



The World Bank

China HCFC Phase-Out Project (Stage I) (P115561)

REPORT NO.: RES29830

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RESTRUCTURING PAPER
ON A
PROPOSED PROJECT RESTRUCTURING
OF
CHINA HCFC PHASE-OUT PROJECT (STAGE I)
APPROVED ON NOVEMBER 22, 2012
TO
FOREIGN ECONOMIC COOPERATION OFFICE

ENVIRONMENT & NATURAL RESOURCES

EAST ASIA AND PACIFIC

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I. BASIC DATA

Product Information

Project ID P115561	Financing Instrument Investment Project Financing
Original EA Category Partial Assessment (B)	Current EA Category Partial Assessment (B)
Approval Date 22-Nov-2012	Current Closing Date 31-Dec-2017

Organizations

Borrower Foreign Economic Cooperation Office	Responsible Agency FOREIGN ECONOMIC COOPERATION OFFICE (FECO)
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Project Development Objective (PDO)

Original PDO

The project development objective is to reduce HCFC production and HCFC-141b consumption in the polyurethane (PU) foam sector in order to contribute to the Government of China's endeavor to comply with its Montreal Protocol phase-out obligations for HCFCs by 2015, as well as to reduce emissions of GHG from the production and PU foam sectors.

Summary Status of Financing

Ln/Cr/Tf	Approval	Signing	Effectiveness	Closing	Net		
					Commitment	Disbursed	Undisbursed
TF-13143	28-Nov-2012	28-Nov-2012	04-Jan-2013	31-Dec-2017	168.30	166.10	2.20

Policy Waiver(s)

Does this restructuring trigger the need for any policy waiver(s)?

No

II. SUMMARY OF PROJECT STATUS AND PROPOSED CHANGES



Project Background

The 64th meeting of the Executive Committee (ExCom) approved a grant of US \$73 million to support the phase-out of HCFC-141b in the PU foam sector which is part of China's HCFC Phase-out Management Plan (HPMP-Stage I) in 2011. This funding was to support China's effort to meet the HCFC consumption reduction obligations in 2013 and 2015. That is, to reduce HCFC-141b consumption in the PU foam sector by 1,615 ODP tons from the 2012 level in order to ensure that consumption in 2015 will not exceed 4,150 ODP tons (18% of reduction from the baseline). Subsequently, the ExCom approved an additional funding of US \$95 million for China to address HCFC production phase-out in order to synchronize HCFC production with HCFC demand from the consumption sector in China and the international market given that China is the largest exporter of HCFCs. To accommodate the additional US \$95 million for the HCFC production sector, the first project restructuring was approved on September 4, 2013. The restructured project aims to reduce HCFC production from the 2012 level to the baseline level in 2013, and to 90% of the baseline level in 2015. The total amount of production reduction is 7,529 ODP tons from 2010 to 2016 production levels. In addition, a second restructuring was approved on August 2, 2016 to accommodate an additional funding from the Multilateral Fund to support China in its update and development of a new strategy for meeting its Montreal Protocol (MP) obligations in 2020 and 2025.

Project Status

Thus far, the project has already met its key PDO targets- China has complied with its 2015 MP production and consumption limits for HCFCs (PDO Indicator 1 and 2). Production of HCFCs in 2015 was 16 percent below the MP limit. Overall HCFC consumption including HCFC-141b in the PU foam sector was 5 percent below the sector-specific target. This has been confirmed by independent verification of production and consumption in 2015 and 2016. Reduction in GHGs emissions has substantially exceeded project targets (PDO Indicator 3 and 4).

In spite of meeting key PDO indicators, a significant share of conversion and production sub-projects are experiencing varying level of delays due to the requirement that local environmental protection bureaus (EPBs) and fire-fighting departments need to inspect and certify completion of subprojects before enterprises resume production. This becomes challenging given the number of enterprises and local government agencies involved.

More than 96% of the total grant amount has already been disbursed to China. However, as of August, 2017, only 66% of funds was disbursed to beneficiaries while the closing date is 31 December 2017. Technical assistance and policy support activities are also lagging the original completion schedule. A total of 24 technical activities were developed under this project with a contract value of US \$2.55 million, 37% of the contract value has been disbursed to contractors as of the end of June 2017.

Component 1: Investment in HCFC-141b Consumption Reduction in the PU Foam Sector (US\$63.36 million)

Progress with Conversion. A total of 60 subcontracts was signed under this Component, including 54 conversion subproject agreements and 6 system house subproject agreements. Expected phase-out to be achieved by the 54 subprojects is 1,403 ODP tons out of the targeted phase-out of 1,615 ODP tons. Disbursement by FECO against these and active agreements and contracts is US\$36.15 million, or 57%. Thirty-five conversion enterprises (65%) have concluded their conversion activities with the acceptance of FECO as of June 30, 2017, totaling a phase-out of 878 ODP tons. Five subprojects will be cancelled and the remaining 14 subprojects are in various stages of implementation or completion.



