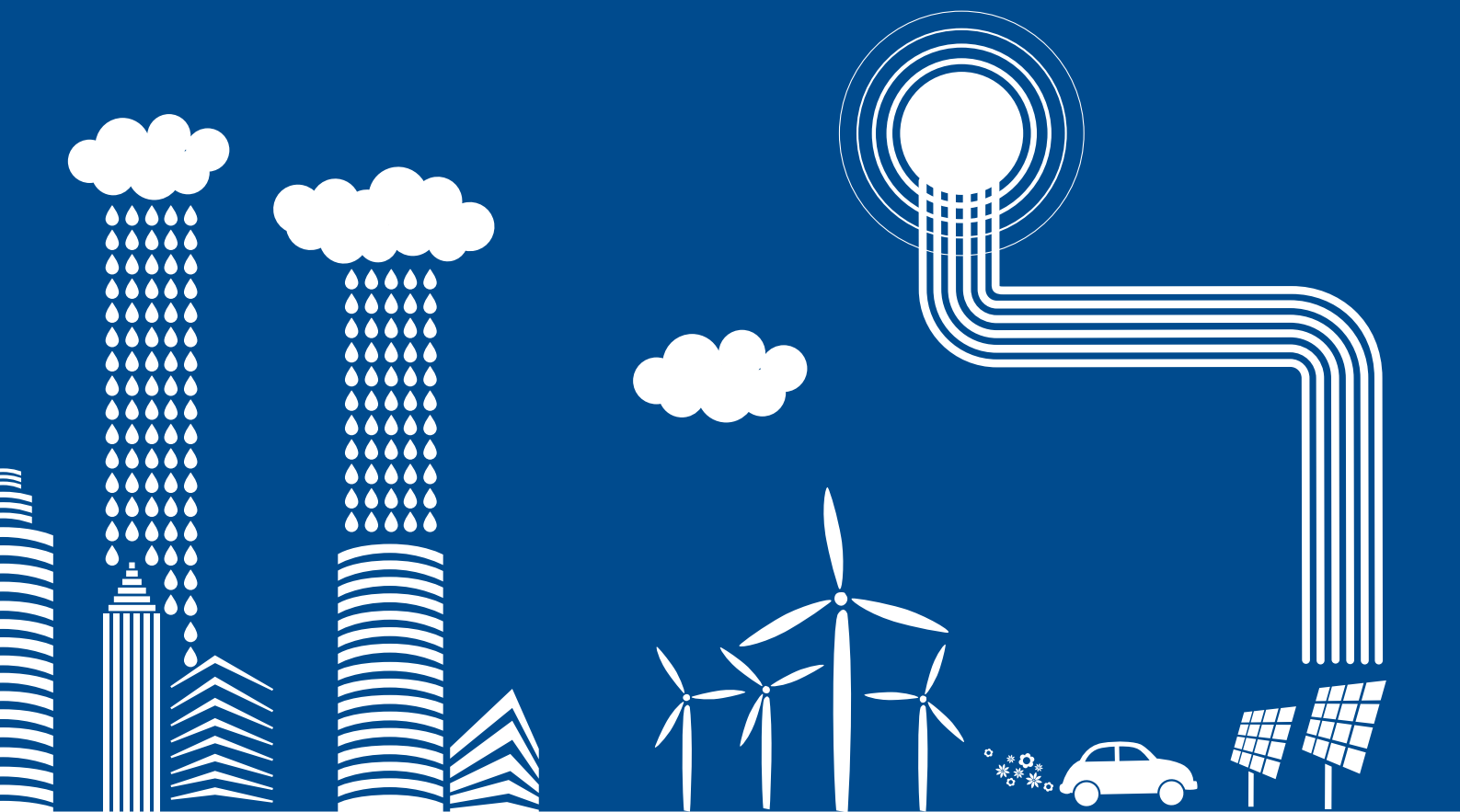


# Profile of the Export-Import Bank of China



Founded in 1994, the Export-Import Bank of China is a state bank solely owned by the Chinese government and under the direct leadership of the State Council. Its international credit ratings are the same as China's sovereign ratings. The Bank is headquartered in Beijing. It has more than 20 business branches inside China, one representative office in Hong Kong, one branch and two representative offices outside China, namely the Paris Branch, the Representative Office for Southern and Eastern Africa, St. Petersburg Representative Office and Representative Office for Western and Northern Africa. It has established correspondent banking relationships with more than 1,000 banks.

The Bank's main mandate is to facilitate the export and import of Chinese mechanical and electronic products, equipment sets and new- and high-tech products assist Chinese companies with comparative advantages in their offshore project contracting and outbound investment, promoting international economic cooperation and trade and providing financial services.



## The Bank's business scope :





# CHAPTER I: Establishing and Implementing the Green Development Concept

The green development concept serves as the guide for the Bank to carry out work related to green finance. Over the years, the Bank has kept its own reform and development closely linked with its responsibilities towards the country, society, economy and the environment while persistently adhering to sustainable and green development. It has consistently followed the green development concept in shaping its development strategy, building its system of rules and pursuing product and service innovation. As a policy bank, it has played a crucial role in implementing the government's strategies and policies.

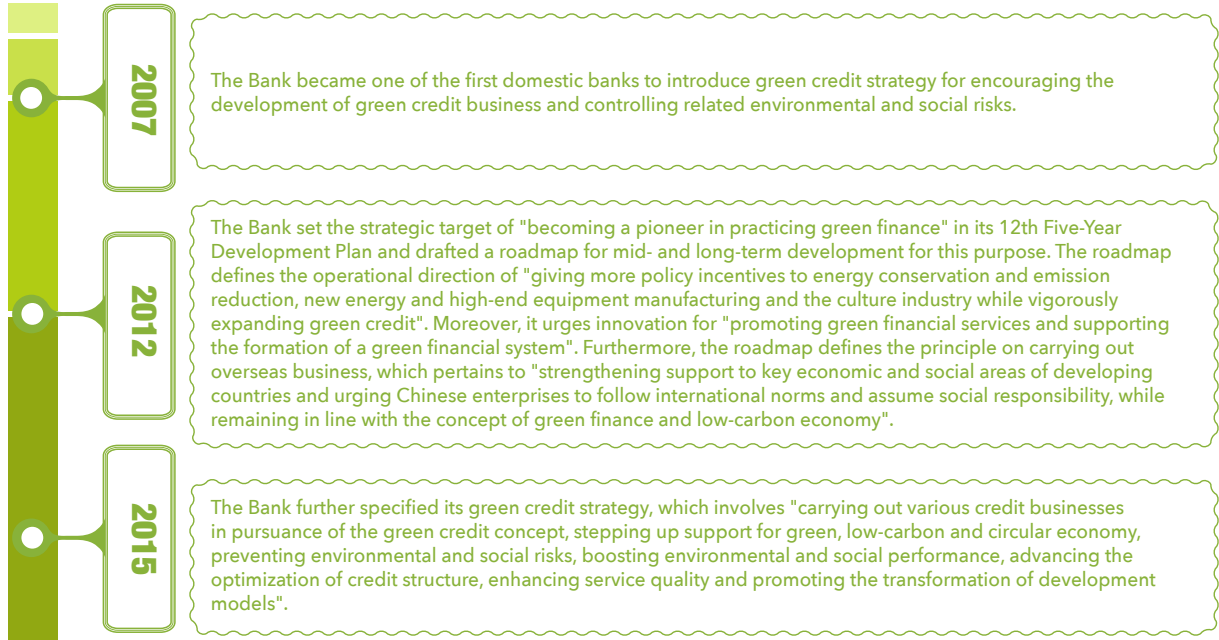
■ ■ The green development concept serves as the guide for the Bank to carry out work related to green finance. ■ ■

## ■ ■ Incorporating Green Development Concept into Development Strategy Planning

Highly valuing the protection of the ecological environment and closely following the country's green development strategy, the Bank has based its development strategy planning on the concept of green development. Moreover, it has ensured compliance with the concept in its business operations, improvement of its regulatory framework and development of its management system.

## A Pioneer in Implementing Green Finance

## DEVELOPMENT PROCESS



## A Practitioner of the Green Development Concept

After obtaining the State Council's approval on its reform plan in 2015, the Bank entered into a new stage in reform and development. Aligning its mid- and long-term development goal with the green development concept, the Bank has been proactively implementing the development concept of innovation, coordination, environment-friendliness, transparency and sharing with a focus on key business sectors. In this direction, the Bank has established the approach of "actively supporting the development of green and environment-friendly industries and low-carbon and circular economy; supporting the 'go-global' enterprises to engage in green and environment-friendly projects; performing environmental protection obligations; and promoting global green growth, as the whole world copes with the challenges brought by overall climate change".

Guided by the aforementioned developmental approach, the Bank will center on promoting international economic cooperation and supporting

## DEVELOPMENT CONCEPT IN NEW STAGE



the transformation and upgrading of open economy while providing targeted and customized policy-based green financial services, thus turning green finance into green growth. For promoting international economic cooperation, the Bank will focus on supporting foreign trade growth and cross-border investment while promoting green import and export of businesses, products and services. In this pursuit, it will give priority to the promotion of transformation and upgrading of foreign trade, cultivation of new competitive edges and the optimization of the current trade structure, which is extensive and features high emissions. Moreover, it will actively harmonize the relations between trade, investment, development and environmental protection. For supporting the transformation and upgrading of open economy, the Bank will expand its support to the research and development, manufacturing and service chains of export and "go-global" projects, namely in value added, technological content, energy efficiency and environmental protection standards. Furthermore, it will provide financial products and services for economic restructuring, transformation and upgrading, technological innovation, green development and supply-side structural reform in particular.

