ADB ASIAN DEVELOPMENT BANK

China, People's Republic of: Shanxi Urban-Rural Water Source Protection and Environmental Demonstration Project

Project Name	Shanxi Urban-Rural Water Source Protection and Environmental Demonstration Project
Project Number	48274-002
Country	China, People's Republic of
Project Status	Approved
Project Type / Modality of Assistance	Loan
Source of Funding / Amount	**Loan 3557-PRC: Shanxi Urban-Rural Water Source Protection and Environmental Demonstration Project** Ordinary capital resources — US$ 100.00 million
Strategic Agendas	Environmentally sustainable growth Inclusive economic growth
Drivers of Change	Governance and capacity development
Sector / Subsector	**Agriculture, natural resources and rural development** - Forestry - Rural flood protection - Rural water supply services **Transport** - Urban roads and traffic management **Water and other urban infrastructure and services** - Urban flood protection - Urban sewerage
Gender Equity and Mainstreaming	Effective gender mainstreaming
Description	The impact of the project will be improved quality of life and environmental sustainability in Zuoquan County. The outcome of the project will be improved and integrated river basin management in Zuoquan County. The project will include four outputs: (i) water source protection of the Qingzhang headwaters, (ii) Qingzhang River rehabilitation and integrated low-impact facilities, (iii) inclusive water supply and wastewater collection services, and (iv) strengthened institutional capacity. Output 1 will support (i) re-vegetation around the Shixia Reservoir and planting of forest belt along two headwaters for about 12,800 hectares (ha); (ii) installation of the Shixia Reservoir spillway gates; (iii) construction of a flood-discharging and washout tunnel; and (iv) construction of five hydrological and water quality monitoring stations with telecommunication system in the Shixia Reservoir catchment. Output 2 will support (i) dredging of selected sections of the Qingzhang River which are heavily silted (about 11.6 kilometers [km]); (ii) rehabilitation of the Qingzhang River, and construction of embankment (about 8.9 km); (iii) construction of wetland of about 35.35 ha and associated river amenity facilities; and (iv) low-impact design (sponge city concept) for Binhe road expansion and stormwater drain installation. Output 3 will support (i) construction of 45.3-km raw water transmission pipelines and expansion of a pumping station; (ii) construction of 48.3-km water distribution pipelines and expansion of four pumping stations; (iii) replacement of 36.5-km existing water supply pipelines and construction of two rural domestic water treatment stations; (iv) expansion of the Zuoquan County wastewater treatment plant from 10,000 m3 per day to 15,000 m3 per day, with improvement of treatment technologies and renovation of some equipment; (v) construction of 4.97-km trunk sewers; (vi) replacement of 1.29-km existing main sewer pipelines; and reconstruction of four overflow manholes. Output 4 will support institutional and capacity development for (i) project management; (ii) improvement of existing flood warning system; (iii) integrated urban rural water supply, and (iv) action plan for sponge city design for new city district development.

