Project Administration Manual

Project Number: 46078 Loan Number: LXXXX-PRC

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

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Project Administration Manual Purpose and Process

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with the government's and the Asian Development Bank (ADB) policies and procedures. The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The Huainan municipal government (executing agency); and the Huainan Municipal Sewage Company, the Huainan Municipal Administration Management Bureau, and the Huainan Landscaping Management Bureau(implementing agencies)—all managed by the Huainan Municipal Urban and Rural Construction Committee of the Huainan municipal government—are wholly responsible for the implementation of ADB-financed projects, as agreed jointly between the borrower and ADB, and in accordance with the government's and ADB policies and procedures. ADB staff is responsible to support implementation, including compliance by the executing and implementing agencies of their obligations and responsibilities for project implementation in accordance with ADB policies and procedures.

At loan negotiations, the borrower, the executing agency, and ADB shall agree to the PAM; and ensure consistency with the loan and project agreements. Such agreement shall be reflected in the minutes of the loan negotiations. In the event of any discrepancy or contradiction between the PAM, and the loan and project agreements, the provisions of the loan and project agreements shall prevail.

After ADB Board approval of the project's report and recommendations of the President, changes in implementation arrangements are subject to agreement and approval pursuant to relevant government and ADB administrative procedures (including the project administration instructions); and upon such approval, they will be subsequently incorporated in the PAM.

Abbreviations

ADB = Asian Development Bank

APEPD = Anhui Provincial Environmental Protection Department

APFD = Anhui Provincial Finance Department

APG = Anhui provincial government

CESFMT = community environment supervision and flood management team

CNY = Chinese yuan

CSS = combined sewer system

C&P = consultation and participation

EIA = environmental impact assessment

EMC = environmental monitoring center

EMP = environmental management plan

EIR = environmental impact report

FMA = financial management assessment

GAP = gender action plan

GRM = grievance redress mechanism HCWC = Huainan Capital Water Company

HMAMB = Huainan Municipal Administration Management Bureau

HMDRC = Huainan Municipal Development and Reform Commission

HMEPB = Huainan Municipal Environmental Protection Bureau

HMFB = Huainan Municipal Finance Bureau HMG = Huainan municipal government

HMLMB = Huainan Municipal Landscaping Management Bureau

HMSC = Huainan Municipal Sewage Company

HMURCC = Huainan Municipal Urban and Rural Construction Committee

ICB = international competitive bidding
ISA = International Standards on Auditing

km = kilometer

LIBOR = London interbank offered rate M&E = monitoring and evaluation

 m^2 = square meter m^3 /dav = cubic meter per dav

NCB = national competitive bidding

pm = person-month

PMO = project management office

PPMS = project performance management system

PRC = People's Republic of China

RP = resettlement plan

SOE = statement of expenditure

SPS = Safeguard Policy Statement (2009)

SSS = sanitary sewer system
TA = technical assistance

WWTP = wastewater treatment plant

I. PROJECT DESCRIPTION

A. Rationale

- 1. Huainan spans both banks of Huai River; 87 kilometers (km) of the river flow through the municipality. The total land area of the municipality is 1,895.4 square kilometers, and the total population is 2.46 million. Inadequate infrastructure development, rapid urbanization, and economic development have resulted in a heavy pollution load—mainly caused by domestic wastewater and solid waste—to the urban water system, including six urban water channels and five lakes.¹ At the same time, flood control capacity of the urban water systems is not sufficient; various locations in Huainan experience flood damage every year.
- 2. In the urban area of Huainan, two wastewater treatment plants (WWTPs) serve each of the eastern and western areas of the municipality.² Huainan Capital Water Company (HCWC) operates the WWTPs based on a 2004 concession agreement made with the Huainan municipal government (HMG). During 2000–2011, Huainan increased the sewer system length from 430 km to 679 km. Each of the two WWTPs has a treatment capacity of 100,000 cubic meters per day (m³/day). However, the eastern WWTP is treating only 90,000 m³/day of wastewater and the western WWTP 73,000 m³/day because the wastewater collection system coverage is still low—64% for the eastern urban area, and 66% for the western urban area. In addition, wastewater generated in Huainan has been increasing from 160,000 m³/day in 2009 to 228,000 m³/day in 2011. As a result, the wastewater treatment rate has remained at approximately 75%.
- 3. Huainan's urban area is served partially by a combined sewer system (CSS) and partially by a sanitary sewer system (SSS). Under the CSS, only a portion of the wastewater collected through combined sewers, together with storm water during floods, is transferred through urban water channels to the eastern or western WWTPs. Most of the wastewater is directly discharged to the lakes and Huai River without treatment. Under the SSS, wastewater collected through sanitary sewers is directly transferred to the WWTPs. Water qualities in all six water channels in the urban area are class V+ because they are used to convey both wastewater and storm water. Out of the five lakes in the urban area, water quality in Long Lake, Dajiangou Wetlands, and Shijian Lake are worse than class IV; and water quality in Gaotang Lake is class IV.³ Sludge, sediment, and solid waste have accumulated in the channels and lakes over time causing increasing deterioration of the urban water and lake environments. While many of the monitoring points of the Huainan section of Huai River are class III, some points are worse than class III at times.⁴
- 4. Huainan has two types of flooding: (i) overflows from Gaotang Lake and Huai River, and (ii) urban waterlogging.⁵ Historically, Huainan has been highly vulnerable to flooding from Huai River. Various flood control projects are being implemented to control floods, and the Huainan section of Huai River will have flood control capacity for a 1 in 100 year flood by 2015. Huainan is also vulnerable to flooding from Gaotang Lake, which occurs once every 3–4 years,

³ Currently, Caoling Lake is filled with fly ash by private companies; and is basically dried up.

¹ Untreated industrial wastewater is not being discharged into the urban water channels, lakes, or Huai River.

The urban area is the same as the project area.

Class I water has the highest quality, and class V+ water the worst. Class III water is suitable as a supply source for municipal drinking water treatment and for swimming; class IV is suitable for use as a general industrial water supply and for recreational use involving no direct human contact with the water; class V is suitable only for agricultural water supply and general landscaping use; and class V+ is unsuitable for any use (PRC Environmental Water Quality Standard GB 3838-2002).

Waterlogging occurs in low-lying areas when storm-water runoff exceeds the capacity of the drainage system.

inundating areas as extensive as 10 square kilometers. About 22,000 people currently live along the shores of Gaotang Lake. The HMG will develop a new district in this area for an additional 20,000 people in 2020 and 280,000 people in 2030. For most of the urban area in Huainan, storm-water runoff flows through the urban water channels and lakes to Huai River. Pump stations discharge storm water from lakes to Huai River. Currently, many of the urban water channels are designed for 1 in 5 year floods. However, the reduced capacity of the urban water channels due to siltation and garbage accumulation, as well as the insufficient capacity of the pump stations, still causes waterlogging almost every year.

- 5. To facilitate the development of Huainan, the HMG prepared the Huainan Municipality Master Plan, 2010–2020, which was approved by the provincial and central governments. The master plan sets targets for 2020 for the water environment (water quality in the urban water systems improved to class IV or above) and flood management (storm water management system designed to handle 1 in 20 year rain storms). The HMG therefore requested the Asian Development Bank (ADB) to provide lending support to implement and complement components of the master plan related to urban water systems.
- 6. The Twelfth Five-Year Plan (2011–2015) of the People's Republic of China (PRC) supports the long-term goal of building a *xiaokang* (harmonious and moderately prosperous) society through livelihood improvement, and regionally balanced and environmentally sustainable growth. ADB's country partnership strategy, 2011–2015 for the PRC 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 project is fully consistent with the PRC's Twelfth Five-Year Plan (footnote 7) and ADB's country partnership strategy (footnote 8) by improving urban water environment, public health, and quality of life. ADB will closely follow the government's new development plan, including the urbanization program; and ensure that the project meets the goals of the government's urbanization strategies.
- 7. ADB has been supporting projects on wastewater treatment, urban development, and flood and water resources management in the PRC and other countries. Major lessons incorporated in the project design are the importance of (i) nonstructural measures and community participation for environmental improvement and flood management, and (ii) continuous operation and maintenance (O&M) with sustainable financial sources based on a realistic and enforceable tariff structure. Other general lessons reflected in the project design are (i) sludge management; (ii) effective cross-sector coordination, (iii) capacity development of the executing, implementing, and relevant agencies; and (iv) establishment of an effective project monitoring and evaluation (M&E) system.

B. Impact and Outcome

8. The impact of the project will be an improved urban water environment, public health, and quality of life for urban residents in Huainan. The outcome will be improved management of surface water resources in Huainan.

⁶ Main components of the master plan are structural measures; nonstructural measures for water environmental improvement and flood management are not included in the master plan.

⁷ Government of the People's Republic of China, National People's Congress. 2011. *Outline of the Twelfth Five-Year Plan of the People's Republic of China*, 2011–2015. Beijing.

ADB. 2012. Country Partnership Strategy: People's Republic of China, 2011–2015. Manila.

⁹ The official guidelines for the new government development plan, including an urbanization program, are expected to be disclosed in 2013.

C. Outputs

- 9. The project will have the following outputs;¹⁰
- 10. **Output 1: Improvement of wastewater collection.** Output 1 will convert the existing CSS to SSS, and establish SSS in newly developed areas by installing new sanitary sewers. The SSS will separate wastewater and storm water, and transfer the wastewater directly to existing eastern and western WWTPs. Existing buildings and communities being served by CSS will be disconnected from combined sewers and reconnected to the newly installed sanitary sewers. Along and in the urban water channels, intercepting sewers and wells will be installed to transfer wastewater through the SSS to the WWTPs. Under output 1, (i) approximately 192 km of new sewers will be installed, including sanitary sewers, intercepting sewers, and pipes connecting communities to the sanitary sewers; (ii) 10 intercepting wells will be constructed in six urban water channels; and (iii) three wastewater pump stations will be constructed.
- 11. **Output 2: Improvement of urban water channels and flood management.** Output 2 will rehabilitate or construct 5–9 km of six urban water channels to improve the urban water environment and improve urban flood control to meet 1 in 20 year storm water by (i) removing sludge, sediment, and solid waste from the existing channels; and (ii) reconstructing or constructing the waterways, slopes, and embankments. About 10 maintenance stations will be constructed along the channels to store maintenance equipment and provide workstations for maintenance staff. To protect the project area from 1 in 20 year storm water, the flood control capacity of the existing three pump stations will be increased and four new pump stations constructed along Gaotang Lake. To protect the area along Gaotang Lake from 1 in 50 year flood from the lake, about 14.5 km of embankment will be constructed.
- 12. To improve urban flood management in Huainan, an urban flood forecasting and warning system will be procured. An associated TA will prepare an urban flood and waterlogging management master plan including arrangements of the flood forecasting and warning system, and develop the capacity of HMG staff for flood management, particularly for flood forecasting and warning. To maintain the urban water channels and improve flood

Output 1 will improve water quality in urban water channels and lakes by reducing wastewater inflow into them. Outputs 2 and 3 will improve water quality and environment in and around the channels and lakes by removing sludge, sediment, and solid waste; reducing garbage dumping; constructing wetlands, building revetments, and planting vegetation in and along the lakes; and monitoring water quality and ecological impacts. The channels improved and pump stations constructed or improved under output 2 will transmit storm water from the urban area to Gaotang Lake and Huai River, and reduce flood frequency from 1 in 5 years to 1 in 20 years.

to Gaotang Lake and Huai River, and reduce flood frequency from 1 in 5 years to 1 in 20 years.

