



Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 06-Apr-2021 | Report No: PIDC28295

**BASIC INFORMATION****A. Basic Project Data**

Country China	Project ID P170839	Parent Project ID (if any)	Project Name China Strategic Green and Low Carbon Investment Fund Project (P170839)
Region EAST ASIA AND PACIFIC	Estimated Appraisal Date May 10, 2021	Estimated Board Date Jun 21, 2021	Practice Area (Lead) Finance, Competitiveness and Innovation
Financing Instrument Investment Project Financing	Borrower(s) People's Republic of China	Implementing Agency China Clean Development Mechanism Fund (CDMF)	

Proposed Development Objective(s)

To catalyze private capital and expand the supply of green equity financing to green enterprises and projects

PROJECT FINANCING DATA (US\$, Millions)**SUMMARY**

Total Project Cost	402.00
Total Financing	402.00
of which IBRD/IDA	200.00
Financing Gap	0.00

DETAILS**World Bank Group Financing**

International Bank for Reconstruction and Development (IBRD)	200.00
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Non-World Bank Group Financing

Counterpart Funding	2.00
Borrowing Agency	2.00



Commercial Financing	200.00
Unguaranteed Commercial Financing	200.00

Environmental and Social Risk Classification

Substantial

Concept Review Decision

Track II-The review did authorize the preparation to continue

Other Decision (as needed)

B. Introduction and Context

Country Context

1. **China’s economy grew at a remarkable pace over the past four decades as it transitioned from low income to upper-middle income country status.** Between 1978 and 2019, real gross domestic product (GDP) increased on average by 8.4 percent per year, propelled by large-scale capital investment and rapid productivity growth. As real per capita income increased more than 16 times, China’s extreme poverty rate, based on the international purchasing power parity (PPP) of US\$1.90 per day poverty line, fell from 88.3 percent in 1981 to 0.6 percent in 2019. That same year, China’s GDP represented 16.3 percent of global GDP and it also reached a milestone as GDP per capita exceeded USD 10,000 for the first time, with four decades of rapid growth lifting more than 850 million people out of poverty.¹

2. **Unfortunately, this remarkable economic growth has taken a toll on the environment.** At the global level, China is responsible for about a quarter of greenhouse gas emissions, largely due to the extensive use of coal for both industrial and domestic purposes². The country has also suffered significant environmental degradation, imposing high health burdens on its citizens and other residents. Air, soil and water pollution have exposed people to various toxins and many areas of the country have experienced high incidences of cancer, respiratory diseases, damage to the nervous system, as well as bone and joint diseases. There are also increasing pressures on ecosystems and biodiversity.

3. **The environmental and attendant health challenges have called into question the long-term sustainability of China’s resource-intensive growth path.** There is now a broad national recognition that greater emphasis must be given to the protection of the environment and public health and in recent years, the Chinese government has taken measures to begin addressing this challenge. In October 2017, the Central Party Committee and the State Council declared the promotion of an “ecological civilization” as a top policy priority during the 19th Party Congress. Starting with the 13th Five-Year Plan, clear and binding targets were set for air and water quality, agrochemical use, and forest cover. There are ongoing efforts to strengthen enforcement of environmental regulations and create incentives to adopt cleaner technologies. These initiatives followed the signing of the Paris Climate Agreement in which China commits, among other things, to: i) achieve peak CO₂ emissions around 2030 and strive to peak early; ii) lower CO₂ emissions per unit of GDP by 60-65 percent from the 2005 level; iii) increase the share of non-fossil fuels in primary energy consumption to around 20

¹ World Bank data; see also World Bank (2017), *China—Systematic Country Diagnostic*

² Coal accounts for over 60% of domestic energy consumption in China



percent by 2025 (from around 9% in 2012); and iv) increase the forest stock volume by 4.5 billion cubic meters on the level of 2005.³ In September 2020, President Xi Jinping also announced that China was scaling up its voluntary emissions targets under the Paris Climate Agreement, aiming to hit peak emissions before 2030 and achieve carbon neutrality by 2060.

4. **As the economy recovers from the adverse effects of the COVID-19 pandemic, it is publicly recognized that business-as-usual is not an option and more investments are needed in environmentally sustainable projects.** A more balanced and sustainable growth path can only be carved if public and private investments are compatible with the reduction targets for greenhouse gas (GHG) emissions, the lowering of pollution levels, greater efficiency in resource use and circularity of supply chains. In addition, they need to comply with stronger protection mechanisms of local ecosystems and biodiversity. It is therefore imperative more capital is channeled into renewable energy, energy efficiency, cleaner transport solutions, pollution prevention and control, recycling, climate resilient infrastructure as well as ecological protection and climate adaptation.