## **III Embodiment of Green Development Concept in Credit Regulations**

### **Regulations are paramount for the implementation of the green development concept**

A comprehensive and standardized system of regulations is a critical guarantee for healthy and orderly development of the banking business. It is also the basic medium through which development ideas and strategies are implemented. Therefore, regulations are paramount for the implementation of the green development concept. Based on its business features, the Bank has gradually developed an environmental and social risks management system. It has specified the direction and key areas to be supported by green credit and implemented differentiated and dynamic credit policies for key industries, laying a solid foundation for carrying out relevant work.



## China's Green Credit Policies

China's green credit policy was first introduced in 2007. In July 2007, the former State Environmental Protection Administration (SEPA), the People's Bank of China (PBOC) and the CBRC jointly released the *Opinions on Implementing Environmental Protection Policies and Regulations and Preventing Credit Risks*, defining the means and scope of the application of green credit. In January 2008, SEPA and the International Finance Corporation under the World Bank Group co-formulated the *Environmental Protection Manual on Green Credit*, specifying the environmental protection standards for the Chinese banking sector.

In February 2012, the CBRC issued the *Green Credit Guidelines*, which raised explicit requirements for banks to effectively carry out green credit business and vigorously promote energy conservation, emission reduction and environmental protection.

- **Advance Green Credit in Three Aspects**

Step up support for green, low-carbon and circular economy; strictly prevent environmental and social risks; foreground and boost the environmental and social performance of banks.

- **Control Environmental and Social Risks**

Pay special attention to the hazards that the clients and major related parties thereof may bring to the environment and the society in their construction, production and operation as well as to related risks, including environmental and social issues concerning energy consumption, pollution, land, health, safety, migrant relocation, ecological protection and climate change, among others.

- **Strengthen Organizational Management of Green Credit**

Establish the green credit concept, specify the development strategy and objective of green credit, develop relevant mechanisms and processes, conduct internal control inspections and assessments, define the responsibilities of senior management officers and institutional management departments and allocate relevant resources, so as to ensure the smooth implementation of green credit from the organizational perspective.

- **Improve Policies and Regulations on Green Credit**

Improve policies, rules and processes on environmental and social risks management, define the supporting direction and key areas to be covered by green credit, promote green credit innovation, implement differentiated and dynamic credit policies along with regulations on risk exposure management, besides establishing and optimizing green credit identification and statistics rules and improving relevant credit management systems.

- **Manage Risks in the Credit Grant Process**

Reinforce environmental and social risks management in the credit grant process (before, during and after loan disbursement) by strengthening due diligence, strictly conducting compliance reviews, developing a checklist of compliance risks and intensifying credit fund allocation management and post-loan management.

- **Improve Internal Control Management and Information Disclosure**

Carry out all-round assessment of green credit on a regular basis, include green credit implementation into the scope of internal control and compliance inspections, establish a green credit assessment, reward and punishment system, and disclose green credit strategies, policies and development conditions.

## Applying Green Development Concept and Establishing an Environmental and Social Risks Management System

In 2007, the Bank formulated the guiding opinions on environmental and social impact assessment of loan projects, becoming the first to require in writing that environmental information should be one of the basic references for loan approval. In accordance with the ***Green Credit Guidelines and Key Rating Indicators for Green Credit Implementation*** of the China Banking Regulatory Commission (CBRC), as well as with relevant governmental policies and regulations, the Bank formulated its own green credit guidelines in 2015. Therein, it tightened the requirements to strengthen the management of environmental and social risks of credit projects in terms of organizational management, policy system, process management, internal control management and information disclosure. It set forth customer classification management standards with respect to environmental and social risks.

## Improving Green Credit Policy System and Standardizing Green Business Management

The Bank has carried out industry-specific researches by closely following government policies. It has formulated and released a number of guidance documents and selected energy conservation and environmental protection as the key sectors to be supported by green credit. It adopts differentiated and dynamic credit policies for different industries, including steelmaking, shipbuilding, photovoltaic solar energy, aluminum smelting, cement and flat glass. It also implements risk exposure management and encourages enterprises to carry out energy conservation and emission reduction attempts along with transformation and upgrading. For instance, under the Bank's credit policy for the steelmaking industry, steelmakers are subject to a list-based management measure, whereby those that meet access conditions are included in a list and given priority for credit support.

Environmental and Social Risks Management System of the Bank

- 2007

*The Guiding Opinions on Environmental and Social Impact Assessment of Loan Projects*

- 2015

*Green Credit Guidelines*

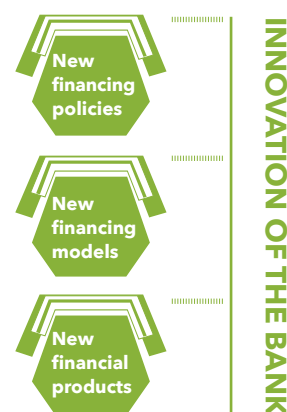
■ ■ The Bank adopts differentiated and dynamic credit policies for different industries. ■ ■

Moreover, by learning from the advanced green concepts abroad, the Bank improved its on-lending business regulation for boosting fund utilization efficiency and comprehensively carrying out green on-lending business. In addition, the Bank has also put in place green credit identification and statistics rules, enhanced its green credit business management capacity by improving the credit management system, and applied the green development concept bank-wide.

■ ■ The Bank has put in place green credit identification and statistics rules. ■ ■

## ■ ■ ■ Applying the Green Development Concept to the Business Innovation Mechanism

Innovation is the core driver of social progress and development and a key engine for the development of the banking sector. The Bank has always regarded innovation as the primary driving force for development. It has proactively applied the green development concept in business expansion and innovation as well as in the formulation of new financing policies as and when required. It has also designed new financing models and developed new financial products.



### Introducing New Green Credit Business Products Based on Green Market Demand

While consolidating its existing business and brand advantage, the Bank responded to the market demand for green finance and accelerated the pace of business innovation. It invested in R&D resources and launched a number of innovation-driven businesses, such as energy saving and environmental protection loans, RMB loans under on-lending programs and transformation and upgrade loans. Moreover, it brought into play the leading role of policy-based finance for facilitating the transformation of the model of economic growth, thus realizing healthy and sustainable development.



## FOR INSTANCE,

The Bank launched special policy loans for energy conservation and environmental protection after considering that project funds for energy conservation and environmental protection are usually in large sums, with a long investment payback period and little short-term economic returns, and that it is relatively difficult for such projects to obtain commercial funding. For encouraging enterprises to carry out technological innovation, boost resource utilization and enhance the technological content of products, the Bank rolled out transformation and upgrade loans so as to improve the international competitiveness of Chinese enterprises.

### Developing Green Consulting Business Based on Carbon Permit Transactions

Launching the Clean Development Mechanism consulting business

Launching the carbon asset consulting business

2012

2014




In 2012, the Bank launched the Clean Development Mechanism (CDM) consulting business in order to align with the low-carbon economic development strategy advocated by the government, establish the reputation and image of "go-global" Chinese enterprises in the field of low carbon and environmental protection, and support Chinese enterprises in implementing CDM projects in developing countries. However, during the two-year pilot period of the business, great changes took place in the domestic and overseas carbon markets: the EU imposed more restrictions on carbon market transaction with

global carbon trade in continued depression, whereas China kicked off a pilot for carbon emission permits trade, giving impetus to the growth of the domestic carbon market. In the face of a sluggish international carbon market but a burgeoning one at home, the Bank seized the momentum and launched the carbon asset consulting business at the end of 2014 on the basis of CDM consulting, thus expanding the business scope of carbon finance from the single international CDM market to two markets at home and abroad. While promoting the development of the carbon asset consulting business, the Bank also ventured into carbon bond underwriting, carbon factoring and carbon funds, among others, based on China's quota of carbon permits and Chinese Certified Emission Reduction (CCER), thus gradually establishing a relatively complete carbon finance business system. The launch of carbon finance business has not only enhanced the Bank's green financial service system, but also helped foster the awareness of the value of environmental resources in the society and promote the healthy development of carbon emission trade.

■ **Clean Development Mechanism is one of the flexible mechanisms defined in the Kyoto Protocol; whereby the parties thereto (industrialized countries) carry out project cooperation with developing countries in order to fulfill their greenhouse gases emission reduction obligations. Through such cooperation, developing countries can obtain funding and technology to realize sustainable development, while industrialized countries get "certified emission reduction units (CER)" to fulfill their quantified emission limitation and reduction commitments.**





## CHAPTER II: Developing and Implementing Green Finance Standards

In order to better apply the green development concept and green finance system, the Bank has formulated a set of green credit standards covering all the procedures in its business process, including project admission and investigation, risk assessment and credit approval, loan extension and disbursement, post-loan management and credit exit.

## Admission and Investigation Standards

Paying high attention to the clients' environmental risks and hazards, the Bank adopts rigorous access standards, focused on the environmental and social risk profile of clients and projects prior to the admission of credit applications. The standards require all-round, in-depth and meticulous investigations into the compliance, truthfulness and risk of domestic and overseas loan projects in terms of social benefits to form an initial investigation profile. Where the environmental and social risks involved are particularly complex and hard to determine, a qualified and independent third party is brought in.

**Focusing on the environmental and social risk profile of clients and projects prior to the admission of credit applications**

## Risk Assessment and Approval Standards

In the credit review phase, the Bank follows high standards for implementing the "pro-environment" mechanism, adhering to "four Nos".

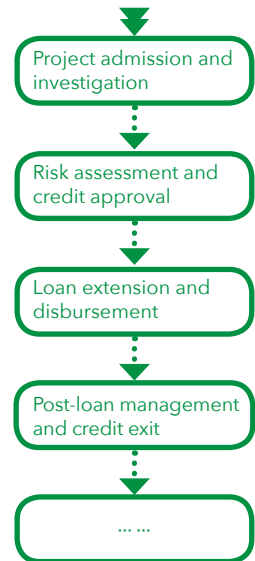


- 1 No credit support shall be provided to projects that fail to meet relevant environmental assessment, energy saving review and preliminary land review requirements of the government;
- 2 No credit support shall be provided to projects that fail to comply with relevant industry policies of the government or credit policies of the Bank;
- 3 No credit support shall be provided to projects that are categorized to be eliminated by the government;
- 4 No working capital loans shall be disbursed to projects that are established in violation of relevant regulations.