11 After the conversion of CSS to SSS, combined sewers used for CSS will remain in operation; but only for transfer of storm water to urban water channels.

¹² For buildings and communities where property owners or developers having legal title can be identified, pipes connecting the buildings and communities to the sanitary sewers will be installed by the property owners or developers in accordance with the Urban Wastewater Discharge Permit Management Method issued by the Ministry of Construction (Order No. 152). For the other communities, pipes connecting the communities to the sanitary sewers will be installed under the project and financed under the ADB loan.

sanitary sewers will be installed under the project and financed under the ADB loan.

Pursuant to the *Agreement on the Expansion of Urban Wastewater Treatment Plant* and its amendment made between HCWC and the HMG, acting through the Huainan Municipal Urban and Rural Construction Committee, in 2012 and 2013, HCWC will expand the eastern WWTP from 100,000 m³/day to 150,000 m³/day by June 2015, and to 200,000 m³/day by 2019; and the western WWTP from 100,000 m³/day to 150,000 m³/day by 2018. These expansions are out of the project scope, but the WWTPs are associated facilities of the project.

¹⁴ For this project, "flood" includes waterlogging.

¹⁵ Disposal of the dredged sludge and sediment was assessed as part of the environmental impact assessment (accessible from the list of linked documents in Appendix 2).

management in Huainan, (i) sampling and monitoring equipment for the urban water channels will be procured; and (ii) consultants will be engaged to (a) pilot community environmental supervision and flood management teams; (b) prepare a water quality and ecological monitoring plan for the urban water channels, and develop the capacity of HMG staff for monitoring; and (c) prepare an urban water channel maintenance program, and develop the capacity of HMG staff for maintenance. Each team will comprise three community members, including at least a female member. A total of eight community environmental supervision and flood management teams will be established in model communities that are seriously affected by pollution and floods from the urban water channels. The teams will (i) raise the environmental awareness of community residents to eliminate waste dumping into the urban water channels; and (ii) disseminate the flood warning system to community residents.

- 13. **Output 3: Improvement of urban lakes.** To improve water quality and reduce pollution load, artificial wetlands will be constructed at major discharge points into the five lakes. Revetment will be constructed for Dajiangou Wetlands, Long Lake, and Shijian Lake to prevent soil erosion and capture nonpoint source pollution from around the lakes. At Gaotang Lake, revegetation will be piloted in the area between the embankment constructed under output 2 and the lake. The northern pond area of Long Lake will be dredged to remove sludge and sediment, including pollutants, and increase the storage capacity of the pond (footnote 15).
- 14. To sustain urban lake management, (i) sampling and monitoring equipment will be procured to monitor the lake water quality; and (ii) the consultants engaged under output 2 will (a) design the wetlands, select native plant species for the wetlands, and guide the management of artificial wetlands; (b) assist in piloting a revegetation scheme at Gaotang Lake, and develop HMG staff capacity for revegetation around Gaotang Lake after the project; (c) prepare lake zoning plans for Caoling Lake, Dajianguo Wetlands, and Long Lake to safeguard the natural and biodiversity values of the lakes; and (d) prepare integrated lake management plans for Gaotang Lake and Shijian Lake.
- 15. Output 4: Project management and capacity development. A project management office (PMO) and implementing agencies will (i) monitor and evaluate project impact, outcome, and outputs using the project performance management system prepared during project preparation; (ii) report project progress and key findings of monitoring through quarterly project progress reports to ADB; and (iii) submit a project completion report within 6 months after project physical completion. The project will provide the HMG and implementing agencies with project management consultants and office equipment. During project implementation, various training sessions, workshops, and domestic and international study tours will be conducted. The project management consultants will assist the PMO in conducting these capacity development activities.
- 16. **Special features.** The project includes innovative structural measures such as construction of artificial wetlands in the lakes to remove pollutants. The project complements the structural measures with various nonstructural measures, including strengthening HMG capacity for flood management, wastewater collection and treatment planning, and maintenance of the improved urban water channels. The introduction of such international best practices for urban water channel and lake pollution control and management, and flood management is ADB's value addition. In addition, extensive environmental due diligence included an assessment of potential climate change impacts and sensitivity analysis of the capacity of flood control structures¹⁶ based on climate change modeling.¹⁷ As a result, climate change adaptation

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¹⁶ Climate Change Impact (accessible from the list of linked documents in Appendix 2).

measures are included in the project and TA for strengthening urban flood management in Huainan (para. 23).¹⁸ The use of sensitivity analysis to examine potential climate change impacts and risks of flood control structures is a replicable best practice that the PRC government can apply to future projects.

Table A4.1: Project Components

Component	Quantity	Implementing Agency
Output 1: Improvement of wastewater collection		
Eastern area		
Installation of new sewers, including sewer mains, intercepting sewers, and pipes connecting buildings and communities to the sewer mains	121.640 km	
Installation of intercepting wells in urban water channels	About 10 (in both the eastern and western areas)	
Existing urban area	83.275 km	1
Binhe new district	12.860 km	1
Gaotang Lake new district	25.505 km	HMSC
Construction of wastewater pump stations	1	T HIVISC
Western area		1
Installation of new sewers (existing urban area, including sewer mains, intercepting sewers, and pipes connecting buildings and communities to the sewer mains)	70.156 km	
Installation of intercepting wells in urban water channels	About 10 (in both the eastern and western areas)	
Construction of wastewater pump stations	2	
Output 2: Improvement of urban water channels and	d flood management	
Structural measures	1 =	
Bagongshan (improvement)	7.525 km	_
Xiejiaji (improvement)	7.157 km	_
Donghua (improvement)	8.934 km	_
Old Longwang (improvement)	8.040 km	_
Longwang (improvement)	4.816 km	_
Longwang flood diversion channel (construction)	8.560 km 2.6 m ³ /s \rightarrow 30.0 m ³ /s	
Shijian Lake PS (reconstruction)		HMAMB
Long Lake PS (improvement)	$10.8 \text{ m}^3/\text{s} \rightarrow 30 \text{ m}^3/\text{s}$	_
Dajiangou PS (improvement)	$6.0 \text{ m}^3/\text{s} \rightarrow 26 \text{ m}^3/\text{s}$	_
Gaotang Lake PS No. 1 (new)	9.5 m ³ /s	_
Gaotang Lake PS No. 2 (new)	14.5 m ³ /s	_
Gaotang Lake PS No. 3 (new)	2.8 m ³ /s	4
Gaotang Lake PS No. 4 (new)	1.2 m ³ /s	4
Embankment along Gaotang Lake	14.470 km	

¹⁷ Xiaotao Cheng, Jing Wang, et al. 2008. Impacts of Climate Change on Flood Management and Drainage Improvement Project and Adaptation Options: A Case Study in the Huai River Basin. Beijing: China Institute of Water Resources and Hydropower Research.

¹⁸ Recommendations for reducing climate change risks included in the project and TA are (i) incorporate watersensitive urban design and sustainable urban drainage systems, (ii) select vegetation that is highly tolerant of climate variation, and (iii) increase awareness of climate change impacts and potential adaptation measures.

Component		Quantity	Implementing Agency
Nonstructural measures			
Equipment for water quality and ecologic]		
Equipment for flood forecasting and wa			
level gauges, manual water level monitor			
information systems, and flood warning	PMO and		
Consulting services for sustainable urba			HMAMB
preparation of water quality and ecologi			1 1111111111111111111111111111111111111
and relevant capacity development, and			
maintenance program and relevant cap			
Associated TA (preparation of urban flo			
plan, and capacity development for floo	d forecasting and	d warning)	
Output 3: Improvement of Urban Lak	es		
Structural measures			
Construction of artificial wetlands	Shijian Lake	3 (212,400 m ²)	
	Caoling Lake	1 (60,000 m ²)	
	Long Lake	1 (40,000 m ²)	
	Dajiangou	1 (18,000 m ²)	
	Wetlands	2.	
	Gaotang Lake	2 (570,000 m ²)	
Construction of revetments	Shijian Lake	25,200 m ²	
	Long Lake	2,820 m ²	_ HMLMB
	Dajiangou Wetlands	12,300 m ²	
Pilot re-vegetation along Gaotang Lake		1-km long with a variable	
		width	
Dredging in Long Lake		60,000 m ³	
Nonstructural measures			_
Equipment for water quality and ecologic			DMO and
Consulting services for sustainable urba			PMO and HMLMB
constructing, and managing artificial we along Gaotang Lake and relevant capacitations.			HIVILIVID
plans; and preparation of integrated lak			
Output 4: Project Management and C		,	
	-		T
(i) Monitor and evaluation project impac			
preparation and submission to ADB of o	uarterly project	progress reports, and (iii)	
preparation and submission to ADB of a	i project complet	ion repoπ.	4
Equipment for project management	mant augment /f-	r DDMC opuiroum antal	PMO
Consulting services for project managemanagement, land acquisition and rese			
recruitment)		d to	4
Training, workshops, and domestic and	international stu	dy tours	

ADB = Asian Development Bank, CESFMT = community environment supervision and flood management team, km = kilometer, HMAMB = Huainan Municipal Administration Management Bureau, HMLMB = Huainan Municipal Landscaping Management Bureau, HMSC = Huainan Municipal Sewage Company, m² = square meter, m³ = cubic meter, m³/s = cubic meter per second, PMO = project management office, PPMS = project performance management system, PS = pump station, TA = technical assistance. Source: ADB estimates.

