Anhui Hefei Urban Environment Improvement Project

Improved public wastewater management and flood control in Hefei City.

Improved environment, public health, and quality of life in Hefei City.

Environmentally sustainable growth

Transport

Loan 2328-PRC: Anhui Hefei Urban Environment Improvement Project

Closed

China, People's Republic of

Shiwuli and Wangtang WWTPs, sewerage pipelines and pumping stations complete. Hefei municipal sewers complete. Qingxi road landfill site complete. River rehabilitation and flood control for 4 subprojects complete. Chao Lake flood control civil works is 82.3% while equipment installation is 32.8% complete. Road infrastructure cancelled from the project scope. Expansion of Shiwuli WWTP increasing the capacity to 100,000 m³/day and loan closing date extension to 31 March 2014 approved. Project management is ongoing. Proposal to use ADB loan for civil works of Shiwuli Phase 2 approved. Procurement of equipment and civil works for Shiwuli Ph2 completed. Construction of Shiwuli Phase 2 WWTP completed and facility in operation in March 2014.

US$ 150.00 million

Environmentally sustainable growth

Goverance and capacity development

Transport - Urban public transport

Water and other urban infrastructure and services - Urban flood protection - Urban policy, institutional and capacity development - Urban sewerage

Some gender elements

The Project is a key environmental improvement and management initiative of the Hefei municipal government (HMG) to meet national environmental guidelines and ensure Hefei's sustainable growth. The Project will bring tangible benefits to the environment of Hefei, the capital of Anhui province, by (i) enhancing the quality of its water resources, (ii) strengthening the wastewater treatment facilities and sewer networks, (iii) reducing the incidence and damage of flooding in three rivers and Chao Lake, and (iv) improving the urban air quality and reducing road accidents and vehicular emissions through a more efficient city road network and integrated transport management operations in a model development zone. The Project also will provide institutional capacity-building measures in urban environmental management and policy reforms to ensure sustainability of the Project and related facilities.

The Project has three components: (i) wastewater and waste management, (ii) river rehabilitation and flood control improvement, and (iii) improved road infrastructure and traffic management in the Xinzhan zone (this was cancelled in July 2009). The Project also provides for institutional capacity building for project management and operation. The Project supports the Government's 11th Five-Year Program (2006-2010) to improve the living conditions and health in the cities of the PRC, and to promote their sustainable economic development. It is classified as a targeted intervention because it will contribute to achieving Millennium Development Goal 7, Target 10, which calls for halving the proportion of people without access to safe drinking water and basic sanitation. The Project is consistent with ADB’s water policy and Urban Sector Strategy.

Improving the urban environment in Hefei is crucial to achieving and sustaining HMG’s medium- to long-term development objectives. HMG has included a multisector environmental protection program in the city’s 11th Five-Year Program. It also has identified a list of priority projects for ADB financing, including the proposed Project, which will improve wastewater management, flood control, and traffic management in Hefei.

Water pollution and flooding are major environmental hazards in Hefei. The Nanfei River cuts through the heart of the city, flowing from west to east before turning south to drain into Chao Lake, one of the five major freshwater lakes in the PRC. Three tributaries of the Nanfei River, which flow through the northern sections of the city, are heavily polluted with sewage and wastewater dumped into the tributaries instead of being collected and sent to a wastewater treatment plant (WWTP). The WWTPs in Hefei lack sufficient capacity to handle all of the city's wastewater, and the sewage network is also inadequate. The Nanfei River and its tributaries, as well as the northern end of Chao Lake within the Hefei municipality, are prone to flooding, which affects the immediate urban area. In addition, the filled and closed solid waste landfill nearby seeps wastewater directly into the river and indirectly into the groundwater. Adequate protection of this landfill and disposal of seeping wastewater in a WWTP are urgently required.

Major traffic jams and flow problems in the city worsen air pollution and traffic accidents. To improve traffic flow and reduce vehicular emissions, HMG plans to construct expressways and flyovers, and upgrade traffic signal networks, using its own resources. It has requested assistance from ADB to upgrade the road network and install a better traffic surveillance system and traffic management scheme as a pilot component of the proposed Project in Xinzhan, a high-growth industrial and residential zone. This area is adjacent to the main stations that connect Hefei with the national railway networks. The area will form a hub for transport services, including buses, logistic centers, and freight vehicle operations. A sustainable road safety strategy and vehicle emissions control plan will be implemented in the area, while the new roads will be provided with full sewerage and environmental protection systems. Xinzhan has been developed to complement increasing demand for urbanization in Hefei.

Industry and manufacturing growth in this area also would help reduce poverty in the city through the provision of job opportunities.

Improved environment, public health, and quality of life in Hefei City.

