



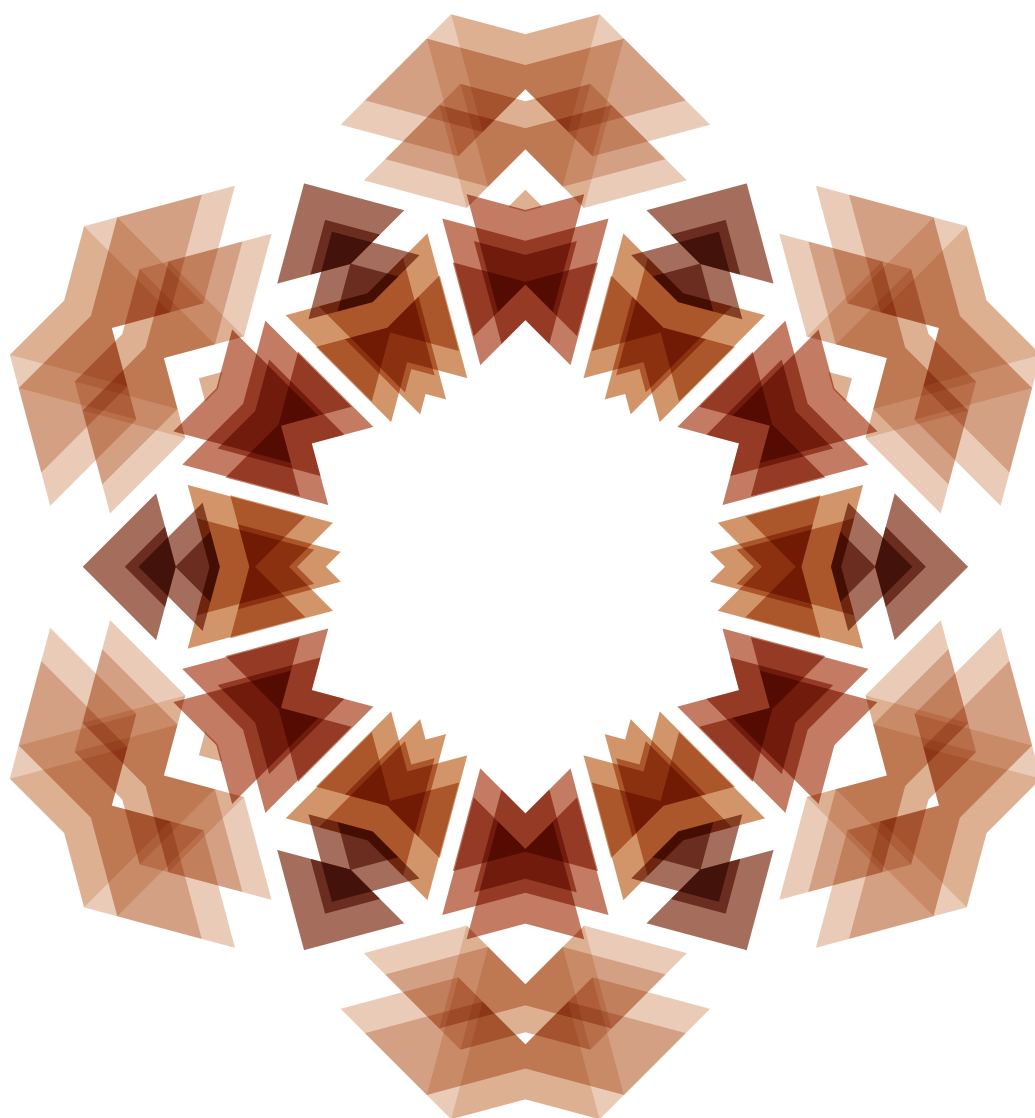
ESTABLISHING CHINA'S GREEN FINANCIAL SYSTEM

构建中国绿色金融体系

Summary Report of the
Green Finance Task Force

绿色金融工作小组报告摘要

WITH FOREWORDS BY PAN GONGSHENG, MA JUN AND SIMON ZADEK
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Establishing China's Green Financial System

Summary Report of the Green Finance Task Force

The Green Finance Task Force is co-sponsored by the Research Bureau of the People's Bank of China (PBC) and the United Nations Environment Programme Inquiry into the Design of a Sustainable Financial System (UNEP Inquiry).

The Task Force is assembled from more than 40 experts from the PBC, the China Banking Regulatory Commission, the Ministry of Finance, policy banks, commercial banks, credit rating agencies, stock exchanges, insurance companies, fund companies, the Chinese Academy of Social Sciences, universities, and non-governmental think tanks, with additional support and contribution coming from a number of foreign experts. Pan Gongsheng, the Deputy Governor of PBC, serves as the advisor to the Task Force; Chief Economist Ma Jun at the PBC Research Bureau acts as the domestic convener while Simon Zadek, the Co-Director of the UNEP Inquiry, acts as the international convener.

A number of organizations have lent great support to this Task Force, chief among them are Chongyang Institute for Financial Studies of Renmin University, the Ecological Finance Research Center at the Renmin University of China, the Eco Forum Global, the International Institute for Sustainable Development, the Green Credit Special Committee of China Banking Association, and China Finance 40 Forum.

The full version of this report will be published in April.

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构建中国绿色金融体系

绿色金融工作小组报告摘要

绿色金融工作小组由中国人民银行研究局与联合国环境规划署可持续金融项目联合发起。

参与的40多位专家来自人民银行、银监会、财政部、政策性银行、商业银行、评级机构、证券交易所、证券公司、保险公司、基金公司、社科院、高校和民间智库等，并得到了多位外国专家的支持和帮助。工作小组顾问为中国人民银行副行长潘功胜，中方召集人为中国人民银行研究局首席经济学家马骏，外方召集人为联合国环境署可持续金融项目联席主任Simon Zadek。

中国人民大学重阳金融研究院、中国人民大学生态金融研究中心、生态文明国际论坛、国际可持续发展研究院、中国银行业协会绿色信贷专业委员会、中国金融40人论坛等机构为工作小组提供了大力支持。

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THE GREEN FINANCE TASK FORCE

The Green Finance Task Force was initiated by People's Bank of China (PBC) Research Bureau and the UNEP Inquiry into the Design of a Sustainable Financial System in 2014. The Task Force brought together leading Chinese financial policy and regulation experts together with experts from the private sector, academia and think tanks, as well as international experts.

A number of organizations have lent great support to this Task Force, chief among them are Chongyang Institute for Financial Studies of Renmin University, the Ecological Finance Research Center at the Renmin University of China, the Eco Forum Global, the International Institute for Sustainable Development, the Green Credit Special Committee of China Banking Association, and China Finance 40 Forum.

This is the summary of a longer report which will be published in April 2015. The International summary report has been produced with the support of the UK Government's Department for International Development.

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绿色金融工作小组

绿色金融工作小组由中国人民银行研究局与联合国环境规划署可持续金融项目于 2014 年联合发起。此工作组不但有中国金融政策和法规方面的权威专家，还聚集了来自企业、学术界、智库及国际方面的专家。

许多机构为此工作小组提供了大力支持，其中主要有中国人民大学重阳金融研究院、中国人民大学生态金融研究中心、生态文明国际论坛、国际可持续发展研究院（IISD）、中国银行业协会绿色信贷业务专业委员会及中国金融 40 人论坛。

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FOREWORDS

PAN GONGSHENG*Deputy Governor of The People's Bank Of China*

A beautiful environment is the *sine qua non* of a beautiful life. China has swiftly become the second largest economy in the world after three decades of rapid development, but this achievement came at a heavy price on the environment. Dwindling resources, rampant pollution, degradation of ecosystem, and natural resources and eco-environment on the edge of their limits put tremendous economic pressure on our future generations in restoring the environment.

Far worse than the economic implications, environmental problems in China have also taken a toll on public health, and even longevity. There is a growing expectation across the country for improvements to our eco-environment as well as an increasingly louder voice calling for clean air, clean water and a beautiful environment. The fresh air and clear sky during the APEC meetings in November last year have left fond memories for the delegates and Beijing's local residents, whose joy reflects a nationwide desire for a better environment. Public opinions agree that environmental protection and efforts to build a beautiful China are not only an integral part of the national strategy, but also concern every one of us on a personal level.

Recently, I had the opportunity to watch the documentary *Under the Dome* by Chai Jing, a former CCTV journalist. Through a story-like narrative, Chai Jing presented an in-depth investigation on the composition, origins and hazards of smog and proposed remedial actions. By displaying the strong sense of social responsibility innate to a former journalist and citizen, she has drawn widespread public attention to the issue of air pollution in China. For policymakers, the worsening environmental problems require further enhancement of top-level design and improvement of market mechanism and policy support system, so as to provide the conditions necessary for various stakeholders to participate in environmental management and protection.

As a market-based institutional arrangement, green finance plays an important role in the promotion of environmental protection and building of an ecological society. Internationally, the "Equator Principles" proposed by the International Finance Corporation (IFC) are widely recognized by the banking community. They ushered in the robust development of the carbon finance market and the emergence of innovative financial products including green bonds, green shares, green insurance and green funds, all feature an increasingly wider and deeper integration between finance and environmental protection. As evidenced by the practices of developed countries over the past few decades, once properly-designed systems are in place, the green finance system can effectively steer large amount of private capital toward green industry and significantly reduce the fiscal pressures of environmental management.

The understanding and exploration of green finance has been a gradual, evolving process in China. For a long period after the reform and opening-up in 1978, economic development was central to the Chinese government; environmental factor, on the other hand, was not considered as an important variable that could affect the decision-making of financial institutions. Since the mid-1990s, China has gradually phased out small and inefficient coal mines, cement and glass factories, and coal-fired power plants out of work safety and environmental considerations. As a result, some commercial banks and rural credit cooperatives had unwillingly assumed certain costs of this economic restructuring process, which prompted them to watch out for the impacts of environmental problems on their business performance.

Since the dawn of the 21st century, China's financial policies have gradually imposed restrictions on certain high-pollution and energy-intensive industries in response to requirements of the central government on economic restructuring and upgrade as well as environmental protection. A wide range of measures,

including control of total emissions, lending restrictions, and environment-related veto powers, have been introduced to restrict polluting loans and financing and support energy conservation, emission abatement and phase-out of obsolete capacities.

Attaching great importance to green finance, the People's Bank of China (PBoC) has continuously worked to enhance the interaction between credit policies and industrial policies, ramped up its support to phasing out obsolete capacities as well as its support to the energy conservation and environmental sectors, and strictly controlled credit extension to new, production-related projects in industries already plagued by serious overcapacity, illegal ongoing projects, and companies with environmental violations. By collaborating with environmental protection agencies, the People's Bank of China has incorporated administrative law enforcement information into its credit information system, which can be accessed and used by commercial banks as a key consideration factor when financing enterprises. Currently, the People's Bank of China is spearheading the drafting of the 13th Five-Year Plan (2016-2020) for the reform and development of China's financial sector; green finance will be a key element of this plan.

Last year, the Research Bureau of the People's Bank of China and the United Nations Environment Programme (UNEP) Inquiry into the Design of a Sustainable Financial System jointly initiated the Green Finance Task Group. Under the leadership of Dr. Ma Jun, chief economist of the Research Bureau, the Green Finance Task Group has proposed a preliminary framework and 14 specific recommendations for building China's green finance system. This book is a supplemented and improved version of the research report prepared by the Green Finance Task Group. Compared with the narrow, scattered, and overly theoretical studies currently available, the Green Finance Task Group has presented the most systematic set of policy recommendations pertaining to green finance yet to this day. The 40 plus experts in the Green Finance Task Group all come from regulatory departments or institutions and think tanks with intimate connections to the green finance industry. The report also incorporated many suggestions from the UNEP's Inquiry's international experts, thus making the recommendations contained in this report highly practical. In areas with strong resistance to green reforms or poor or insufficient groundwork, experts of the Green Finance Task Group have also proposed a step-by-step roadmap for the green transformation.

Creation of the green finance system is a long-term and complex process that cannot be accomplished overnight. It requires the continuous efforts and commitments by all stakeholders. Nevertheless, it is our historic obligation to initiate this process. In the coming years, financial and environmental experts should continue their research on the fundamental issues of green finance. Development of green finance is not simply a financial matter but involves many important issues, such as the determination of the roles of the government and the market, reform on the pricing of natural resources, and the interaction between financial, industrial, and fiscal policies. Efforts must be made to create a green finance policy with positive incentives and increase the attractiveness of investing in green projects, which will then help invite more financial institutions and enterprises to contribute to the development of green finance and green industries. We should ramp up international exchange, broaden our horizons by drawing upon the successful experiences of other countries, and collaborate with the international community to promote the concept of green finance as would any other socially responsible nation in the world. Domestically, we should widely publicize and promote the concept of green finance through academic seminars and research presentations, and further spread the awareness for environmental and social responsibilities among financial institutions, businesses and the public to create a favorable external environment for the development of green finance.