5. **Addressing China's environmental challenges and meeting carbon neutrality commitments will require substantial financial investments.** Estimates indicate that between 2014 and 2030, more than RMB 2.3-7.2 trillion (or US\$320 billion to US\$1 trillion) per year would be needed to address environmental challenges. This is equivalent to 7-8 percent of total annual capital investment. The government can provide roughly 15 percent of the required financing, which leaves a gap of RMB 1.9-6.1 trillion (or US\$272 billion to US\$850 billion) that needs to come from the private sector. Fiscal pressures arising from COVID-19-related stimulus spending and other fiscal incentives will likely further reduce the availability of public funding. There is therefore a new urgency at all levels of the government to facilitate private green finance and expand investments in green businesses and projects.

Sectoral and Institutional Context

6. **Although China's financial sector has developed rapidly over the past few decades, with total financial assets standing at roughly 470 percent of GDP, it is not able to support a significant shift into green investments.** Although the green credit and green bond markets have expanded significantly over the past few years, the current stock of green financing is small relative to the investment needs and the bulk of financing is short-term. Many green businesses and projects lack access to long-term, patient capital to support the development and deployment of new and innovative green technologies and approaches. While market analysis indicates strong demand for green equity but in comparison to the green credit and green bond markets, the market for green equity is underdeveloped.

7. **The Chinese authorities have made significant progress in putting in place an enabling environment to expand the supply of green finance.** In 2012, the former China Banking Regulatory Commission (CBRC) issued its *Green Credit Guidelines* to encourage bank lending to the green sector. In 2016, several government agencies jointly issued the *Guidelines for Establishing the Green Financial System*.⁴ The document defined green finance as financial services provided for economic activities that are supportive of environmental improvement, climate change mitigation and more efficient resource utilization.⁵ It also provided an overarching roadmap for the development of China's green financial markets by identifying the necessary policy and institutional actions for expanding and deepening the supply of green financing. In

³ See *Enhanced Actions on Climate Change*, Department of Climate Change, NDRC, 2015 (p. 3 of unofficial translation).

⁴ The issuing agencies were: the PBOC, the Ministry of Finance (MoF), the National Development and Reform Commission (NDRC), the Ministry of Environmental Protection (MEP), China Banking Regulatory Commission (CBRC), China Securities Regulatory Commission (CSRC), and China Insurance Regulatory Commission (CIRC).

⁵ The green financial system refers to the institutional arrangement that utilizes financial instruments such as green credit, green bonds, green stock indices and related products, green development funds, green insurance, and carbon finance, as well as relevant policy incentives to support the green transformation of the economy.



September 2020, the *Standards for Green Private Equity Funds* were also issued.

8. **Other initiatives have sought to expand the supply of bankable green investments. The authorities have developed various taxonomies and catalogs of projects and businesses that qualify as green, including the *Green Bond Project Catalog* (2015 version), *Guidelines on Green Bond Issuance* (2015), *Green Industry Guidance Taxonomy* (2019) and the Revised *Green Bond Project Catalog* (2020).** Several national green finance experimental zones have also developed green project pipelines with support from the China Green Finance Committee. Monetary and fiscal policy tools have also been deployed to encourage more green financing (e.g. PBOC’s incorporation of banks’ green credit performance into macroprudential assessments and acceptance of qualifying green credit assets as eligible collaterals for its Medium-term Lending Facility).

9. **Despite the significant progress recorded in establishing the necessary policy and institutional environment for green finance, several shortcomings remain with resulting gaps between the Chinese framework and international norms.** First, although the revised *Green Bond Project Catalog* has removed previous references to projects that undertake “cleaner” use of fossil fuels, it still retains nuclear power generation and the associated manufacturing activities which may have negative environmental consequences. Second, China still allows up to 50 percent of green bond proceeds to be used for general, non-green expenditures in contrast to the maximum of 5 percent accepted internationally. Third, there are significant gaps in the application of robust investment criteria through the project cycle covering project screening and selection, appraisal, implementation monitoring, reporting, verification and evaluation of green investments. Further, there is no overall framework governing environment-related disclosures. Finally, there is a general lack of understanding on how to incorporate climate, environmental, social and governance issues (C-ESG) into decision making, with a heavy focus on complying with broad environmental laws issued by the government.

