

Project Information Document (PID)

Country Name	China
Project Name	China HFC-23 Emissions Reduction Project
Region	East Asia and Pacific
Sector	Environment (100%)
Project	P094388
Borrower	Not applicable
Implementation Agency	Project sponsors, Ministry of Finance
Environment Category	A
Date PID Prepared	May 16, 2005
Projected Appraisal Date	November 14, 2005
Projected Board Date	N/A

1. Country and Sector Background

China approved the Kyoto Protocol under the UN Framework Convention on Climate Change in August 2002, and agreed to collaborate with the Bank in the emerging market for Emission Reductions (ERs) under the Protocol's Clean Development Mechanism (CDM). Starting with the endorsement of three carbon finance (CF) project proposals in September 2003, there has been strong interest in China for meaningful participation in the market for ERs under the CDM, with interim CDM rules on approval procedures for project proposals being announced in June 2004 and finalized in October 2005. There is now strong interest in the country for meaningful participation in the CDM and the market for ERs.

2. Objective

The project objective is to help China to participate in global efforts to mitigate climate change by reducing its HFC-23 emissions, and to deepen its participation in market mechanisms for ERs under the CDM during Kyoto's first commitment period (2008-12). This objective will be measurable, and will result in annual delivery of ERs. The project will also assist China to create a legal, regulatory and institutional environment for utilizing a portion of carbon finance revenues generated by the project for implementing programs to generate sustainable development benefits.

3. Rationale for Bank involvement

The Carbon Finance Business (CFB) of the World Bank was established to mitigate climate change through market-based ER purchase transactions, which would in turn open up a significant new source of financing for projects in developing countries. With the prior experience of developing CF projects in China, the Bank is well positioned to facilitate the transaction for ERs in China. The CFB has received significant buyer interest for purchase of a high volume of HFC-23 ERs.

4. Description

HFC-23 is a potent greenhouse gas (at 11,700 times the global warming potential of carbon dioxide) that is generated as a byproduct during the manufacture of HCFC-22 (chlorodifluoromethane), which is used as a refrigerant or a chemical feedstock for manufacturing synthetic polymers. There have previously been some limited recognized uses for HFC-23, but typically most HFC-23 is emitted into the atmosphere as a waste because its capture and destruction are expensive. China is the world's largest source of HFC-23 emissions and there are currently no voluntary programs or regulations on the management of HFC-23 emissions in China. This project will therefore contribute significantly to global efforts to mitigate climate change, while also deepening China's participation in the CDM market by contracting the sale of a high volume of ERs.

This project will involve installation of incineration facilities to destroy HFC-23 emissions generated during production of HCFC-22 at Changshu 3F Zhonghao New Chemical Materials Company, Ltd. (Changshu 3F) and Jiangsu Meilan Chemical Company (Jiangsu Meilan) in Jiangsu Province. The thermal oxidation technology to be used at these incineration facilities is the only methodology for HFC-23 emission reduction so far approved by the CDM Executive Board, and has a destruction efficiency of over 99.99 percent. This technology has been successfully used for destroying HFC-23 in the UK and Japan, and also in two CDM projects (Republic of Korea and India).

The proposed project will result in a Carbon Finance "Emissions Reduction Purchase Agreement" and does not involve any World Bank lending. As a trustee of the various Carbon Funds it manages, the Bank will purchase ERs through 2012 from the two participating companies.

The Government of China has established CDM Measures that include revenue-sharing arrangements for all sectors under CDM projects. The Government's share of revenues from HFC-23 projects has been fixed at 65 per cent of gross revenues. This share will be used to establish a "Sustainable Development Facility" to a program of sustainable development benefits, consistent with China's 11th Five Year Plan priorities. This is not a component financed from the project, which is limited to the purchase of emissions, but is an important associated activity which supports the "greening" of the transaction.

5. Financing

The ER purchase will not finance any components of the project, which will be managed by the participating enterprises.

6. Implementation

a. Project sponsors

The project sponsors will carry out installation of the thermal oxidation facilities that will deliver the emission reductions, and will run the facility through the duration of the ER Purchase Agreement.

1. Jiangsu Meilan Chemical Group (JMC)
2. Changshu 3F Zhonghao New Chemical Materials Co., Ltd (3F Zhonghao).

b. Government:

The role of the Government in the implementation of the project consists of the following:

(i) Oversight of CDM projects under the Kyoto Protocol and setting the rules and mechanisms allowing both public and private entities to participate in the market for ERs, in accordance with established mechanisms and individual negotiations;

(ii) Regulatory responsibilities of the environmental agencies; and

(iii) Creation and management of a sustainable development facility.

7. Sustainability

The emerging carbon market and the underlying principle of payments based on destruction of HFC-23 to create ERs, provides a strong incentive to participating enterprises to continue operations. Sustainability of the Project after plant commissioning is likely because: a) HCFC-22 demand is still growing, b) national authorities are highly supportive of the Project and desire to develop a pipeline of similar projects in order to achieve local and global emission reductions, and c) the project will use proven technology that has been successfully used in other countries. In addition, the benefits from the SDF can be expected to continue beyond the carbon deal.

8. Lessons learned from past operations in the country/sector

The project will build upon the experience of working on other global environmental protocols, and the capacity created in China in this respect. It will be the fourth project in the CFB portfolio to be implemented in China. Its preparation has benefited from the experience and consultations with other CF projects that are being developed or implemented in the East Asia and Pacific region and in the CFB.

9. Program of targeted intervention (PTI) no or yes?

Not applicable

10. Environment Aspects (including any public consultation).

This is a “Category A” project that supports a large and visible transaction involving the installation of industrial incinerators which pose potential environmental and reputational risks. The Bank’s environmental and social safeguards for companies participating in this project will apply to the HFC-23 reduction installations. As the project involves HFC-23 emission reduction investments at participating companies, an environmental assessment (EA) has been conducted for each HFC-23 investment facility. No Bank’s safeguards policy is triggered except for OP 4.01, Environmental Assessment. In addition, as the HFC-23 itself is generated from the HCFC-22 production facilities, environmental due diligence assessments of the HCFC-22 production facilities at these

two companies have also been carried out. The HFC-23 installations are on existing chemical production units within well-established industrial complexes, no land acquisition is involved, and no social impacts are expected.

11. Contact Point:

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Note: This is information on an evolving project. Certain components may not necessarily be included in the final project.

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