Pan Gongsheng

*Deputy Governor of the People's Bank of China
Advisor to the Green Finance Task Group*

FOREWORD

MA JUN*Chief Economist, Research Bureau of the People's Bank of China***THE BEGINNING: ECO FORUM GLOBAL**

In the early summer of 2014, Xu XU, the Deputy Director of the Financial Affairs Office of the Guizhou Province, made a special trip to my office. He invited me to attend and chair a number of panel discussions on green finance at the Eco Forum Global annual conference in Guiyang. The Eco Forum Global is China's first and only state-level international discussion forum for environmental issues and its proceedings are closely followed by a broad audience. Director Xu said to me that while the forum had held many discussions on how to protect and improve our environment, the protection of the ecological environment through financial means had not taken off from the conceptual level and was lacking actionable plans. To spur real progress, he would like me to help organize and host the discussions on this topic. Indeed, at the time of the meeting, I had already dedicated a good portion of my time to understanding and finding the right economic and financial policies for our environment, and had, in many forums and seminars, advocated green finance as the catalyst for transforming China's economic structure. The Research Bureau of the People's Bank of China was also conducting its own research on low carbon financial policies. This alignment of interest and the enthusiasm Director Xu displayed made going to the Eco Forum Global an easy choice for me. I also took the opportunity to introduce a number of experts on green finance to the forum.

The Eco Forum Global held on July 10 – 11, 2014 attracted a large number of forward-thinkers in the field of economics and finance. IMF's former managing director Dominique Strauss-Kahn, Development Research Center of the State Council's vice president Liu Shijin, Bank of China's former president Li Lihui, National Council for Social Security Fund's vice chairman Wang Zhongmin, and China Investment Corporation's former president Gao Xiqing took turns to speak on a wide range of topics including the promotion of green finance, role of the financial system in green transformation, and financial inclusion. I presided over a public symposium and a closed-door discussion on green finance, which I hope will culminate into some better-defined consensus on how to push forward the development of green finance. Dr. Simon Zadek, who is a friend of mine and now serves as the co-director of the UNEP Inquiry into the Design of a Sustainable Financial System, also held an international symposium on the topic of green finance. Among others, the expert speakers at the Eco Forum Global also include (in alphabetical order of their surnames): An Guojun, research associate of the Institute of Finance and Banking of the Chinese Academy of Social Sciences; An Qingsong, vice chairman of the China Association for Public Companies; Susan Burns, founder of the Global Footprint Network; Chen Gang, Secretary of the Guiyang CPC Committee; He Qiaonv, chairman of the Beijing Orient Landscape; Huang Jianhui, vice president of the Research Institute at China Minsheng Bank; Mark Halle, vice president of the International Institute for Sustainable Development (IISD); Jiang Peixing, CEO of Zhong De Securities; Sean Kidney, CEO of Climate Bonds Initiative; Li Donghui, senior vice president of Beijing Orient Landscape; Qi Liang, CEO of China Securities Co., Ltd.; Wang Wen, executive dean of the Chongyang Institute for Financial Studies at Renmin University of China; and Zuo Xiaolei, chief economist at China Galaxy Securities.

GREEN FINANCE TASK FORCE

In no less than three seminars, experts attending the event offered their insights on how to promote green banks, green bonds, green IPO, green insurance, green funds, and green investor networks, and shared with the audience the global experiences and lessons on these topics. As good as their ideas were, I felt that without a platform to drive forward further research and implementation efforts, the effects of these ideas would dissipate soon after the close of the event and final media coverage. Hence, I approached some of the participants after the last panel discussion with the idea of launching a green finance task force that drafts a set of systemic policy recommendations based on the discussions at the Eco Forum Global. As the chief economist of the PBC Research Bureau, I would serve as the domestic convener and organize Chinese experts to draft the study report; while Simon Zadek, representing the UNEP Inquiry, would be the international convener and help funnel more international resources in the forms of foreign experts and overseas experiences to the group. This proposal was met with unanimous support, and most of the participants of the Eco Forum Global seminars would later become the core members of the Green Finance Task Force.

The Green Finance Task Force held its first formal meeting on August 10. In addition to the experts that helped launch the initiative, we also welcomed members of the China Banking Regulatory Commission, Ministry of Finance, and the Industrial Bank, as well as experts in the insurance, securities, and legal sectors. Pan Gongsheng, the deputy governor of the People's Bank of China and a long-time follower of green finance-related issues, was generous in accepting to be an advisor to the task group and giving the opening speech at the inaugural meeting. In his speech, Governor Pan stressed that we needed to not only bring out financial policies that curb polluting investments, but, more importantly, also explore the financial policies, products, and services that encourage green investments. At the project kickoff meeting, Simon and I proposed 15 topics, including green banks, green bonds, green insurance, green IPO, green credit rating, environmental liabilities of banks, green information disclosure, green database, and green investor network, and distributed the research tasks for these topics to the 15 task teams. As we continued with our work, our experts also added the following four topics: green overseas investments, green asset securitization, testing of banks' resilience for environmental risks, and how to encourage banks to adopt the Equator Principles.

In little over six months, we organized five meetings for the entire task force, and dozens of meetings for the task teams. Membership of the Green Finance Task Force also quickly expanded from 20 or so at the start to more than 40 individuals, among them are industry veterans from the PICC Group, Industrial and Commercial Bank of China, stock exchanges, the Ecological Finance Research Center at Renmin University of China, Research Center for Climate and Energy Finance at Central University of Finance and Economics, the Green Credit Committee of the China Banking Association, and experts from the green credit rating, green database, and social responsibility sectors. Besides assimilating inputs from industry and international experts, the report also incorporated suggestions from the Office of the Central Leading Group for Financial and Economic Affairs, Research Office of the State Council, National Development and Reform Commission, People's Bank of China, Ministry of Finance, China Banking Regulatory Commission, China Securities Regulatory Commission, and Ministry of Environmental Protection, which helped in improving the systematic coverage and practicality of the policy recommendations. After multiple rounds of revisions, the draft report was finalized in February 2015 and distributed to policymakers and relevant ministries and organizations for reference purposes.

This is a summary of that report, which will also be published in book form. We hope that the publication of this high-level summary and the extended report, will help green finance receive more attention from the financial and environmental protection industries and the general public, build a stronger consensus across the nation, and incentivize financial institutions to become more involved in the development and use of green financial products and services.

EMPHASIS ON PRACTICALITY

Both during my work organizing the research of the Green Finance Task Force, or spreading the awareness for green finance, I always felt that the development of green finance is something that everyone in the country cared for and highly anticipated. In this sense, the reforms proposed by the task force already have sufficient popular support. At the same time, the support and attention given by the highest decision-making bodies in the country was also unprecedented. It was stressed at the Third Plenum of the 18th CPC Congress that “efforts must be made to establish a systematic and full-fledged institutional system of ecological civilization for the protection of eco-environment” and “efforts must be made to establish a market-based mechanism that channels private capital investments to the protection of eco-environment.” The [2014] No. 69 Document of the State Council General Office also stated that “the People’s Bank of China, the China Banking Regulatory Commission, the China Securities Regulatory Commission, and the China Insurance Regulatory Commission should work together with the government agencies to formulate financial policies that support the development of environmental service industry.” Financial sector, the academia, and international community contributed greatly to the study of green finance and the distillation of international experiences.

However, the realization of green finance demands more than just popular support or theoretical advances made by scholars, or even the visions of the highest-level government agencies. Indeed, to truly foster green finance, we would also need a vast amount of coordination and concerted efforts from government departments, as well as specialized knowledge, know-how and risk prevention measures related to the financial and environmental industries. But the reality is that China has yet to set up an institution dedicated to the promotion of green finance. Therefore, unlike academic research, the Green Finance Task Force must put emphasis of its policy recommendations on their technical viability and ease of coordination between the various departments. This focus on practicality is the main reason for gathering from various regulatory agencies and financial institutions the many experts who work on the frontline. Additionally, from the nearly 20 sub-topics we had worked on, we eventually narrowed down to 14 to be included in our main report (they correspond to the 14 recommendations presented in the report) – also a result of full considerations for practicality. The remaining recommendations, such as the one for the testing of banks’ resilience for environmental risks, were not left out because they were unimportant, but because more case studies, research and analysis are needed to ensure their practicality when eventually released.

A GREEN FINANCE SYSTEM THAT IS RIGHT FOR CHINA

Green finance and green investment have just taken root in China. Through the works of government departments on green credit, China has already established guidelines and statistics system for green lending; the balance of bank’s green loans also sees fairly rapid growth; seven regions around the country are carrying out pilot carbon emission trading programs, and the credit reference center of the People’s Bank of China is now keeping track of companies’ environmental violations. Despite these signs of progress, the creation of a comprehensive green finance system is still a distant reality. Efforts

on various green fronts remain fragmented, a systematic policy framework is still absent, and existing policies have yet realize their synergistic potential. Another issue hindering the growth of China's green finance system is the imbalance of policy measures. Existing environmental credit policies are mostly designed as restrictive measures, putting constraints on loans to high-pollution, energy-intensive companies. What is missing are the corresponding incentive measures for green projects in energy-saving technologies, environmental protection, clean energy, and clean infrastructure. The present over-reliance on restrictive policies will not be conducive to attracting investment into green industry and, therefore, has a limited effect in facilitating the economic restructuring of China.

To solve these issues, the Green Finance Task Force has in this report proposed a fairly systematic framework and 14 specific recommendations for "building China's green finance system," all derived from its in-depth study of the related green experiences from other countries. The task force believes that China's green financial system in the future should have the following characteristics:

- First, it should not only have measures restricting polluting investments, but also a comparatively greater number of institutional mechanisms encouraging green investments.
- Second, it should not solely rely on existing banking channels to promote green credits, but also consider the establishment of specialized green lending and investment institutions.
- Third, it should reduce its reliance on administrative orders. Instead, it should lean on favorable fiscal and financial measures to steer private capital to the green industry through market mechanisms.
- Fourth, it should not only provide green loans, but also usher in a multitude of new green financing channels and a diverse range of financial products, including green bonds, green stocks, green funds, green insurance, and carbon emission trading.
- Fifth, it should leverage financial and legal institution-building to invite private capitals equaling several or even more than ten times the amount of seed funding provided by the government to flow into the green industry, so as to alleviate the enormous fiscal pressure caused by environmental issues on the government. Some financial and legal measures can alter the investment behavior of financial institutions and induce a green transformation of their investment structure with minimum financial resources from the government.
- Sixth, it should support green investment not only on principle, but also by providing the necessary financial infrastructure for them to thrive. This will call for laying down the methodologies and creating the databases, green credit ratings, and environmental information disclosure rules to help investors evaluate the environmental impacts of their investments. Only after environmental information and costs become readily available to potential investors, can the green finance system achieve success in guiding investments into green industries through market mechanisms.

ACKNOWLEDGEMENTS

Although the period from the inception of the Green Finance Task Group to the official publication of its research report only spans a short nine months, many members of this task group are veteran researchers in the field of green finance and leading practitioners of green finance in their respective

industries. As a result, this report is a distillation of the collective knowledge and experience of all our experts over their long professional careers. For example, the party responsible for the sub-topic of “green bonds” – the Industrial Bank – is thus far the only bank in China that has adopted the Equator Principles. Its green finance business has now passed the tenth-year mark, for the last six of which it organized and operated as an independent division. The balance on its green credit now stands at 300 billion yuan (US\$48 billion), with a non-performing assets ratio of only 0.2 percent and a capital return rate of more than 20 percent. Industrial Bank is also the issuer to the first green bonds in China.

I'd like to take this opportunity to express my heartfelt thanks and respect to the 40 plus experts and foreign advisors of the task force. They have squeezed every ounce of available time out of their busy schedule to research the sub-topics without payment or compensation. Many sub-topic reports have gone through four or five major revisions before being finalized. Many foreign advisors, under Simon's organization, made multiple trips to China (for some, as many as four) to participate in our discussions in person and had contributed a large volume of first-hand international experiences and materials to our report. All these experts are the embodiment of dedication, commitment, and sacrifice, and are rightly the models for “socially responsible” global citizens.