The Bank has formulated a set of

## GREEN CREDIT STANDARDS

covering all the procedures in its business process



The Bank requires that loan projects comply with the environmental protection policies, laws and regulations of China and the host countries, and obtain necessary approval from relevant authorities, while completely following the review and approval procedures. If the environmental protection mechanism in a host country is flawed – lacks an environmental and social impact assessment policy or standards – the Bank will review relevant projects with reference to the Chinese standards or international norms. In practice, the Bank's evaluation and review departments strictly follow the aforementioned requirements, making the approval from the host countries' environmental protection departments one of the prerequisites for application submission, besides considering environmental protection risk assessment as an indispensable part of risk analysis. Furthermore, the Bank has specifically stepped up compliance review of prospective credit clients to set up specific requirements accordingly. During the review, if a project fails to meet environmental impact assessment requirements, the Bank's review department shall suspend the review procedure or reject the project application.

In addition, the Bank determines a reasonable credit authority and approval process based on the nature and gravity of the environmental and social risks of customers and projects. Take industries plagued by overcapacity for example, such as steelmaking, cement, flat glass, electrolytic aluminum, shipbuilding and photovoltaic industries, domestic fixed asset investment projects arising out of new capacity are uniformly reviewed and approved by the Head Office, so as to further reinforce capacity control and environmental protection review of such industries.

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## **III. Loan Disbursement Standards**

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The Bank sees environmental and social risk management of clients as a crucial basis for loan distribution and disbursement reviews, hence controlling environmental and social risks by credit means. If a customer is found to potentially have substantial risks during such review, loan distribution and disbursement could be suspended or even terminated.



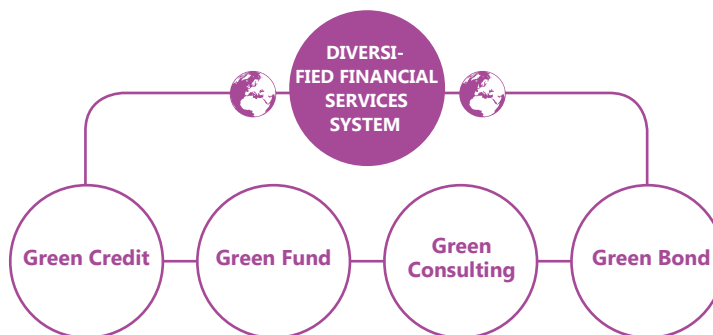


# CHAPTER III:

## Carrying out Green Finance Actions



As an old Chinese saying goes, it is important to put good methods to work. In line with this wisdom, the Bank has applied green ideas, policies and standards to its operations in all aspects. It has combined supporting the upgrade and renovation of conventional industries with supporting the development of emerging strategic industries. It has combined supporting leading green enterprises to go-global with the introduction of advanced green technologies and concepts abroad. It has combined supporting green economic development worldwide with the promotion of international economic cooperation. And it has combined strengthening green financial support with the enhancement of its own environmental and social protection responsibility. Thereby, the Bank has set up a diversified financial services system comprising green credit, green fund, green consulting and green bond.



## 1. Varieties of Green Credit

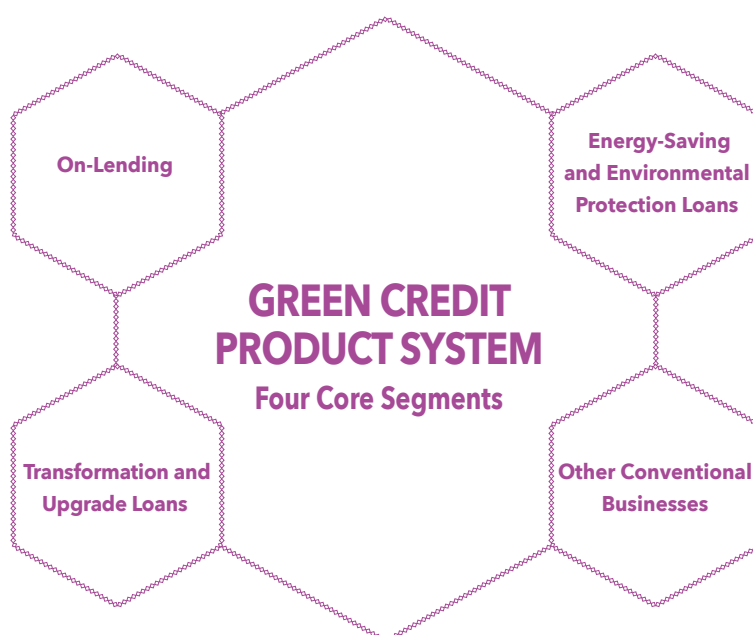
Through years of practice of having a dual focus on both conventional business, such as on-lending, and various kinds of innovation-based business, the Bank has established a green credit product system centering on the four core segments, namely on-lending, energy-saving and environmental protection loans, transformation and upgrade loans, and other key conventional credit products.

### On-Lending

The On-lending Department, which is responsible for providing on-lending service for loans from foreign governments and international financial institutions, has been set up at the Head Office.

### Energy-Saving and Environmental Protection Loans

These loans are aimed at enhancing the environmental friendliness of Chinese products along with promoting energy conservation, emission reduction and environmental protection. They are a special credit product of the Bank, designed for supporting green development.



### Transformation and Upgrade Loans

The Bank persistently works on revitalizing the existing volume of loans while aiming for business growth. It focuses on supporting the upgrade of traditional industries and facilitating the development of emerging strategic industries.

### Other Conventional Businesses

The Bank has applied the green development concept by supporting enterprises to go global and promoting the Belt and Road Initiative, and carrying out international industrial capacity cooperation. Moreover, it has urged globally operating Chinese enterprises to fulfill their green and social responsibilities, thus promoting sustainable development of the world economy.





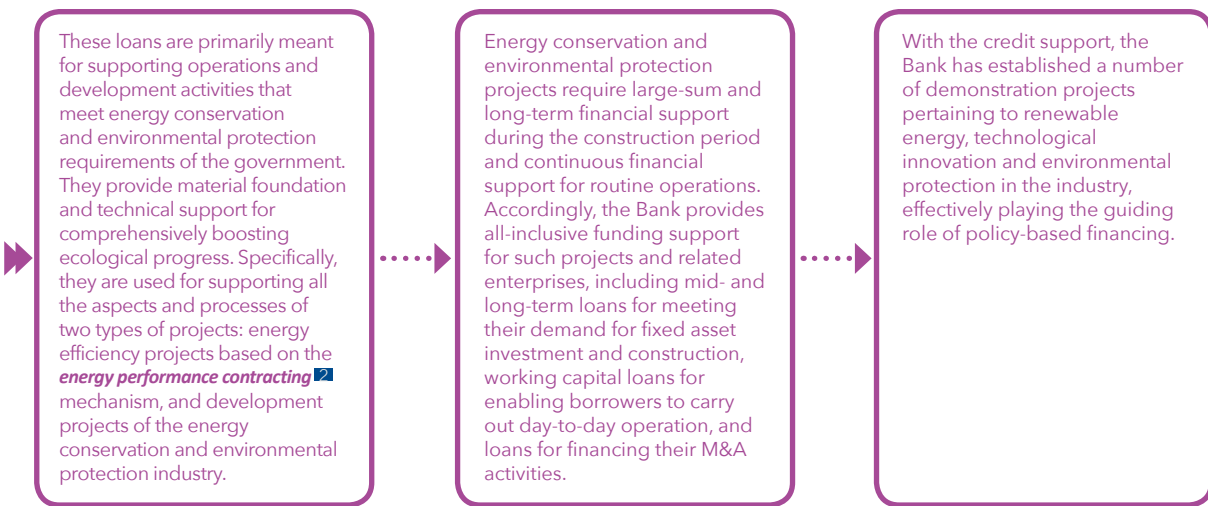
**On-Lending:** On-lending is a key conventional credit product of the Bank which supports green development. The On-lending Department, which is responsible for providing on-lending service for loans from foreign governments and international financial institutions, has been set up at the Head Office. So far, a product structure, comprising on-lending for energy saving and environmental protection purposes and new energy loans with the Bank's unique characteristics, has taken shape. It has contributed significantly to the development of green economy.

### THE SCOPE OF THE GREEN ON-LENDING BUSINESS

- Energy-saving technological renovation projects in support of the traditional industry, energy efficiency projects based on the energy performance contracting mechanism, and high-end energy efficiency projects, which are all aimed at reducing energy consumption and boosting energy utilization efficiency;
- Various kinds of environmental protection projects, such as environmental management and improvement projects, comprehensive resource utilization projects and circular economy industrial development projects, which are aimed at improving environmental quality, preventing environmental risks and facilitating ecological progress;
- Corporate projects in the new energy industry and new energy automobile industry, such as new construction, reconstruction, expansion, equipment purchase, other fixed asset investments and funding for daily operations and M&A activities.



**Energy-Saving and Environmental Protection Loans:** These loans are aimed at enhancing the environmental friendliness of Chinese products along with promoting energy conservation, emission reduction and environmental protection. They are a special credit product of the Bank, designed for supporting green development.



■ **Energy Performance Contracting (EPC)** is a form of contracts between energy-saving service companies and energy users with defined energy saving objectives, whereby energy-saving service companies provide energy users with necessary services, including one-stop professional services such as energy diagnosis, assessment of improvement plans and engineering design, in order to fulfill the said objectives. In the meantime, energy users pay for the inputs and reasonable profits of the former from energy savings. In essence, EPC is a new market-oriented energy saving mechanism using energy savings to cover all the costs of energy saving projects.

