China, People's Republic of: Anhui Huainan Urban Water Systems Integrated Rehabilitation Project

**Project Name**: Anhui Huainan Urban Water Systems Integrated Rehabilitation Project  
**Project Number**: 46078-002  
**Country**: China, People's Republic of  
**Project Status**: Active  
**Project Type / Modality of Assistance**: Loan, Technical Assistance

**Source of Funding / Amount**

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<tr>
<th>Source of Funding / Amount</th>
<th>Loan 3054-PRC: Anhui Huainan Urban Water Systems Integrated Rehabilitation Project</th>
<th>US$ 150.00 million</th>
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<td>TA 8491-PRC: Strengthening Urban Flood Management in Huainan Municipality</td>
<td>US$ 500,000.00</td>
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<td>Multi-Donor Trust Fund under the Water Financing Partnership Facility</td>
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**Strategic Agendas**

- Environmentally sustainable growth  
- Inclusive economic growth

**Drivers of Change**

- Agriculture, natural resources and rural development - Water-based natural resources 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 urban water environment, public health, and quality of life for urban residents in the Huainan municipality. The outcome of the project will be improved management of surface water resources in the Huainan municipality. The project will have the following components which are all linked to each other:

**Component 1: Improvement of wastewater collection and transmission systems.** This component will include installation of 115.2-kilometer (km) new main wastewater collection and transmission pipes in the eastern area of the Huainan municipality; installation of 63.7-km new main wastewater collection and transmission pipes and construction of three new pump stations for wastewater transmission in the western area.

**Component 2: Improvement of urban water channels.** This component will include improvement of existing 7.6-km Bagongshang water channel, 8.7-km Xiejiaji water channel, 13.8-km Donghua water channel, 0.5-km Old Longwang water channel, and 3.5-km Longwang water channel; and construction of a new 8.1-km Longwang flood diversion water channel. Activities under this component will include (i) sludge removal from the five existing urban water channels; (ii) improvement or construction of the water channels to improve the urban water environment and increase flood flow capacity to meet 1/20 year-level storm water; (iii) installation of new wastewater collection and transmission pipes along the channels to intercept wastewater inflow into the channels; and (iv) promotion of international best practices of nonstructural measures, such as reduction of garbage dumping along the channels and their tributaries; setting and securing of environmental flow in the channels; sustainable maintenance of the channels; monitoring of water quality and ecosystem; and capacity and institutional strengthening.

**Component 3: Improvement of lakes and wetlands.** This component will include two subcomponents. Subcomponent 3.1: Increase of flood control capacities will include construction of 13-km embankments and four pump stations along Gaotang Lake, improvement of the Dajiangou and Long Lake pump stations, and reconstruction of the Caoshuizi and Shijian Lake pump stations to increase flood control capacities to meet 1/20 year-level storm water. Subcomponent 3.2: Improvement of water environment will include improvement of water environment in Gaotang Lake, Dajiangou wetland, Long Lake, Caoling Lake, and Shijian Lake. Activities to improve water environment may include, but are not limited to, (i) sludge removal (footnote 3); (ii) plantation for water self-purification; and (iii) promotion of international best practices of nonstructural measures, such as monitoring of water quality and ecosystem; species recovery; public awareness raising and education; and capacity and institutional strengthening.

**Component 4: Project management support and capacity development.** Activities under this component will include (i) consultants’ support for project management; (ii) institutional and capacity strengthening for project management, and operation and maintenance of the infrastructure; and (iii) provision of equipment for project management.
The Huainan municipality of Anhui province located at the midstream of Huai River is a main coal base of the People's Republic of China (PRC) and also an important industrial area of Anhui province. It has an area of 2,596 square kilometers (km²), of which urban area is 1,566.4 km²; and a population of 2.46 million. Through the implementation of two key development strategies the Hefei Economic Circle and the Urban Integration of Hefei and Huainan, the economic development of the Huainan municipality has been making great progress. However, rapid economic development has resulted in heavy pollution load, particularly wastewater, to existing urban water systems in the Huainan municipality, including urban water channels and lakes, which have been clogged with sludge and severely polluted. The urban water systems also do not have sufficient capacity for flood control, and the Huainan municipality suffers flood damage once in 2 years on average. The Huainan municipal government (HMGG) has been implementing various activities to improve the urban water systems, including improvement of wastewater treatment systems, annual dredging of urban water channels and lakes, public awareness raising to reduce garbage dumping, partial improvement of urban water channels and drains to increase flood flow capacity associated with road improvements, preparedness for and emergency response to floods, and post flood recovery.

