



China, People's Republic of: Liaoning Environment Improvement Project

Project Name	Liaoning Environment Improvement Project	
Project Number	36362-013	
Country	China, People's Republic of	
Project Status	Closed	
Project Type / Modality of Assistance	Loan	
Source of Funding / Amount	Loan 2112-PRC: Liaoning Environment Improvement Project	
	Ordinary capital resources	US\$ 56.70 million
	Loan: Liaoning Environment Improvement Project	
	Commercial Bank - Domestic	US\$ 30.74 million
Strategic Agendas	Environmentally sustainable growth Inclusive economic growth	
Drivers of Change	Governance and capacity development Private sector development	
Sector / Subsector	Energy - Energy efficiency and conservation	
Gender Equity and Mainstreaming	Some gender elements	
Description	<p>The long-term goal of the Project is to support environmental improvement in Liaoning Province. The main objectives of the Project are: (i) improvement in efficiency and reliability of gas and central heating supply and closure of small coal-fired boilers, and (ii) CMM and CBM production and commercial utilization. The Project includes the following components: (i) Part A: CBM/CMM development; (ii) Part B: gas distribution improvement; (iii) Part C: city central heating supply, and (iv) Part D: institutional reforms and corporate governance improvement.</p>	
Project Rationale and Linkage to Country/Regional Strategy	<p>Part A of the Project is designed to utilize CBM/CMM to reduce GHG emissions and improve coalmine safety. The gas distribution systems owned and operated by Fushun Gas Company and Benxi Gas Company are inefficient with high distribution losses. They are also dangerous hazardous as the pipelines are aged and often cause explosion. To address these problems, Part B of the Project will rehabilitate Fushun and Benxi Gas Company's gas distribution systems to reduce distribution line losses, improve operation safety and supply gas to additional households to help reduce coal consumption. Part C of the Project will improve environmental quality by building efficient and large boilers to facilitate closing the 412 existing small coal-fired boilers. Part D of the Project includes three areas: (a) restructuring of the project implementing agencies (PIAs), (b) institutional strengthening and training, and (c) a study to assist the PIAs to implement the central heating tariff reforms and assess the options for the private sector participation. The objectives for ADB's operations in the PRC include: (i) promote equitable and inclusive growth; (ii) make markets work better; (iii) foster regional cooperation; and (iv) promote environmental sustainability, which includes encouraging the use of clean production technologies and renewable energy etc. Methane, part of natural coal composition, is released into the atmosphere from coal mine operations. It is estimated that the coal mines in Liaoning released about 1.2 billion cubic meters of methane into the atmosphere in 2003, a figure expected to reach 2.0 billion cubic meters by 2010. Methane, when released into the atmosphere, is about 21 times more potent as a greenhouse gas than carbon dioxide. In addition, coal mine safety is a major concern in the PRC, which reported deaths of 6,900 miners in 2002. Overall, the Project is consistent with ADB's operational strategy in the PRC and was listed in ADB's Country Strategy and Program (2004-2006). The Project will support the government of Liaoning province (GLP) in aiming to improve environmental quality and coal mine safety, and to ensure that the poor have sufficient gas and central heating.</p>	
Impact	Environmental improvement in Liaoning Province.	

Project Outcome

Description of Outcome	Improvement in efficiency and reliability of gas and central heating supply
------------------------	---

Progress Toward Outcome Progress has been made toward outcome.

Implementation Progress

Description of Project Outputs	<ol style="list-style-type: none"> 1. Increased CMM/CBM production and utilization 2. Rehabilitated and expanded gas distribution systems 5. Implemented assistance programs for the poor households 3. Augmented central heating systems to facilitate closure of small inefficient coal-fired boilers 4. Developed institutional and financial tariff reform action plan, and privatization plan
Status of Implementation Progress (Outputs, Activities, and Issues)	<p>Completed. Completed. Completed. Completed. Completed.</p>
Geographical Location	Liaoning Province (Benxi, Fuxin, Liaoyang, and Yingkou)

