PROJECT INFORMATION DOCUMENT (PID)
CONCEPT STAGE

Report No.: PIDC999

Project Name	China-Qinghai Xining Water Environment Management Project (P133116)
Region	EAST ASIA AND PACIFIC
Country	China
Sector(s)	Agricultural extension and research (33%), Wastewater Treatment and Disposal (30%), Sanitation (27%), Water supply (10%)
Theme(s)	Other rural development (34%), Water resource management (33%), City-wide Infrastructure and Service Delivery (33%)
Lending Instrument	Investment Project Financing
Project ID	P133116
Borrower(s)	People's Republic of China
Implementing Agency	Xining Huangshui River Basin Integrated Development Committee, and Project Management Office, Xining Huangshui River Basin Integrated Development Committee, and Project Management Office
Environmental Category	A-Full Assessment
Date PID Prepared/ Updated	26-Sep-2013
Date PID Approved/ Disclosed	03-Oct-2013
Estimated Date of Appraisal Completion	10-Apr-2014
Estimated Date of Board Approval	16-Oct-2014
Concept Review Decision	Track II - The review did authorize the preparation to continue

I. Introduction and Context

Country Context

China has been experiencing rapid urbanization in the last two decades. During this time, about 380 million people have moved from rural to urban areas; urbanization is now a key focus of Chinese national policy and the rate of urbanization is expected to reach 70% by 2020, from a current level of about 52.5% nationally. While urbanization has been a driving force for economic growth and has helped raise Chinese living standards, it has also brought significant environmental problems, such as water, air and soil pollution, and destruction of natural resources and ecosystems. Rapid urbanization has dramatically transformed China’s socio-economic structure and has posed tremendous challenges to policymakers and practitioners, especially in secondary cities and lagging regions, where it is difficult to keep pace with demands, especially for the delivery of basic urban

services, which will increase the environmental Burdon of the secondary cities.

The central and local governments have devised a series of specific policies to accelerate urbanization in China. The Chinese Government in its 12th Five Year Plan defined a strategic plan for 2011-2015 to promote balanced development among regions, and to actively, yet prudently, proceed with urbanization. From 2010, stimulated by relevant policies from different ministries, various cities have made great efforts to build innovative cities for better development and model cities for environment protection. These policies cover a broad range of aspects of urbanization, such as transportation, stormwater drainage, environment protection, relocation of industries, management of public records, and utilization of renewable energy. Under these policies, a more balanced and sustainable approach will be adopted to stimulate the growth of Western regions and small to mid-sized cities. The aim is for environment protection, energy conservation and sustainable public services to be integrated into the urbanization development process.

Sectoral and Institutional Context

Xining Municipality is the Provincial capital of Qinghai Province. The Municipality lies in the eastern part of the province and has a population of 2.23 million people and total area of 7,649km2. Among the 2.23 million people, about 1.46 million (65%) are urban citizens and 0.77 million people are farmers. The municipal GDP increased 15% and reached RMB 77.1 billion in 2011. The urban per capita income reached RMB 15,842 in 2011, an increase of 12.5% compared to 2010, and the rural per capita income was RMB 6,634, a 20.2% increase from 2010.

Xining Municipality is a city with serious water resource shortage. The Municipality is located in the Huangshui River Basin, and at the confluence of the Nanchuan and Beichuan Rivers. Average annual rainfall in this area is 380mm and average elevation of the Municipality is 2261m. In recent years, the amount of water taken from rivers and underground for industrial, domestic and agricultural use is over 70% of its total water resources. This is far over the upper-limit, which is about 40%, for a local water resource to be exploited.

With the over exploitation of local water resources, the local water environmental capacity has reached an extremely low level, and water pollution is serious. Monitoring by Xining Environmental Protection Bureau (EPB) shows that the rivers in Xining Municipality are heavily polluted by direct wastewater discharge, low river environmental capacity, gully inflow with silt, and direct wastewater discharge and solid waste disposal into the rivers from local industrial and domestic sources.

The main government agencies for water and environment management in Xining Municipality include Xining Water Resources Bureau, Xining Integrated Huangshui River Basin (Xining Section) Management Committee, and Xining Environmental Protection Bureau. These government agencies contribute to water and environmental management in their respective areas and their responsibilities allocated by the Municipal Government.