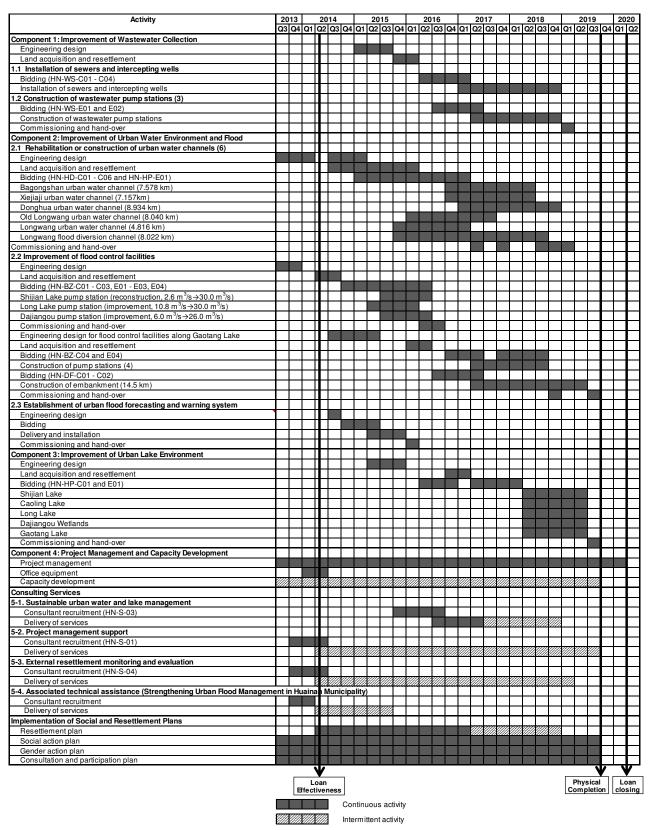
II. IMPLEMENTATION PLANS

A. Project Readiness Activities

Indicative Activities	2011 2012				2013 201					14	Who Responsible	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	1
Identification of EA/IAs												MOF and HMG
Assessment of procurement												HMG, PMO, IAs, PPTA
and financial management												consultants, and ADB
capacity of HMG and IAs												
Establishment of project	Ш											HMG
management office in HMG												
Finalization of RP and EIA												HMG, IAs, PPTA consultants
report												
Approval of RP and EIA												HMG, IAs, and ADB
report												
Selection of a tending												PMO
agency												
Preparation of a												PMO, PPTA consultants,
procurement plan and												project management
standard bidding documents												support consultants,
												tendering agency, and ADB
Preparation of draft invitation												PMO, project management
documents for recruitment of												support consultants,
consultants												tendering agency, and ADB
Approval of foreign capital												MOF, NDRC, APFD, APDRC,
utilization report and												HMG, and PMO
finaqncial bureau's opinion												
Finalization of project												PMO, PPTA consultants, and
monitoring and evaluation												ADB
indicators												
Finalization of project												PMO, PPTA consultants, and
administration manual												ADB
Advance contracting actions												PMO, project management
												support consultants,
												tendering agency, and ADB
Retroactive financing actions												PMO, project management
_												support consultants,
												tendering agency, and ADB
ADB Board approval												ADB
Loan signing												MOF, APG, HMG, and ADB
Government legal opinion												MOF, APG, and HMG
provided												
Government budget												HMG
inclusion												
Finalization of onlending												MOF, APFD, and HMFB
agreements												
Loan effectiveness												MOF, APG, HMG, and ADB

ADB = Asian Development Bank, APDRC = Anhui Provincial Development and Reform Commission, APFD = Anhui Provincial Finance Department, APG = Anhui provincial government, EA = executing agency, EIA = environmental impact assessment, HMFB = Huainan Municipal Finance Bureau, HMG = Huainan municipal government, IA = implementing agency, MOF = Ministry of Finance, NDRC = National Development and Reform Commission, PMO = project management office, PPTA = project preparatory technical assistance, RP = resettlement plan. Source: ADB.

B. Overall Project Implementation Plan



Source: Asian Development Bank.

III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations—Roles and Responsibilities

17. The HMG will be the executing agency for the project; and will be responsible for the overall project planning, management, and implementation. Under the jurisdiction of the Huainan Municipal Urban and Rural Construction Committee (HMURCC) of the HMG, the Huainan Municipal Sewage Company (HMSC) will be the implementing agency for component 1; the Huainan Municipal Administration Management Bureau (HMLMB) for component 2; and the Huainan Municipal Landscaping Management Bureau (HMLMB) for component 3.¹⁹ A project leading group has been established under the HMG to oversee the preparation and implementation of the project and to provide overall guidance for the project. The project leading group is chaired by the executive vice mayor of Huainan Municipality; and consists of senior representatives from the HMG, including the Huainan Municipal Development and Reform Commission (HMDRC), the Huainan Municipal Finance Bureau (HMFB), the HMURCC, the Huainan Municipal Water Resources Bureau, and the Huainan Municipal Environmental Protection Bureau. The PMO has been established under the project leading group. It is based in the HMDRC, and will be responsible for coordinating project preparation and implementation.

ganizations		Management Roles and Responsibilities
Executing agency—HMG	>	Conduct overall project planning, management, and implementation
Project leading group (established under the HMG)	> >	Oversee the preparation and implementation of the project Provide overall guidance for the project
Chair: Executive vice mayor of Huainan Municipality		
Members: Senior representatives from the HMG, including the HMDRC, HMFB,HMURCC, HMWB, and HMEPB		
PMO (established under the project leading group and based in the HMDRC)	A A A A A	Direct project preparation activities Manage resettlement and environmental impacts Monitor project progress and project impacts Assist the implementing agencies in implementing the project Provide ADB with (i) quarterly project progress reports, (ii) semiannual environmental monitoring reports, (iii) a project completion report, and (iv) annual audit reports Forward external resettlement M&E reports to ADB
Implementing agencies (HMAMB, HMLMB under the jurisdiction of the HMURCC of the HMG, and HMSC)	>	Implement components 1 (HMSC), 2 (HMAMB), and 3 (HMLMB) of the project and other relevant tasks, including the implementation and monitoring of the RP and EMP Provide the PMO with necessary inputs into quarterly project progress reports, semiannual environmental monitoring reports, and a project completion report Cooperate with an independent agency selected for the project in conducting external resettlement M&E
	Project leading group (established under the HMG) Chair: Executive vice mayor of Huainan Municipality Members: Senior representatives from the HMG, including the HMDRC, HMWB, and HMEPB PMO (established under the project leading group and based in the HMDRC) Implementing agencies (HMAMB, HMLMB under the jurisdiction of the HMURCC of	Executing agency—HMG Project leading group (established under the HMG) Chair: Executive vice mayor of Huainan Municipality Members: Senior representatives from the HMG, including the HMDRC, HMFB,HMURCC, HMWB, and HMEPB PMO (established under the project leading group and based in the HMDRC) Implementing agencies (HMAMB, HMLMB under the jurisdiction of the HMURCC of the HMG, and HMSC)

¹⁹ HMSC is responsible for collection and transfer of wastewater and storm water; and treatment of wastewater, including planning, designing, construction, and O&M.

Project Implementation Organizations	Management Roles and Responsibilities
	 Establish and maintain the required project accounting arrangements and other implementation recording systems Operate and maintain the facilities constructed or improved under the project
• ADB	 Facilitate overall project administration Provide orientations to the HMG, including the PMO and implementing agencies Disburse ADB loan proceeds

ADB = Asian Development Bank, EMP = environmental management plan, HMAMB = Huainan Municipal Administration Management Bureau, HMDRC = Huainan Municipal Development and Reform Commission, HMEPB = Huainan Municipal Environmental Protection Bureau, HMFB = Huainan Municipal Finance Bureau, HMG = Huainan municipal government, HMLMB = Huainan Municipal Landscaping Management Bureau, HMSC = Huainan Municipal Sewage Company, HMURCC = Huainan Urban and Rural Construction Committee, HMWB = Huainan Municipal Water Resources Bureau, M&E = monitoring and evaluation, PMO = project management office, RP = resettlement plan.

Source: ADB.

B. **Key Persons Involved in Implementation**

Executing Agency

Huainan municipal government

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Mr. Chen Xuehai

Deputy Director, HMDRC

Executive Deputy Director, PMO Telephone No.: +86 0554-6647581

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Mr. Ding Likun

Deputy Director, HMURCC

Deputy Director, PMO

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Deputy Secretary, Huainan Municipal Finance Bureau

(HMFB)

Deputy Director, PMO

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5th floor Municipal Government Building No. 88 Hefeng Street, Shannan New District

Huainan Municipality, Anhui Province

ADB

Environment, Natural Resources, and& Agricultural Division (EAER), East Asia Department (EARD) Yue-Lang Feng

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Manila, Philippines

Mission Leader Yoshiaki Kobayashi

Senior Water Resources Specialist, EAER, EARD, ADB Telephone No.: +63 2 632 5584 (direct)/6255 (assistant)

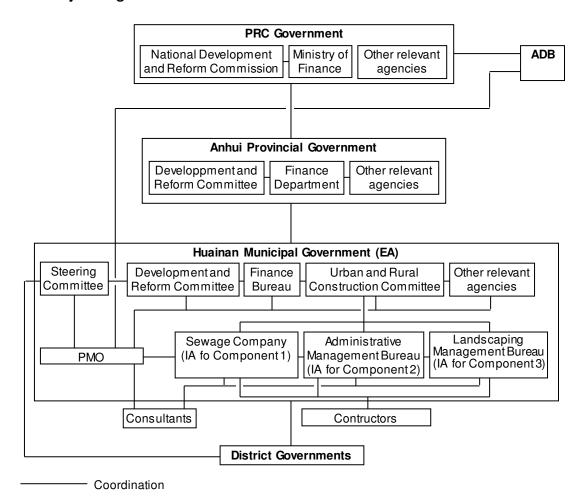
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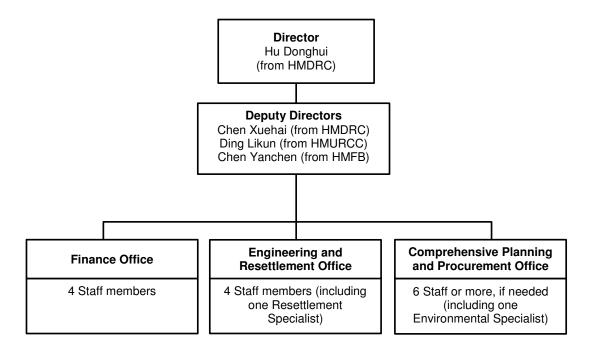
Manila, Philippines

C. Project Organization Structure



ADB = Asian Development Bank, PRC = People's Republic of China, EA = executing agency, IA = implementing agency, PMO = project management office. Source: ADB.

Organizational Chart of Project Management Office



HMDRC = Huainan Municipal Development and Reform Commission, HMFB = Huainan Municipal Finance Bureau, HMURCC = Huainan Municipal Urban and Rural Construction Committee. Source: Asian Development Bank.

IV. COSTS AND FINANCING

18. This section describes the project costs, categories, and components to be financed by ADB and the HMG. Loan proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2012, as amended from time to time), and subject to the provisions of the loan and project agreements.

A. Investment and Financing Plans

19. The project is estimated to cost \$343.33 million, including contingencies (\$48.21 million); financing charges during implementation (\$6.73 million); and taxes and duties (\$15.40 million). The investment plan is summarized in Table A4.2 below.

Table A4.2: Project Investment Plan

(\$ million) Item Amount^a A. Base Cost^b Improvement of wastewater collection 65.36 Improvement of urban water channels and flood management 201.50 Improvement of urban lakes 19.26 3. Project management and capacity development 2.28 Subtotal (A) 288.40 **Contingencies**^c В. 48.21 Financing Charges During Implementation^d C. 6.73 Total (A+B+C) 343.33

Note: Numbers may not sum precisely because of rounding.

^c Physical contingencies were computed at 8.0% of base costs. Price contingencies were computed at an average of 1.9% on foreign exchange costs, and an average of 3.1% on local currency costs; and include provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

Source: ADB estimates.

