China, People's Republic of: Wuhan Wastewater Management

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Wuhan Wastewater Management</th>
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<tbody>
<tr>
<td>Project Number</td>
<td>34472-013</td>
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<tr>
<td>Country</td>
<td>China, People's Republic of</td>
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<tr>
<td>Project Status</td>
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<td>Project Type / Modality of Assistance</td>
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<tr>
<td>Source of Funding / Amount</td>
<td>Loan 1996-PRC: Wuhan Wastewater Management</td>
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<td>US$ 83.00 million</td>
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<td>Strategic Agendas</td>
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<td>Water and other urban infrastructure and services - Urban sewerage</td>
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<td>Gender Equity and Mainstreaming</td>
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**Description**

To achieve sustainable wastewater management and protection of water resources, the overall objective of the WWMP is to increase wastewater treatment capacity in Wuhan from the current 6% (13% after completion of an ongoing World Bank project) to approximately 45% of generated wastewater. Achievement of this objective will be key to achievement of the related objectives of the WWMP to (i) improve water quality of rivers and lakes in Wuhan; (ii) protect drinking water resources; (iii) strengthening the capacity and efficiency of the WMWC; (iv) improve health and living standards of residents in Wuhan; and (v) improve water quality in downstream reaches of the Changjiang. Specifically, the proposed WWMP includes construction of three wastewater treatment plants and associated collection systems as well as develop institutional and management capacity in the following areas: (i) project management, (ii) financial management, (iii) business planning, (iv) environmental monitoring, (v) water quality, (vi) operator training, and (vii) public awareness programs. The linkage between the goals, objectives, outputs, and inputs for the project are given in the Project Framework.

**Project Rationale and Linkage to Country/Regional Strategy**

Wuhan is a center of industry, transportation, and communications with a urban built-up area of 208 km² out of its total area of 8,467 km², is strategically located about halfway along the several thousand km reach of the Changjiang (Yangtze River). The Chanjiang basin is the largest river basin in China and it receives the largest total wastewater volume of the seven major rivers. Though the river is often seen as having a high assimilative capacity the cumulative effect of the innumerable point and non-point discharges is deteriorating water quality. Effects of the cumulative pollution are felt throughout downstream reaches and the East China Sea. The growing pollution belt along the river’s banks in and near cities is evidence of localized near-shore pollution. Water quality in the Wuhan section of the Changjiang has significantly decreased over the last 15 years. In the middle 1980s, water quality exceeded its designated standard. Since 2000, water quality has not attained the standard throughout the dry season and 67% of the river is below the standard through out the year. In 2006, Wuhan’s wastewater discharge totaled about 2.05 million m³/d with domestic sewerage and about one-fourth of that was industrial wastewater. The two existing wastewater treatment plants are only able to treat 6% of the wastewater generated. About 56% of the rivers and 89% of the lakes have been polluted by organic, nitrogen, and phosphorous wastes. The people living in Wuhan are adversely affected by the lack of adequate wastewater management and water resources protection through the effect of poor water quality on public health, the living environment, risks to drinking water supplies and negative influence on economic development.

The proposed wastewater collection and treatment systems are an integral part of Wuhan Urban Wastewater Management Master Plan. The systems together with the Project’s capacity building activities for corporate governance, wastewater management, and environmental monitoring will contribute significantly to pollution control and environmental management in Wuhan and Changjiang basin. Beneficiaries will include residents of Wuhan and those living downstream.

Addressing environment problems is a key priority of the tenth and eleventh five year plans of the PRC Government. Wuhan is rich in water resources; however, rapid economic growth and resultant increased pollution have caused significant deterioration of water quality. National wastewater treatment guidelines require municipalities to achieve a 70% wastewater treatment ratio by 2010. The Project will help to achieve the target wastewater treatment ratio.


**Impact**

- **Project Outcome**
- **Description of Outcome**
- **Progress Toward Outcome**
- **Implementation Progress**
- **Description of Project Outputs**
- **Status of Implementation Progress (Outputs, Activities, and Issues)**
- **Geographical Location**

**Safeguard Categories**

- **Environment**: A
- **Involuntary Resettlement**
### Indigenous Peoples

#### Summary of Environmental and Social Aspects

**Environmental Aspects**

- Involuntary Resettlement

- Indigenous Peoples

#### Stakeholder Communication, Participation, and Consultation

- During Project Design
- During Project Implementation

#### Business Opportunities

**Consulting Services**

The Project Implementing Agency (PIA) will retain the services of competent and experienced design institutes to complete the preliminary and detailed designs and specifications. Provision has been made for 65 person-months of international and 130 person-months of domestic consulting to support the project management office and the PIA in project implementation and capacity building. The consultants will be recruited in accordance with ADB's Guidelines on the use of Consultants and other arrangements satisfactory to the ADB on the engagement of domestic consultants.

**Procurement**

ADB-financed goods and services will be procured in accordance with ADB's Guidelines for Procurement. Major contracts for equipment will be undertaken through ADB’s international competitive bidding procedures, and equipment packages valued under $500,000 will be procured following ADB’s procedures for international shopping. Civil works estimated to cost below $5 million per package will be carried out under local competitive bidding procedures acceptable to ADB, and in accordance with PRC’s Tendering and Bidding Law and procurement regulations.

#### Responsible ADB Officer

Jianguo, Wang

#### Responsible ADB Department

East Asia Department

#### Responsible ADB Division

PRC Resident Mission

#### Executing Agencies

- Wuhan Urban Drainage Development Co. Ltd.
- Wuhan Municipal Engineering Design Institute, No. 40 Changqing Road, Hankou, Wuhan, People’s Rep of China

#### Timetable

- **Concept Clearance**: 09 Mar 2001
- **Fact Finding**: 24 Mar 2002 to 04 Apr 2002
- **MRM**: 23 Jul 2002
- **Approval**: 25 Apr 2003
- **Last Review Mission**: -
- **PDS Creation Date**: 28 Nov 2006
- **Last PDS Update**: 16 Dec 2010

### Loan 1996-PRC

#### Milestones

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#### Financing Plan

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#### Loan Utilization

- Date Generated: 21 August 2020

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