I'd like to give special thanks to Wang Wen, executive dean of the Chongyang Institute for Financial Studies, Deng Tingying, director of the Ecological Finance Research Center, Cao Mingdi, research associate at the Chongyang Institute for Financial Studies (all at Remin University of China) and other colleagues, who, in addition to participating in the study, also organized many group discussions and review sessions, as well as provided the Green Finance Task Group with much-appreciated media exposure during the 2014 “Ecological Finance Forum” co-sponsored by the Remin University and China Society for Finance and Banking. Eco Forum Global, IISD, Green Credit Committee of the China Banking Association, China Finance 40 Forum and other institutions have also provided various discussion and publicity platforms to the Green Finance Task Group as well as the support from their international experts. Worth special mentioning is Dr. An Guojun from the Chinese Academy of Social Sciences, who, as the deputy secretary-general of the Green Finance Task Force, had contributed a large portion of her time and experience to organizing meetings, coordinating sub-topic teams, and penning publicity articles. Li Jianqiang and Dr. Yao Bin from the PBC Research Bureau and IISD China Office's director Kelly Yu also made major contributions to editing the report, organizing topics, coordinating the collaborative activities between international and domestic experts, and to the report's translation.

In addition to members of the task force, I would also like to thank the government officials and experts that had provided invaluable suggestions and recommendations to the study report. They include (in alphabetical order of their surnames): Bie Tao, deputy director of the Department of Policies, Laws and Regulations of the Ministry of Environmental Protection; Chang Caiyu, deputy secretary-general of the Insurance Association of China; Chen Yulu, president of the Renmin University of China; Chen Yunlin, minister of the Taiwan Affairs Office of the State Council; Fang Li, deputy director of the Department of International Cooperation of the Ministry of Environmental Protection; Hu Deping, director-general of the China Biodiversity Conservation and Green Development Foundation; Liu Xiangmin, deputy director of the Legal Affairs Department; Lu Hanwen, deputy director of the Project Appraisal Department II of the China Development Bank; Ma Xianfeng, deputy director of the Research Center of the China Securities Regulatory Commission; Miao Jianmin, president of the China Life Insurance (Group) Company; Mei Dewen, general manager of China Beijing Environment Exchange; Shen Xiaohui, director at the Research Office of the State Council; Wang Haiming, secretary-general of the China Finance 40 Forum; Wang Jiansheng, president of Energy Foundation China; Wang Zhijun, deputy director at the Office of the Central Leading Group for Financial and Economic Affairs; Wu Xiaoling, vice-chairperson of the Financial and Economic Affairs Committee of the National People's Congress; Yang Weimin, deputy head at the

Office of the Central Leading Group for Financial and Economic Affairs; Yang Zaiping, executive vice president of China Banking Association; Zhang Hongli, senior executive vice president of the Industrial and Commercial Bank of China; Zhou Xiaochuan, governor of the People's Bank of China; Zhou Yihong, general manager of the Bond Financing Headquarters of China Galaxy Securities; Zhuang Guotai, director of the Department of Nature and Ecology Conservation of the Ministry of Environmental Protection; Zhou Lan, deputy director of the Financial Market Department of the People's Bank of China; and many others.

Finally, I'd like to thank Dai Shuo, our editor at the China Financial Publishing House, for working overtime to organize the editing and publishing of the final book. Naturally, the views, errors, and unintentional omissions are due to the authors of the teams working under the Green Finance Task Force. These views do not necessarily represent the positions of the agencies and organizations that the authors work for.

Ma Jun

*Chief Economist, Research Bureau of the People's Bank of China
Domestic Convener Green Finance Task Force*

FOREWORD

SIMON ZADEK*Co-Director, UNEP Inquiry into the Design of a Sustainable Financial System*

Inclusive, sustainable economic prosperity depends on the health of the world's natural environment. Yet natural capital is in decline in almost every country. Environmental damage each year is of the order of US\$7 trillion, including the emissions of greenhouse gases which are continuing to rise. Reversing these trends to realize sustainable development depends on finance flowing towards activities that will accelerate the transition, and away from those activities that make the situation worse. Some progress is being made, mainly through the voluntary actions of some financial institutional in adopting standards, advancing new financial products such as the rapidly growing US\$500 billion market for green bonds, and pursuing the next generation of green investment opportunities.

Yet today, only a small part of our stock of global financial assets of US\$305 trillion have been 'greened'. Major economies alone need an estimated additional US\$7 trillion of long-term investment per year by 2020 for infrastructure, buildings, equipment and software, education and R&D. The United Nations Conference on Trade and Development has concluded that there is a US\$2.5 trillion annual investment gap in what is needed to achieve the Sustainable Development Goals in the developing world.

Governments internationally are providing increasing support for green finance. Much of this has until recently been through tax incentives, greening direct public investment, and accelerating green private finance by combining it with catalyzing public finance. Such measures, while welcome, are limited everywhere by public budget constraints and the pressures of shorter-term priorities. Needed is a more systematic approach to green finance which better aligns the overall financial system to the long-term needs of the real economy.

Internationally, there has been a surge of interest and action in improving this alignment. The United Nations Environment Program, through its Inquiry into the Design of a Sustainable Financial System, has identified innovative policies, regulations and standards to encourage green finance introduced by ministries of finance, central banks, and financial regulators and standard setters around the world, led in many instances by developing nations. There is widespread adoption of new green disclosure requirements across banking and capital markets. Green credit guidelines are being introduced by banking regulators. Sustainability indexes and benchmarks are becoming common in securities markets, and credit rating agencies are incorporating climate risk into their solvency analysis. Environmental stress testing of banking and capital market rules is being considered internationally, and in at least one major market being deployed as part of a prudential review of the impact of climate on financial stability. Some central banks and financial regulators have established specific green lending requirements, often supported by preferential refinancing and capital requirements. Policy-directed financial institutions are being encouraged to take environmental considerations more fully into account, including state-owned banks, sovereign wealth funds and in some instances newly established 'green investment' vehicles.

Such innovations are, however, still at an early stage, and remain largely one-off, ad hoc measures. Needed is a more systematic approach that embeds green finance at the heart of the process of financial market development. Green finance is, after all, a core, not an 'additional', performance requirement of well-functioning financial and capital markets, reflecting well functioning risk pricing and capital allocation, and essential for improved market efficiency and overall resilience.

China's Green Finance Task Force, established by the People's Bank of China and co-convened and supported through the UNEP Inquiry, exemplifies the shift towards a systematic approach to advancing green finance. In bringing together key policy and regulatory bodies with leading Chinese financial

institutions and international experts, the Task Force has been able to mobilize knowledge, assess options and make specific proposals that are both ambitious and practical. In creating both a conceptual framework and an integrating process involving many key institutions, the Task Force has provided insights as to how to place green finance as a core aim and an organizing principle for financial market development.

Financial and capital markets are increasingly global, involving international standards and governing institutions. Some progress can be made by individual countries in advancing green finance, but internationally coordinated action is, ultimately, required. China's leadership in advancing an integrated approach to green finance can catalyze such cooperation, by providing technical pathways for others to learn from and build on, by embedding such developments into China's growing, international footprint, and by bringing China's commitment to green finance into key international forums and policy and standard setting processes.

The current moment in time offers particular opportunities for advancing the alignment of the financial system with sustainable development. There is a growing will to move beyond the global financial crisis towards envisioning and building a future, productive financial system that will serve the needs of inclusive, sustainable development. Moreover, the matter of finance for sustainable development has moved center stage this year with the launch of a universally applicable set of sustainable development goals in September and the completion of a global climate agreement in December.

The UNEP Inquiry is proud to have been able to contribute to the work of the Green Finance Task Force, and will continue to stand ready to provide further inputs to China's efforts to advance the cause and practice of green finance.

Simon Zadek

*Co-Director, UNEP Inquiry into the Design of a Sustainable Financial System
International Co-Convener, Green Finance Task Force*

序言一

蓝天白云，绿水青山，是我们美好生活不可或缺的组成部分。经过三十多年的快速发展，我国迅速成长为全球第二大经济体，但也在环境问题上付出了十分沉重的代价。资源约束趋紧，环境污染严重，生态系统退化，资源和生态环境的承载能力已趋极限，未来需要支付巨额的环境修复成本。

我国环境问题的严重的程度已远远超越经济范畴，已经危及了人民的健康和生命安全。人民群众对改善生态环境的期待越来越强烈，对清新空气、洁净水源、宜人气候、优美环境的需求越来越迫切。去年 APEC 会议期间的蓝天白云给我们留下了美好的记忆，那几天百姓真实的喜悦反映的是对美好环境的渴望。加强生态环境保护，建设美丽中国，不仅仅是国家的发展战略，更是与我们每个人的切身利益密切相关，已经成为全民共识。

这几日，我看了央视前记者柴静拍摄的关于雾霾的纪录片《穹顶之下》。柴静用讲故事的方式，围绕雾霾是什么、从哪儿来、有什么危害、我们该怎么办等热点问题进行了深入的调查，体现了一个曾经的职业媒体人和一个公民的强烈社会责任感，引起了社会各界的高度关注。面对日益严峻的环境问题，需要进一步加强顶层设计，完善市场机制和政策支持体系，为各方面参与环境治理和生态保护创造必要条件和基础。

绿色金融作为一种市场化的制度安排，在促进环境保护和生态建设方面具有十分重要的作用。从国际上看，国际金融公司（IFC）提出的“赤道原则”得到了国际银行业的广泛认同，碳金融市场发展迅猛，绿色债券、绿色股票、绿色保险、绿色基金等创新型金融产品不断涌现，金融和生态环境保护融合的广度和深度不断拓展。发达国家过去几十年的实践表明，如果制度设计得当，绿色金融体系可以有效地引导大量社会资本进入绿色产业，并明显降低环境治理需求对财政的压力。

中国在绿色金融方面的认知和探索经历了一个逐步认识、不断深化的渐进过程。改革开放之后的一个相当长的时期，发展经济是各项工作的核心。环境因素在当时尚未成为影响金融机构经营行为的重要变量。20 世纪九十年代中后期以来，出于安全生产以及环境污染等方面的考虑，一定规模以下的小煤矿、小水泥、小玻璃、小火电等被逐渐淘汰。一些商业银行和农村信用社被动承担了经济结构调整带来的部分成本，也开始关注环境相关问题对自身经营状况的影响。

本世纪以来，按照中央加快经济转型升级和加强生态保护的要求，中国的金融政策逐渐对一些高污染、高耗能产业采取了限制性政策，通过总量控制、行业限贷和环保“一票否决制”等手段，限制污染性的贷款与融资，支持节能减排和淘汰落后产能。

人民银行高度重视绿色金融的发展，不断加强信贷政策与产业政策的协调配合，加大对淘汰落后产能、节能环保等领域的支持力度，严格控制对产能严重过剩行业新增产能项目、违规在建项目 and 环境违法企业新增授信。人民银行已经将环保部门的行政执法信息纳入银行信贷征信系统，作为商业银行向企业提供融资的重要参考因素。目前，人民银行正在牵头起草金融业改革和发展“十三五”规划，推动绿色金融发展将是其中的重要内容。

去年，人民银行研究局与联合国环境署可持续金融项目联合发起成立了绿色金融工作小组，在人民银行研究局首席经济学家马骏博士的带领下，提出了一个构建我国绿色金融体系的初步框架和 14 条具体建议。本书就是绿色金融工作小组的研究报告的补充完善稿。与以往零星、分散和过分理论化的研究相比，绿色金融工作小组的报告是目前为止在相关领域中最为系统的一份政策建议。工作小组的 40 多位专家均来自监管部门和具体参与绿色金融业务的机构与智库，同时吸收了联合国环境署组织的国外专家的许多意见，因此工作小组所提出的许多建议都有相当的可操作性。在一些阻力较大、基础条件较为薄弱的

领域，工作小组的专家们也提出了分步走的改革路线图。

绿色金融体系的构建是一个长期、复杂的过程，不可能一蹴而就，需要各界人士持续不断的努力和推动。但启动这个过程则是我们义不容辞的历史责任。今后几年，金融和环境领域的专家们还应该继续加强对绿色金融基础性问题的研究。推动绿色金融发展不是一个单纯的金融问题，更涉及到政府和市场职能定位、资源价格改革、金融政策和产业政策、财政政策协调配合等重要命题。要继续推动建立正向激励的绿色金融政策，提高绿色项目的投资吸引力，让更多的金融机构和企业投身绿色金融和绿色产业发展。要加强国际交流，用更宽广的视野借鉴国外的成功经验，还要以负责任大国的姿态与其他国家一道推动绿色金融理念在国际上的推广。在国内，要不断强化绿色金融理念的宣传和推广，通过学术报告会、课题成果发布会等多种形式，大力普及绿色金融理念，进一步提升金融机构、企业和社会大众的环境保护意识和社会责任意识，为绿色金融的发展创造良好的外部环境。