Project Rationale and Linkage to Country/Regional Strategy	The proposed project will be implemented in Zuoquan County, Jinzhong Municipality of Shanxi Province. The project will address key water resources management and related issues in Zuoquan County in an integrated manner, including water quality and quantity, flood mitigation, soil erosion prevention, land use planning, and related capacity building activities. The proposed project is expected to demonstrate the ability and merits of working at county level to advance the government's goal of ecological civilization and poverty reduction. Special features and value addition. The project is expected to demonstrate the following innovations/value additions: (i) Integrated river basin management by implementing structural and nonstructural measures in pollution prevention, flood management, ecological conservation and rehabilitation, water demand management, and institutional reform support from upstream to downstream of Qingzhang River. This approach will have good demonstration effect to other regions as the PRC increasingly need to improve management of its many small river basins facing similar issues as Zuoquan County; (ii) Integrated urban-rural land use planning and protection. The project area has been analyzed and classified into different zones according to their land use types. From reservoir to downstream township, the Qingzhang River passes through four types of predominant land use areas within the project boundary. Protection measures have been identified according to the characteristics of each land use zone, including vegetation for the areas upstream of the Shixia reservoir to reduce soil erosion; safety inspection of the reservoir and replacement of aged facilities; improvement of flood protection standard of the Qingzhang river and enhancement of ecological values along the river banks; provision of low impact facilities such as wetland park and enhanced road design; improvement of urban stormwater drainage system, and sewage collection and treatment; and provision of reliable water supply to rural and urban area including commercial and industry; (iii) Sponge city is an important concept from an integrated urban land and water management perspective. The important sponge city concept is applied to implement the Binhe Road as a pilot scheme which incorporates permeable pavement, low-impact-development (LID) tree pits and bio-retention swales. The LID facilities not only retard surface runoff, but also reduce non-point source pollution from urban runoff. The scale will be further extended to prepare an action plan to identify LID technologies and practices for Zuoquan's new district development; and (iv) Inclusive Zuoquan County's urbanization and poverty reduction. Zuoquan is a national designated poverty county which lags behind the average in terms of social economic development due partially to uncoordinated development and inadequate infrastructure. People are exposed to natural disaster of floods and droughts, as well as polluted environment. The project will create enabling environment for future city's development and poverty reduction by providing improved infrastructure, flood risk reduction measures, water security and effective wastewater collection and treatment system.
Impact	Quality of life and environmental sustainability in Zuoquan County improved

Project Outcome	
Description of Outcome	Living and environmental conditions for urban and rural residents of Zuoquan County improved
Progress Toward Outcome	
Implementation Progress	
Description of Project Outputs	Shixia Reservoir operation and its watershed vegetation improved Qingzhang River and Binhe Road rehabilitated Inclusive water supply and wastewater collection services achieved Institutional capacity strengthened
Status of Implementation Progress (Outputs, Activities, and Issues)	
Geographical Location	

Safeguard Categories	
Environment	B
Involuntary Resettlement	A
Indigenous Peoples	C

Summary of Environmental and Social Aspects	
Environmental Aspects	Environmental safeguards (Category B): Domestic environmental impact assessment (EIA) has been approved by Jinzhong Municipality Environment Protection Bureau.
Involuntary Resettlement	Resettlement (Category A): Land accquisition and resettlement report has been completed.
Indigenous Peoples	Ethnic minorities (Category C): Category C was confirmed during PPTA stage.
Stakeholder Communication, Participation, and Consultation	

During Project Design	Consultations with local government agencies, farmer communities, and other stakeholders were conducted during project preparation. Social dimensions: Gender action plan, social action plan, and participation and stakeholder communication strategy have been prepared.
During Project Implementation	

Business Opportunities	
Consulting Services	It is expected that consultants will be required for conducting capacity development and institutional strengthening activities, including project management support. All consulting services will be engaged in accordance with the ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). Consulting services will be selected by (i) inviting simplified technical proposals and (ii) using the quality- and cost-based selection method, with a quality cost ratio of 90:10.
Procurement	Procurement will be done in accordance with ADB's Procurement Guidelines (2013, as amended from time to time).

Responsible ADB Officer	Zhou, Yaozhou
Responsible ADB Department	East Asia Department
Responsible ADB Division	Environment, Natural Resources & Agriculture Division, EARD
Executing Agencies	*Zuoquan County Government* *Zuoquan COunty, Shanxi Province* *People's Republic of China*

Timetable	
Concept Clearance	19 Dec 2014
Fact Finding	25 Oct 2016 to 01 Nov 2016
MRM	03 Mar 2017
Approval	22 Aug 2017
Last Review Mission	-
Last PDS Update	30 Mar 2017

Loan 3557-PRC

Financing Plan		**Loan Utilization**			
	Total (Amount in US$ million)	Date	ADB	Others	Net Percentage
Project Cost	152.10	Cumulative Contract Awards			
ADB	100.00	-	0.00	0.00	%
Counterpart	52.10	Cumulative Disbursements			
Cofinancing	0.00	-	0.00	0.00	%

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