Progress with System Houses. Financing investments in 6 upstream “system houses” were planned to formulate and supply foam system pre-mixed with low- or zero-ODP/GWP blowing agents to small-sized foam producers that investment in their own mixing equipment is not financially viable. Of the six system house subprojects aimed to equip the companies with capacity to mix and supply c-pentane pre-blended polyol, four are scheduled to be completed by the end of 2017, two of which have relocated and complied with the Bank’s Resettlement Framework.

Measures to address delays by local authorities . FECO has adopted a two-pronged approach to expedite the approval for remaining subprojects. On the one hand, FECO has obtained MEP’s authorization to certify environment compliance of subprojects financed by the Bank. On the other hand, for subprojects that have submitted requests for inspections and certifications to local FPBs, FECO will dispatch fire safety experts to assess compliance with safety standards and relevant fire protection codes while subprojects are waiting for the assessment of local FPBs. Final payment will be made to subprojects that pass the assessment of the fire safety experts. To ensure the sustainability of project outcomes after final payments, FECO will monitor the progress of the enterprises in securing official certifications from local FPBs. Other ongoing conversion and system house subprojects will be required to submit action plans for completing their subprojects by no later than end of 2018; otherwise, their subprojects will be subject to cancellation.

Component 2: Investment in HCFC Production Reduction

Production Sector. The HCFC production sector is ahead of its reduction schedule as HCFC production has been verified to be only 21,926 ODP tons in 2015 therefore surpassing the 2015 HCFC production performance target of 26,210 ODP tons by 16%. This was achieved by the buy-back of production quotas from 12 HCFC producers, the dismantling of production facilities in 5 enterprises who have submitted their completion reports to FECO in 2015. Four additional companies are being compensated for permanent closure of idle capacity through a competitive bidding process, which will result in an additional reduction of 20,500 metric tons (per year) of HCFC-142b and HCFC-22. A total of US \$88.1 million out of US \$95 million disbursed to FECO has been allocated to the beneficiaries, and US \$70.1 million has been disbursed to the beneficiaries, resulting in a disbursement rate of 74% for this component.

The verified production data for 2016 confirms that the total production reduction of 7,529 ODP tons from the 2010 production level was achieved in 2016. Climate benefits from this reduction are equivalent to 160 million tCO₂ equivalent.

Component 3: Technical Assistance and Policy Support

Technical Assistance. A total of 24 technical activities were developed under this component with a contract value of US \$2.55 million. Up to the end of June 2017, 37% of the contract value has been disbursed to contractors. With the exception of three activities for which the TOR was recently prepared, twelve activities have been completed and the rest of the 9 activities are progressing in spite of some delay.

Policy Support. . HCFC production quotas and domestic ODS sale quotas have been issued for 2013, 2014, 2015, and 2016 (Activity 1). A Circular on Strict Management of HCFC Production, Sale and Consumption was issued by MEP in August 7, 2013 (Activity 2). The issuance of the ban on production, sale, import and export of a) refrigerated container and reefers; b) refrigerators and freezers and, c) small household appliances using HCFC-141b as blowing agent is delayed due to MEP’s new legal approval procedures and now expected to be promulgated and enter into effect in 2018 (Activity 3). Given the importance of the ban in sustaining project outcomes, the proposed extension of the



closing date would allow the Bank to continue monitoring the issuance of the ban on HCFC-141b consumption in the three priority subsectors (refrigerators & freezers, reefers, and small household appliances).

Component 4: Project Management

The project management office (PMO) is fully staffed with technical persons knowledgeable on the polyurethane foam and fluorochemical technologies. The PMO is also supported by the implementation support agency (ISA) financed by Component 3 and by additional support from the industry association on its day-to-day operations. In addition, adequate administrative support to ensure smooth operations of the PMO is provided by FECO. To date, more than \$7.6 million has already been disbursed.

Component 5: Preparation of HCFC Phase-out Activities Post 2015

To ensure smooth transition for China to comply with the next set of HCFC production and consumption phase-out obligations, the ExCom approved additional funding of \$474,150 for China to develop strategies and action plans to further reduce HCFC-141b consumption in the PU foam sector and reduce HCFC production in order to meet the 2020 and 2025 targets (i.e., 35% reduction and 67.5% reduction from the baseline level (average consumption and production between 2009 and 2010)).

To date, the sector plans for the production sector and PU foam sector have already been submitted to the ExCom. The latter has already been approved, in principle, with a funding level of US \$141 million. The former is expected to be approved by July 2018.

As such, FECO requested and obtained the approval of the ExCom for an extension of project closing date from December 31, 2017 to June 30, 2019 to complete conversion and Technical Assistance activities under Stage I.

III. DETAILED CHANGES

LOAN CLOSING DATE(S)

Ln/Cr/Tf	Status	Original Closing	Revised Closing(s)	Proposed Closing	Proposed Deadline for Withdrawal Applications
TF-13143	Effective	31-Dec-2017		30-Jun-2019	30-Oct-2019