China, People's Republic of: Hubei Huangshi Urban Pollution Control and Environmental Management Project

Project Name: Hubei Huangshi Urban Pollution Control and Environmental Management Project
Project Number: 44019-012
Country: China, People's Republic of
Project Status: Closed
Project Type / Modality of Assistance: Technical Assistance
Source of Funding / Amount: TA 7607-PRC: Hubei Huangshi Urban Pollution Control and Environmental Management Project, Technical Assistance Special Fund, US$ 600,000.00

Strategic Agendas
- Environmentally sustainable growth
- Inclusive economic growth

Drivers of Change
- Governance and capacity development

Sector / Subsector
- Agriculture, natural resources and rural development - Water-based natural resources management
- Water and other urban infrastructure and services - Urban policy, institutional and capacity development - Urban sewage - Urban solid waste management

Gender Equity and Mainstreaming
- Effective gender mainstreaming

Description
The project aims to improve environmental, health and living conditions of urban residents in Huangshi Municipality in Hubei Province, People's Republic of China (PRC) through improvements to urban environmental management system and services. The project will support wastewater management, lake rehabilitation, sludge treatment and disposal, pilot solid waste management scheme, and institutional strengthening and capacity development of related urban environmental services.

Project Rationale and Linkage to Country/Regional Strategy
Hubei Province is located in the south central region of the PRC, with Wuhan as the capital city. Huangshi is one of the major cities of the province. It is located in the south bank of the Yangtze River, about 70 kilometers (km) downstream of Wuhan City and belongs to Huangshi Municipality. The population of the municipality was 2.56 million in 2009, of which 813,000 live in the 62-square kilometer (km2) urban area of Huangshi. Huangshi has developed from the mining industries of local raw materials such as gold, silver, copper, iron ore, limestone, and coal. As raw materials became depleted some industries have closed down and the rest were relocated outside urban areas to mitigate their polluting effect. Huangshi's current master plan is focused on the development of the secondary industry such as textile and garments industries, and tourism. The present urban development takes place around the city's three lakes: Cihu lake (9.17 km2), Qingshan lake (0.48 km2), and Qinggang lake (0.7 km2), with a combined area of 10.3 km2. The lakes connect and discharge to the Yangtze River during flooding. Huangshi faces serious challenges in urban environment. There was general neglect of urban pollution and large quantities of untreated industrial effluents and domestic wastewater are discharged into lakes and channels. The city's solid waste management system is not adequate and the sludge from wastewater treatment plants (WWTPs) is not treated. Channels are blocked with polluted sediments and accumulated solid wastes. As a result, the city's lakes and channels became polluted to unacceptable quality levels exceeding Class V in some areas, suffer from floods more frequently than in the past, and subsequently affect public health and safety. Poor environment also constrains tourism development and other urban economies.

To address a key ecological and urban development priority in Huangshi, the project will support developing and implementing a comprehensive urban pollution control by establishing integrated wastewater treatment system and rehabilitating lakes and channels. The combined measures of reducing pollutants through integrated wastewater system and improving hydraulic circulation through lakes rehabilitation will allow for restoration of the lakes' retention capacity to mitigate climate change impacts and increase the city's resilience to natural disasters. By re-establishing the connection between the lakes and the Yangtze River, the project will contribute to a national policy, supported by the World Wildlife Fund, in restoring the complex network of lakes along the Yangtze flood plain. By improving the urban environment, the project will also contribute to the city's inclusive growth, particularly the development of secondary and tertiary industries including tourism, and associated employment opportunities. It will concurrently support balanced regional development in Hubei province by releasing the demographic pressure of Wuhan and mitigating the social and environmental challenges faced by the capital city. The project will contribute to poverty reduction and will give positive social and gender impacts on local residents.

The project will also tackle a new environmental challenge of increased sludge to be generated from wastewater treatment expansion and lake dredging and rehabilitation operations. At present, untreated sludge is disposed of directly to the municipal landfill. The project will identify and implement feasible and sustainable options for sludge reduction and stabilization, including digestion and beneficiary use, considering the design solution of ongoing ADB projects in Wuhan. Further, the project will examine possible private sector participation in investing or outsourcing of Huangshi Municipal Government's (HMG) urban services, wherever possible.

The project supports the PRC's country partnership strategy (2008-2010) promoting efficient urban infrastructure, strengthening environmental management, supporting inclusive growth, and well balanced development. By developing an integrated approach for urban environment, pollution control and surface water management, combined with a feasible design solution for sludge treatment reflecting lessons from Wuhan, the project will contribute to establishing Huangshi City as a model for sustainable economic development in the PRC's medium-sized cities.