潘功胜

中国人民银行副行长、绿色金融工作小组顾问

2015年3月

序言二

源起：贵阳生态文明论坛

2014 年初夏，贵州省金融办副主任徐旭专程到我办公室，邀请我出席贵阳生态文明国际论坛，并主持几场关于绿色金融的讨论。贵阳论坛是唯一一个国家级的讨论环境问题的国际论坛，在论坛上发出的声音受到各方的高度关注。徐主任说，论坛在环境末端治理方面的内容已经很多，但对如何用金融手段来保护生态，还只是停留在概念层面，缺乏可操作的思路，所以十分希望我帮助组织和主持这方面的研讨。我近年来花了不少时间研究治理环境的经济与金融政策，在一些论坛上呼吁用绿色金融推动经济结构转型，人民银行研究局也在开展低碳金融的研究，所以对此题目有很大兴趣，加上徐主任盛情难却，所以我就答应去贵阳，并介绍了一些绿色金融方面的专家一起参加贵阳论坛。

2014 年 7 月 10 日 -11 日的贵阳论坛聚集了一批经济和金融界的思想者，包括 IMF 前总裁卡恩、国务院发展中心副主任刘世锦、中国银行原行长李礼辉、全国社保基金理事会副理事长王忠民、中国投资公司前总经理高西庆等，他们都在论坛分别就推进绿色投资、金融助力绿色转型、普惠金融等题目发表了演讲。我主持了一场公开的和一场内部的关于绿色金融的专题讨论，希望能够形成一些更加具体的推动绿色金融发展的共识。我的好友、联合国环境署可持续金融项目联席主管 Simon Zadek 博士也就此题目主持了一场英文的专题讨论。在这几场绿色金融专题讨论中发言的专家还包括（按姓氏拼音排序）中国社科院金融所副研究员安国俊、中国上市公司协会副会长安青松、Global Footprint 创始人 Susan Burns、贵阳市委书记陈刚、北京东方园林公司董事长何巧女、国家开发银行研究院副院长黄剑辉、国际可持续发展研究院（IISD）全球副总裁 Mark Halle、中德证券总裁姜培兴、气候债券组织首席执行官 Sean Kidney、北京东方园林副总裁李东辉、中信建投证券股份有限公司总裁齐亮、中国人民大学重阳金融研究院执行副院长王文、银河证券首席经济学家左小蕾等。

绿色金融工作小组

在三场专题讨论中，与会专家就如何通过推动绿色银行、绿色债券、绿色 IPO、绿色保险、绿色基金、绿色投资者网络等议题发表了许多真知灼见，也对相关的国际经验进行了讨论。我感到，如果这些好的建议没有一个平台加以继续深入研究和推动落地，恐怕只能是昙花一现，媒体报道一下就过去了。因此，在最后一场讨论中，我与各位与会者商议，在贵阳论坛的绿色金融专题讨论的基础上，发起一个绿色金融工作小组来起草一份有系统性的政策建议，我以人民银行研究局首席经济学家的身份担任中方召集人，负责组织国内专家和研究报告的写作，Simon 代表联合国环境署担任外方召集人，为工作小组提供更多的国外专家和国际经验。倡议一提出，就得到了所有与会成员的一致赞成。因此，贵阳论坛中绿色金融专题讨论会的大部分参与者都成为了绿色金融工作小组的骨干。

8 月 10 日，绿色金融工作小组在北京召开了第一次正式讨论会，除了在贵阳参与发起的专家之外，还邀请了银监会、财政部、兴业银行以及保险、证券、法律方面的一些专家参加。长期关注绿色金融问题的人民银行副行长潘功胜欣然担任工作小组的顾问并到会致辞。潘行长在致辞中特别强调，我们不但需要限制污染性投资的金融政策，更需要探讨鼓励绿色投资的金融政策、金融产品和服务。在这次启动会上，我和 Simon 提议了包括绿色银行、绿色债券、绿色保险、绿色 IPO、绿色评级、绿色指数、银行的环境法律责任、绿色披露、绿色数据库、绿色投资者网络等十五个专题，并将专题研究的任务分给了 15 个子课题小组。在以后的研究过程中多位专家又提议增加了绿色对外投资、绿色证券化、银行的环境风险压力测试、如何鼓励银行加入赤道原则等四个议题。

在短短半年多的时间内，我们开了五次工作小组的大会、几十次子课题组的小会，绿色金融工作小组的成员也从最初的 20 多个人迅速扩大到了 40 多人，吸收了人保集团、工商银行、证券交易所、人民

大学生态金融研究中心、中财大气候与能源金融研究中心、银行业协会绿色信贷专业委员会，以及绿色评级、绿色数据库和社会责任等领域的专家。工作小组的报告除了吸收专业人士和国际专家的意见之外，还征求了中财办、国务院研究室以及发改委、人民银行、财政部、银监会、证监会、环保部等部门专家的意见，在提升政策建议的系统性和可操作性方面做了大量的努力。经过多轮修改，报告于2015年2月定稿，已经提交给决策层和相关部委和机构参考。本书是在工作小组报告基础上按出版要求修订的版本。我们希望通过公开出版此书，引起金融界、环保界，乃至全社会对绿色金融的更多关注，形成更强的共识，并推动各类金融机构更多地参与绿色金融产品与服务的开发和使用。

定位在可操作性

在组织绿色金融工作小组的研究和相关理念的传播过程中，我始终感受到绿色金融发展是全国人民都十分关注和希望看到的事情，工作小组希望推动的改革有充分的民意支持。同时，最高决策层的支持和关注也是前所未有的。十八届三中全会指出，“必须建立系统完整的生态文明制度体系，用制度保护生态环境”，“必须建立吸引社会资本投入生态环境保护的市场化机制”。国务院办公厅[2014]69号文件也要求，“一行三会会同有关部门研究支持环境服务业发展的金融政策”。金融界、学界和国际社会在绿色金融的研究和国际经验的整理方面也已经做了大量的工作。

但是，仅仅有民意支持、最高决策层希望推动改革的意愿和学界的理论研究是不够的。在现实中发展绿色金融，要涉及到大量部门之间的协调、金融与环境的专业内容和风险防范，而国家又没有专门负责推动绿色金融发展的机构。因此，与学术研究不同，绿色金融工作小组必须将政策建议在技术上的可操作性和部门之间的可协调性放在首位。这也是为什么工作小组的成员中包括了许多来自不同监管部门和金融机构从事实际操作的主要专家的原因。另外，我们在近20个子课题中，最后选定了14个子课题的成果（即14条建议）放入总报告，也是充分考虑了可操作性之后的决定。有些暂时没有放入报告中的建议（如银行的环境风险压力测试），并非不重要，而是需要更多的实际案例研究，总结经验，以保证在未来正式提出时具有一定的可操作性。

我们要什么样的绿色金融体系

我国绿色金融、绿色投资的发展起步不久，过去几年有关部门在引导绿色信贷方面做了许多工作，已经建立了绿色信贷的指引和统计体系，银行的绿色贷款余额成长较快。另外，有七个地区开展了碳交易的试点，人民银行征信中心也开始引入企业的环境违法信息。但是，这些努力距建立完整的绿色金融体系尚远，各方面的工作还呈碎片化状态，还没有建立起一个完整的政策框架和形成政策合力。我国绿色金融发展面临的另外一个问题是，现有的与环境相关的信贷政策多属于限制性措施，即限制银行对高污染、高耗能企业的贷款，但缺乏对节能、环保、清洁能源、清洁基础设施等绿色项目的鼓励性措施。这种政策的问题是，在抑制污染性投资的同时，没有充分引导资源进入新的绿色行业，对结构转型的推动力度有限。

针对这些问题，并基于对国际经验的深入研究，绿色金融工作小组在报告中提出了一个比较系统的“构建我国绿色金融体系”的框架和14条具体建议。工作小组认为，未来我国的绿色金融体系应该有如下特点：

- 一、不但有限制污染性投资的措施，还有更多的激励绿色投资的机制。
- 二、不但要通过现有的银行渠道推动绿色信贷，还需要考虑推动成立新的专业性绿色贷款与投资机构。
- 三、减少对行政命令的依赖，更多地使用财政金融等手段，通过市场机制来激励社会资金投向绿色行业。
- 四、不但要推动绿色贷款，还要发展绿色债券、绿色股票、绿色基金、绿色保险、碳交易等多种绿色融资渠道和金融产品。

五、要通过金融和法律体制建设，使有限财政资源可以撬动几倍、乃至十几倍的社会资金投资于绿色产业，从而帮助缓解环境问题导致的对财政的巨大压力。一些金融和法律手段的使用，可以在基本不依赖财政资源的情况下，达到改变金融机构投资行为，引导投资结构向绿色转型的目的。

六、不但要在原则上支持绿色投资，还需要为绿色投资提供金融基础设施，包括建立帮助投资者评估项目环境影响的方法和数据库、绿色评级和环境信息披露规制。只有提高了环境信息和成本的可获得性，绿色金融通过市场机制引导绿色投资的作用才能得到有效的发挥。

鸣谢

虽然绿色金融工作小组从成立到正式发表研究报告，只有短短 9 个月的时间，但许多小组成员都是长期从事绿色金融问题研究和实操的业界领袖人物，工作小组的报告因此凝聚了所有专家长期积累的知识和经验。比如，负责“绿色债券”子课题的兴业银行是我国唯一一个加入了赤道原则的银行，其绿色金融业务已有 10 年的历史，以事业部形式运行也有六年的经验，绿色信贷余额达 3000 亿人民币，不良资产率只有 0.2%，资本金回报率高到 20% 以上。兴业银行也将是我国第一只绿色金融债的发行主体。

在此，我向工作小组的 40 多位专家组成员和外国顾问表示衷心的感谢和敬意。这些专家都是在百忙之中抽出时间，在没有报酬的情况下承担了子课题的研究。许多子课题报告经历了四、五轮的反复修改。课题组的外方顾问在 Simon 的带领下，9 个月中多次（有的达四次）到中国参加工作小组的讨论，为我们提供了大量第一手的国际经验。这些专家都是无私奉献、承担“社会责任”的楷模。

还要特别感谢的是人民大学重阳金融研究院和人民大学生态金融研究中心的王文院长、郑挺颖主任、曹明弟研究员等同事们，他们除了参加研究之外，还筹办了多场工作小组的讨论会和评审会，并在 2014 年人民大学与中国金融学会共同主办的“生态金融论坛”上为绿色金融工作小组提供了与媒体沟通的平台。贵阳生态文明国际论坛、国际可持续发展研究院、中国银行业协会绿色信贷专业委员会、中国金融 40 人论坛等机构也为绿色金融工作小组的提供了研讨、传播的平台和国际专家的支持。尤其需要一提的是，作为绿色金融工作小组的副秘书长的社科院安国俊博士，为组织会议、协调子课题工作、撰写宣传性稿件投入了大量的时间和精力。人民银行研究局的李建强和姚斌博士、国际可持续发展研究所中国办公室主任余晓文女士也在报告编辑、课题组织、协调国际国内专家对接和翻译等方面做出许多工作。

除了工作小组的成员之外，我还要感谢许多为研究报告提出过重要意见和建议的许多领导、专家。这些领导和专家包括（按姓氏拼音排序）：环保部法规司副司长别涛、中国保险行业协会副秘书长蔡宇、中国人民大学校长陈雨露、国务院台湾事务办公室主任陈云林、环保部国际对外合作中心副主任方莉、中国生物多样性保护与绿色发展基金理事长胡德平、人民银行条法司副司长刘向民、国家开发银行二局局长卢汉文、证监会研究院副院长马险峰、中国人寿集团总裁缪建民、北京环境交易所总裁梅德文、国务院研究室司长沈晓晖、中国金融 40 人论坛秘书长王海明、能源基金会（中国）总裁王建胜、中财办副局长王志军、人大财经委副主任委员吴晓灵、中财办副主任杨伟民、中国银行业协会常委副会长杨再平、工商银行副行长张红力、中国人民银行行长周小川、银河证券债券部总经理周一红、环保部生态司司长庄国泰、中国人民银行市场司副司长邹澜等。

最后，还要感谢中国金融出版社的戴硕编辑，在短短的一个多月时间内，加班加点，组织力量编辑出版了这本书。当然，本书中所有的观点和存在的错误与纰漏都由工作小组的相关作者负责。这些观点未必代表作者所任职的机构。