**TRANSFORMA-  
TION  
AND UPGRADE  
LOANS**

**Transformation and Upgrade Loans:** These loans are one of the innovation-based businesses of the Bank, designed for supporting green development. Transformation and upgrade loans are aimed at supporting the transformation, upgrade and technical renovation of enterprises, apart from enhancing their independent innovation capability and international operational capacity as well as developing new competitive edges for international economic cooperation. The Bank persistently works on revitalizing the existing volume of loans while aiming for business growth. It focuses on supporting the upgrade of traditional industries and facilitating the development of emerging strategic industries.

In strict compliance with the green credit access standards, the Bank supports resources-centered enterprises with heavy energy conservation and emission reduction tasks and huge pressure for transformation and upgrade, such as steelmaking and papermaking enterprises, so that they can lower energy consumption, enhance efficiency, innovate and renovate.



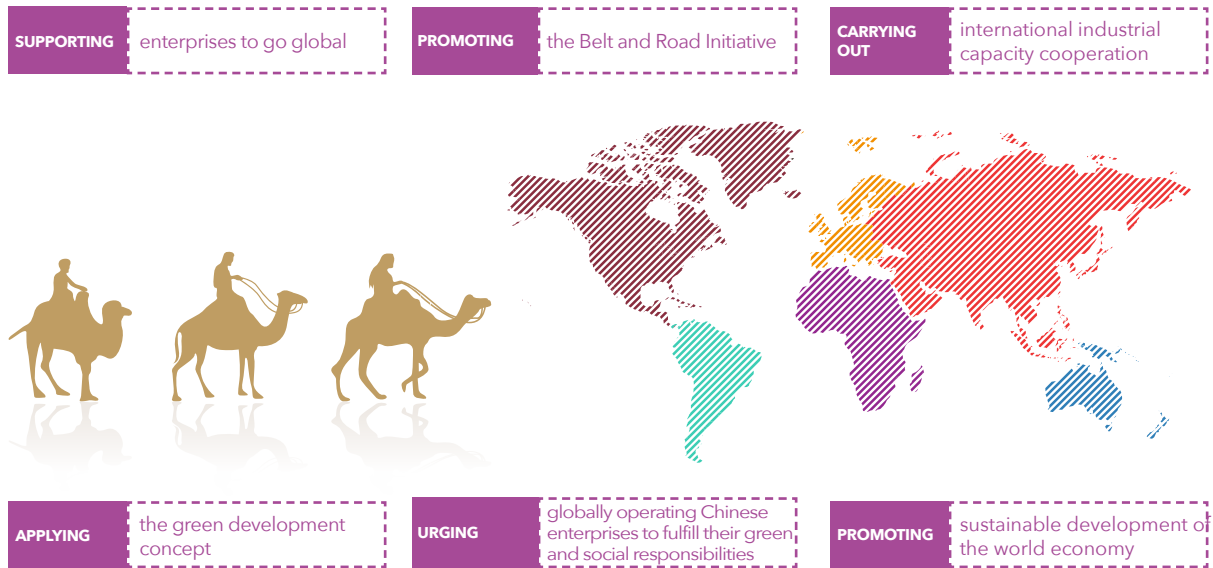
At the same time, the Bank has expanded the application scope of corporate innovation and development loans for new energy and new energy automobile industries as well as efficient and energy saving industry, hence providing financial support to comprehensive and sustainable socio-economic development.

**OTHER  
CONVENTIONAL  
BUSINESSES**

**Other Conventional Businesses:** Concessional loans and loans for overseas project contracting and investment are the key credit products of the Bank, designed for supporting enterprises to carry out international economic cooperation. By virtue of these loans, the Bank has applied the green development concept by supporting enterprises to go global and promoting the Belt and Road Initiative, and carrying out international industrial capacity cooperation. Moreover, it has urged globally operating Chinese enterprises to fulfill their green and social responsibilities, thus promoting sustainable development of the world economy. Under the guidance and restrictions of the rigorous green finance standards, the Bank has consistently given priority to environmental protection, complied with relevant requirements and accepted the supervision of local environmental authorities and international organizations. It has also supported a large number of projects featuring low energy consumption and high value added in areas of new energy development and utilization and the circular economy. These projects have facilitated the introduction of Chinese green industry and standards in the world market, promoted capacity transfer and enhanced the international competitiveness of China's green industry. More importantly, they have helped partner countries with the protection of ecological environment and



development of green economy, thus substantially contributing to the sustainable development of other countries and the world as a whole.



## Setting up Environmental Protection Equity Funds

To better implement the foreign trade and industrial policies of the government and meet clients' demand for diverse financial services as they go global for international economic cooperation, the Bank has worked with prominent institutional investors at home and abroad for setting up a number of equity investment funds in the form of sponsorship and capital contribution. It has provided enterprises with various services, such as equity investment, guarantee and investment consulting, while implementing the green development concept during the process.

Founded by the Bank to give specific support to the development of the energy conservation and environmental protection industry, the China-

Japan Energy-Saving and Environmental Protection Investment Fund is a typical case of financial cooperation driving collaboration in the energy conservation and environmental protection industry. To strengthen bilateral cooperation in this field, learn world-leading technology and managerial expertise and boost Chinese enterprises' independent innovation capabilities in the energy conservation and environmental protection domain, the Bank co-founded the investment fund with Japan Bank for International Cooperation and Mizuho Bank. The fund, amounting to RMB 1 billion in total, is held 50% by China and Japan each, and was put into operation in 2013. It mainly targets at energy conservation and environmental protection projects jointly implemented by Japanese and Chinese enterprises. The Chinese government realizes energy conservation and environmental protection by means of bringing in Japan's advanced equipment, technology and management models, and motivates Chinese enterprises to produce products with independent intellectual property, brand and high value added. So far, the fund has supported a number of projects through equity investment in areas of water treatment, photovoltaic power generation, cogeneration of heat and electricity and industrial energy conservation. All this has helped enhance the technical level and international competitiveness of China's energy conservation and environmental protection industry, besides providing technical support for economic restructuring and transformation of economic development models.

Other regional cooperation funds set up by the Bank have also actively practiced the green concept and engaged in green equity financing as they invest worldwide. Over 55% of the projects invested by the China - Central and Eastern Europe Investment Cooperation Fund are in the green energy fields, such as wind power and photovoltaic power generation. It has helped reduce around two million tons of carbon dioxide emissions in Poland and Czech, and assist them in lowering their dependence on international energy and complying with EU's green energy standards. The China - ASEAN Investment Cooperation Fund also proactively applies the investment philosophy of promoting sustainable economic growth in the region. It has boosted the level of renewable energy development and utilization in ASEAN countries. For example, the Bank has invested in a project in Thailand which uses agricultural waste, bark, black liquor and other biomass materials to generate power.

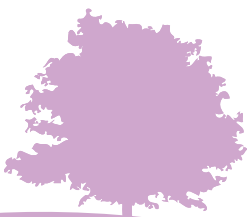
■ ■ The fund mainly targets at energy conservation and environmental protection projects jointly implemented by Japanese and Chinese enterprises. The Chinese government realizes energy conservation and environmental protection by means of bringing in Japan's advanced equipment, technology and management models, and motivates Chinese enterprises to produce products with independent intellectual property, brand and high value added. ■ ■

OVER 55%

of the projects invested by the China - Central and Eastern Europe Investment Cooperation Fund are in the green energy fields, such as wind power and photovoltaic power generation. It has helped reduce

AROUND 200 MILLION Tons

of carbon dioxide emissions in Poland and Czech.



### III. Providing Carbon-Related Financial Services

The carbon finance business system of the Bank comprises carbon asset consulting, credit enhancement, carbon factoring, carbon bonds underwriting and carbon funding. At present, the Bank mainly engages in carbon asset consulting and credit enhancement.



The Bank conducts its carbon asset consulting business by cooperating with qualified consulting institutions. In international markets, the business involves assisting enterprises with CDM projects, including domestic approval or approval by countries where such projects are located, UN registration, obtaining certified emission reduction (CER), and seeking buyers to complete carbon transactions. In the domestic market, it involves conducting carbon asset checks, providing carbon asset management consulting service to enterprises, and assisting enterprise with voluntary CER projects, among others. By the end of 2015, the Bank had provided the service to a number of enterprises, including Wuhan Iron and Steel (Group) Corp., Hubei Yihua Chemical Industry Co., Ltd., XEMC New Energy Co., Ltd., Hunan Jinwang Bismuth Industrial Co., Ltd., and Beijing Zhineng Xiangying Energy Conservation and Environmental Protection Technology Co., Ltd.

On carbon asset credit enhancement, the Bank entered into a carbon-emission permit pledge loan agreement with the largest lump sum in China with Hubei Yihua Group, setting a precedent for extending such loans as a policy bank.

### IV. Issuance of Green Bonds

Guided by the public announcement made by the People's Bank of China to encourage financial institutions to issue green bonds, China Eximbank proactively followed up its study on the issuance of green bonds which cater to its own business. In December 2016, the Bank successfully launched its first issuance of green bonds, marking the first green bond ever issued by a policy bank in China. Utilization of fund raised will abide by relevant law and supervision requirements, and will be put into green sector projects under the list approved by the green finance committee of the China Society for Finance and Banking. This

■ ■ Launching the first green bond ever issued by a policy bank in China ■ ■



issuance enabled the Bank to establish a list of qualified green sector projects and put a number of projects in the pipeline. A third-party independent assessment report indicates that the fund will generate sound environmental benefits.

This first issuance of green bonds has helped fill in the gaps for higher credit rating issuers in the green bond market, set up a demonstrative role, set the pace for other financial institutions to engage further in the green bond market, inject vitality to the market, and provide more diversified and higher rated green bonds for investors. Furthermore, this will further expand the fund-raising channel of the Bank's green credit business, lower the fund-raising cost of green sector projects, and strengthen the role of policy finance in specially supporting the green sector. Going forward, the Export-Import Bank of China shall continue to develop its green bond business, optimize its product mix to support green economy, and contribute more to the shift to a greener economy.