20. The government has requested a loan of \$150 million,²⁰ including taxes and duties,²¹ from ADB's ordinary capital resources to help finance the project. The loan will have a 25-year term, including a grace period of 5 years; annuity repayment method with 10% discount factor; an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility; a commitment charge of 0.15% per year; the interest and other charges during construction to be capitalized in the loan; and such other terms and conditions set forth in the draft loan and project agreements. Based on these, the average loan maturity is 18.31 years; and the maturity premium payable to ADB is 0.20% per annum. The government

lnclude funds for services, such as transportation and insurance, related to goods (equipment and materials) that are material and relevant to the success of the project.
 The calculation of taxes and duties to be financed under the project is based on the following principles: (i) the

^a Includes taxes and duties of \$15.40 million to be financed from the Asian Development Bank (ADB) loan (\$7.22 million) and the government's own resources (\$8.18 million).

b In March 2013 prices.

d Includes interest and commitment charges. Interest during construction for the ADB loan was computed at the 5-year forward London interbank offered rate (LIBOR) plus a spread of 0.4% and maturity premium of 0.2%. Commitment charges for the ADB loan were computed at 0.15% per year to be charged on the undisbursed loan amount.

²¹ The calculation of taxes and duties to be financed under the project is based on the following principles: (i) the amount of taxes and duties financed by the ADB loan should not represent an excessive share of the project investment plan, (ii) the taxes and duties should apply only to ADB-financed expenditures, and (iii) the financing of taxes and duties should be material and relevant to the success of the project.

has provided ADB with (i) the reasons for its decision to borrow under ADB's LIBOR-based lending facility on the basis of these terms and conditions; and (ii) an undertaking that these choices were its own independent decision, and not made in reliance on any communication or advice from ADB.

21. The financing plan is in Table A4.3. The ADB loan will finance 43.7% of the project cost (base cost, including taxes and duties). The HMG will finance 56.3% (base cost, including taxes and duties; costs for land acquisition, resettlement, and environmental protection; and physical and price contingencies). The PRC will be the borrower of the loan; and will make the entire proceeds available to the Anhui provincial government (APG), and hence to the HMG. The loan proceeds made available to the APG, and the HMG will carry the same terms and conditions as those of the ADB loan. The HMG will assume the foreign exchange and interest rate variation risks on the ADB loan. Counterpart funds will be self-financed by the HMG.

Table A4.3: Financing Plan

	Amount	Share of
Source	(\$ million)	Total (%)
Asian Development Bank	150.00	43.69
Huainan municipal government	193.33	56.31
Total	343.33	100.00

Source: Asian Development Bank estimates.

(\$ Million)

B. Detailed Cost Estimates by Expenditure Category

			CNY Million)		(\$ Million)				
	Item	Foreign Currency	Local Currency	Total Cost	Foreign Currency	Local Currency	Total Cost ^a	% of Base Cost	% of Total Cost
Α.	Investment Cost ^D								
	1. Civil works								
	a. Improvement of wastewater collection	124.24	230.73	354.97	20.04	37.21	57.25	20%	17%
	 b. Improvement of urban water channels and flood management 	261.41	485.48	746.89	42.16	78.30	120.47	42%	35%
	c. Improvement of urban lakes	24.84	46.12	70.96	4.01	7.44	11.45	4%	3%
	2. Equipment								
	a. Improvement of wastewater collection	6.67	4.44	11.11	1.08	0.72	1.79	1%	1%
	 b. Improvement of urban water channels and flood management 	73.67	49.11	122.78	11.88	7.92	19.80	7%	6%
	c. Improvement of urban lakes	0.87	0.58	1.45	0.14	0.09	0.23	0%	0%
	d. Project management ^c	0.62	0.00	0.62	0.10	0.00	0.10	0%	0%
	Land acquisition and resettlement	0.00	273.91	273.91	0.00	44.18	44.18	15%	13%
	4. Social and environmental monitoring costs	0.00	4.56	4.56	0.00	0.74	0.74	0%	0%
	5. Survey, design, and supervision	0.00	187.29	187.29	0.00	30.21	30.21	10%	9%
	6. Consultants								
	a. Sustainable urban water and lake management	3.10	0.00	3.10	0.50	0.00	0.50	0%	0%
	b. Project management support	5.58	0.00	5.58	0.90	0.00	0.90	0%	0%
	c. External resettlement monitoring and evaluation	0.87	0.00	0.87	0.14	0.00	0.14	0%	0%
	d. Initial project management support by an individual consultant	0.00	0.25	0.25	0.00	0.04	0.04	0%	0%
	7. Training, study tours, conferences, and workshops ^a	3.72	0.00	3.72	0.60	0.00	0.60	0%	0%
	Subtotal (A)	505.58	1,282.49	1,788.07	81.55	206.85	288.40	100%	84%
	Total Base Cost	505.58	1,282.49	1,788.07	81.55	206.85	288.40	100%	84%
В.	Contingencies ^e								
	1. Physical	39.34	98.56	137.90	6.34	15.90	22.24	8%	6%
	2. Price	25.21	135.77	160.98	4.07	21.90	25.96	9%	8%
	Subtotal (B)	64.54	234.33	298.88	10.41	37.80	48.21	17%	14%
C.	Financing Charges During Implementation ¹								
	Interest during construction	38.63	0.00	38.63	6.23	0.00	6.23	2%	2%
	2. Commitment charges	3.08	0.00	3.08	0.50	0.00	0.50	0%	0%
	Subtotal (C)	41.71	0.00	41.71	6.73	0.00	6.73	2%	2%
	Total Project Cost (A+B+C)	611.83	1,516.82	2,128.65	98.68	244.65	343.33	119%	100%
Λ.Γ	R - Asian Davalanment Rank		•						

(CNV Million)

ADB = Asian Development Bank.

Note: Numbers may not sum precisely because of rounding.

Includes taxes and duties of \$15.40 million, of which \$8.18 million to be financed by government; and \$7.22 million using ADB resources. The following principles were followed in determining the amount of taxes and duties to be financed by ADB: (i) the amount is within reasonable country thresholds, (ii) the amount does not represent an excessive share of the project investment plan, (iii) taxes and duties apply only to ADB-financed expenditures, and (iv) the financing of the taxes and duties is material and relevant to the success of the project.

b In March 2013 prices.

^c Office equipment for project management.

d Costs for study tours should be incurred in ADB member countries.

Physical contingencies are computed at 8%. Price contingencies are computed at 1.9% for 2013, 2.2% for 2014, 1.9% for 2015, and 1.8% thereafter on foreign exchange costs; and at 3.5% for 2013 and 3.0% thereafter on local currency costs. Contingencies include provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

Includes interest and commitment charges. Interest during construction for the ADB loan was computed at the 5-year forward London interbank offered rate (LIBOR) plus a spread of 0.4% and maturity premium of 0.2%. Commitment charges for the ADB loan were computed at 0.15% per year to be charged on the undisbursed loan amount.

C. **Allocation and Withdrawal of Loan Proceeds**

	ALLOCATION AND WITHDRAWAL OF LOAN PROCEEDS (Anhui Huainan Urban Water Systems Integrated Rehabilitation Project)								
	(/amarriaaman orban	Total Amor	unt Allocated Financing (\$)	Percentage and Basis for Withdrawal from the Loan					
Number	Item	Category Subcategory		Account					
1	Works	119,203,000							
1A	Improvement of Wastewater Collection		36,078,000	63% of total expenditure claimed					
1B	Improvement of Urban Water Channels and Flood Management		75,913,000	63% of total expenditure claimed					
1C	Improvement of Urban Lakes		7,212,000	63% of total expenditure claimed					
2	Equipment ^a	21,930,000							
2A	Improvement of Wastewater Collection		1,792,000	100% of total expenditure claimed					
2B	Improvement of Urban Water Channels and Flood Management		19,804,000	100% of total expenditure claimed					
2C	Improvement of Urban Lakes		234,000	100% of total expenditure claimed					
2D	Project Management		100,000	100% of total expenditure claimed					
3	Consultants	1,540,000		1001					
ЗА	Sustainable Urban Water and Lake Management		500,000	100% of total expenditure claimed					
3B	Project Management Support		900,000	100% of total expenditure claimed					
3C	External Resettlement Monitoring and Evaluation		140,000	100% of total expenditure claimed					
4	Training, Study Tours, Conferences, and Workshops	600,000		100% of total expenditure claimed					
5	Interest and Commitment Charges	6,727,000		100% of total amount due					
	Total	150,000,000							

ADB = Asian Development Bank.

a Including insurance and transportation cost.
Source: ADB estimates.

D. Detailed Cost Estimates by Financier

	•			(\$ million)		
			ADB		HMG	
N o.	Item	Amount	% of Cost Category	Amount	% of Cost Category	Total ^a
Α.	Investment Cost ^D					
	1. Civil works					
	a. Improvement of wastewater collection	36.08	63%	21.17	37%	57.25
	 b. Improvement of urban water channels and flood management 	75.91	63%	44.55	37%	120.47
	c. Improvement of urban lakes	7.21	63%	4.23	37%	11.45
	2. Equipment					
	a. Improvement of wastewater collection	1.79	100%	0.00	0%	1.79
	 b. Improvement of urban water channels and flood management 	19.80	100%	0.00	0%	19.80
	c. Improvement of urban lakes	0.23	100%	0.00	0%	0.23
	d. Project management ^c	0.10	100%	0.00	0%	0.10
	Land acquisition and resettlement	0.00	0%	44.18	100%	44.18
	Social and environmental monitoring costs	0.00	0%	0.74	100%	0.74
	5. Survey, design, and supervision	0.00	0%	30.21	100%	30.21
	6. Consultants					
	a. Sustainable urban water and lake management	0.50	100%	0.00	0%	0.50
	b. Project management support	0.90	100%	0.00	0%	0.90
	c. External resettlement monitoring and evaluation	0.14	100%	0.00	0%	0.14
	d. Initial project management support by an individual consultant	0.00	0%	0.04	100%	0.04
	7. Training, study tours, conferences, and workshops ^d	0.60	100%	0.00	0%	0.60
	Subtotal (A)	143.27	50%	145.12	50%	288.40
В.	Contingencies ^e					
	1. Physical	0.00	0%	22.24	100%	22.24
	2. Price	0.00	0%	25.96	100%	25.96
	Subtotal (B)	0.00	0%	48.21	100%	48.21
C.	Financing Charges During Implementation					
	Interest during construction	6.23	100%	0.00	0%	6.23
	2. Commitment charges	0.50	100%	0.00	0%	0.50
	Subtotal (C)	6.73	100%	0.00	0%	6.73
	Total Project Cost (A+B+C)	150.00	44%	193.33	56%	343.33
	% of Total Project Cost	44%		56%		

ADB = Asian Development Bank, HMG = Huainan municipal government.