Relationship to CPF

10. **The project is fully aligned with the World Bank Group’s (WBG) China Country Partnership Framework (CPF) for FY2020-2025, discussed by the Board on December 5, 2019.** The CPF aims to help China address its development challenges, notably the transition to more environmentally sustainable growth, the strengthening of key Chinese institutions engaged in economic and social development, and the reduction of inequality in lagging regions. The project directly contributes to the second focus area set out in the CPF that aims to promote greener development through the transition to a lower carbon energy system, reductions in air, soil, water and marine plastic pollution; sustainable agriculture practices, stronger sustainable natural resource management and the promotion of low-carbon transport and cities. In addition, the project will directly contribute to the cross-cutting theme of global knowledge and development, by adopting a full set of standards and best practices for green investment funds. It will also contribute to the first focus area by fostering private sector investments in green projects, and indirectly to the third focus area by promoting a greener, inclusive and sustainable growth model.

C. Proposed Development Objective(s)

11. To expand equity financing for green investments in China by mobilizing long-term capital and deploying best-practice green investment standards and criteria

Key Results (From PCN)

12. The expected results are:



- Increased mobilization of international and domestic private equity capital into green investments
- Increased access to equity financing for green enterprises
- Reduction in overall green financing gap
- Standardized practices for green investments and enhanced skills and capabilities in originating and managing green investments

D. Concept Description

The proposed project is an IPF with a Financial Intermediary. It will have two components:

COMPONENT 1: STRATEGIC GREEN AND LOW-CARBON INVESTMENT FUND (US\$198 MILLION, IBRD)

13. **This component will provide initial capitalization for the Fund and will be the basis for catalyzing additional capital from domestic and foreign institutional investors.** The China Clean Development Mechanism Fund (CDMF) has been identified as the Executing Agency for this project. The proceeds of the IBRD loan will be onlent by the Ministry of Finance to a Special Purpose Vehicle (SPV) to be created by the CDMF. The SPV will be the Implementation Agency for the project, responsible for establishing the Fund, using the IBRD loan as initial capitalization. The hybrid funding structure of the Fund will facilitate the use of public money to leverage capital from private sector Limited Partners (LPs), especially domestic and foreign institutional investors (e.g. pension funds, life insurance companies, private equity funds and Foundations). Participation of these institutions shall be in compliance with Chinese laws and relevant financial regulatory rules, as well as any required legal review. The Fund will also consider the possibility of other multilateral development financial institutions joining as Limited Partners. The Fund will target firms operating in the following green thematic areas: i) energy saving and environmental protection; ii) cleaner industrial production; iii) energy efficiency improvement; and iv) clean energy industry. The Fund will be managed by a competitively selected professional Fund Management Company (FMC) and will invest on a commercial basis while generating positive climate and environmental outcomes.

COMPONENT 2: INSTITUTIONAL STRENGTHENING AND PROJECT IMPLEMENTATION (US\$2 MILLION, IBRD)

14. **This component will provide technical support to establish a framework for project due diligence and implementation capabilities within CDM Fund, including the creation of a Project Implementation Unit (PIU).** Given the gaps in the implementation of best practice green investment criteria in China, this component will finance technical assistance to support CDM Fund in the following areas: i) adopting and implementing class leading green finance standards from project screening through reporting and evaluation; ii) establishing and maintaining a sound Environmental and Social Management System (ESMS).

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No
Summary of Screening of Environmental and Social Risks and Impacts	



The project will use an IBRD loan to capitalize a national-level Strategic Green and Low-Carbon Investment Fund for China, with the objective of mobilizing additional private capital to provide long-term financing to eligible green enterprises and projects. The Fund will provide equity financing and will target ventures with the potential for significantly positive environmental and climate outcomes. The responsible Financial Intermediary (FI) for implementing the project will be a special purpose vehicle (SPV) to be established by China Clean Development Mechanism Fund (CDMF) Management Center. The proposed Fund will be managed by a competitively selected professional Fund Management Company (FMC). All Environmental and Social Standards (ESSs) would be relevant to the Fund and its operations. The environmental risk is rated Substantial and the social risk is classified Substantial at this concept stage, which will be rechecked prior to project appraisal.

The Fund will scale up equity investment in a mix of public and private enterprises (prioritizing private SMEs). The equity investments will have a clear purpose and are not expected to support large projects. Based on current project design and the findings of market analysis, the project is anticipated to mainly invest in four areas, including energy saving and environmental protection, cleaner industrial production, energy efficiency improvement, and clean energy industry. Potential investments will include equipment manufacture for improved energy efficiency, resource recycling and pollution prevention and control; green buildings materials manufacture; manufacturing of new energy vehicles, green ships and ancillary charging facilities; technical upgrading and new production lines for non-toxic and non-hazardous raw material substitution; construction and operation of small wastewater treatment facilities and pipelines; manufacturing of smart grid and solar energy products and equipment; construction and operation of battery energy storage system (BESS) and hydrogen energy utilization facilities. The project design will develop a clearly defined exclusion list for the subprojects/investments, which includes exclusion of any subprojects/investments that would require large scale land acquisition, located in vicinity of any environmental sensitive areas, involve the use or potential pollution of international waterways, or in a disputed area.