## V. Carrying Out International Exchanges and Cooperation

As a policy bank committed to international economic cooperation, the Bank has established an all-inclusive and multi-level cooperation and exchange mechanism with international institutions, including the World Bank, Asian Development Bank and KfW. It has offered support to a large number of projects in the areas of building materials, chemicals, iron and steel, wind power, biomass power generation, solar power and small hydropower stations, playing an important role in allocating green resources to the real economy by means of policy-based financing.



**THE BANK HAS MAINTAINED A MORE THAN 8-YEAR-LONG PARTNERSHIP WITH THE WORLD BANK IN THE AREAS OF ENERGY CONSERVATION AND EMISSION REDUCTION**

The two institutions have jointly launched the China Energy Conservation Financing Project and the On-lending Project (Phase III) for Energy Conservation successively, with the World Bank providing **USD 200 million** of loans and the Bank providing Renminbi loans on a pro rata basis.

A total of **71** energy-saving loan projects had been implemented, involving a contractual amount of **USD 280 million** and **RMB 4,166 million**, with the loan balance amounting to **USD 89 million** and **RMB 1,788 million**.

Since 2008

As of June 30, 2016



By providing enterprises with preferential funding, advanced management concepts and technical support, these projects have effectively narrowed the gap between China and industrialized countries in developing core green capabilities. In addition, the Bank also puts emphasis on strengthening exchanges and cooperation with international organizations regarding the projects it supports. For example, in pushing forward the project of Karot Hydropower Station in Pakistan, the Bank invited the International Finance Corporation (IFC) under the World Bank for participation and carried out relevant work according to IFC's standards.



Moreover, the Bank has reached a cooperation agreement with the Japan Bank for International Cooperation for supporting energy conservation and environmental protection projects in China. In this regard, Japan will provide export credit funds so that domestic environmental protection projects can bring in advanced technology and equipment from abroad. Also, the Bank has cooperated with Société Générale and Raiffeisen Bank International for supporting the upgrade and transformation of China's iron and steel industry.

The on-lending projects carried out by the Bank need to comply with domestic laws, rules and regulations, as well as the social and environmental guidelines of foreign development organizations on project financing. Moreover, standard social and environmental assessment processes need to be implemented and project evaluation is done by foreign experts, allowing the Bank to learn from and draw on the world's advanced concepts and practices. Furthermore, the Bank often invites energy conservation and environmental protection experts from international financial organizations to conduct training in China in the form of seminar, themed lecture, project cooperation, or resident external expert, so as to enhance its green finance business.

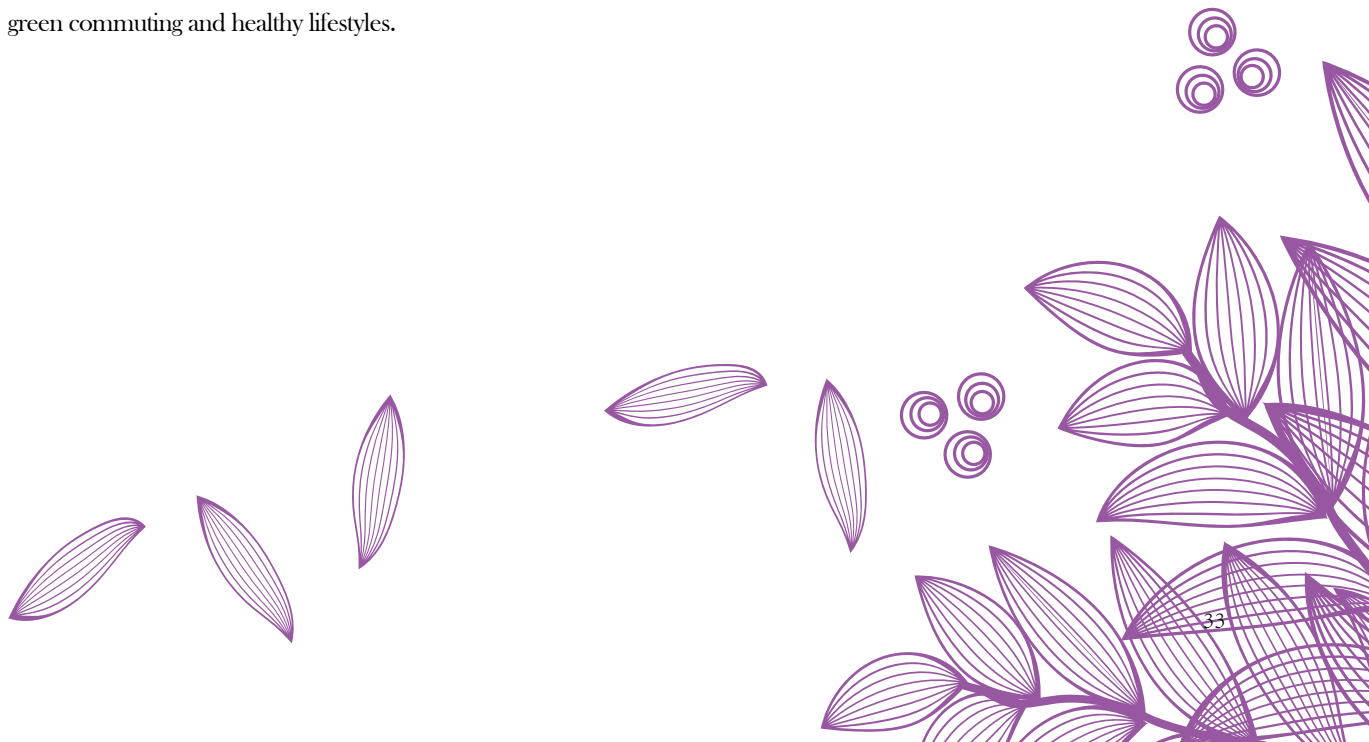
## **VI Enhancing Environmental and Social Performance**

### **Comprehensively Promoting Online Banking**

The Bank has vigorously developed its online banking business, continuously diversified online banking products and functions, optimized online banking business processes, steered and promoted the business by setting assessment targets, and lowered environmental costs during its operations. So far, online banking has fully covered the Head Office's credit departments and its domestic branches. In 2015, the Bank completed 17,500 online banking transactions in total, with the transaction amount increasing by 154% year-on-year.

### **Vigorously Promoting the Green Office Approach**

The Bank has constantly increased investment on IT application, enhanced paperless office practices and reduced carbon emission and energy consumption, including water and electricity, with electricity consumption per unit area in premises decreasing every year. In addition, the Bank has exercised classification management of major waste products for the recovery and disposal thereof; photocopiers, printer cartridges and other consumables are recycled while furniture, electric appliances and office text assets are put into extended use depending on their functioning condition upon the end of the depreciation period. By doing so, the Bank has lowered the negative impact of its operations on the environment and fulfilled its social responsibility. Moreover, the Bank stresses the importance of raising its employees' awareness of energy conservation and environmental protection, organizing them to take part in tree plantation and other public-benefit activities, and encouraging them to adopt green commuting and healthy lifestyles.



# CHAPTER IV

## Green Finance: Achievements and Case Study



The Export-Import Bank of China has been following a balanced green finance approach over the last few years. On the one hand, the Bank has been supporting green circular development industries with low carbon emission; while on the other hand, it has been rigorously controlling credit lines extended to industries that are less energy-efficient, more polluting or with overcapacity. Consequently, the Bank has achieved remarkable results in optimizing the allocation of its financial resources.

**The Bank's loan operations on energy-efficient, environment-friendly and new energy projects have achieved leapfrog growth**

As of the end of 2015, balance of lending to energy-efficient and eco-friendly projects ("eco projects") and services stood at RMB 76.602 billion, an increase of RMB 23.683 billion as compared to the start of the year, a year-on-year growth of 44.75%. The figure outperformed the Bank's growth in overall lending balance for the same period by 24 basis points and accounted for 3.56% of the total on-balance-sheet lending balance. In terms of lending to energy-efficient, eco-friendly, new energy and alternative energy vehicle sectors, as of the end of

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A year-on-year growth of



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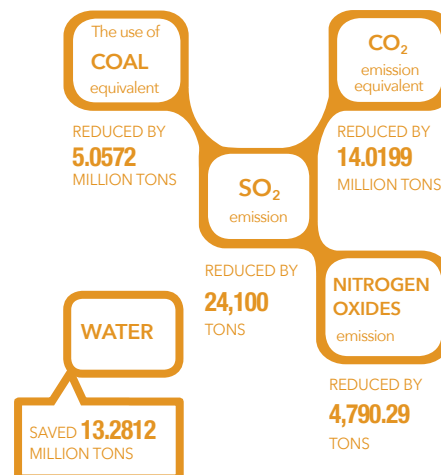
2015, the Bank's balance of lending to these foregoing sectors amounted to RMB 100.548 billion, with an annual increase of RMB 36.155 billion and up by 56.15% than the previous year, accounting for 4.68% of bank-wide on-balance-sheet lending balance. In 2015, the Bank's eco project and service loans together reduced the use of coal equivalent by 5.0572 million tons, CO<sub>2</sub> emission equivalent by 14.0199 million tons, SO<sub>2</sub> by 24,100 tons and nitrogen oxides by 4,790.29 tons, and saved 13.2812 million tons of water. This has generated remarkable environmental protection and social benefits.