Note: Numbers may not sum precisely because of rounding.

a Includes taxes and duties of \$15.40 million, of which \$8.18 million to be financed by government; and \$7.22 million using ADB resources. The following principles were followed in determining the amount of taxes and duties to be financed by ADB: (i) the amount is within reasonable country thresholds, (ii) the amount does not represent an excessive share of the project investment plan, (iii) taxes and duties apply only to ADB-financed expenditures, and (iv) the financing of the taxes and duties is material and relevant to the success of the project.

b In March 2013 prices.

^c Office equipment for project management.

d Costs for study tours should be incurred in ADB member countries.

Physical contingencies are computed at 8%. Price contingencies are computed at 1.9% for 2013, 2.2% for 2014, 1.9% for 2015, and 1.8% thereafter on foreign exchange costs; and at 3.5% for 2013 and 3.0% thereafter on local currency costs. Contingencies include provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

Includes interest and commitment charges. Interest during construction for the ADB loan was computed at the 5-year forward London interbank offered rate (LIBOR) plus a spread of 0.4% and maturity premium of 0.2%. Commitment charges for the ADB loan were computed at 0.15% per year to be charged on the undisbursed loan amount.

E. Detailed Cost Estimates by Outputs/Components

		(\$ million)								
			Wast	ement of ewater ection	Improvement of Urban Water Channels and Flood Management		•	ement of Lakes	Manaç Suppo Cap	pject gement ort and acity opment
				% of		% of		% of		% of
		Total		Cost		Cost		Cost		Cost
	Item	Costa	Amount	Category	Amount	Category	Amount	Category	Amount	Category
Α.	Investment Cost ^D									
	1. Civil works	189.16	57.25	30%	120.47	64%	11.45	6%	0.00	0%
	2. Equipment	21.93	1.79	8%	19.80	90%	0.23	1%	0.10	0%
	3. Land acquisition and resettlement	44.18	1.37	3%	36.08	82%	6.73	15%	0.00	0%
	4. Social and environmental monitoring costs	0.74	0.17	23%	0.52	70%	0.05	7%	0.00	0%
	5. Survey, design, and supervision	30.21	4.78	16%	24.64	82%	0.79	3%	0.00	0%
	6. Consultants									
	a. Sustainable urban water and lake management	0.50	0.00	0%	0.00	0%	0.00	0%	0.50	100%
	b. Project management support	0.90	0.00	0%	0.00	0%	0.00	0%	0.90	100%
	c. External resettlement monitoring and evaluation	0.14	0.00	0%	0.00	0%	0.00	0%	0.14	100%
	d. Initial project management support by an individual consultant	0.04	0.00	0%	0.00	0%	0.00	0%	0.04	100%
	7. Training, study tours, conferences, and workshops ^c	0.60	0.00	0%	0.00	0%	0.00	0%	0.60	100%
	Subtotal (A)	288.40	65.36	23%	201.50	70%	19.26	7%	2.28	1%
В.	Contingencies ^d									
	1. Physical	22.24	5.12	23%	16.12	72%	1.00	5%	0.00	0%
	2. Price	25.96	6.48	25%	17.90	69%	1.58	6%	0.00	0%
	Subtotal (B)	48.21	11.60	24%	34.02	71%	2.58	5%	0.00	0%
C.	Financing Charges During Implementation ⁶									
	Interest during construction	6.23	1.61	26%	4.32	69%	0.31	5%	0.00	0%
	2. Commitment charges	0.50	0.14	28%	0.33	66%	0.03	6%	0.00	0%
	Subtotal (C)	6.73	1.75	26%	4.64	69%	0.34	5%	0.00	0%
	Total Project Cost (A+B+C)	343.33	78.71	23%	240.17	70%	22.18	6%	2.28	1%
	% of Total Project Cost		23%		70%		6%		1%	
	Asian Davidanment Book									

(\$ million)

ADB = Asian Development Bank.

Notes: Numbers may not sum precisely because of rounding.

a Includes taxes and duties of \$15.40 million, of which \$8.18 million to be financed by government; and \$7.22 million using ADB resources. The following principles were followed in determining the amount of taxes and duties to be financed by ADB: (i) the amount is within reasonable country thresholds, (ii) the amount does not represent an excessive share of the project investment plan, (iii) taxes and duties apply only to ADB-financed expenditures, and (iv) the financing of the taxes and duties is material and relevant to the success of the project.

b In March 2013 prices.

^c Costs for study tours should be incurred in ADB member countries.

d Physical contingencies are computed at 8%. Price contingencies are computed at 1.9% for 2013, 2.2% for 2014, 1.9% for 2015, and 1.8% thereafter on foreign exchange costs; and at 3.5% for 2013 and 3.0% thereafter on local currency costs. Contingencies include provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

e Includes interest and commitment charges. Interest during construction for the ADB loan was computed at the 5-year forward London interbank offered rate (LIBOR) plus a spread of 0.4% and maturity premium of 0.2%. Commitment charges for the ADB loan were computed at 0.15% per year to be charged on the undisbursed loan amount.

F. Detailed Cost Estimates by Year

		(\$ million)					
N o.	Item	Total Cost ^a	Year 1	Year 2	Year 3	Year 4	Year 5
Α.	Investment Cost ^o						
	1. Civil works						
	a. Improvement of wastewater collection	57.25	0.00	11.45	17.18	17.18	11.45
	b. Improvement of urban water channels and flood management	120.47	0.00	24.09	36.14	36.14	24.09
	c. Improvement of urban lakes	11.45	0.00	2.29	3.43	3.43	2.29
	2. Equipment						
	a. Improvement of wastewater collection	1.79	0.00	0.36	0.54	0.54	0.36
	 b. Improvement of urban water channels and flood management 	19.80	0.00	3.96	5.94	5.94	3.96
	c. Improvement of urban lakes	0.23	0.00	0.05	0.07	0.07	0.05
	d. Project management ^c	0.10	0.00	0.02	0.03	0.03	0.02
	Land acquisition and resettlement	44.18	26.51	17.67	0.00	0.00	0.00
	Social and environmental monitoring costs	0.74	0.00	0.15	0.22	0.22	0.15
	5. Survey, design, and supervision	30.21	4.53	6.04	6.04	7.55	6.04
	6. Consultants						
	a. Sustainable urban water and lake management	0.50	0.10	0.10	0.10	0.10	0.10
	b. Project management support	0.90	0.15	0.19	0.19	0.19	0.19
	c. External resettlement monitoring and evaluation	0.14	0.03	0.03	0.03	0.03	0.03
	d. Initial project management support by an individual consultant	0.04	0.04	0.00	0.00	0.00	0.00
	 Training, study tours, conferences, and workshops^σ 	0.60	0.12	0.12	0.12	0.12	0.12
	Subtotal (A)	288.40	31.47	66.52	70.03	71.54	48.84
В.	Contingencies ^e						
	1. Physical	22.24	2.09	5.54	5.91	5.17	3.52
	2. Price	25.96	1.11	4.24	6.27	7.69	6.66
	Subtotal (B)	48.21	3.20	9.78	12.18	12.86	10.18
C.	Financing Charges During Implementation ¹						
	Interest during construction	6.23	0.00	0.57	1.34	1.95	2.37
	2. Commitment charges	0.50	0.21	0.16	0.09	0.04	0.00
	Subtotal (C)	6.73	0.21	0.73	1.43	1.99	2.37
	Total Project Cost (A+B+C)	343.33	34.89	77.03	83.64	86.38	61.40
	% of Total Project Cost		10%	22%	24%	25%	18%
ADR	– Asian Develonment Bank						

ADB = Asian Development Bank.

Notes: Numbers may not sum precisely because of rounding.

a Includes taxes and duties of \$15.40 million, of which \$8.18 million to be financed by government; and \$7.22 million using ADB resources. The following principles were followed in determining the amount of taxes and duties to be financed by ADB: (i) the amount is within reasonable country thresholds, (ii) the amount does not represent an excessive share of the project investment plan, (iii) taxes and duties apply only to ADB-financed expenditures, and (iv) the financing of the taxes and duties is material and relevant to the success of the project.

b In March 2013 prices.

^c Office equipment for project management.

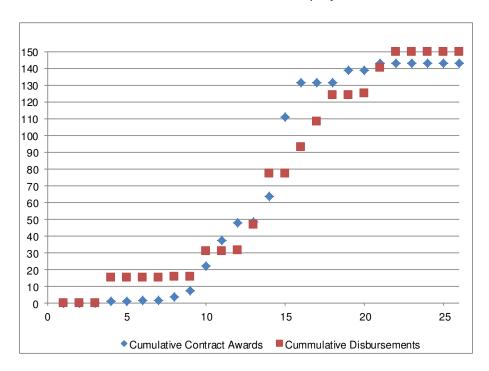
d Costs for study tours should be incurred in ADB member countries.

Physical contingencies are computed at 8%. Price contingencies are computed at 1.9% for 2013, 2.2% for 2014, 1.9% for 2015, and 1.8% thereafter on foreign exchange costs; and at 3.5% for 2013 and 3.0% thereafter on local currency costs. Contingencies include provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

Includes interest and commitment charges. Interest during construction for the ADB loan was computed at the 5-year forward London interbank offered rate (LIBOR) plus a spread of 0.4% and maturity premium of 0.2%. Commitment charges for the ADB loan were computed at 0.15% per year to be charged on the undisbursed loan amount.

G. Contract and Disbursement S-curve

22. This graph shows contract awards and disbursement over the life of the project, and annually based on the contract awards and disbursement projections.²²



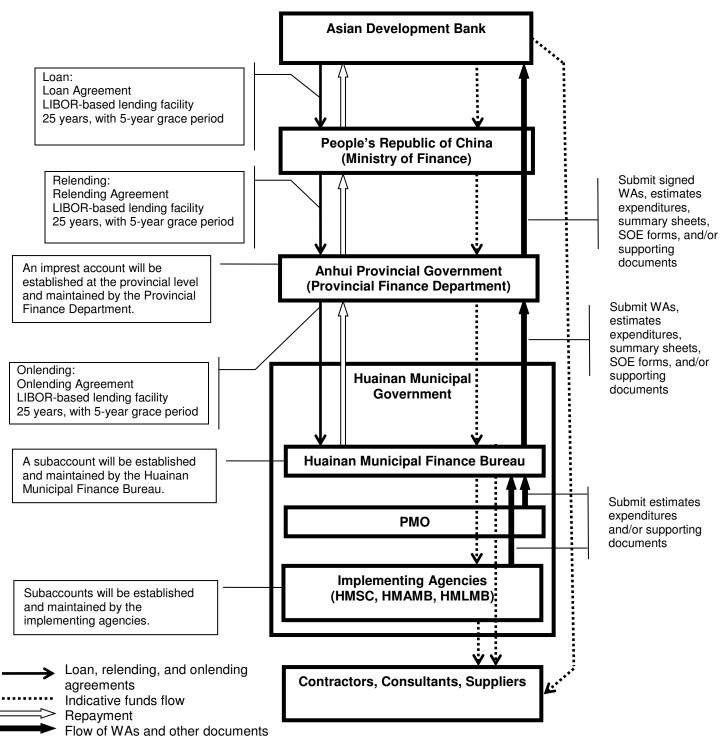
Contract Awards and Disbursements (\$ million)

	Contract Awards and Disbursements (# Illinoin)						
Year	Quarter	Cumulative Contract Awards	Cumulative Disbursements				
2013	1	0.0	0.0				
2014	2	0.0	0.0				
	3	1.1	15.0				
	4	1.1	15.0				
2015	5	1.3	15.2				
	6	1.3	15.2				
	7	3.7	15.6				
	8	7.3	15.6				
2016	9	21.8	30.9				
	10	37.6	30.9				
	11	47.8	31.7				
	12	48.3	46.7				
2017	13	63.7	77.4				
	14	111.2	77.4				
	15	131.5	93.4				
	16	131.5	108.4				
2018	17	131.6	124.4				
	18	138.9	124.4				
	19	138.9	125.5				
	20	143.1	140.5				
2019	21	143.3	150.0				
	22	143.3	150.0				
	23	143.3	150.0				
	24	143.3	150.0				
2020	25	143.3	150.0				
	26	143.3	150.0				

Total amount of disbursement is \$150.00 million, while total amount of contract awarded is \$143.27 million because the financing charges during implementation of \$6.73 million will be financed under the loan.