Although much improvement has been made, the Huainan municipality still has fundamental problems, including: (i) insufficient wastewater treatment systems; (ii) wastewater inflow into urban water channels and lakes, sludge sediment, and water quality deterioration; and (iii) insufficient flood control capacities of urban water channels and other flood control facilities.

To facilitate the development of the Huainan municipality, the Huainan Municipality Master Plan for 2010 2020 was prepared by the HMGG and approved by the provincial and central governments. The master plan sets targets for 2020 for wastewater treatment (treatment rate of more than 90%), water environment (water quality in the urban water systems improved to class IV or above of the PRC water quality standards), and flood management (flood frequency in the urban area reduced from 1/2 years to 1/20 years). To implement components of the master plan related to the urban water systems, the HMGG made a request to the Asian Development Bank (ADB) for investment and assistance for the Huainan Urban Water Systems Integrated Rehabilitation Project. The proposed project was included in ADB’s country operations business plan 2012 2014 and the 2013 lending pipeline for the PRC.

The PRC’s 12th Five-Year Plan (2011 2015) supports the long-term goal of building a harmonious and moderately prosperous (xiaokang) society through livelihood improvement, and regionally balanced and environmentally sustainable growth. ADB’s country partnership strategy for the PRC for 2011 2015 supports the government’s overarching strategic goal of building a xiaokang society by focusing on three strategic pillars: inclusive growth, environmentally sustainable growth, and regional cooperation and integration. The proposed project is fully consistent with the PRC’s 12th Five-Year Plan and ADB’s country partnership strategy by improving urban water environment, public health, and quality of life.

ADB has been conducting projects for wastewater treatment, urban development, and flood and water resources management in the PRC and other countries, and lessons learned from those projects will be reflected in the project design adding values to the project. A main value to be added to the project by ADB will be promotion of international best practices of nonstructural measures for water environmental improvement.

Impact

Urban water environment, public health, and quality of life for urban residents in Huainan improved.

Project Outcome

Description of Outcome

Improved management of surface water resources in Huainan

Progress Toward Outcome

The overall progress of the project is behind the schedule. A minor scope change was approved in September 2018 and the project closing date was extended by 18 months to 30 September 2021.

Implementation Progress

Description of Project Outputs

1. Improvement of wastewater collection
2. Improvement of urban water channels and flood management
3. Improvement of urban lakes
4. Project management and capacity development

Status of Implementation Progress (Outputs, Activities, and Issues)

Up to 26 March 2019, the accumulative contract awards reached to $62.35million and accumulative disbursement reached to $42.06million. Improvement of wastewater collection: two civil works and two equipment contracts have been awarded and under implementation. Improvement of Urban Water Environment and Flood Management: eight civil works and four equipment contracts have been awarded and under implementation. Improvement of Urban Lake Environment: one civil works has been awarded. Four individual consultants have been recruited for project management service in Feb. 2017. One consulting firm was recruited for external resettlement monitoring in Aug. 2015. A consulting firm for the associated technical assistance was recruited and the consultant team was fielded on 11 March 2015. The consulting service was terminated in Oct. 2016.

Geographical Location

Bagongshan Qu, Chao Lake, Dajiang, Gaotang Hu, Huainan, Huainan Shi, Qinglong Hu, Shijian Lake

Safeguard Categories

Environment

A

Involuntary Resettlement

A

Indigenous Peoples

C

Summary of Environmental and Social Aspects

Environmental Aspects

The environmental impact assessment report prepared for the project is based on the domestic environmental impact assessment report, as well as the consultant’s report on the project preparatory technical assistance; and complies with the environmental policy of the People’s Republic of China and Asian Development Bank’s (ADB’s) Safeguard Policy Statement. It concludes that the project will have substantial positive environmental and socioeconomic benefits resulting from (i) improved urban water channels, lakes, and Huai River; (ii) improved management of water and ecology in the lakes; and (iii) improved flood management. Environmental concerns of the project include construction impacts on air, noise, and water quality; solid waste; and disturbance to some water birds. These will be prevented or minimized to acceptable levels through the implementation of an environmental management plan with adequate mitigation and monitoring arrangements. The plan includes a detailed training program to ensure the Huainan municipal government has adequate capacity to manage and monitor environmental impacts and risks. The environmental impact assessment report was disclosed on ADB website on 28 May 2013.