**The Bank has been rigorously controlling credit lines ex-tended to industries that are less energy-efficient, more polluting or with overcapacity**

Stringent restrictions were imposed on lending to industries that are less energy-efficient, more polluting or plagued with overcapacity, as well as to companies that do not comply with law and regulations on environmental protection and safe production, or those still under environmental standard rectification/ and reform. As a result, balance of lending to the aforementioned industries has been on a steady decline over the years. Even in terms of credit structure, the majority of loans granted to the above-mentioned industries were invested in the sponsored companies' product import and export, offshore project contracting, offshore investment and other areas of international economic cooperation, along with supporting energy conservation and emission reduction and technology upgrade and reform. To date, no credit has been extended to business entities in violation of laws and regulations on environmental protection and safe production or to those which have not completed their rectification and reform efforts.

## In 2015

the Bank's eco project and service loans together *reduced or saved*:



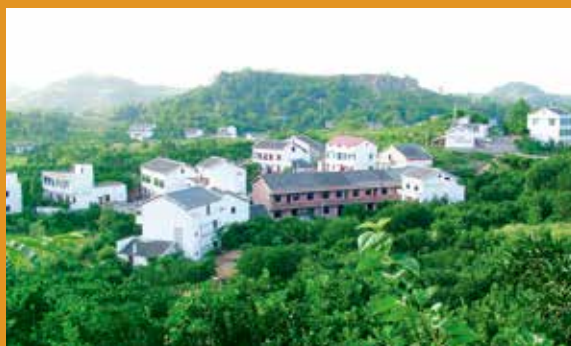
## Case Study

### 01 CASE STUDY Biogas Eco-Home in Rural Areas

The Bank's on-lending loan from Agence Francaise E Developpement (AFD) helped 12 counties heavily hit by earthquake across five cities in Sichuan province to complete biogas post-quake reconstruction, contributing to the development of eco-friendly homes in rural areas.

The program effectively improved the living environment and hygiene conditions of over 300,000 local residents. Moreover, through comprehensive use of biogas and the circular economic model featuring "swine-biogas-fruit", the program financially uplifted farming population in quake-stricken areas by up to RMB 100 million per annu). In addition, around 100,000 biogas pools built under the program have a capacity of generating more than 45 million cubic meters

of biogas a year, which is the equivalent of over 20,000 kilograms of wood fuel, thus reducing CO<sub>2</sub> emission by 200,000 tons. The use of biogas also helped protect forest vegetation and reduce water and soil erosion, thus playing a remarkable role in the protection of the eco-environment.



### 02 CASE STUDY New Energy Program by Kaidi New Energy Corporation

The Bank supported Kaidi Corporation in new energy development through on-lending loans under the China-Germany Energy Efficiency and Renewable Energy Program and its affiliated RMB-denominated loans.

The project plans to build 11 biomass power plants fueled by rice husk, straw and other agricultural wastes. In addition to its healthy economic and environmental benefits, the project has the potential of generating a sizable income and vast employment opportunities for local farmers. The construction initiated under the program represents what the state

has achieved in its energy conservation/emission reduction, new energy policies and new rural area development initiatives.



## 03 CASE STUDY

# Lafarge Shui On Cement Kiln Residual Heat Power Generation Program

The Bank granted an energy conservation loan to China Energy Conservation and Environmental Protection Group (CECEP) on the Lafarge Shui On cement kiln residual heat power generation program, which is implemented in the form of contracted energy management. Specifically, it involves using the residual heat from kiln exhausts from cement production lines of the six subsidiaries of Lafarge Shui On Cement Limited for power generation. Given that the six cement production lines were built quite early and equipments are outdated, a high level of pollution to the environment is generated. The Bank requires the borrower to develop an environment management plan based on their present situation and results of public surveys when implementing such residual heat power generation program. The plan includes a pollution reduction approach in the construction phase and a test in the operation phase, reducing the environmental impact of airborne dust, waste water, noise and solid waste, thereby generating good environmental and social benefits.

The program visibly reduced the exhaust's dust



content from the original cement production process system, lowered the density of dust in the exhaust from the dust catcher at kiln tail, increased dust-removing efficiency of the dust catcher and reduced dust external discharge. In addition, the use of exhaust air by residual heat boilers lowered the temperature of external exhaust discharge, and reduced heat pollution to the air, thus diminishing the greenhouse effect. A public feedback solicitation and disclosure of the environment management plan and regular reports to the Bank on environmental impact have played an effective supervisory role over the project's environmental impact during project roll-out.

## 04 CASE STUDY

# New Energy Vehicle (EV) Program by Wanxiang Group

The Bank offered transformation/upgrade loan in support of the technology renovation, innovation and R&D efforts of Wanxiang Electric Vehicle Limited. In particular, the project involves

conducting technology reform on the original projects and building up a new EV-grade lithium ion battery system production line with 60 million Ah capacity per annum. It also involves adaptive

refurbishment of the production workshops, establishment of a centralized production environment suitable for the large-scale production of lithium ion batteries, development of an R&D and testing center and product R&D platform for EV-grade lithium ion battery system, and tentatively establishing a rating system and standard-setting system for production quality both on the producing line and in application.

Energy utilization of battery electric vehicle (BEV) is far higher than that of conventional fuel-burning vehicles, lending the former a significant edge in environment protection and making it a key direction for reform of the auto industry. The

program's success prompted the implementation of the State's industrial policies, supported growth in the new energy vehicle sector and served as guidance and model for private-sector capital to enter the field of new energy vehicles.



## **05** CASE STUDY **Energy Conservation and Power Quality Upgrade Program by Shandong Provincial Power Distribution Network**

The Bank on-lent the World Bank's energy conservation loans and provided RMB-denominated affiliated loans to the State Grid Energy Conservation Services Co., Ltd.'s for its provision of power distribution network energy conservation and power quality upgrade services to State Grid Shandong Power Company in the form of contracted energy management.

The completion and commissioning of the project significantly improved Shandong's progress on power distribution network energy-conservation, achieved full coverage of reactive power compensation equipments in low-voltage areas across 98 counties in 17 cities of the province, with supporting power distribution network energy efficiency management system built in parallel.

It has realized the power-saving target of 271.26 million KWH a year, which is the equivalent of saving around 89,500 tons of coal equivalent a year, and helps reduce CO<sub>2</sub> emission by around 218,300 tons a year, generating remarkable energy conservation and emission reduction benefits.





## 06 CASE STUDY

### Shanghai Inland Waterway Treatment Project

The Bank spearheaded the formation of a syndication loan in support of the Shanghai inland waterway treatment project launched by Shanghai Tongsheng Investment (Group) Limited. The project comprises four sub-projects: Dalu Route Phase I, Hangshen Route, Huangpu River and Dalu Route Phase II. The project is fully capable of leveraging the advantages of inland shipping in terms of high capacity, low energy consumption and cost, safety and speed and environmental protection while relieving the pressure on road transport and reducing pollution in the urban environment.

In addition to contributing to making the city of Shanghai an eco-friendly and resource-conserving

shipping hub, the project has established a sound social image among banks operating in Shanghai. The project was awarded “Social Responsibility Award” for syndication loan by the Shanghai Banking Association in 2012.



## 07 CASE STUDY

### Clean Straw Pulping and Papermaking Circular Economy Pilot Project



The Bank provided eco-project loans to Quanlin (Heilongjiang) Eco-Farming Co., Ltd. for supporting the use of straw in the pulping, paper-making and fertilizer production industry. The industry is based

on the circular economic development model featuring in-depth use of crop straws as raw material. Moreover, the industry is technology-intensive and environment-friendly, with the additional benefit of using the byproduct of reclaimed water and ammonia desulfurization, ammonium sulfite as production material. The company, which owns the intellectual property rights of this internationally recognized modern technological system, has succeeded in reducing pollution burden and recycling wastes, thereby enabling straw pulp-based paper-making to achieve environmental protection results that are superior to the results obtained from wood pulp-based paper-making.

The project is located in the city of Jiamusi of Heilongjiang Province. Upon completion, the project is expected to use 4 million tons of straw per annum, avoiding 7.2 million tons of CO<sub>2</sub> generated from straw burning. The project will be able to reduce the emission of chemical oxygen demand (COD) by 5.238 million tons than natural disposal of straws. In addition, the project will produce 1.2 million tons of straw pulp a year, replacing 4.8 million cubic meters of wood, equaling

152,000 hectares of forest vegetation which could absorb 8.784 million tons of CO<sub>2</sub> and release 7.776 million tons of oxygen. The project is bound to produce financial, ecological and environmental benefits.



## Inner Mongolia Photovoltaic (PV) Power Station Project

The project makes full use of abundant local solar energy resources to improve the power source structure of Inner Mongolia and help



direct the development of the local renewable energy industry. It will contribute positively to the protection of the regional ecosystem. Upon completion, the project is expected to save around 59,000 tons of coal equivalent a year, reduce SO<sub>2</sub> emission by around 5,572 tons, nitrogen oxides by approximately 528 tons and CO<sub>2</sub> emission by about 160,940 tons.



## Adama Wind Power Project in Ethiopia

The Bank has helped finance the Adama Wind Power Project in Ethiopia. The project is located in the Adama region, central Ethiopia. Phase 1 of the project involves installing 34 wind power units with 1,500 KW capacity per unit, totaling 51 MW in installed capacity. Phase

1 of the project has now been completed and launched into operation. Phase 2 will install 102 wind power units with 1.5

MW capacity per unit, totaling 153 MW in installed capacity. Pilots for Phase 2 have now been launched in sections.

The project enhanced Ethiopia's technological capacity for wind power development, lowered its power generation cost and improved Ethiopia's power supply capability in the short term. As a substitute for fuel-burning power station of the same size, Phase 1 of the project is expected to save 59,000 tons of heavy oil a year, reducing CO<sub>2</sub> emission by around 212,200 tons. Upon completion, Phase 2 of the project is expected to supply 476 million KWH of power to Ethiopia's



power grid, effectively filling the country's power supply gap.