H. Fund Flow Diagram

ONLENDING ARRANGEMENTS AND INDICATIVE FUNDS FLOW



HMAMB = Huainan Municipal Administration Management Bureau, HMLMB = Huainan Municipal Landscaping Management Bureau, HMSC = Huainan Municipal Sewage Company, LIBOR = London interbank offered rate, PMO = project management office, SOE = statement of expenditure, WA = withdrawal application. Source: Asian Development Bank.

V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

- 23. Financial management assessment (FMA) of the executing and implementing agencies has been conducted for the project in accordance with ADB's Financial Management and Analysis of Projects²³ and the publication, Financial Due Diligence—A Methodology Note.²⁴ The FMA includes review of executing and implementing agencies, funds flow arrangement, the staff of finance, accounting policies and procedures (segregation of duties, budgeting system, payments, policies and procedures, cash and banking, safeguarding assets, other offices and implementing agencies), internal and external auditing, reporting and monitoring, and information systems. The instrument used for the assessment was ADB's FMA questionnaire.
- 24. The executing agency, HMG, including the PMO and implementing agencies—HMAMB, HMLMB, and HMSC—have been assessed respectively. The guidelines describe the approach prescribed by ADB in undertaking an FMA which involves the following steps: (i) use a standard questionnaire to assess the financial management of the executing and implementing agencies; (ii) based on the results of the questionnaire, identify issues for future review; and (iii) identify appropriate financial covenants to monitor financial conditionalities of the project for which the executing and implementing agencies would be responsible.
- 25. The Anhui Provincial Finance Department (APFD) has extensive experience in administering foreign-financed projects, including ADB-financed projects. The HMFB, the PMO, and the implementing agencies—HMAMB, HMLMB, and HMSC—have been assessed respectively. The assessment concluded that (i) there are established financial management policies in the PRC, which are followed strictly by the HMFB, the PMO, and the implementing agencies—HMAMB, HMLMB, and HMSC; (ii) the HMFB has strong financial management capacity and extensive experience in administering foreign-financed projects; (iii) the HMSC has sound financial management capability and is experienced in managing foreign-funded and locally-funded projects; and (iv) the HMAMB and HMLMB only have experience in locally-financed projects. Training and support will be required on ADB policies and procedures, including disbursement and project management, especially for the HMAMB and HMLMB.
- 26. The FMA recommended capacity development measures to ensure that the implementing agencies are able to meet the project's financial management requirements. It was proposed that the implementing agencies would strengthen their financial management capability to manage the project components, including (i) undertaking training, particularly on ADB policy and procedural requirements by invited experts from ADB's PRC Resident Mission and experienced consultants; (ii) move staff who have experience in handling foreign funds from other agencies within the HMG to the finance sections of the implementing agencies; (iii) hiring additional finance staff, as needed; and appointing finance staff to manage project accounts; and (iv) seeking external financial management assistance, as needed, such as assistance from the APFD and the HMFB. The PMO has committed to assist the two implementing agencies in strengthening their financial management capacities to manage the project before project implementation. The summary of the measures to mitigate the identified financial management risks, including the time frame to implement and the responsible office, are detailed in the table below.

²³ ADB. 2005. Financial Management and Analysis of Projects. Manila.

²⁴ ADB. 2009. Financial Due Diligence A Methodology Note. Manila.

		Responsible					
Activity	Participants	Agency	Timeframe				
	EA and IAs strengthen their financial management capability to manage the project.						
Undertake training, particularly on ADB policies and procedural requirements	Finance staff of the EA, the PMO, and three IAs	ADB HQ and PRCM, consultants	Before the start of project implementation				
Hire finance additional staff, preferably with experienced on foreign-assisted projects; and appoint finance staff to manage project accounts		HMG/HMFB/IAs	October–December 2013				
Seek internal and external financial management assistance, as needed		HMG/HMFB/IAs	During project implementation (2013–2018)				
Update financial management policies to meet the requirements of ADB		HMG/HMFB/IAs	During project implementation (2014–2018)				

ADB = Asian Development Bank, EA = executing agency, HMFB = Huainan Municipal Finance Bureau, HMG = Huainan municipal government, HQ = headquarter, IA = implementing agency, PMO = project management office, PRCM = ADB's Resident Mission in the People's Republic of China. Source: ADB.

27. The overall financial management risk rating of the project is moderate. The identified risks in financial management will be closely monitored during project implementation.

B. Disbursement

- 28. The loan proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2012, as amended from time to time),²⁵ and detailed arrangements agreed upon between the government and ADB.
- 29. Pursuant to ADB's Safeguard Policy Statement (2009),²⁶ ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the Safeguard Policy Statement. All financial institutions will ensure that their investments are in compliance with applicable national laws and regulations, and will apply the prohibited investment activities list in Appendix 5 to the components financed by ADB.
- 30. The HMFB, on behalf of the HMG, will be responsible for (i) preparing disbursement projections; (ii) requesting budgetary allocations for counterpart funds; (iii) collecting supporting documents; and (iv) preparing and sending withdrawal applications to ADB.
- 31. The PRC will be the borrower of the loan. The PRC will make the loan proceeds available to the APG. The APG will make the loan proceeds available to the HMG. The loan proceeds made available to the APG, and the HMG will carry the same terms and conditions as those of the ADB loan. The HMG will assume the foreign exchange and interest rate variation risks on the ADB loan. Counterpart funds will be self-financed by the HMG.
- 32. To facilitate project implementation through timely release of loan proceeds, the APFD—on behalf of the HMG —will establish an imprest account in a commercial bank acceptable to ADB promptly after loan effectiveness;²⁷ and will administer the imprest account. The maximum

²⁶ Available at: http://www.adb.org/Documents/Policies/Safeguards/Safeguard-Policy-Statement-June2009.pdf

²⁷ The bank charges on the imprest account will be financed from the proceeds of the loan.

²⁵ Available at: http://www.adb.org/documents/loan-disbursement-handbook

ceiling of the imprest account is 10% of the loan amount. The currency of the imprest account will be US dollar. The imprest account is to be used exclusively for ADB's share of eligible expenditures. The HMFB, on behalf of the HMG as the executing agency; and the three implementing agencies will establish subaccounts to receive funds transferred from the imprest account. The APFD is accountable and responsible for proper use of advances to the imprest account, including advances to the subaccounts. The APFD may request for initial and additional advances to the imprest account based on an estimate of expenditure sheet setting out the estimated expenditures to be financed through the imprest account for the forthcoming 6 months. For every liquidation and replenishment request of the imprest account, the APFD will furnish to ADB (i) statement of account (bank statement) where the imprest account is maintained; and (ii) the imprest account reconciliation statement reconciling the abovementioned bank statement against the APFD's records. Supporting documents should be submitted to ADB or retained by the APFD in accordance with ADB's Loan Disbursement Handbook (footnote 18) when liquidating or replenishing the imprest account.

- 33. The direct payment procedures will apply for the large works contracts. If the government initially funds eligible expenditures from its own resources, the reimbursement procedure will be used. To expedite flow of funds and simplify the documentation process, ADB's statement of expenditure (SOE) procedure will be used for liquidation and replenishment of the imprest account; and for reimbursement of eligible expenditures not exceeding \$200,000 equivalent per individual payment. The payments in excess of the SOE ceiling will be reimbursed, liquidated, or replenished based on full supporting documentation. SOE records should be maintained and made readily available for review by ADB's disbursement and review mission; or upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit.²⁸
- 34. Before the submission of the first withdrawal application, the Ministry of Finance should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the borrower, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is \$100,000 equivalent, unless otherwise approved by ADB. Individual payments below this amount should generally be paid from the imprest account, or by the HMG or the implementing agencies; and subsequently claimed to ADB through reimbursement. ADB reserves the right not to accept withdrawal applications below the minimum amount. Withdrawal applications and supporting documents must demonstrate among other things that the goods and/or services were produced in or from ADB members, and are eligible for ADB financing.
- 35. Funds flow and disbursement arrangements between the APG (including APFD) and the HMG (including the PMO and implementing agencies), contractors, suppliers, and consultants are detailed in the table below.

Procedures	Funds Flow and Disbursement Arrangements					
Direct Payment	(i) Each implementing agency will collect required supporting documents from contractors and/or suppliers, and send them to the HMFB. For consulting services and equipment which will be directly engaged or procured by the PMO, the HMFB will collect required supporting documents from consultants and/or suppliers directly or through the PMO.					
	(ii) The HMFB will submit to the APFD a withdrawal application together with a summary sheet and the required supporting documents.					

²⁸ SOE forms are available in Appendix 9B of ADB's *Loan Disbursement Handbook* (footnote 18).