马骏

中国人民银行研究局首席经济学家

绿色金融工作小组中方召集人

序言三

包容性、可持续的经济繁荣离不开优质的全球自然环境。然而，几乎所有国家的自然资本都处于下降趋势。每年，不计其数的环境灾害造成七万亿美元的损失，温室气体排放量也在持续上升。

如欲扭转这些趋势，需让资金流向特定的经济活动，以加快经济走向可持续性发展的步伐，而非让污染情况继续恶化。这一方面的工作已初见成效，且主要归功于金融机构自愿发起的一些行动。例如，实行绿色标准；推出新型金融产品，包括总市值已达五千亿美元，且继续高速发展的绿色债券市场；寻求新型投资机会等。

但现实情况是，总值为305万亿美元的全球金融资产仅有一小部分是“绿色的”。仅就主要经济体而言，它们在2020年之前每年需要在基础设施建设、建筑、设备、软件、教育及研发领域追加约7万亿美元的绿色资金投入。联合国贸易和发展会议也表明，发展中国家实现“可持续发展目标”所需的年度投资还存在2.5万亿美元的资金缺口。

各国政府正在加大对绿色金融的支持力度。到目前为止，这方面的支持多是以税收优惠、财政资金直接参与绿色投资、使用少量财政资金激活民间投资等举措得以实现。这些措施的出台虽然鼓舞人心，但它们处处受限于财政预算的约束，并承受着被更短期政府计划排挤在外的压力。因此，我们亟需开拓一条新的渠道，使整个金融系统的发展动力与实体经济的长期需求相匹配，从而达到扩大绿色金融规模的目的。

放眼国际，越来越多的国家对提高金融系统和经济发展的目标一致性问题表示出浓厚的兴趣，并已采取实际行动。联合国环境规划署通过其“可持续金融体系设计之探寻”项目，已框定用来鼓励绿色金融的创新性政策、规章及标准。各国的财政部门、中央银行、金融监管机构及标准制定者都参与了这些绿色制度的制定；其中，发展中国家在很多活动中起着牵头作用。

新的绿色披露要求已在银行业和资本市场中广泛应用。银行业监管机构正在出台绿色信贷指引；可持续性发展指数和基准在证券市场渐成常识；信用评级机构也已将气候风险纳入其偿付能力评估体系。世界各国亦正在考虑颁布银行业和资本市场的环境压力测试规定。该等规定已在一个主要市场开始实施，作为谨慎评估气候变化对金融稳定性影响的一个环节。一些中央银行和金融监管机构已设立具体的绿色贷款要求，且在再融资和资本要求方面提供相应的优惠政策。各国政府也在鼓励国有银行、主权财富基金以及某些新成立的绿色投资工具等受政策直接影响的金融机构，在其决策过程中更充分地考虑环境因素。

然而，这种革新仍处于初期阶段，且多为临时性的。我们亟需一个将绿色金融作为金融市场发展的核心目标、且更为系统化的体系设计。换言之，绿色金融是完善的金融资本市场的一个核心绩效要求，绝非可有可无。绿色化的金融体系表明其风险定价和资本分配更为高效，且具有更高的市场效率、总体恢复力以及金融稳定性。

中国人民银行所成立的、由联合国环境规划署“可持续金融体系探寻”项目小组共同召集和支持的绿色金融工作小组在推动建立一个系统性的绿色金融体系方面做出了表率。通过聚集中国的主要政策机构、监管机构、金融机构和国际专家，绿色金融工作小组可以集思广益、精雕细琢，并制定宏大而又切合实际的具体绿色金融方案。通过其理论框架和一个汇集多家主要机构的总体规划，工作小组在如何将绿色金融作为金融市场发展的核心目标和组织原则方面提供了深刻的见解。

金融和资本市场正日趋国际化，且越加涉及国际标准和治理机构。绿色金融的推进虽然可以在单个国家层面上获得成效，但其最终的发展需要各国之间的协同努力。中国在推进其综合的绿色金融体系时

所表现出的领导力可以促进此类合作，具体体现为：向其他国家提供技术路线，供它们学习、利用；将这些推进措施融入中国的发展及国际化过程中；在参加国际主要论坛、制定国际主要政策和标准时，中国充分传达自己对绿色金融的承诺。

当今时刻，在统一金融系统与可持续性发展的目标上，我们有诸多难得一遇的机会。越来越多的人愿意冲破全球金融危机的束缚，畅想并建立一个有未来、卓有成效、且能满足包容性可持续发展需求的金融系统。今年九月，一套国际通用的可持续性发展目标将开始实施；今年十二月，世界各国将完成一个全球气候协议。由此，可持续性发展金融议题将走向中心舞台。

能为绿色金融工作小组尽绵薄之力，联合国环境规划署探寻项目小组感到非常自豪，并时刻准备为中国升级其绿色金融事业和实践提供更多助力。

谢孟哲 (Simon Zadek)

联合国环境规划署可持续金融项目联席主任

绿色金融工作小组外方召集人

Summary Report of the Green Finance Task Force

EXECUTIVE SUMMARY

In the context of growing environmental challenges, China needs to urgently transition toward a green and sustainable growth model. It is estimated that an annual investment of at least 2 trillion yuan (US\$320 billion) is needed to achieve national environmental targets during the Thirteenth Five-Year Plan. At the same time capital must shift from high-pollution, energy-intensive heavy sectors into more innovative and technological industries. Establishing a systematic green finance system is crucial to this.

The Green Finance Task Force has developed 14 recommendations across 4 areas which would to enable the establishment of a comprehensive green finance system which both stimulates green investment and curbs investment in pollution-intensive industries:

SPECIALIZED INVESTMENT INSTITUTIONS

1. **Green Banks** - Sponsor the creation of the China Ecological Development Bank and encourage the creation of local green banks.
2. **Green Funds** - Promote the development of green industry funds through public-private partnership arrangements.
3. **Green the Development Banks** - Adopt environmental policies for overseas development institutions.

FISCAL AND FINANCIAL POLICY SUPPORT

4. **Discounted Green Loans** - Improve the system for providing discounted interest rates on green loans
5. **Green Bonds** - Develop the green bonds market by issuing industry guidelines, permitting and encouraging banks and enterprises to issue green bonds and providing incentives.
6. **Green IPO** - Improve the mechanism through which environmental performance is communicated and recognized in equity markets.

FINANCIAL INFRASTRUCTURE

7. **Carbon Markets** - Accelerate the formation of markets for emission trading.
8. **Green Ratings** - Establish a green rating system to bring down the financing costs for green enterprises and projects.
9. **Green Stock Indices** - Promote the creation and use of green stock indices that orient the capital market to green industry.
10. **Green Database** - Create a public nonprofit environmental cost analysis system and database.
11. **Green Investor Network** - Create a green investor network to foster the expertise and capabilities of institutional investors in investing in green industries.

LEGAL INFRASTRUCTURE

12. **Green Insurance** - Implement compulsory green insurance for key industries.
13. **Lender Liability** - Identify and clarify environmental liabilities of banks.
14. **Compulsory Disclosure** - Establish mandatory environmental disclosure requirements for listed companies.

TASK FORCE ON GREEN FINANCE

In the context of growing environmental challenges, China urgently needs to transition toward a green and sustainable growth model. The establishment of a mechanism that simultaneously stimulates green investment and curbs investment in pollution-intensive industries will be the key to transforming China's current economic growth model into a green model. As stressed by the decisions of the CPC Central Committee on several major issues concerning the comprehensive deepening of reform adopted at the third plenum of the 18th CPC Congress, "efforts must be made to establish a systematic and full-fledged institutional system of ecological civilization for the protection of the eco-environment," and "efforts must be made to establish a market-based mechanism that channels private capital investments to the protection of the eco-environment." The [2014] no. 69 Document of the State Council General Office also states that "the People's Bank of China (PBC), the China Banking Regulatory Commission (CBRC), the China Securities Regulatory Commission (CSRC) and the China Insurance Regulatory Commission (CIRC) should work together with the government agencies to formulate financial policies that support the development of environmental service industry." In the last few years, the government has made considerable headway in the promotion of green credit, but efforts on various fronts remain fragmented and a comprehensive green finance system has not yet been developed.

The goal for China during the thirteenth five-year plan period should be to establish a relatively systematic green finance system. A systematic and efficient green finance system can attract private capital several times larger than the limited funding available from the government. Such a system will not only create a new growth area and enhance China's growth potential, but also help accelerate the transition of China's economic system to a green economy, enabling China to achieve both stable economic growth and economic restructuring. This report will propose a general framework and 14 specific recommendations for establishing China's green finance system during the thirteenth five-year plan period.

1. The Imperative of Building a Green Finance System

As warned by the 2014 Central Economic Work Conference, "China's environmental carrying capacity has reached or is near its upper limit." In fact, the severity of pollution in many areas of China can no longer be ignored or tolerated. Of the 74 major cities in China monitored for air quality in 2014, only eight had attained satisfactory grades. The average $PM_{2.5}$ concentrations for a number of cities in northern China regularly exceeds $100 \mu g/m^3$ throughout the year, far above the Interim Target-2 level of $25 \mu g/m^3$ set by the World Health Organization. Pollutants in 75 percent of China's drinking water supplies are above national limits, and more than 19 percent of China's arable land is similarly fraught with heavy pollution.

The extent and severity of China's environmental pollution is closely related to the highly polluting nature of China's industrial, energy and transportation structures. For example, China's heavy industries account for almost 30 percent of the national GDP – the highest of any major country in the world – the energy consumption per unit of output from these industries and the resulting air pollution is nine times that of the service industry. Similarly, 67 percent of the energy consumed in China comes from coal, which, on a per unit energy output basis, is ten times more polluting to the air as natural gas. Only 7 percent of China's urban residents use urban light railways as a means of transportation, with the remaining 93 percent relying on public roads exclusively. Studies show that, versus subway trains, privately-owned passenger cars cause more than ten times the air pollution.

To improve its environment, China not only has to rely on more effective cleanup efforts, but also fiscal, taxation and financial incentive measures to optimize resource allocation and make the industrial, energy and transportation structures both cleaner and greener. In particular, incentive measures for the better

allocation of capital and other financial resources will be instrumental to this green transformation. Once funds recede from polluting industries and flow into green and environmentally friendly sectors, other resources, including land and labor, will follow suit and achieve a more optimized configuration. This vision calls for China to establish a green finance system that strengthens the incentive mechanism for channeling financial resources – and private capital in particular – into green projects.

2. Finance for Economic Growth and Restructuring

A ‘green finance system’ refers to a series of policies, institutional arrangements and related infrastructure building that, through loans, private equity, issuance of bonds and stocks, insurance, emissions trading and other financial services, steer private funds toward environmental protection and the development of energy efficient technologies, clean energy, clean transportation and other advances embodying the green industry. Developed countries have already accumulated several decades of experience in developing green finance-related institutional arrangements and financial products. The green investments that have followed these developments have played a positive role in helping these countries achieving economic restructuring and stimulating new growth areas. By the same mechanics, the creation of a green finance system will be an important cornerstone in stabilizing China’s economic growth and helping China achieve economic restructuring, while also improve the sustainability of China’s fiscal situation and maintain China’s global image as an environmentally responsible nation.

Firstly, it will create a new growth area and enhance China’s economic growth potential. According to our estimates, achieving the national environmental targets during the Thirteenth Five-Year Plan period will require an annual investment of at least 2 trillion yuan (US\$320 billion) into the green industry, which will fund developments in environmental protection, energy efficiency, clean energy and clean transportation. If, with the support of green finance, these potential investment targets can sprout into whole new industries, they can help elevate China’s growth potential and alleviate China’s current pressure in stabilizing its growth. Take air pollution as an example. The market for just four types of air pollution remediation products—desulfurization and denitrification equipment, natural gas transportation equipment, natural gas power generation equipment and environmental monitoring instruments—is valued at more than 500 billion yuan (US\$80 billion). In the field of energy efficiency, the annual output of energy-saving technologies and equipment during the Thirteenth Five-Year Plan period is estimated at 700 billion yuan (US\$110 billion), while that of the energy-saving service industry during the same period is estimated to be 400 billion yuan (US\$64 billion). In the field of water treatment, the application of various membrane technologies alone can create an annual market worth of 70 billion yuan (US\$11 billion).