Involuntary Resettlement

The project will acquire a total of 126 hectares of land; 248 hectares will be occupied temporarily. The project will demolish 17,257 square meters of housing and 780 square meters of small business shops. It will affect 2,075 people, 1,451 of these will lose more than 10% of their productive assets and/or be physically displaced. The Huainan municipal government (HMGG), with the assistance of consultants engaged under the project preparatory technical assistance, prepared a resettlement plan in line with Asian Development Bank’s (ADB’s) Safeguard Policy Statement (2009) and related laws and regulations of Huainan Municipality, Anhui Province, and the People’s Republic of China. The HMGG has endorsed the resettlement plan and disclosed the relevant information to affected people. The resettlement plan was also disclosed on ADB website. The HMGG will fully finance CN¥292.1 million of land acquisition and resettlement costs. The ADB loan will finance the costs for semiannual external resettlement monitoring and evaluation. The HMGG has experience in conducting land acquisition and resettlement for foreign-funded projects and has the capacity to implement the resettlement plan for this project.

Indigenous Peoples

Indigenous peoples will not be affected or benefit from the project.

Stakeholder Communication, Participation, and Consultation

During Project Design

Public consultation was carried out by the executing agency during the preparation of project design documents. Further consultation through workshops and a stakeholder analysis were also carried out during the implementation of the project preparatory technical assistance.
During Project Implementation

Consultation during design of the project and participation during implementation with activities, such as a public-hearing process for adjusting wastewater collection fees, will involve more than 600 households. The project management office (PMO) and a pilot community will develop a community participation manual. These processes are reflected in the consultation and participation (C&P) plan, gender action plan (GAP), social action plan (SAP), loan assurances, design and monitoring framework, and project administration manual (PAM), with appropriate budget for consulting services under the project and an associated technical assistance.

A community environmental supervision and flood management team (CESFMT), comprising three community members including at least one female member, will be established in each of the eight pilot communities. CESFMTs will increase the environmental awareness of community residents to eliminate improper disposal of solid waste and waste dumping into urban water channels, and make community residents aware of the flood warning system and flood response plan.

During detailed design and implementation of each project output, the C&P plan will be implemented, including the participation of stakeholders in detailed design and disclosure of relevant information, consultation on resettlement programs with affected persons and disclosure of the resettlement plan, disclosure of the environmental impact assessment plan, disclosure of wastewater and solid waste treatment plants and their structure, disclosure of construction programs and relevant information, increase of public environmental awareness and public health knowledge, holding of a hearing for water and wastewater tariff increases, development and disclosure of community participation manual, and participation in and disclosure of the flood warning and management program.

Business Opportunities

Consulting Services

Consultants will be required for the promotion of international best practices of nonstructural measures to improve water environment, and project management support and capacity development. All consultants will be hired following ADB's Guidelines on the Use of Consultants (2010, as amended from time to time).

Procurement

All ADB-financed procurement will be conducted following ADB's Procurement Guidelines (2010, as amended from time to time). A procurement agency will be hired to conduct procurement on behalf of the implementing agencies.

Responsible ADB Officer
Zheng, Baochang

Responsible ADB Department
East Asia Department

Responsible ADB Division
PRC Resident Mission

Executing Agencies
Anhui Provincial Finance Department
No. 238, Funanxi Road, Hefei, Anhui 230061 People’s Republic of China
Huaian Municipal Government
AHHCXH@126.COM
Municipal Government Building, Huaian Municipality, Anhui Province 232001 People’s Republic of China

Timetable

Concept Clearance 25 Jun 2012
Fact Finding 03 May 2013 to 13 May 2013
MRM 04 Jul 2013
Approval 25 Oct 2013
Last Review Mission -
Last PDS Update 26 Mar 2019

Loan 3054-PRC

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Status of Covenants

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TA 8491-PRC

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