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Procedures Funds Flow and Disbursement Arrangements						
(iii) The APFD will sign the withdrawal application and the summary sheet						
	` ′	submit them to ADB together with the required supporting documents.				
	(iv)	ADB will pay the contractors, consultants, and/or suppliers directly.				
Reimbursement	(i)	The implementing agencies and/or the PMO will initially fund eligible				
	()	expenditures from their own resources.				
	(ii)	Each implementing agency will collect required supporting documents from				
	(,	contractors and/or suppliers, and send them to the HMFB. For consulting				
		services and equipment which will be directly engaged or procured by the PMO,				
		the HMFB will collect required supporting documents from consultants and/or				
		suppliers directly or through the PMO.				
	(iii)	The HMFB will submit to the APFD a withdrawal application together with (a) a				
	()	summary sheet and the required supporting documents for those expenditures				
		that exceed \$200,000 per individual payment, and/or (b) a SOE form for those				
		expenditures that do not exceed \$200,000 per individual payment. For those				
		expenditures that do not exceed \$200,000 per individual payment, the HMFB will				
		not have to submit the required supporting documents to the APFD; but should				
		maintain such documents and make them available for ADB review upon				
		request.				
	(iv)	The APFD will sign (a) the withdrawal application, and (b) the summary sheet				
	(10)	and/or the SOE form; and submit them to ADB, together with the required				
		supporting documents, if any (only for those expenditures that exceed \$200,000				
		per individual payment).				
	(11)					
	 (v) ADB will disburse loan proceeds to the APFD. (vi) The APFD will transfer the loan proceeds to the HMFB. The HMFB will reim the expenditures and/or transfer the loan proceeds to the relevant implementation. 					
		the expenditures and/or transfer the loan proceeds to the relevant implementing agencies. The implementing agencies will reimburse the expenditures.				
Imprest Fund	/i)	The APFD, on behalf of the HMG, will set up an imprest account in a commercial				
miprest Fullu	(i)	bank acceptable to ADB.				
	(ii)	For initial and additional advances to the imprest account, each implementing				
	(11)	agency will submit estimated expenditures for 6 months of project				
		implementation to the HMFB. For consulting services and equipment which will				
		be directly engaged or procured by the PMO, the HMFB will receive the				
		estimated expenditures from the PMO.				
	(iii)	The HMFB will submit the estimated expenditures to the APFD.				
		The APFD will submit to ADB a signed withdrawal application together with an				
	(iv)	estimate of expenditure sheet and evidence satisfactory to ADB that the imprest				
		account has been duly opened.				
	(14)	ADB will disburse initial advance to the imprest account.				
	(v)					
	(vi)	· ·				
		HMFB will pay the suppliers and/or consultants from the transferred imprest fund,				
		and/or transfer the imprest fund to the subaccounts of the relevant implementing				
	(.::\	agencies.				
	(VII)	For liquidation and replenishment of the imprest account, each implementing				
		agency will collect required supporting documents from contractors and/or				
		suppliers; and send them to the HMFB. For consulting services and equipment				
		which will be directly engaged or procured by the PMO, the HMFB will collect				
		required supporting documents from consultants and/or suppliers directly or				
	through the PMO.					
		The HMFB will submit the supporting documents to the APFD.				
	(IX)	As eligible expenditures are incurred and paid from the imprest account, the				
		APFD will submit to ADB a signed withdrawal application for the liquidation and				
		replenishment, together with (a) a signed summary sheet and the required				
	supporting documents for those expenditures that exceed \$200,000 per					
		individual payment; and/or (b) a signed SOE form for those expenditures that do				
		not exceed \$200,000 per individual payment. For those expenditures that do not				

Procedures	Funds Flow and Disbursement Arrangements			
	exceed \$200,000 per individual payment, the APFD will not have to submit the supporting documents to ADB; but should maintain such documents and make them available for ADB review upon request. For every liquidation and replenishment request of the imprest account, the APFD will also furnish to ADB (i) statement of account (bank statement) where the imprest account is maintained; and (ii) the imprest account reconciliation statement reconciling the above-mentioned bank statement against the APFD's records. (x) ADB will liquidate and replenish the imprest account.			

ADB = Asian Development Bank, APFD = Anhui Provincial Finance Department, HMFB = Huainan Municipal Finance Bureau, HMG = Huainan municipal government, PMO = project management office, SOE = statement of expenditure. Source: ADB.

C. Accounting

The HMG and the implementing agencies will maintain separate project financial statements and records for all expenditures incurred on the project in accordance with financial reporting standards acceptable to ADB. Such statements should show the sources of funds (from ADB, the government, and other cofinanciers). Consolidated project financial statements will be prepared annually in accordance with applicable guidance and regulations, where these are generally consistent with internationally recognized accounting principles and practices.²⁹

D. **Auditing and Public Disclosure**

- 37. The HMG will cause the detailed consolidated project accounts to be audited in accordance with the Guidelines for the Audit of ADB and World Bank-financed Projects.³⁰ the International Standards on Auditing (ISA), and the auditing standards of the PRC (where these are consistent with ISA), by an auditor acceptable to ADB. The audited accounts will be submitted in the English language to ADB by the HMG within 6 months of the end of each fiscal year, including
 - the annual consolidated project financial statements: (i)
 - (ii) an audit report, including auditor's opinions which cover (a) whether the project financial statements present a true and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting framework; (b) whether loan proceeds were used only for the purposes of the project or not; (c) the level of compliance for each financial covenant contained in the legal agreements for the project; (d) compliance with the imprest fund procedure; and (e) compliance with use of the SOE procedure certifying to the eligibility of those expenditures claimed under SOE procedures, and proper use of the procedure in accordance with ADB's Loan Disbursement Handbook (2012. as amended from time to time):
 - (iii) the audit management letter;
 - the audit findings and recommendations; and (iv)
 - the audited financial statements of the HMSC.31 (v)

Applicable laws, regulations, and guidelines include the Accounting Law of the PRC (2000), the State-owned Construction Enterprise Accounting Control Regulations, the Capital Construction Financial Control Regulations, and the Accounting Methods for Projects Financed by the World Bank.

30 China National Audit Office. 2012. Guidelines for the Audit of Asian Development Bank and World Bank-financed

Projects. Beijing.

The HMSC is only required by PRC law to prepare balance sheets, rather than full financial statements that also include income and cash flow statements in addition to balance sheets.

- 38. Compliance with financial reporting and auditing requirements will be monitored by review missions and during normal program supervision, and followed up regularly with all concerned, including the external auditor.
- 39. The HMG has been made aware of ADB's policy on delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.³² ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB policies and procedures.
- 40. Public disclosure of the project financial statements, including the auditor's opinion on the project financial statements, will be guided by ADB's Public Communications Policy (2011). After review, ADB will disclose the financial statements for the project and the opinion of the auditors on the financial statements within 30 days of the date of their receipt by posting them on ADB's website. The audit management letter will not be disclosed.

³² ADB policy on delayed submission of audited project financial statements:

- When audited project financial statements are <u>not received by the due date</u>, ADB will write to the executing agency advising that (i) the audit documents are overdue; and (ii) if they are not received within the next 6 months, requests for new contract awards and disbursement, such as new replenishment of imprest accounts; processing of new reimbursement; and issuance of new commitment letters, will not be processed.
- When audited project financial statements <u>have not been received within 6 months after the due date</u>, ADB will withhold processing of requests for new contract awards and disbursement, such as new replenishment of imprest accounts; processing of new reimbursement; and issuance of new commitment letters. ADB will (i) inform the executing agency of ADB's actions; and (ii) advise that the loan may be suspended if the audit documents are not received within the next 6 months.
- When audited project financial statements <u>have not been received within 12 months after the due date</u>, ADB may suspend the loan.

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³³ Available from http://www.adb.org/documents/pcp-2011?ref=site/disclosure/publications

VI. PROCUREMENT AND CONSULTING SERVICES

A. Advance Contracting and Retroactive Financing

41. The HMG has requested advance contracting and retroactive financing to enable early commencement of consultant services and training. The HMG has also requested advance contracting to enable early commencement of procurement of works and goods. The HMG was advised that retroactive financing could only apply to up to 20% of the ADB loan with respect to expenditures incurred not earlier than 12 months before the signing of the loan agreement. All contracts proposed for advance contracting and/or retroactive financing will be undertaken in accordance with ADB's Procurement Guidelines (2013, as amended from time to time). The borrower and HMG have been advised that approval of advance contracting and retroactive financing does not commit ADB to financing the project. Advance contracting should follow ADB's review and approval procedures shown in para. 44.

B. Procurement of Goods, Works and Consulting Services

- 42. All procurement of goods and works will be undertaken in accordance with ADB's Procurement Guidelines (footnote 26). Contracts for goods estimated to cost \$1.0 million and above and contracts for works estimated to cost \$10.0 million and above shall be procured using international competitive bidding (ICB) procedures. Contracts for works and goods estimated to cost less than the above ICB value but equal to \$100,000 and above will be procured through national competitive bidding (NCB) procedures. NCB will be conducted in accordance with the PRC Tendering and Bidding Law (1999), subject to modifications agreed with ADB.36 Contracts for goods and works estimated to cost less than the above NCB values will be procured using shopping procedures. The relevant sections of ADB's Anticorruption Policy (1998, as amended from time to time)³⁷ will be included in all procurement documents and contracts. Before the start of any procurement, ADB and the government will review the public procurement laws of the central and state governments to ensure consistency with ADB's Procurement Guidelines (footnote 34). A procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages and national competitive bidding guidelines is in Section C.
- 43. An assessment of the procurement capacity of the HMG has confirmed that the HMG, acting through a procurement agency and with the assistance of ADB and the consultants, would capably conduct procurement, including advance contracting, meeting ADB's requirements. A procurement agency which is familiar with ADB's procurement procedures will be hired by the PMO by July 2013 to procure all works and goods under the project on behalf of the HMG and implementing agencies.
- 44. For ICB, all invitations for bids, bidding documents, bid evaluation reports, and draft negotiated contracts need ADB's prior review and approval. For NCB, invitations for bids, bidding documents, bid evaluation reports, and draft negotiated contracts for the first NCB for civil works and the first NCB for goods need ADB's prior review and approval. For the other

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³⁴ Available at: http://www.adb.org/Documents/Guidelines/Procurement/Guidelines-Procurement.pdf

³⁵ Available at: http://www.adb.org/Documents/Guidelines/Consulting/Guidelines-Consultants.pdf

For NCB for works and goods, Chinese Model Bidding Documents: Procurement of Civil Works/Goods under National Competitive Bidding (NCB) issued by the Ministry of Finance in January 2012 and enforced on 1 June 2012 will be used as model NCB documents.

³⁷ Available at http://www.adb.org/Documents/Policies/Anticorruption-Integrity/default.asp

packages for NCB, as long as the invitations for bids and bidding documents approved by ADB are used as models without substantial modification, ADB's prior approvals are not necessary, and ADB will review and approve the signed contracts together with the bid evaluation reports on post-facto basis.

- 45. The project will require three consulting services packages. The first package is for sustainable urban water and lake management to support activities under components 2 and 3. This package will be implemented by a team of consultants consisting of 7.0 person-months (pm) of international and 26.5 pm of national consultants; and is estimated to cost \$500,000, which will be fully financed by the ADB loan. The second package is for project management under component 4. This package will be also implemented by a team of consultants consisting of 17.0 pm of international and 41.5 pm of national consultants; and is estimated to cost \$900,000, which will be fully financed by the ADB loan. For each of these packages, the PMO will engage a team of consultants through a firm following ADB's Guidelines on the Use of Consultants (footnote 35). Each of the consulting firms will be selected by (i) inviting simplified technical proposals, and (ii) using the quality- and cost-based selection method, with a qualitycost weighting ratio of 80:20. The third package is for external resettlement monitoring and evaluation (M&E). External resettlement M&E will be implemented by a team of national specialists (32.0 pm); and is estimated to cost \$140,000, which will be fully financed by ADB loan. The PMO will engage a team of specialists through an agency following ADB's Guidelines on the Use of Consultants (footnote 35), through consultants' qualifications selection. The terms of reference for these three consulting services packages are detailed in Appendixes 1-3.
- 46. In addition to these consultants, (i) ADB will recruit other consultants for an associated TA; (ii) the PMO will engage a national project management and procurement specialist by self-funding for initial project management activities, particularly capacity development for implementation of the PPMS; advance procurement; and consultant recruitment, including recruitment of a team of consultants for project management support; and (iii) the implementing agencies will engage national consultants by self-funding for detailed design, construction supervision, and quality inspection.