Secondly, it will accelerate the transition of China’s existing industrial, energy, and transportation structures into a greener configuration and boost the role of technology in China’s economy. By fine-tuning the cost and availability of funding for different types of projects, a green finance system can encourage private capital to withdraw from high-pollution, energy-intensive heavy industries and enter instead into the environmentally-friendly and low-pollution service industry, with the side benefit of gradually reducing the Chinese economy’s over-reliance on heavy industry. Clean energy and green transportation (such as subway trains) are also key areas to be supported by the green finance system, as funding in these areas will boost the proportion of clean energy to primary energy consumption, as well as the percentage use of green transportation options in China’s transportation structure. Furthermore, most of the equipment manufacturing capabilities and services relating to clean energy, energy-saving and new energy technologies are part of the high-tech industry. With the support from green finance, these manufacturing expertise and services can quickly elevate the role of technology in China’s economy, which will be in line with China’s goal of becoming an innovative and technological nation.

Thirdly, it will reduce the fiscal pressure from environmental issues. As stated earlier, the annual investment in the green industry should reach at least 2 trillion yuan during the Thirteenth Five-Year Plan period (US\$320 billion). For the last two years, however, China's central and regional government could only allocate around 200 billion yuan (US\$32 billion) to green projects in environmental protection, energy-saving and new energy. An estimate by the Ministry of Environmental Protection indicates that an investment of 1.7 trillion yuan (US\$270 billion) is required in the next five years to improve China's air quality, but the government is expected to only contribute 50 billion yuan (US\$ 8 billion) in the next three years. Because of the fiscal constraints placed on the government, it may only be able to contribute around 10 to 15 percent of the total green investment required, while private capital has to assume the remaining 85 to 90 percent. Without an efficient green finance system, the investment required to improve China's environment will either put an unbearable amount of fiscal pressure on the government, or will not accomplish China's intended goals in cleaning up pollution. On the other hand, an efficient green finance system will amplify the limited government funding by inviting a much larger share of private capital into the green industry. For instance, green banks, green interest rates and measures such as tax exemption for green bonds will achieve the aforementioned effect, while measures relating to the building of financial and legal infrastructures will funnel private capital into the green industry without funding from the government.

Fourthly, it will shape and maintain China's international image as an environmentally and socially responsible nation. For many years, China's environmental problems, such as grievous levels of pollution within its borders, large-scale and rapid increase of its carbon emissions, and frequent pollution incidents involving its overseas investments, have placed China in a difficult and precarious position in international negotiations and discussions on topics related to environmental protection and climate change. As the second largest economy in the world and the host of the G20 summit in 2016, China is actively seeking greater voice and influence in global governance and international organizations, which will require China to become more thoughtful of the spillover effects of its environmental problems and how to project its image in an international setting. Consequently, China should consider adding the following initiatives to the agenda of the upcoming G20 summit: the creation of a green finance system and promotion of green investment; provision of financial policies in support of the pledge of cutting carbon emissions before 2030; and, adoption of a high-standard environmental risk management regime by institutions, including the Asian Infrastructure Investment Bank, the New Development Bank (formerly known as the BRICS Development Bank) and the Silk Road Fund for their overseas investments. These efforts will effectively enhance China's soft power and international voice, but also demand China to accelerate its pace in building its domestic green finance system.

3. Goals of the Green Finance System

In the last few years, government authorities have achieved much progress in building green banking in China, as the guidelines and statistical system for 'green credit' are already in place and the balance of green loans is enjoying a healthy growth rate. Seven administrative regions in the country are running pilot carbon emission trading programs. Despite these positive signs, a comprehensive green finance system is not yet in place – green efforts on various fronts remain fragmented, a systematic policy framework is still absent, and existing policies have yet realize their synergistic potential. Another issue hindering the growth of China's green finance system is the imbalance of policy measures. Existing environmental credit policies are mostly designed as restrictive measures which constrain lending to high-pollution, energy-intensive companies. What has not yet been established are the corresponding incentive measures for green projects in energy-saving technologies, environmental protection, clean energy and clean infrastructure. The present over-reliance on restrictive policies will not be conducive to attracting investment into green industry and therefore has a limited effect in facilitating the economic restructuring of China.

During the Thirteenth Five-Year Plan period, China should gain a broader, international perspective on green finance, fully take into account the successful experiences of other countries and endeavor to build a more extensive and efficient green finance system. China's future green finance system should deploy three mechanisms to provide the economic incentives to spur green investment and curb investment in polluting industries.

- **Increase the return on investment for green projects.** Due to deficiencies in China's current pricing system, environmental externalities do not readily and completely translate into internal benefits or penalties. As a result, the rate of return for many green projects is lower than their financing costs, which dampens investments in the green sector. By lowering financing costs and enhancing the availability of funds (through such means as discounted interest rates, green bonds, green IPO, green ratings, green stock indices and mandatory disclosures), a green finance system can provide a higher expected rate of return for investors, thus rekindling their enthusiasm in steering funds into green industries.
- **Reduce the return on investment for polluting projects.** The environmental damage caused by polluting projects is not fully reflected in their bottom lines. When the investment returns for these projects dwarf their financing cost, there is a strong incentive to direct investments into polluting industries. The key to solving this problem, therefore, is to raise the cost and compliance hurdle for financing these projects (some possible measures include green insurance, environmental liabilities of banks, green ratings, green stock indices and mandatory disclosures). A green finance system endowed with these features will lower shareholders' expectations for the return from their investment in polluting projects, thereby reducing the level of investment in such projects as a whole.
- **Enhance investor and corporate social responsibility in protecting the environment and promote green consumerism.** Requiring investors and corporations to shoulder greater environmental responsibilities and encouraging consumers to favor products and services from eco-friendly companies will be as vital to supporting the green industry as direct government subsidies. A green finance system can enhance investors and consumers' awareness for social responsibility by imposing mandatory environmental disclosure requirements on investment institutions and enterprises, building an active green investor network and implementing more effective educational programs in green consumerism.

Guided by the foregoing targets and drawing on international practices and experiences, this report is proposes a basic framework and 14 specific recommendations for China's future green finance system. To clearly delineate the responsibilities of various government agencies and market entities, we have grouped these 14 recommendations into four major categories: institution building, policy support, financial infrastructure and legal infrastructure (Figure 1). Figure 2 summarizes the benefits that these recommendations bring.

FIGURE 1: CATEGORIZATION OF THE RECOMMENDATIONS

Specialized Investment Institutions	Fiscal and Financial Policy Support	Financial Infrastructure	Legal Infrastructure
1) Green banks 2) Green investment funds 3) Greening the development banks	4) Discount green loans 5) Green bonds 6) Green IPO	7) Emission trading 8) Green ratings 9) Green stock indices 10) Green database 11) Green investor network	12) Green insurance 13) Compulsory disclosure 14) Lender liability

FIGURE 2: BENEFITS OF THE DOMESTIC RECOMMENDATIONS

Policy recommendation	Reduce cost of green investments	Increase cost of polluting projects	Bolster social responsibility
Green banks (1)	√		
Green bonds (5)	√		
Discounted green loans (4)	√		
Green investment funds (2)	√		
Green IPO (6)	√		
Green ratings (8)	√	√	√
Green database (10)	√	√	√
Green insurance (12)		√	
Emission trading (7)	√		
Green stock indices (9)	√	√	
Compulsory disclosure (14)	√	√	
Green investor network (11)	√	√	√
Lender liability (13)		√	√

4. Overview of the Recommendations

Specialized Investment Institutions for Green Credit and Green Investment

Recommendations from the first category are concerned with building an institutional support system that will serve as the foundation for organizing future green investment efforts. Such a support system will require funding from the central and local governments, as well as associated institutional reforms.

1. **Green banks:** Build a green finance system that empowers green banks to fully leverage their expertise, scale and risk management in green credits and green investments. On the national level, the government should sponsor the creation of the China Ecological Development Bank, in which the government does not have to have a controlling interest. On the regional level, local governments should actively explore and encourage the creation of green banks funded mostly by private capital, then introduce practices and experiences in green financing from the eco-finance business divisions of more established commercial banks. Green banks will have several channels to raise funds, including issuing green bonds and entering re-lending agreements with the central bank.

2. **Green funds:** Promote the development of green industry funds through public-private partnership (PPP) arrangements, thereby inviting private capital to make amplified equity investments in the green sector in response to limited government funding. Policies that create a favorable environment for individual PPP projects should generally be supportive of PPP industry funds. Efforts should also be made to formulate an appropriate organizational model and government participation model (government as either general partners or limited partners) for these green industry funds, as well as an effective and efficient exit mechanism for when operational guidance from the government is no longer needed.
3. **Greening the development banks:** Overseas investment and development institutions should adopt or reference the Equator Principles. This concerns institutions such as the Silk Road Fund, the Asian Infrastructure Investment Bank, and the New Development Bank (formerly known as the BRICS Development Bank). Efforts should also be made to: establish a system for environmental risk management with metrics no lower than those set by the World Bank and the Asian Development Bank; disclose environmental information to the fullest extent; promote overseas green investment; and, shape and maintain China's image as an environmentally and socially responsible country internationally.

Fiscal and Financial Policy Support

The Ministry of Finance, the PBC, CBRC, CSRC, and other government agencies will collaborate and take leading roles in the following initiatives.

4. **Discounted green loans:** Improve the system through which government funding provides discounted interest rates on green loans, further raise the level of such discounts, and gradually ease the various restrictions and eligibility criteria for these subsidies. Efforts should also be made to set reasonable terms for which borrowers can enjoy the preferential rates, streamline the review and approval process, implement pilot programs where government finance departments engage policy banks, green banks or the eco-finance divisions of commercial banks to manage the interest rate subsidies for green loans.
5. **Green bonds:** The National Development and Reform Commission (NDRC), PBC, CBRC, CSRC and other relevant government agencies should develop the green bonds market by issuing industry guidelines, permitting and encouraging banks and enterprises to issue green bonds to create a long-term and low cost source of funding for green loans and green investments, exempting institutional investors from income taxes on their investments in green bonds, providing favorable and supportive policies for green bonds in the forms of adjusted loan-deposit ratios and risk weightings, and simplify the review and approval process relating to green bonds.
6. **Green IPO:** Improve the mechanism through which green enterprises reap benefits from the equity market. Efforts should also be made to set clear determination criteria for classifying green industries and enterprises, and to simplify the IPO registration, review and filing process for verified green enterprises. To the appropriate extent, relax the restrictions on the amount and ratio of offering proceeds that can be used to replenish liquidity or repay bank loans. Lastly, offer priority status to qualified green enterprises currently listed on the New Third Board to transfer to the GEM in the board transfer pilot program.

Financial Infrastructure

Recommendations from the third category relate to the building of financial infrastructures that support green investments. Financial institutions and private institutions (including banks, rating agencies, environment exchanges, stock exchanges, brokerage firms, fund companies and NGOs) are capable of

laying most of the infrastructural groundwork, but the government and the general public should be ready to lend guidance and support.

7. **Emissions trading:** Accelerate the formation of markets for emission (pollution) trading. National legislation and top-level design should be strengthened and optimized to accelerate the building of China's carbon trading markets, set appropriate quota (cap) and trading mechanisms, fully incentivize companies to take emission reduction measures through pricing structures, and increase market liquidity. For key river systems and air-pollutant monitoring regions, establish trial programs that allow pollution rights trading across administrative divisions, and implement a system for regular evaluation and adjustment that links total regional pollutant emission with the carrying capacity of the local environment.
8. **Green rating:** Establish a green rating system that awards higher ratings for green enterprises or projects to bring down their financing costs. By introducing "green rating" – an environmental rating built upon a fair standard and methodology – rating companies can experiment with the dual rating system to complement their traditional credit ratings; in a similar vein, commercial banks and the credit reference center of the PBC can develop their own green rating system. Institutional investors are encouraged to use the green rating in allocating their funds.
9. **Green stock indices:** Promote the creation and use of green stock indices that orient the capital market to the green industry. By drawing on international practices and expertise, China is in a good position to develop innovative green indices, improve the function and visibility of green indices as a gauge of economic fundamentals, promote the integration of green indices among institutional investors in their decision-making process, and offer a more tailored and diverse set of green and sustainable investment products.
10. **Green database:** Create a public nonprofit environmental cost analysis system and database. This could be carried out by the Ministry of Environmental Protection, together with financial research institutions and associations. This would enable greater accessibility to the methodologies for environmental assessment and environmental data, thereby reducing the costs that investors incur to evaluate a green project. Investment institutions are encouraged to manage their portfolios on the basis of environmental costs. At the same time, environmental cost will be incorporated as a major factor into existing environmental protection measures such as environmental impact assessment, company-level environmental management, and the issuance of the Pollutant Discharge Permit.
11. **Green investor network:** government-affiliated financial institutes and associations, as well as influential financial institutions, should advocate for and launch a green investor network to monitor investees' performance of their environmental obligation, foster the expertise and capabilities of institutional investors in investing in green industries, and hold educational programs in green consumerism around the nation.