Based on Qinghai Province’s 12th Five-Year-Plan (FYP) and Xining Municipality’s 12th FYP, Xining Municipality Urban Development Master Plan (2030) and Integrated Management Plan of Huangshui River Basin (2011–2015), Xining Municipal Government has made efforts to expand and protect water resources, improve water use efficiency, enhance environmental capacity of the rivers, and limit pollutants discharged into rivers. To improving the water environment, local government has been working on better industrial water pollution management, completing and

upgrading domestic sewerage & storm water management, and limiting the potential silt washed down by storms from its large number of gullies.

The Project is a second phase to the Bank financed Xining Flood and Watershed Management Project (XFWMP). The XFWMP aimed to improve the protection of property and safety of people from flood events and bring about sustainable utilization of land and water resources within Xining Municipality, through the provision of (a) a greater level of flood protection and enhanced flood management; (b) improved wastewater collection; (c) improved soil and water conservation of catchments; and (d) institutional strengthening and capacity building in Xining Municipality. The XFWMP is providing support to Xining Municipality to reach a 1 in 100 years recurrence flood protection standard. With improved flood protection, Xining Municipality now seeks support from the Bank to improve the quality and protect of its scarce water resources.

Relationship to CAS

The new World Bank-China Country Partnership Strategy (CPS) 2013-2016 (Report No. 67566-CN) was issued on October 11, 2012, and is aligned with the challenges and priorities outlined in China's 12th Five-Year Plan. The CPS is also informed by the recent joint study – China 2030: Building a Modern, Harmonious, and Creative Society (China 2030) – prepared by the World Bank and the Development Research Center of the State Council. Consistent with China's priorities, the CPS focuses on three main themes: green growth; inclusive development; and mutually beneficial relations with the world. The project would focus supporting greener growth, by helping Xining Municipal Government to enhance urban environmental services, including reclaimed water treatment plants, wastewater collection systems, and integrated gully treatment. In addition, the project will promote more inclusive development by enhancing services and opportunities in Xining Municipality, a less developed city in Western China. Innovative designs in terms of integrated water and environmental management will benefit the Bank's global knowledge, and these experiences will be shared with the rest of the world.

II. Proposed Development Objective(s)

Proposed Development Objective(s) (From PCN)

The Project Development Objective is to reduce water pollution and conserve scarce water resources in Xining Municipality.

Key Results (From PCN)

The PDO would be achieved through (a) the construction of wastewater collection systems and river bank improvements; (b) construction of reclaimed water treatment systems (WWTP); (c) comprehensive gully improvements; and (d) technical assistance and capacity building. Key results are (a) number of people provided with access to improved wastewater collection systems; (b) volume of reclaimed water used for irrigation and selected industries; and (c) increase in BOD removed from the wastewater (tons/year).

III. Preliminary Description

Concept Description

The project rationale is to achieve reduction in river water pollution and increase in water availability, through integrating environmental management (such as wastewater collection, treatment and reclamation, and river ecological environment) and water resources management (e.g. reducing soil erosion and use of alternative/reclaimed water resources) in a basin context.

Indicative Project Components

The project will be implemented over a period of five years and will finance priority investments in Xining Municipality. The project will consist of the following five components with a total estimated cost of US$ 257 million, including an IBRD loan of US$150 million: (a) construction of wastewater collection systems; (b) construction of reclaimed wastewater treatment plants and reclaimed wastewater transfer pipes; (c) Beichuan River embankment improvement; (d) integrated gully and canal improvement; and (e) project management and capacity building.

Component A: Construction of wastewater collection systems (estimated cost USD115 million). This component will reduce water pollution by construction of 117 km of wastewater and rain water collection pipes along rivers and urban wastewater distribution networks, including (i) construction of 34km of wastewater collection pipes (DN600-DN1000) from Datong Wastewater Treatment Plant to Ningda Road toll gate along Beichuan River for No. 5 Wastewater Treatment Plant; (ii) construction of 16km of wastewater collection pipes from Yangjiawan Village to Duoba along Xichuan River for No. 2 Wastewater Treatment Plant; (iii) construction of 30 km of wastewater collection pipes in Beichuan Area; (iv) construction of 37 km of rainwater collection pipes in Beichuan Area; and (v) construction of 23km of facilitated roads in Beichuan Area.