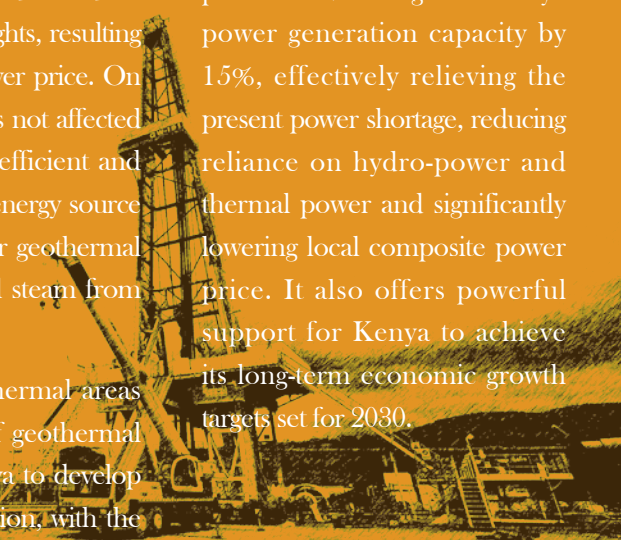
The project is the first in Ethiopia's domestic power project history to be completed within the contract schedule and the first wind power general contracting project to engage Chinese service providers for funding, technology, standards, equipment, design, construction, consultation and operation management. It has not only helped the developing countries to achieve sustainable development with clean energy but also motivated eco-minded Chinese companies to "venture out" across the value chain.

## **10** CASE STUDY **Olkaria (Kenya) Geothermal Area Drilling and Material Procurement Project**

Kenya has long been relying on hydro-power. However, the downside of such power generation approach is that it is prone to draughts, resulting in unstable power supply and the extreme volatility in power price. On the other hand, power generation with geothermal steam is not affected by volatility in international energy price. It is also cost-efficient and delivers stable economic benefits. Moreover, it is a green energy source recognized across the world. Drilling is the foundation for geothermal power generation as it is required to drill out geothermal steam from underground for use in power generation later.

The Bank sponsored two drilling projects in the geothermal areas of Olkaria, Kenya, helping Kenya enhance its ability of geothermal resource development. The two projects will enable Kenya to develop around 560 MW of geothermal steam for power generation, with the

potential of boosting the country's power generation capacity by 15%, effectively relieving the present power shortage, reducing reliance on hydro-power and thermal power and significantly lowering local composite power price. It also offers powerful support for Kenya to achieve its long-term economic growth targets set for 2030.



# 11

CASE STUDY

## Mombasa-Nairobi Railway Project in Kenya

Mombasa-Nairobi Railway, linking Mombasa, the largest East African port and Nairobi, Kenya's capital, is the first newly-built railway in Kenya in nearly a century. The railway is 480 kilometers in length, with a total investment of USD 3.8 billion, and is built by a Chinese company with the Bank's lending support. It runs across Kenya's largest wild life preservation area - Tsavo National Park, making environment protection a challenge in the construction period, and a key area to be watched, reviewed and controlled by the Bank in its financing process.

The Bank has closely followed the project's development in terms of environmental and social risk control and has stressed on urging the Chinese companies involved in the project to reinforce their environmental protection efforts throughout the lending process. During the construction of the Tsavo section of the railway, the Chinese side designed a range of animal passageways to better



protect local wildlife and ecosystem. A seven-meter high bridge pass was set up for giraffes to safely cross the railway. Moreover, the engineers made flexible adjustments to the earthwork, digging and construction process based on the animals' resting hours and living habits, which gained approval from local environmental protection authorities and the public.

# 12

CASE STUDY

## Sewage Treatment Project in Equatorial Guinea

The Bank sponsored the city sewage network and sewage processing plant project in Malabo, capital of Equatorial Guinea. The main components of the project include a sewage network and a sewage processing plant in the old town of Malabo, a sewage network in the city's new town, a water supply/sewage network along the new highway along with a sewage network, a sewage processing station and a water supply network in the Barnabas community.

In addition to improving the city environment and reducing water pollution, the project significantly improved city sewage treatment and water discharge

infrastructure in Equatorial Guinea and helped foster rapid urban economic growth, thus producing satisfactory environmental and social benefits.



# 13

CASE STUDY

## Cuimba Farm Project in Angola

Situated in the city of Cuimba in Zaire Province of Angola, the project involves building a large-scale modern farm. Project components include farm land reclamation and supporting irrigation facilities; construction of plant transportation infrastructure, operating roads and field workstations, pump stations and corn warehousing/drying/processing equipment; provision of vehicles and farming instruments required for production at the farm; construction of frozen processing plants, breeding farms, hatcheries, and feedstuff plants; other auxiliary facilities; and trial production of agricultural products and staff training.

By introducing advanced farming technologies and extending the industrial chain, the project has not



only fostered fast growth in the region's farming and animal farming sectors for the promotion of green agriculture, but has also led to improvement of the living and production standards for local and neighboring residents and better preservation of nature and ecology.

# 14

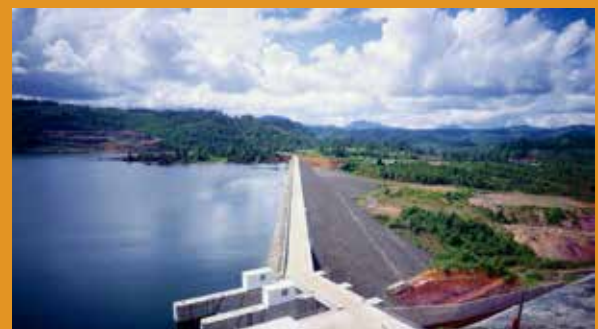
CASE STUDY

## Houay Lamphan Gnai Hydropower Project in the Laos

The Bank has helped finance the Houay Lamphan Gnai Hydropower Project in the Laos. The project is situated on the Houay Lamphan Gnai river in the south of the Laos, with a total installed capacity of 88,000 kWh. The main dam of the power station is of a clay-core rubble structure which is 75.6 meter in height and 557.3 meter in length, with a maximum capacity of 141 million m<sup>3</sup> and 122 million m<sup>3</sup> effective capacity. In November 2015, the power generation ceremony for the project was held in the Xekong Province of the Laos.

The Lao economy features relatively low level of

electrification, with the country's residents burning fuel wood as a source of energy for domestic use, resulting in massive amount of quality wood being



cut each year. The project is part of Laos' power development plan and upon completion, it is expected to generate 480 million kWh of power a year, which will not only reduce forestry exploitation and improve the ecosystem but will also provide quality clean energy and constant drive for the economic and social development of four southern provinces of the Laos. The project will effectively alleviate the country's power shortage and enhance

the Lao residents' domestic power usage. Moreover, a part of the residual power could even be exported to neighboring countries to generate remarkable financial benefits, which is highly recognized by the Lao government. In addition, the project provides local jobs and, through resident migration and division of place of residence, improves the living environment of local residents.

# 15

CASE STUDY

## Kostolac Power Station (Phase 1) Project in Serbia

The existing power infrastructure in Serbia is extremely outdated, impacting the safety, stability and efficiency of power supply, making it impossible for the facilities to meet the ever growing domestic demand for power and the EU's environment requirements for generation facilities. The Bank helped finance the Kostolac Power Station Project, which helps the country achieve an innovative, economically efficient, eco-friendly and sustainable energy development model.

The project is located in Kostolac region by the Danube River in the northeast of Serbia. Main construction work includes overhaul of the two existing units and building a new desulfurization system. The overhaul completed at the end of 2014 and launched into operation while the new desulfurization system is scheduled to be completed by end of 2016. Upon completion, the Kostolac Power Station will become the first power station in Serbia to adopt flue gas desulfurization, with the potential of lowering emissions of sulfites and nitrides from 600 mg/Nm<sup>3</sup> and 500 mg/Nm<sup>3</sup>

to below 200 mg/Nm<sup>3</sup> and dust discharge from the original 200 mg/Nm<sup>3</sup> to below 30 mg/Nm<sup>3</sup>. This will fully meet the EU's stringent emission standards and significantly reduce the air pollution of discharges. In addition, the overhaul of units could help significantly increase the installed capacity and technological level of nationwide power system and potentially increase power generation by existing facilities by 12% a year, thus effectively alleviating local power shortage. Therefore, the project will play a key role in Serbia's successful roll-out of its efficient and eco-friendly energy development strategies.



# 16

CASE STUDY

## Railway Sector Project in Belarus

The Bank provided financing support to Belarus's railway electrification project, including supporting the country in introducing China-made high-end smart electrical locomotive and implement electrification renovation of its existing railway sections.

The project has deepened collaboration between China and Belarus on the economic, trade and financial fronts, and facilitated China's railway equipment and services to enter the European market. Upon completion, it will further increase the capacity of Belarus's railway, significantly reduce

energy use and environmental pollution, and foster sustainable economic development.