The project has overall environmental benefits by investing in green sectors and industries that would contribute to cleaner energy, improved energy efficiency, reduced release of pollutants to air and water, and waste reduction. The potential adverse environmental impacts during new facilities construction or rehabilitation would mainly include general construction nuisance of dust, noise, soil disturbance, traffic safety, wastewater and waste disposal, and disturbance to modified habitats, which are generally temporary, short-term, and localized. These impacts could be effectively avoided, reduced or mitigated through a well-established domestic legal and regulatory supervision framework for environmental management, and by adopting mature civil work techniques and good management practice. No long-term irreversible adverse environmental impacts are expected. Operation of manufacturing plants and wastewater treatment facilities could bring about environmental impacts such as odor, air emissions, noise, wastewater, waste (including sludge), and occupational health and safety (OHS) concerns. In domestic practice, the plant owner/operator will be held responsible for conducting operational phase impacts monitoring through engaged external third parties, and are subject to supervision by local environmental authorities. The environmental risks during operation phase are thus expected to be manageable under current domestic regulatory system. Fire and explosion risks during BESS and hydrogen energy facilities construction and operation can be well controlled by following national design standards with safety considerations, including placement criteria, fire and explosion prevention measures and emergency response requirements. The environmental impacts assessment will compare domestic standards with the Bank's Environmental, Health and Safety (EHS) guidelines and Good International Industry Practice (GIIP), and determine more stringent performance criteria for the manufacturers, BESS and hydrogen facilities operation, and hazardous waste (including battery waste) disposal.

The Fund will promote good environmental and social management and sound human resources management in investee enterprises and therefore promote the investees' awareness and commitment to corporate social responsibilities. The exclusion list will set out explicit criteria for excluding high-risk investment proposals. For typical activities, the most



significant social risks are primarily related to (a) land acquisition and resettlement for establishing manufacturing and other facilities; and (b) labor and working conditions for operating the facilities. Land acquisition for constructing a new subproject may displace (economically and physically) tens of persons. For investment in upgrading existing facilities, the challenges are to approach to government to find adequate documented evidence to demonstrate its compliance status and agree on the remedial actions for gaps with ESS5. The investment subprojects will introduce direct workers, contracted workers, and primary supply workers. The numbers of direct workers and contracted workers would be small. However, primary suppliers (for supplying construction and manufacturing activities) are subject to further analysis on a case by case. China's labor law strictly prohibits child labor and forced labor, which is well enforced in advanced manufacturing sectors where demand is primarily for highly skilled workers. CDMF's existing Environmental and Social Management System (ESMS) has not documented any incidents of child labor, forced labor, or gender-based violence. As part of the ESMS enhancement, due diligence will be undertaken on participating enterprises to ensure no track record of significant labor infringements. Other risk issues, including working conditions and a culture of long-hour and "overwork", job security, and age discrimination, will be assessed and mitigated while adopting ESS2. Community health and safety is mainly associated with proximity to operational BESS or hydrogen utilization facilities, and interactions with construction activities. Ethnic minorities may potentially be involved where new or legacy land acquisition may be required on land utilized by ethnic groups in more remote areas close to renewable energy generation facilities (for BESS related investment).

Investment subprojects may involve some substantial E&S risks and impacts but these are likely to be medium in magnitude, and the probability of adverse effects is mostly temporary and reversible with investment and time. CDMF will screen potential E&S risks for typical activities in each targeted sector and document it in the enhanced ESMS. Site specific E&S risks and impacts are subject to case-by-case screening and assessment during implementation.

CDMF has adopted an ESMS for some existing funds, with a basic structure for E&S risk governance, but the substance needs to be substantially enhanced to align with ESS9 and relevant ESSs. CDMF is committed to setting out explicit procedures and control points in the enhanced ESMS to ensure it will be implemented consistently through the Fund, investee enterprises, to the subprojects and activities on the ground. Prior to project appraisal, CDMF (on behalf of the SPV before it is established) will improve its ESMS consistent with the requirements of ESS9 and relevant ESSs and proportionate to the project E&S risks, develop an overall Stakeholder Engagement Plan (SEP) consistent with the requirements of ESS10, and be committed to a list of actions and a capacity enhancement plan in the ESCP. The CDMF will disclose the ESMS, SEP, and ESCP as early as possible and before appraisal.

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APPROVAL

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