Component B: Municipal wastewater reclamation and reuse (estimated cost USD28.7 million). This component will conserve scarce water resources and reduce water pollution by construction of three water reclamation plants with a total capacity of 75,000 m3/day (20,000 m3/day at No.5 WWTP, 20,000 m3/day at No.4 WWTP, and 35,000 m3/day at No.3 WWTP), and 78.7 km of reclaimed wastewater transfer pipes to the end users (20.6 km for No.3 WWTP, 34.1 km for No.4 WWTP, and 24 km for No.5 WWTP). The reclaimed wastewater will be used for tree and grass irrigation and industrial purposes.

Component C: Beichuan River embankment improvement (estimated cost USD34 million). This component will reduce water pollution by improving embankment and greening of 60ha land area along Beichuan River, affiliated access roads and lightening system, etc. in Beichuan River Area. This area is a core urban area but with no sound wastewater collection system and no environmental protection facilities. Lots of residue soil and garbage dumped here and cause pollution to Beichuan River during flood season. A systematic approach is adopted to treat this area by a set of project activities include garbage and residue soil cleaning, sandy gravel pavement and layout of humus soil for 600,000 square meters along about 5km of Beichuan River Bank area, planting vegetation, byways and environmental facilities.

Component D: Integrated gully and canal improvement (estimated cost USD43.4 million). This component will reduce water pollution by (i) integrated improvement of 10.4km Chaoyangdian Canal with wastewater collection pipes, access roads and affiliated structures; (ii) integrated improvement of 1.4km Liujia Gully wit channel normalization, slope protection, wastewater collection pipes and covert construction; and (iii) integrated improvement of 900m Shengou Gully with channel normalization, slope protection and wastewater collection pipe construction.

Component E: Project management and capacity building (estimated cost USD27 million). This component is intended to improve Xining's capacity in integrated water environment management. This component includes (i) project management activities: project construction supervision, and

management information systems (MIS); (ii) consulting services: monitoring and evaluation (M&E), technical assistance for integrated water and environment management and review of policies, regulations and technical standards concerning reclamation of treated water and promotion of usage of reclaimed wastewater; and (iii) workshops, (domestic and overseas) training and study tours.

IV. Safeguard Policies that might apply

Safeguard Policies Triggered by the Project	Yes	No	TBD
Environmental Assessment OP/BP 4.01	x		
Natural Habitats OP/BP 4.04			x
Forests OP/BP 4.36		x	
Pest Management OP 4.09		x	
Physical Cultural Resources OP/BP 4.11			x
Indigenous Peoples OP/BP 4.10			x
Involuntary Resettlement OP/BP 4.12	x		
Safety of Dams OP/BP 4.37		x	
Projects on International Waterways OP/BP 7.50		x	
Projects in Disputed Areas OP/BP 7.60		x	

V. Financing (in USD Million)

Total Project Cost:	257.00	Total Bank Financing:	150.00
Financing Gap:	0.00		

Financing Source	Amount
Borrower	107.00
International Bank for Reconstruction and Development	150.00
Total	257.00

VI. Contact point

World Bank

Contact: Ximing Zhang
Title: Sr Water Resources Spec.
Tel: 5788+7692
Email: xzhang4@worldbank.org

Borrower/Client/Recipient

Name: People's Republic of China
Contact: Mr. Wu Jianjun
Title: Director, International Division, Ministry of Finance
Tel: 86 10 68551124
Email: wujianjun5168@yahoo.com

Implementing Agencies

Name:	Xining Huangshui River Basin Integrated Development Committee, and Project Management Office
Contact:	Mr. Xu Guocheng
Title:	PMO Director
Tel:	0972-6280366
Email:	xnhjzlshxmb@163.com
Name:	Xining Huangshui River Basin Integrated Development Committee, and Project Management Office
Contact:	Mr. Xu Guocheng
Title:	PMO Director
Tel:	0972-6280366
Email:	xnhjzlshxmb@163.com

VII. For more information contact:

The InfoShop
The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 458-4500
Fax: (202) 522-1500
Web: http://www.worldbank.org/infoshop

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