Legal Infrastructure

Recommendations from the fourth category revolve around building a legal system to support green finance. These initiatives will require the combined inputs and efforts from China's legislature, ministries and financial institutions.

12. **Green insurance:** Implement compulsory green insurance for key industries. This approach would utilize the market mechanisms of the insurance industry to limit investment in polluting

projects and provide funding for restoration efforts. The Legislative Affairs Office of the State Council, with help from the Ministry of Environmental Protection and CIRC, should formulate and introduce the Regulations on Compulsory Environmental Pollution Liability Insurance, promulgate detailed taxation and administrative licensing policies as supplementary measures, create an enabling framework for professional risk assessment services, establish damage determination criteria, and accentuate the synergistic effect of environmental pollution liability insurance and green credits.

13. **Lender liability:** Identify and clarify environmental responsibilities of banks. This would call for facilitating the victims of pollution to pursue legal actions against financial institutions that bear joint and several liabilities through their funding of pollution-intensive projects. Efforts should also be made to amend the Commercial Banking Law to further emphasize civil liabilities and include administrative sanctions along with criminal penalties as a fallback recourse, and clearly specify the statutory obligations and liabilities of banks and other lending institutions with regard to the environmental assessment and environmental impacts of their investment.
14. **Compulsory disclosure:** The CSRC and stock exchanges should establish mandatory disclosure requirements on environmental information for listed companies, thus paving the way for a reliable assessment of environmental risks and an accurate prediction of risk levels for listed companies; this in turn would motivate capital markets to allocate more resources into green industries. We recommend a phased approach in which mandatory disclosure requirements are first imposed on polluting industries and then diffused to other industries. The disclosure requirements should have sufficient detail and be quantifiable. Market intermediaries should be empowered to evaluate environmental information disclosures and provide supervision, guidance and incentives for such disclosures. Furthermore, the monitoring, supervision, regulation and enforcement of environmental information disclosures should be strengthened, so that market prices fully reflect the true cost and value of companies' actions on the environment.

绿色金融工作小组报告摘要

执行摘要

在环境形势日益严峻的背景下,中国的经济发展亟待向绿色、可持续模式转型。据估计,“十三五”期间,需要每年至少投资 2 万亿元(3200 亿美元)在绿色产业上,才能达成国家规划的环境改善目标。同时,资本必须从高污染、高耗能的产业转移到更具创新性和技术性的产业上。因此,建立系统化的绿色金融体系将至关重要。

绿色金融工作小组已开发了涵盖 4 个领域的 14 条建议,将有利于建立一个完善的绿色金融体系,以促进绿色投资和污染密集型产业上的路边投资:

机构建设

- (一) 建立绿色银行体系。建立国家层面的生态发展银行,鼓励成立地方绿色银行。
- (二) 推动绿色产业基金。通过 PPP 模式推动绿色产业基金发展。
- (三) 绿化开发银行。鼓励对外投资和开发性金融机构制定高标准的环境政策。

财政和金融政策支持

- (四) 绿色贴息 —— 健全财政对绿色贷款的高效贴息机制。
- (五) 绿色债券 —— 通过发布行业指引,允许和鼓励银行和企业发行绿色债券,发展绿色债券市场。
- (六) 绿色 IPO —— 强化股票市场支持绿色企业的机制。

金融基础设施建设

- (七) 碳市场 —— 加快排放(污)权交易市场建设。
- (八) 绿色评级 —— 为绿色企业(项目)提供更有利的评级,以降低其融资成本。
- (九) 绿色股票指数 —— 推动绿色指数发展创新,引导资本市场更多投入绿色产业。
- (十) 绿色数据库 —— 建立公益性的环境成本核算体系和数据库。
- (十一) 绿色投资者网络 —— 倡议、发起绿色投资者网络,培育机构投资者的绿色投资能力。

绿色金融的法律法规体系建设

- (十二) 实行绿色保险 —— 在重点行业实现强制性的绿色保险。
- (十三) 明确贷方责任 —— 明确银行等贷款机构对所投项目环境影响的法定审查义务,确立银行等贷款人的环境影响法律责任。
- (十四) 建立强制披露机制 —— 建立上市公司环保信息强制性披露机制。

绿色金融工作小组

当前,我国环境形势日益严峻,经济发展亟待向绿色、可持续模式转型。建立鼓励绿色投资、抑制污染性投资的体制机制,是推动我国经济发展模式向绿色转型的关键。十八届三中全会作出的《中共中央关于全面深化改革若干重大问题的决定》强调,“必须建立系统完整的生态文明制度体系,用制度保护生态环境”,“必须建立吸引社会资本投入生态环境保护的市场化机制”。国务院办公厅[2014]69号文件也要求,“一行三会会同有关部门研究支持环境服务业发展的金融政策”。过去几年,有关部门在引导绿色信贷方面已经做了一些卓有成效的工作,但距建立完整的绿色金融体系尚远,各方面努力仍呈碎片化状态。

“十三五”期间,我国应该建立一个较为系统的绿色金融体系。一个系统、有效的绿色金融体系可以使有限的财政资金撬动几倍乃至十几倍的社会资本投入绿色产业,不仅能创造新的经济增长点,提升经济增长潜力,而且有助于加速经济结构的绿色转型,从而达到稳增长和调结构的双重目标。本报告提出“十三五”期间构建我国绿色金融体系的基本框架和14项具体建议。

一、建立绿色金融体系的必要性和紧迫性

2014年的中央经济工作会议指出,我国“环境承载能力已经达到或接近上限”。在不少地方,污染的严重程度实际上已经超过了可容忍的极限。2014年,我国74个主要城市中只有8个城市的空气质量达标。一些北方城市的PM_{2.5}水平常年在100微克/立方米以上,远超世界卫生组织第二阶段标准(25微克/立方米)。我国饮用水源中水质污染超标的占75%,19%以上的耕种土地面积污染超标。

我国环境污染与高污染的产业结构、能源结构和交通结构密切相关。比如,重工业的单位产出能耗及导致的空气污染是服务业的9倍,而我国重工业产值占GDP比重高达30%,在全球大国中最高。在同样当量下,燃煤所导致的空气污染为天然气的10倍,而我国煤炭占总能源消耗比重却高达67%。私家车出行所导致的空气污染为地铁的10倍以上,而我国城市居民出行方式中地铁占比只有7%,公路出行占比为93%。

改善我国环境不仅要依靠强有力的末端治理措施,还必须采用财税、金融等手段改变资源配置的激励机制,让产业结构、能源结构、交通结构变得更为清洁和绿色。在资源配置中,资金(即金融资源)配置的激励机制将发挥关键作用。只要资金从污染性行业逐步退出,更多地投向绿色、环保的行业,其他资源(包括土地、劳力)将随之优化配置。这就要求我国建立一套绿色金融体系,强化引导金融资源(尤其是社会资金)投向绿色项目的激励机制。

二、发展绿色金融可同时达到稳增长和调结构的目的

所谓绿色金融体系,是指通过贷款、私募投资、债券和股票发行、保险、排放权交易等金融服务将社会资金引入环保、节能、清洁能源、清洁交通等绿色产业的一系列政策、制度安排和相关基础设施建设。在发达国家,与绿色金融相关的制度安排和绿色金融产品发展已有几十年经验,由此推动的绿色投资对这些国家的经济结构转型和启动新经济增长点起到了积极作用。同理,我国建立绿色金融体系也将会在稳增长和调结构两方面起到重要作用,并将有助于改善我国的财政可持续性和维护我负责任大国的国际形象:

第一,有助于启动新的增长点,提升经济增长潜力。我们估计,“十三五”期间,要达到国家规划的改善环境的目标,我国绿色产业(包括环保、节能、清洁能源和清洁交通)所需年均投资至少为2万亿

元。如果这些潜在投资需求由于得到绿色金融的支持而形成新的产业，将提升我国经济增长潜力，缓解稳增长的压力。以治理空气污染为例，未来几年，仅脱硫脱硝设备、天然气运输设备、天然气发电设备、环境监测仪器 4 类产品就有累计 5000 多亿元的市场。在节能领域，预计“十三五”期间年高效节能技术与装备市场的年均产值可达 7000 亿元，节能服务业年均产值将突破 4000 亿元。在污水处理领域，仅膜技术的应用就可能创造年均 700 亿元的市场规模。

第二，有助于加速产业结构、能源结构和交通运输结构的绿色转型和提升经济的技术含量。绿色金融体系通过改变不同类型项目的融资成本与可获得性，引导社会资本逐步从一些高污染、高耗能的重工业行业退出，进入到环保和低污染的服务型行业，将有助于缓解我国产业结构“过重”问题。清洁能源和绿色交通（如地铁）也是绿色金融体系重点支持领域，这些资金支持将有助于提高清洁能源在能源一次消费中的比例和交通运输结构中清洁出行的比例。另外，多数清洁技术、节能技术、新能源技术和相关的设备制造与服务业属于高科技产业，通过绿色金融支持这些产业的发展将较快地提升我国经济的技术含量，符合我国以创新立国、科技立国的发展方向。

第三，有助于缓解环境问题对财政的压力。如前文所述，“十三五”期间绿色产业每年至少需投入 2 万亿元以上，但在过去两年，我国中央与地方财政只能拿出 2 千多亿元来支持环保、节能、新能源等绿色投资。根据环保部的测算，五年内我国治理大气污染的投资需求为 1.7 万亿元，但财政投资在未来三年估计只有 500 亿元。由于政府财力所受的制约，估计在全部绿色投资中，未来几年政府财政出资只能占 10%-15%，社会出资比重将占 85-90%。如果没有一个有效的绿色金融体系，环境投资需求或者将对政府财政构成巨大压力，或者将无法得到足够的融资而难以完成污染治理的目标。如果能够建立一个有效的绿色金融体系，就能用有限的政府资金撬动几倍乃至十几倍的民间绿色投资。比如，如绿色银行、绿色贴息、绿色债券免税等措施可使政府资金撬动十倍以上的民间资金；其他属于金融和法律制度建设的措施，不需政府出资就可达到引导社会资金投向绿色产业的目的。

第四，有助于维护中国负责任大国的国际形象。长期以来，由于我国国内环境问题严峻，碳排放规模大且增长较快，对外投资项目中时常出现污染事故，使得我国在环境和气候变化领域的国际谈判和国际舆论中都处于较为被动的位置。目前，我国已成为世界第二大经济体，正在全球治理和国际组织中争取更多的话语权和影响力，并将于 2016 年主办 G20 峰会。这就要求我国更加注重环境问题的外溢效应和维护国际形象。我国应考虑在 G20 峰会的议程中加入建立绿色金融体系、推进绿色投资的倡议；为实现 2030 年之前碳排放见顶的承诺，提供金融体制保障；在亚洲基础设施投资银行、金砖银行和丝路基金等机构的对外投资中采用高标准的环境风险管理。这些努力有助于提升我国的软实力和国际话语权，但同时也要要求我国加快国内绿色金融体系建设。

三、绿色金融体系的目标：提高绿色项目回报率，降低污染性项目回报率

过去几年，有关部门在引导绿色信贷方面做了许多工作，已经建立了绿色信贷的指引和统计体系，绿色信贷余额成长较快。另外，有七个地区开展了碳交易的试点。但是，这些努力距建立完整的绿色金融体系尚远，各方面的工作还呈碎片化状态，还没有建立起一个系统性的政策框架，尚未形成政策合力。我国绿色金融发展面临的另外一个问题是，现有的与环境相关的信贷政策多属于限制性措施，即限制银行对高污染、高耗能企业的贷款，但缺乏对节能、环保、清洁能源、清洁基础设施等绿色项目的鼓励性措施。过度依赖限制性政策的问题是，在抑制污染性投资的同时，难以引导资源进入新的绿色行业，对结构转型的推动力度有限。

“十三五”期间，应该以更广的视野，充分借鉴各国的成功经验，构建一个更为完整、高效的绿色金融体系。未来的绿色金融体系应具备三种机制来提供激励绿色投资、抑制污染性投资的经济动力。一是提高绿色项目的投资回报率。在目前价格体系无法将环境外部性完全内生化的情况下，许多绿色项目