Some gender elements

Project Name: Anhui Hefei Urban Environment Improvement Project
Project Number: 36595-013
Country: China, People's Republic of
Project Status: Closed
Project Type / Modality of Assistance: Loan
Source of Funding / Amount: Loan 2328-PRC: Anhui Hefei Urban Environment Improvement Project

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China, People's Republic of: Anhui Hefei Urban Environment Improvement Project

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Project Outcome

Description of Outcome

Progress Toward Outcome

Implementation Progress
Description of Project Outputs

Component I. Wastewater and Waste Management in Hefei City

1.1 Shiwuli River WWTP is operational
1.2. Wargangtang WWTP Phase II and associated sewers are operational
1.3 Municipal sewers throughout Hefei City are improved
1.4 The closed Qingxi Road Landfill site is improved

Component II. River rehabilitation and flood control improvement of Hefei
2.1 Ershibu River rehabilitation and flood control is improved
2.2 Banqiao River rehabilitation and flood control is improved
2.3 Sili River rehabilitation and flood control is improved
2.4 Chaokou Lake flood control works are improved
For all components institutional capacity building for project management capacity is improved

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

Completed. Shiwuli WWTP (current capacity of 45,000 m3/day); 32.9 km of associated pipeline network; and pumping station have been completed; the remaining 25.9 km will use domestic funds. Shiwuli WWTP Ph2 with additional capacity 50,000 m3/day is completed. Completed. Wargangtang WWTP (current capacity of 70,000 m3/day; and wastewater discharge standard is Class 1A); 22.6 km of associated pipeline network; 4 pumping stations have been completed. Completed. 96 km of sewers have been completed; the remaining sewer pipes will be constructed under the revised masterplan and will use domestic funds. Completed. Completed. 22.3 km interception sewers; 26,533 m3 ecological protection wall; 5,783 m2 slope protection embankment reinforcement; 8 roll dams, 17.3 km of river dredging and 6 bridges were completed. Completed. River channel comprising 14.3 km of pollutant control and 9.8 km of river rehabilitation and flood control were completed. Completed. River channel comprising 5.5 km of pollutant control; 3.28 km of river rehabilitation and flood control; and roads along the river were completed. Works completed: 24.18 thousand m3 soil backfilling for wave preventing tree-belt; 255,500 m3 of embankment reinforcement; 339 thousand m3 of crush stone backfill; 11,800 m2 of environment-friendly concrete. Breakwater forest works for Feidong, Feixi and Baohe County have been completed.

Geographical Location
Banqiao He, Baohe Qu, Chaokou Lake, Ershibu He, Feidong Xian, Feixi Xian, Hefei, Nanfei He, Qing Xi Lu, Shiwuli He, Sili He

Safeguard Categories

Environment A
Involuntary Resettlement A
Indigenous Peoples C

Summary of Environmental and Social Aspects

Environmental Aspects Category A. An environmental impact assessment was undertaken. The summary environmental impact assessment was circulated to the Board of Directors of the Asian Development Bank (ADB) and uploaded on the ADB website on 16 November 2006.

Involuntary Resettlement The RPs have been prepared in accordance with the PRC Land Administration Law (1998), the State Council Decision to Deepen Reform and Strictly Enforce Land Administration (2004), and Asian Development Bank’s policy on Involuntary Resettlement (1995) to ensure the affected people will be better off, or at least not worse off, as a result of the Project.

Indigenous Peoples The project area has no ethnic minority groups. Of the targeted population, more than 99% belong to Han group. The small, scattered ethnic groups have been integrated into the life of Hans, with similar customs and socioeconomic activities.

Stakeholder Communication, Participation, and Consultation

During Project Design Public and stakeholder consultation and participation have been core elements during project design. The consultations, including a grievance mechanism, have been carried out during land acquisition and resettlement to allow the problems and needs of affected persons to be heard and addressed properly and in a timely manner before project implementation, and consultations will also continue during project implementation, monitoring, and evaluation. The public consultation and participation was carried out during the EIA and environmental management plan preparation and will continue throughout Project implementation.

During Project Implementation Public consultations will continue during project implementation to inform, discuss and obtain feedback on Project benefits and on affordability of possible tariff adjustments for consumers and other key stakeholders, particularly the poor. Existing policies that regulate participation and public hearings to obtain approval for tariff adjustments will be enforced and the mechanism for these consultations will be ensured. Ongoing consultations will also be carried out by the implementing agencies to understand and meet the evolving needs and expectations of Project benefits of the users and beneficiaries, as well as increase public awareness on environmental quality management. These consultations will also promote active involvement of local communities to maximize their benefit and support of the Project, promote environmental protection, and raise the social acceptance of tariff increases for environmental infrastructure services.

Business Opportunities

Consulting Services Provision has been made for 31 person-months of international and 108 person-months of national consulting services to be funded under the Project to support the PMO and IAs in project implementation and management and institutional capacity building. The international consulting firm will be recruited in accordance with Guidelines on the Use of Consultants by Asian Development Bank and its Borrowers and other arrangements satisfactory to ADB for the engagement of domestic consultants. The international consulting firm will be selected in accordance with the quality and cost based selection method using full technical proposal procedures. The scope and extent of consulting services will cover: (i) project management and construction supervision; (ii) set up of management information system (MIS) and project performance management system (PPMS); (iii) environmental management; (iv) social development; (v) financial management; (vi) operation and maintenance (O&M) of the project assets; (vii) institutional strengthening through human resources development and training.

Procurement ADB-financed equipment, materials and goods, works and services will be procured in accordance with ADB's Procurement Guidelines. Procurement will be pursued through international competitive bidding, national competitive bidding, or shopping procedures as determined by the particular circumstances of each contract package. In accordance with ADB’s Procurement Guidelines, foreign contractors may participate in bidding for national competitive bidding contracts.

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Responsible ADB Division Urban and Social Sectors Division, EARD
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Mr. Li Wuhao
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303 Hefei Finance Bureau, Anhui

Timetable

Project completed.
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Completed.
Completed.
Loan 2328-PRC

### Milestones

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#### Status of Covenants

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