# 17

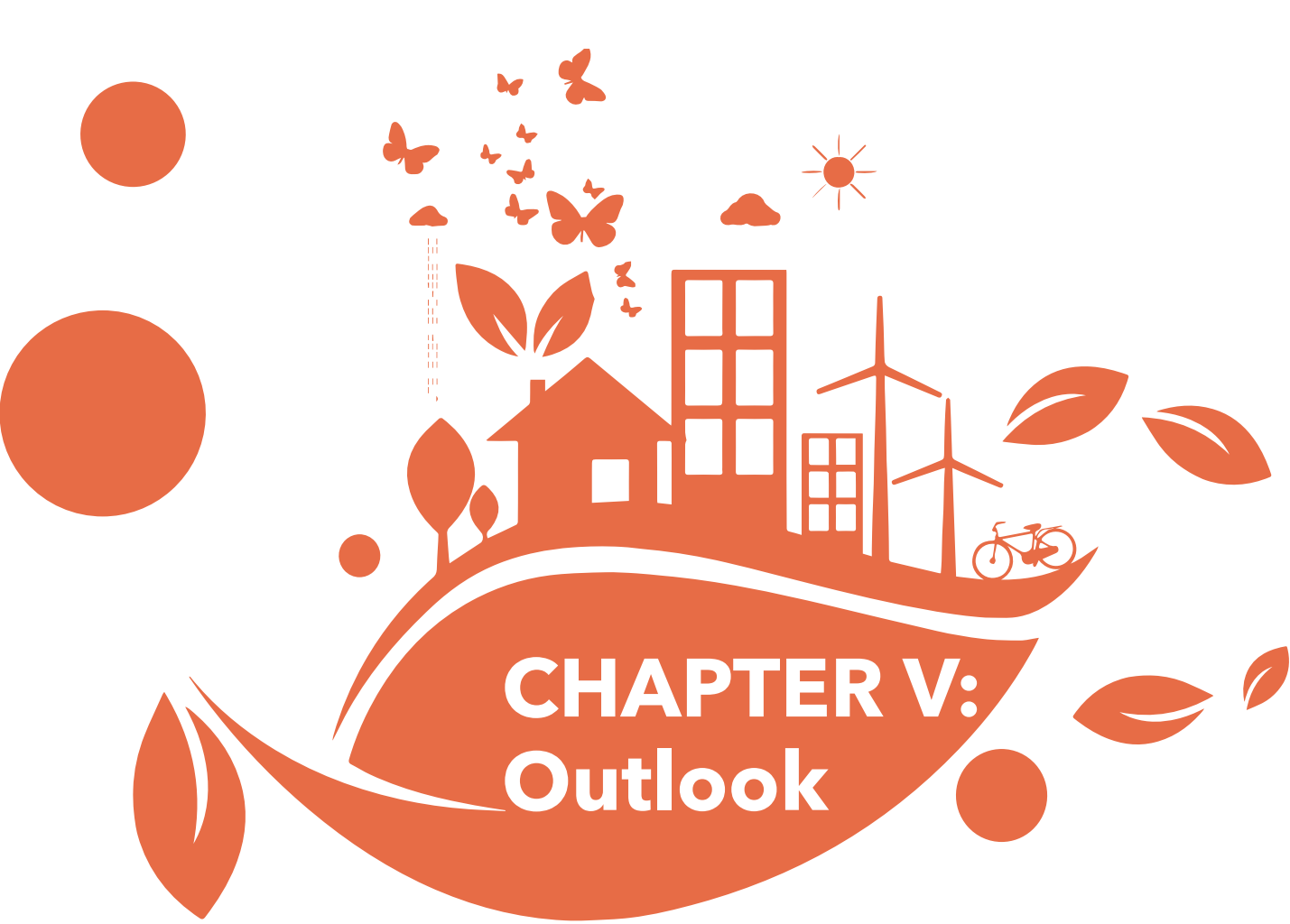
CASE STUDY

## Jesus Rabbi Biomass Power Plant Project in Cuba

The Bank helped finance the Jesus Rabbi Biomass Power Plant in Cuba. The project plans to build a 20 MW biomass co-generation station to the north of the Jesus Rabbi sugar plant in the Matanzas province of Cuba. The strategy is to supply power to the daily production at the sugar plant, supply heat to the del Bardo brewery nearby and sell the remaining power to national power alliances. Cuba is in short supply of hydro-power and thermal power and is in dire need for adjusting its energy structure to get out of its dependence on oil power generation. The project will increase Cuba's domestic power supply and reduce its oil consumption, thereby benefiting Cuba's adjustment



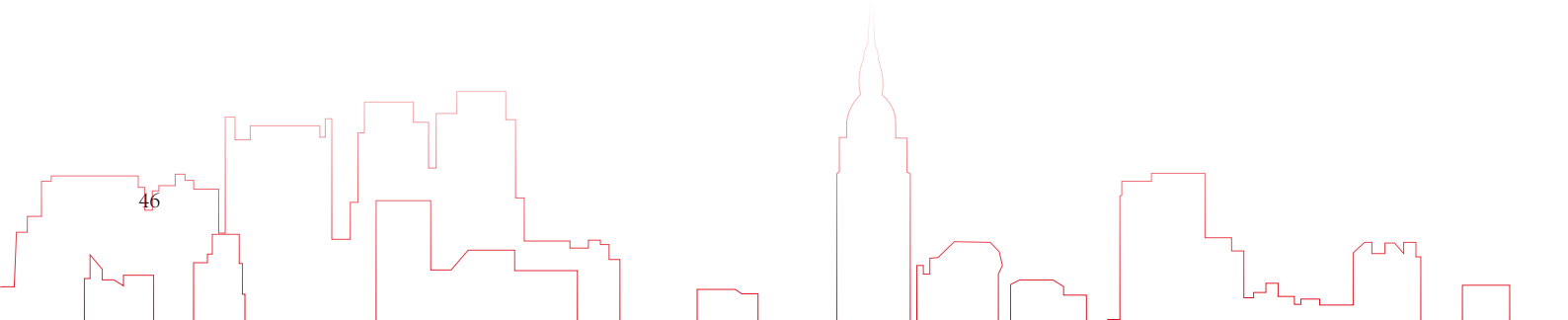
of its domestic energy structure and fostering further growth in the Cuban economy.



## CHAPTER V: Outlook

The green development concept will lead China to new heights in sustainable growth, and allow China's green finance efforts to embrace unprecedented opportunities.

Going forward, the Bank shall remain guided by the green development concept and offer green finance products complying with the green finance standards via its credit system and policies. We shall increase business inclination and strive to be diligent, accountable and innovative. Our aim is to contribute to the "Beautiful China" initiative with humble actions and pass on positive ethos of green development to the world with solid and concrete results, so as to contribute to the harmonious development of man and nature on a larger scale.





## **I. Leverage the advantages of policy-based finance and lead the development of green finance in China:**

As a specialized policy bank operating under China's foreign policy, the Bank has an inherent edge in learning universal principles, standards and practices of sustainable growth in the course of business execution and international inter-bank collaboration. We shall leverage our own business, brand and information strengths to reinforce our communication and collaboration with international organizations and explore a set of green finance standards, policies and systems that both address the ground reality of China's financial system and reflect the business characteristics of the Bank, so as to build a model of green finance development in China and drive up the overall service level of China's financial sector.

■ ■ Building a model of green finance development in China and drive up the overall service level of China's financial sector. ■ ■

## **II. Improve internal management mechanism and offer powerful backing to the rapid development of green finance:**

Further efforts shall be made to build a robust organizational structure and green finance-related tasks shall be assigned on the strategy level, so as to ensure that the green development concept is fully incorporated in the development strategy. We shall also improve our green finance risk management system; develop more approaches for the assessment of project environment and social risks; explore more feasible, long-acting environment and social risk assessment methods; reinforce assessment of green finance execution; and improve the implementation of green finance policies. We aim for integrating the cultivation of internal talents and introduction of external ones, training highly capable professionals via multiple channels and building up a talent base in line with the green finance business development requirements.

### **Improve internal management mechanism**

#### **Ensure that the green development concept is fully incorporated in the development strategy**

**01**

We shall improve our green finance risk management system; develop more approaches for the assessment of project environment and social risks; explore more feasible, long-acting environment and social risk assessment methods.

**02**

We shall reinforce assessment of green finance execution; and improve the implementation of green finance policies.

**03**

We aim for integrating the cultivation of internal talents and introduction of external ones, training highly capable professionals via multiple channels and building up a talent base in line with the green finance business development requirements.

### **III. Promote financial innovation and build a more comprehensive green finance product and service system:**

The idea is to play out the advantages of a wide-ranging set of business categories; meet market and client demands; constantly create innovative business categories catering to eco-friendly, low carbon emission and circular economic development; and actively develop products, such as green trade financing, financial leasing, green bond/credit asset securitization, so as to support green economic growth through multiple measures adopted in parallel. We will also enhance innovation in green finance service model and mechanism/process, taking into account the location, regional conditions and reality; and make all-rounded innovation efforts in terms of business development model, financing structure, and general financing program design. In addition, we will introduce multiple resources and measures to shape a specialized service brand integrating financing and think-tank services.

### **IV. Focus on green, low-carbon emission and sustainable economy in support of the “Beautiful China” initiative:**

The idea is to establish a precision-targeting mindset and further optimize the allocation of credit lending resources to provide a financial boost to steady growth and structural adjustment. We aim to step up policy-oriented financial support to green finance areas, including green and clean production, new energy and renewable energy development and use; amplify the orientation of policy-driven finance; foster the establishment of green, low carbon emission and circular development industrial system; and support conventional manufacturers, particularly the high pollution and energy and water-consuming companies, for conducting green process, technology, equipment update and renovation and promoting economic reform and structure revision, so as to achieve a win-win outcome for both economic growth and environmental protection.

### **V. Reinforce international economic collaboration and promote global green-oriented economic transformation:**

The implementation of major state strategies – including the Belt and Road Initiative, international capacity and equipment manufacturing cooperation along with the upgraded all-round China-Africa cooperation – shall be treated as a golden opportunity where the new go-global trends of companies shall be followed to play out our own strengths and highlight our specialty in supporting the companies for engaging in extensive international investment and collaboration in areas including energy conservation, environmental protection and clean energy. The idea is to facilitate the go-global endeavor of China's advanced energy-efficient and eco-friendly equipment, technologies and standards. In addition, efforts shall be stepped up to promote and amplify the influence of China's green philosophy, increase the awareness and involvement in international environmental protection causes, thus boosting the profile of China's green development philosophy, standards and practices internationally.

Leverage the advantages of policy-based finance and lead the development of green finance in China

Improve internal management mechanism and offer powerful backing to the rapid development of green finance

Promote financial innovation and build a more comprehensive green finance product and service system

Focus on green, low-carbon emission and sustainable economy in support of the “Beautiful China” initiative

Reinforce international economic collaboration and promote global green-oriented economic transformation