Impact
Environmentally sustainable and socioeconomically inclusive urban development in Huangshi

Project Outcome

Description of Outcome
Improved urban environmental infrastructure and management services in Huangshi

Progress Toward Outcome
TA implementation is satisfactorily. TA completion date extended to 30 November 2012. The required reports have been submitted and claims are under processing

Implementation Progress
### Description of Project Outputs

1. **Wastewater collection and treatment improved**
   - Wastewater Collection and Treatment

2. **Lake rehabilitated and hydraulic circulation restored**
   - Lake Rehabilitation and Hydraulic Circulation Restoration

3. **Sludge and dredged material treated and disposed**
   - Sludge and Dredged Material Treatment and Disposal

4. **Pilot solid waste collection and transfer facilities constructed**
   - Pilot Solid Waste Management Scheme

5. **Capacity developed and institutions strengthened**
   - Capacity Development and Implementation Support

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

**TA Inception Mission** conducted in June 2011. The following urban sub-sectors (key areas of the Project scope) require due diligence:

1. **Wastewater collection and treatment**: This includes network survey and GIS system, new sewerage system in 4 catchment areas, and wastewater treatment plant (WWTP) in Hekou. Industrial development planning and land acquisition process for Hekou area will be verified to strengthen the economic rationale for WWTP.

2. **Lake rehabilitation and hydraulic circulation**: This will improve the water quality and retention capacity in 3 lakes by removing contaminated sediments, building engineered wetlands, re-establishing hydraulic circulation system connecting three lakes into Yangtze river, and strengthening embankment and its landscaping. Cumulative impacts will be assessed through pollution load modeling and hydraulic water quality modeling of water circulation. The objective, size, siting, design criteria, and responsible authority of the engineered wetlands will be clarified.

3. **Sludge treatment and disposal**: HMG wishes to involve a state-owned cement company in Huangshi (Huaxin Cement) to treat sludge. It was informed that the options for various methods will be conducted considering the result of sampling examination and lessons learned from ADB projects on beneficial sludge utilization.

4. **Solid waste management**: It involves collection and transfer system, adopting community participatory approach.

5. **Capacity development**: Non-structural and capacity development measures will be identified to strengthen the intended outcome of each infrastructural component, and will be presented in the TA Interim Report.

The TA Interim Report was submitted on 15 September 2011. A TA Interim Review Mission was fielded in September 2011, and a TA Review Mission (prior to loan fact-finding) was fielded in November 2011. Required reports have been submitted to ADB. Claims for payment are under process.

### Geographical Location

**Summary of Environmental and Social Aspects**

**Environmental Aspects**

- Involuntary Resettlement

**Indigenous Peoples**

**Stakeholder Communication, Participation, and Consultation**

- During Project Design
  - Based on institutional assessment on financial management, procurement, planning, technical engineering, operation and maintenance and project management capacities of HMG and HUCIDC, the consultants will prepare a capacity development plan presenting specific actions for trainings and institutional strengthening measures to enhance the capacity of HMG and HUCIDC and other concerned agencies to meet operational needs of project implementation and to ensure future managerial, technical and financial sustainability of operations. The consultants will conduct training workshops based on the capacity development plan.

- During Project Implementation
  - Consultations with affected persons and beneficiaries are ongoing. A draft RP has been prepared (under the guidance of the TA consultants); this draft RP will be further reviewed.

**Business Opportunities**

**Consulting Services**

An international consulting firm in association with national consultants will be engaged in accordance with ADB’s Guidelines on the Use of Consultants (2010, as amended from time to time) and other arrangements satisfactory to ADB for the engagement of national consultants. ADB will select and engage consultants based on the quality of the proposal (80%) and the cost (20%) of the services to be provided (the quality- and cost-based selection method, QCBS) using simplified technical proposal procedures. A total of 39 person-months of consulting services (12 international and 27 national) are required.

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<tr>
<th>Responsible ADB Officer</th>
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<td>Responsible ADB Department</td>
<td>East Asia Department</td>
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<td>Responsible ADB Division</td>
<td>Urban and Social Sectors Division, EARD</td>
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| Executing Agencies | Huangshi Municipal Government
  No. 1, Hangzhou Road
  Tuanzhengshan Development District
  Huangshi City
  Hubei Province, Post Code 4355003 |

**Timetable**

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<td>Concept Clearance</td>
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<td>Fact Finding</td>
<td>23 Apr 2010 to 29 Apr 2010</td>
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<td>MRM</td>
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**TA 7607-PRC**
### Approval

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### Financing Plan/TA Utilization

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### Cumulative Disbursements

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**Project Page**


**Request for Information**


**Date Generated**

19 May 2019

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