Safeguard Categories

Environment	B
Involuntary Resettlement	B
Indigenous Peoples	B

Summary of Environmental and Social Aspects

Environmental Aspects	The Project has substantial environmental benefits resulting from energy efficiency improvements, reduction in greenhouse gas emissions, and reduction in emissions from coal burning. EA will ensure that any adverse environmental impacts arising from the construction and operation of the project facilities will be minimized by implementing the mitigation measures as identified in the IEE and SIEE. The regional air quality will improve with the closure of small, inefficient, coal-fired boilers, more efficient gas transmission and distribution systems, and reduced coal use. The results of environment monitoring during the project implementation and first two years of operations are reported to ADB by the EA through its quarterly progress reports and bi-annual environmental monitoring reports.
Involuntary Resettlement	The Project is composed of 7 subprojects. Only the CBM/CMM subproject involves some minor land acquisition and temporary land use impact. A resettlement plan was prepared for this subproject. The plan is designed to ensure that the affected people will be better off as a result of the Project. The compensation of the permanent land loss is based on the Land Administration Law of the PRC (1998). A resettlement information booklet was distributed to all affected households in November 2003. The PIA for the CBM/CMM subproject is fully responsible for implementation, financing and monitoring of land acquisition, compensation, and rehabilitation. PIA will ensure that all affected households/persons are compensated in a timely manner and conduct the activities in accordance with the requirements set in the resettlement plan. The implementation of the resettlement plan is reported to ADB by the EA through resettlement monitoring report and its quarterly progress reports.
Indigenous Peoples	The Project will benefit all urban residents regardless of their ethnicity, however ethnic minorities will also benefit proportionally. There are about 401,760 (or 15% of total project beneficiaries) minority persons, including Hui, Mongolian, Manchurian, Korean, and Xibo, who will benefit from the increased and improved gas and central heating supplies. No further measures are required to safeguard ethnic minorities. A few Mongolian and Hui households will be affected by the land acquisition for the Project. Particular attention and special provisions will be paid to them to ensure that their interests, rights, and sociocultural customs are protected. These provisions are presented in the resettlement plan.

Stakeholder Communication, Participation, and Consultation

During Project Design	Consultations with stakeholders, including various levels governments, implementing agencies, and beneficiaries were undertaken.
During Project Implementation	Consultations with stakeholders, including various levels governments, implementing agencies, and beneficiaries were undertaken.

Business Opportunities

Consulting Services	The Contract for consulting services was signed between the Project Management Office and H&J, Inc. (the Consultant) on 1 June 2006. The international and domestic consultants were mobilized on 26 June 2006. The Consultant provides consulting services on (i) project construction supervision; and (ii) institutional strengthening. Domestic training focusing on project administration, contract management, environment, financial management, procurement, disbursement, project completion report, and construction safety were organized in 2007 and 2008. Training sessions on preparation of completion report and operational experience sharing among Project Implementing Agencies under central heating supply component were held in 2009. The first overseas training was undertaken in 2006 and the second overseas study tour was conducted in November 2009. On-the-job trainings were provided to staff from the Project Implementing Agencies on the preparation of the project completion report, construction and operation safety, and the preparation of construction progress reports and environmental monitoring reports in 2010. An overseas study tour for delegation from both the Liaoning Provincial Finance Bureau and the Project Management Office were organized in July 2010 with a purpose of building capacity and knowledge transfer on district heating, energy efficiency, financial management, and corporation organization and management.
Procurement	30 person-months of international consulting services and 170 person-months of domestic services will be provided to assist GLP with project implementation including its review of the draft tender documents and its evaluation of the bids received, and monitoring and evaluation of the project impact. Additional 15 person-months of international consulting services and 38 person-months of domestic consulting services will be provided for implementing institutional reforms and facilitating implementation of heating tariff reforms. All consultants will be selected and engaged in accordance with ADB's Guidelines on the Use of Consultants and other arrangements for the selection and engagement of domestic consultants. GLP requested ADB to approve advance recruitment and retroactive financing of the consulting services.

Responsible Staff

Responsible ADB Officer	Liu, Xinjian
Responsible ADB Department	East Asia Department
Responsible ADB Division	PRC Resident Mission
Executing Agencies	<i>Government of Liaoning Province</i> <i>Mr. Teng Da</i> <i>n.a.</i> <i>No. 13 Shisiweilu, Heping District, Shenyang 110003</i>

Timetable

Concept Clearance	07 Mar 2004
Fact Finding	30 Oct 2003 to 21 Nov 2003
MRM	11 Feb 2004
Approval	25 Nov 2004
Last Review Mission	-
PDS Creation Date	23 Jun 2006
Last PDS Update	08 Dec 2011

Loan 2112-PRC

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
25 Nov 2004	26 May 2005	16 Nov 2005	30 Sep 2009	30 Sep 2011	30 Dec 2011

Financing Plan		Loan Utilization			
	Total (Amount in US\$ million)	Date	ADB	Others	Net Percentage
Project Cost	147.70	Cumulative Contract Awards			
ADB	56.70	25 Nov 2004	52.42	0.00	93%
Counterpart	60.26	Cumulative Disbursements			
Cofinancing	30.74	25 Nov 2004	56.43	0.00	100%

Status of Covenants						
Category	Sector	Safeguards	Social	Financial	Economic	Others

Rating

-

-

-

-

-

Satisfactory

Project Page

<https://www.adb.org/projects/36362-013/main>

Request for Information

<http://www.adb.org/forms/request-information-form?subject=36362-013>

Date Generated

24 June 2017

ADB provides the information contained in this project data sheet (PDS) solely as a resource for its users without any form of assurance. Whilst ADB tries to provide high quality content, the information are provided "as is" without warranty of any kind, either express or implied, including without limitation warranties of merchantability, fitness for a particular purpose, and non-infringement. ADB specifically does not make any warranties or representations as to the accuracy or completeness of any such information.