的回报率低于融资成本,项目投资的动力不足。通过降低融资成本和改善资金的可获得性(比如通过贴息、绿色债券、绿色IPO、绿色评级、绿色指数、强制性披露等),绿色金融体系可以提高投资者的预期回报率。二是降低污染性项目的投资回报率。在目前无法将环境外部性完全内生化的条件下,许多污染性项目的回报率高于融资成本,污染行业的投资冲动仍然强烈。通过提高这些项目的融资成本和融资难度(比如通过绿色保险、银行的环境法律责任、绿色评级、绿色指数、强制性披露等),绿色金融体系能降低股东的预期回报率,进而减少污染性行业的投资。三是提升投资者和企业的环境责任感和消费者对绿色消费的偏好。强化投资者和企业保护环境的社会责任,提高消费者对绿色消费的偏好,可以起到与政府补贴类似的对绿色产业的支持作用。通过强制性要求投资机构和企业披露环境信息、构建绿色投资者网络、加强绿色消费教育等,绿色金融体系可以提升投资者和消费者的社会责任意识。

基于上述目标,并借鉴有关国际经验,本报告提出了未来我国绿色金融体系的基本框架和14条具体建议。为明确政府机构和市场主体职责,可将14条建议分为机构建设、政策支持、金融基础设施和法律基础设施四类(图1)。图2归纳了这些建议所能达到的主要效果。

图1 具体建议的分类

绿色信贷与投资的专业投资机构	财政金融政策支持	金融基础设施	法律基础设施
中国生态发展银行 地方层面的绿色银行 商业银行生态金融部 绿色投资基金 环境友好型对外投资机构	绿色贷款贴息 绿色债券 绿色IPO	排放(污)权交易 绿色评级 绿色指数 绿色数据库 绿色投资者网络	绿色保险 强制披露 银行环境责任

表1 具体建议的效果

政策建议	降低绿色投资成本	提高污染项目成本	强化社会责任
绿色银行	√		
绿色债券	√		
财政贴息绿色贷款	√		
绿色基金	√		
绿色IPO通道	√		
绿色评级	√	√	√
公益性的环境成本信息系统	√	√	√
绿色保险	√	√	√
推动碳交易市场发展	√	√	
绿色股票指数	√	√	
上市企业的环境信息披露	√	√	√
成立绿色投资者网络	√	√	√
确立金融机构环境法律责任	√	√	√

四、推动建立我国绿色金融体系的4大类14条建议

第一类建议涉及机构建设，是实现绿色投资的组织保障，需要中央、地方政府资金的参与和相关体制改革。

（一）建立绿色银行体系，充分发挥绿色银行在绿色信贷和投资方面的专业能力、规模效益和风控优势。在国家层面以建立中国生态发展银行（政府发起，但未必需要控股），在地方层面积极试点建立民资控股的绿色银行，推广商业银行设立生态金融事业部的经验。绿色银行可通过发行绿色债券、央行再贷款等形式进行债权融资。

（二）推动 PPP 模式绿色产业基金发展，以有限的政府资金撬动民间资本股权投资。鼓励单个 PPP 项目的支持性政策大都应该适用于 PPP 模式的产业基金。合理设定绿色产业基金的组织形式和政府参与方式（GP 或 LP），构建有效退出机制。

（三）丝路基金、亚洲基础设施投资银行、金砖银行等对外投资和开发性机构，应宣布加入或参照赤道原则，建立高标准（不低于世界银行和亚洲开发银行）的环境风险管理制度，充分披露环境信息，大力推动对外绿色投资，维护我负责任大国的国际形象。

第二类建议涉及财政和金融政策，需要财政部、人民银行、银监会、证监会等部门的配合与推动。

（四）健全财政对绿色贷款的高效贴息机制，加大贴息力度，逐步放开贴息标准限制，合理划定贴息期限，简化审批流程，试点财政部门委托政策性银行、绿色银行或商业银行的生态金融事业部管理绿色贷款贴息。

（五）由发改委、人民银行、银监会、证监会等部门发布绿色债券有关指引，允许和鼓励银行和企业发行绿色债券，为绿色贷款和绿色投资提供较长期限、较低成本的资金来源。免除投资于绿色债券的机构投资者的所得税，并在贷存比和贷款风险权重等方面为绿色债券提供政策支持。简化绿色债券的审批流程。

（六）强化股票市场支持绿色企业的机制。明确绿色产业和企业的认定标准，简化绿色企业 IPO 审核或备案程序，适度放宽募集资金用于补充绿色企业流动资金或偿还银行贷款的金额和比例限制，对符合条件的新三板挂牌绿色企业优先开展转板试点。

第三类建议涉及支持绿色投资的金融基础设施建设，大部分可由金融机构和民间机构（如银行、评级公司、环交所、证券交易所、券商、基金、NGO 等）推动，政府和社会应该给予鼓励和支持。

（七）加快排放（污）权交易市场建设。在加强立法和顶层设计的基础上，加快全国碳交易市场的建设，合理规划配额和交易机制，充分发挥价格对减排者的激励作用，提高市场流动性。在重点流域和大气污染重点区域，试点跨行政区域排污权交易，建立污染排放总量与环境容量匹配性的定期评估与调节机制。

（八）建立绿色评级体系，为绿色企业（项目）提供更有利的评级，以降低其融资成本。在合理确定评级标准与方法的基础上，评级公司可通过引入双评级启动绿色评级试点，商业银行和人民银行征信中心也应该研究和开发绿色评级。鼓励机构投资者使用绿色评级。

（九）推动绿色股票指数的开发和运用，引导资本市场更多投入绿色产业。在吸收国际经验的基础上，推动绿色指数发展创新，强化绿色指数的表征性，积极推动机构投资者开展绿色指数的投资应用，开发更有针对性和多样化的绿色可持续投资产品。

（十）由环保部和金融业学会（或协会）牵头建立公益性的环境成本核算体系和数据库，提高环境

评估方法和数据的可获得性，降低投资者对绿色项目的评估成本。鼓励投资机构基于环境成本核算进行投资管理。将环境成本核算引入环境影响评价、企业环境管理、排污许可证发放等环境管理机制。

（十一）建立绿色投资者网络。有政府背景的金融专业学（协）会以及有较大影响力的金融机构应参与倡议、发起绿色投资者网络，监督被投资企业承担环境责任，培育机构投资者的绿色投资能力，开展绿色消费教育。

第四类建议涉及支持绿色金融的法律法规体系建设，需要立法机构、相关部委和金融机构的配合和推动。

（十二）在更多领域实现强制性的绿色保险，利用保险市场机制制约污染性投资并提供环境修复资金。由国务院法制办牵头，环保部和保监会参与，制定和出台《环境污染责任强制保险条例》，细化和出台有关财税和行政许可支持政策，建立专业风险评估机制和损失确定标准，构建环境污染责任保险与绿色信贷的联动机制。

（十三）明确银行的环境法律责任，允许污染受害者起诉向污染项目提供资金的、负有连带责任的贷款性金融机构。根据以民事责任为主，行政、刑事责任为辅的原则，修改《商业银行法》，明确银行等贷款机构对所投项目环境影响的法定审查义务，确立银行等贷款人的环境影响法律责任。

（十四）证监会和证券交易所应建立上市公司环保信息强制性披露机制，为上市公司环境风险评估和准确估值提供基础，引导资本市场将更多的资金配置于绿色产业。具体实施办法可以分步走，首先启动污染性行业的强制披露，此后逐步覆盖其他行业。制定具体的、可量化的披露标准，发挥中介机构对环境信息披露的评价、监督、引导和激励作用，强化环境信息披露的监管与执法，使市场价格充分反映企业环境行为的真实成本与价值。

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关于共同召集人

马骏博士现任中国人民银行研究局首席经济学家。2000-2014 年初在德意志银行任职，曾担任德意志银行大中华区首席经济学家、首席投资策略师、董事总经理。1992-2000 年间在世界银行和国际货币基金组织工作，曾任经济学家和高级经济学家。1988-90 年间为中国国务院发展研究中心研究人员。

马骏博士于 1994 年在美国乔治城大学获经济学博士学位，1988 年在复旦大学获管理学硕士学位。研究领域包括宏观经济、货币和金融政策、环境经济等。发表了数百篇文章和十一本著作，近年的著作包括《中国国家资产负债表研究》、《人民币走出国门之路》、《PM2.5 减排的经济政策》等。《人民币走出国门之路》一书在 2013 年获中国银行业协会优秀研究成果一等奖。马骏曾四次被国际投资界权威的《机构投资者》杂志评为亚洲经济学家第一名，五次被该杂志评为中国分析师第一名。

谢孟哲 (Simon Zadek) 博士是联合国环境规划署可持续金融项目联席主任。该项目旨在推进政策备选方案的制定，使金融体系的有效性得到重大提升，使其能调动资金实现绿色和包容性经济，即可持续发展。成立于 2014 年 1 月，将在 2015 年下半年出版最终报告。

谢博士是清华大学经济管理学院访问学者、国际可持续发展研究院和全球绿色发展研究院的高级研究员、社会商业学院的特聘高级研究员。2011 年到 2013 年，他在北京工作，作为国务院发展研究中心金融研究所和国际可持续发展研究院研究项目的国际团队领导，主要着眼于如何将可持续发展融入到中国的金融市场改革计划。他同时也致力于绿化中国的对外投资，推进绿色公共采购及中国生态工业园区的企业低碳发展。这些项目的合作伙伴包括国务院发展研究中心、中国社科院、中国环境与发展国际合作委员会、工信部和商务部。此前，他还曾是国际智库 AccountAbility 的创始人和首席执行官，世界经济论坛的可持续发展顾问，及哈佛大学肯尼迪政府学院的高级访问研究员。

The People's Bank of China is spearheading the drafting of the 13th Five-Year Plan (2016-2020) for the reform and development of China's financial sector; green finance will be a key element of this plan. The Green Finance Task Group has presented the most systematic set of policy recommendations pertaining to green finance to date. The Green Finance Task Force involves more than 40 experts from regulatory departments, institutions and think tanks. The report also incorporated many suggestions the UNEP Inquiry's international experts, making its recommendations highly practical.

Pan Gongsheng

*Deputy Governor of the People's Bank of China
Advisor to the Green Finance Task Group*

China's green finance system in the future should have the following characteristics: 1. Institutional mechanisms encouraging green investments; 2. Specialized green lending and investment institutions; 3. A diverse range of green financing channels and products; 4. Use of public finance effectively to leverage large volumes of private investment; 5. Information infrastructures to help investors evaluate the environmental impacts of their investments (such as through green credit ratings, and environmental information disclosure rules).

Ma Jun

*Chief Economist of the Research Bureau of the People's Bank of China
Domestic Co-Convener for the Green Finance Task Group*

China's Green Finance Task Force, established by the Peoples Bank of China and co-convened and supported through the UNEP Inquiry into the Design of a Sustainable Financial System, exemplifies the shift towards a systematic approach to advancing green finance. As the world's second largest economy and prominent force among emerging economies, China's leadership in advancing an integrated approach to green finance can catalyze international cooperation.

Simon Zadek

*Co-Director of UNEP Inquiry into the Design of a Sustainable Financial System
International Co-Convener for the Green Finance Task Group*

人民银行正在牵头起草金融业改革和发展“十三五”规划，推动绿色金融发展将是其中的重要内容。与以往零星、分散和过分理论化的研究相比，绿色金融工作小组的报告是目前为止在相关领域中最为系统的一份政策建议。工作小组的 40 多位专家均来自监管部门和具体参与绿色金融业务的机构与智库，同时吸收了联合国环境署组织的国外专家的许多意见，因此工作小组所提出的许多建议都有相当的可操作性。

潘功胜

中国人民银行副行长、绿色金融工作小组顾问

未来我国的绿色金融体系应该有如下特点：一、要有更多的激励绿色投资的机制；二、不但要通过现有的银行渠道推动绿色信贷，还要推动成立新的专业性绿色贷款与投资机构；三、不但要推动绿色贷款，还要发展绿色债券、绿色股票、绿色基金、绿色保险、碳交易等多种绿色融资渠道和金融产品；四、要通过金融和法律等体制建设，使有限财政资源撬动几倍、乃至十几倍的社会资金投资于绿色产业；五、要建立帮助投资者评估项目环境影响的方法和数据库、绿色评级和环境信息披露规制等金融基础设施。

马骏

中国人民银行研究局首席经济学家、绿色金融工作小组中方召集人

中国人民银行研究局发起的、由联合国环境规划署“可持续金融体系探寻”项目共同召集和支持的绿色金融工作小组在推动建立一个系统性的绿色金融体系方面做出了表率。作为全球第二大经济体和新兴市场经济的主导力量，中国在推进本国绿色金融体系建设过程中所表现出的领导力也应该同时显示其更大的国际影响力。

谢孟哲 (Simon Zadek)

联合国环境规划署可持续金融项目联席主任、绿色金融工作小组外方召集人



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