C. Procurement Plan

Basic Data

Project Name: Anhui Huainan Urban Water Systems Integrated Rehabilitation Project

Country: People's Republic of China Executing Agency: Huainan municipal government

Loan Amount: \$150 million Loan (Grant) Number: Lxxxx-PRC

1. Process Thresholds, Review and Procurement Plan

a. Project Procurement Thresholds

47. Except as ADB may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

Procurement of Goods and Works	S
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Method	Threshold
International Competitive Bidding (ICB) for Works	Above \$10,000,000
International Competitive Bidding for Goods	Above \$1,000,000
National Competitive Bidding (NCB) for Works	Below ICB threshold, but more than \$100,000
National Competitive Bidding for Goods	Below ICB threshold, but more than \$100,000
Shopping for Works	Below or equal to \$100,000
Shopping for Goods	Below or equal to \$100,000

b. ADB Prior or Post Review

48. Except as ADB may otherwise agree, the following prior or post review requirements apply to the various procurement and consultant recruitment methods used for the project.

Procurement Method	Prior or Post	Comments
Procurement of Goo	ds and Works	
ICB Works	Prior	
ICB Goods	Prior	
NCB Works	Prior/ Post	For NCB, the bidding documents, including the invitation for bids, bid
NCB Goods	Prior/Post	evaluation report, and draft negotiated contract for the first NCB package for works and the first NCB package for goods, shall be submitted to ADB for prior review and approval. For all subsequent NCB packages, as long as the bidding documents approved by ADB are used as models without substantial modification, ADB's prior approvals are not necessary; and ADB will review and approve signed contracts together with the bid evaluation reports on post-facto basis.
Shopping for Works	Post	
Shopping for Goods	Post	
Recruitment of Cons	sulting Firms	
Quality- and Cost- Based Selection	Prior	
Consultants Qualifications Selection	Prior	intermentional accountition hidding NOD and in a least the hidding

ADB = Asian Development Bank, ICB = international competitive bidding, NCB = national competitive bidding.

c. Goods and Works Contracts Estimated to Cost More Than \$1 Million

49. The following table lists goods and works contracts over the life of the project to cost more than \$1 million.

General Description	Contract Value (\$'000)	Procurement Method	Prequalification of Bidders (y/n)	Advertisement Date (quarter/year)	Comments
Output 1	,		, , , , , , , , , , , , , , , , , , ,	, ,	
(Works) Installation of sewers in the existing eastern urban area	21,800	ICB	n	Q2 2016	
Installation of sewers in the existing western urban area	18,230	ICB	n	Q2 2016	
Installation of sewers Gaotang Lake new district in the eastern area	11,340	ICB	n	Q2 2016	
Installation of sewers in Binhe new district in the eastern area	5,900	NCB	n	Q3 2016	
(Goods)					
Equipment for two new pump stations in the western area	1,200	ICB	n	Q3 2016	

	Contract			Advertisement	
General Description	Value (\$'000)	Procurement Method	Prequalification of Bidders (y/n)	Date (quarter/year)	Comments
Output 2	(\$ 000)		or Drauere (g/m)	(quarter) year)	
(Works) Improvement of Bagongshan	11,940	ICB	n	Q1 2016	
urban water channel	11,940	ЮВ	"	Q1 2010	
Improvement of Xiejiaji urban water channel	11,820	ICB	n	Q1 2016	
Improvement of Donghua urban water channel	18,130	ICB	n	Q2 2016	
Improvement of Longwang urban water channel	4,590	NCB	n	Q2 2015	
Improvement of Old Longwang urban water channel	18,040	ICB	n	Q2 2015	
Construction of Longwang flood diversion channel	18,230	ICB	n	Q1 2015	
Reconstruction of Shijian Lake pump station	3,050	NCB	n	Q1 2015	
Improvement of Long Lake pump station	2,530	NCB	n	Q4 2014	
Improvement of Dajiangou pump station	2,660	NCB	n	Q1 2015	
Construction of four pump stations along Gaotang Lake	3,130	NCB	n	Q4 2016	
Construction of embankment along Gaotang Lake 1	13,000	ICB	n	Q3 2016	
Construction of embankment along Gaotang Lake 2	13,370	ICB	n	Q3 2016	
(Goods)					
Equipment for Shijian Lake pump station	5,800	ICB	n	Q3 2015	
Equipment for Long Lake pump station	4,400	ICB	n	Q2 2015	
Equipment for Dajiangou pump station	4,450	ICB	n	Q3 2015	
Equipment for four pump stations along Gaotang Lake	4,280	ICB	n	Q4 2017	
Output 3 (Works)					
Improvement of urban lakes	11,450	ICB	n	Q2 2017	

ICB = international competitive bidding, n = no, NCB = national competitive bidding, y = yes.

d. Consulting Services Contracts Estimated to Cost More Than \$100,000

50. The following table lists consulting services contracts over the life of the project to cost more than \$100,000.

General Description	Contract Value (\$'000)	Recruitment Method	Advertisement Date (quarter/year)	International or National Assignment	Comments
Sustainable urban water and lake management	500	QCBS	Q4 2015	International and national	
Project management support	900	QCBS	Q4 2013	International and national	Advance contracting
External resettlement M&E	140	CQS	Q4 2013	National	Advance contracting

CQS = consultants' qualifications selection, M&E = monitoring and evaluation, No. = number, Q = quarter, QCBS = quality- and cost-based selection.

e. Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000

51. The following table lists goods and works contracts over the life of the project to cost less than \$1 million and consulting services contracts less than \$100,000.

General	Value of Contracts	Number of	Procurement / Recruitment	
Description	(cumulative)	Contracts	Method	Comments
Output 1				
(Goods)				
Equipment for two new pump station in the western area	590	1	NCB	Advertisement in Q4 2016
Output 2 (Goods)				
Equipment for flood forecasting and warning system	870	1	NCB	Advertisement in Q4 2014
Outputs 2 and 3				
(Goods)	000	4	NOD	Λ al. (a whi a a wa a wh
Equipment for water quality and ecological monitoring	230	ļ	NCB	Advertisement in Q2 2016
Output 4				
(Goods)				
Office equipment for project management for PMO	40	1	Shopping	Advertisement in Q1 2014
				Advance contracting
Office equipment for project management for IAs	60	1	Shopping	Advertisement in Q1 2014
IA implementing agency NCP national competition		number DM		Advance contracting

IA = implementing agency, NCB = national competitive bidding, No. = number, PMO = project management office, Q = quarter.

2. List of Packages Required Under the Project

52. The following table provides a list of all procurement (goods, works and consulting services) over the life of the project. Contracts financed by the HMG are also indicated.

General Description	Estimated Value (cumulative) (\$'000)	Estimated Number of Contracts	Procurement Method	Domestic Preference Applicable	Comments
Goods	21,920	10	ICB. NCB, shopping	Not applicable	
Works	189,210	17	ICB, NCB	Not applicable	
General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Recruitment Method	Type of Proposal	Comments
Consulting	1,540	3	QCBS, CQS	STP, EOI	Fully funded by ADB
Services	40	1	Domestic method	Domestically required proposal	Fully funded by the HMG

CQS = consultant's qualifications selection, EOI = expression of interest, ICB = international competitive bidding, NCB = national competitive bidding, QCBS = quality- and cost- based selection, STP = simplified technical proposal.

3. National Competitive Bidding

- 53. The borrower's Law of Tendering and Bidding of the PRC promulgated by Order No. 21 of the President of the PRC on 30 August 1999, are subject to the following clarifications required for compliance with ADB's Procurement Guidelines (footnote 34) and Guidelines on the Use of Consultants (footnote 35):
 - (i) All invitations to prequalify or to bid shall be advertised in the national press, or official gazette, or a free and open access website in the Borrower's country. Such advertisement shall be made in sufficient time for prospective bidders to obtain prequalification or bidding documents and prepare and submit their responses. In any event, a minimum preparation period of thirty (30) days shall be given. The preparation period shall count (a) from the date of advertisement, or (b) when the documents are available for issue, whichever date is later. The advertisement and the prequalification and bidding documents shall specify the deadline for such submission.
 - (ii) Qualification requirements of bidders and the method of evaluating the qualification of each bidder shall be specified in detail in the bidding documents, and in the prequalification documents if the bidding is preceded by a pregualification process.
 - (iii) If bidding is preceded by a prequalification process, all bidders that meet the qualification criteria set out in the prequalification document shall be allowed to bid and there shall be no limit on the number of pre-qualified bidders.
 - (iv) All bidders shall be required to provide a performance security in an amount sufficient to protect the borrower and/or executing agency in case of breach of contract by the contractor, and the bidding documents shall specify the required form and amount of such performance security.
 - (v) Bidders shall be allowed to submit bids by mail or by hand.

- (vi) All bids shall be opened in public; all bidders shall be afforded an opportunity to be present (either in person or through their representatives) at the time of bid opening, but bidders shall not be required to be present at the bid opening.
- (vii) All bid evaluation criteria shall be disclosed in the bidding documents and quantified in monetary terns or expressed in the form of pass or fail requirements.
- (viii) No bid may be rejected solely on the basis that the bid price falls outside any standard contract estimate, or margin or bracket of average bids established by the borrower and/or executing agency.
- (ix) Each contract shall be awarded to the lowest evaluated responsive bidder, that is, the bidder who meets the appropriate standards of capability and resources and whose bid has been determined (a) to be substantially responsive to the bidding documents and (b) to offer the lowest evaluated cost. The winning bidder shall not be required, as a condition of award, to undertake responsibilities for work not stipulated in the bidding documents or otherwise to modify the bid as originally submitted.
- (x) Each contract financed with the proceeds of the loan shall provide that the suppliers and contractors shall permit ADB, at its request, to inspect their accounts and records relating to the performance of the contract and to have said accounts and records audited by auditors appointed by ADB.
- (xi) Government owned enterprises in the borrower's country may be permitted to bid if they can establish that they (a) are legally and financially autonomous, (b) operate under commercial law and (c) are not a dependent agency of the borrower and/or executing agency.
- (xii) Re-bidding shall not be allowed solely because the number of bids is less than three (3).

VII. SAFEGUARDS

A. Environment

Domestic environmental impact report and project environmental impact 54. assessment. The project is classified as class I by the Anhui Provincial Environmental Protection Department (APEPD) and as environmental category A by ADB. In accordance with national regulations, an environmental impact report (EIR) has been prepared and was approved on 5 May 2013 by the Huainan Municipal Environment Protection Bureau (HMEPB) on behalf of the APEPD. The methods and standards applied in the preparation of the EIR meet the guidelines of the Ministry of Environmental Protection and national and provincial laws and regulations. The EIR forms the basis of the project environmental impact assessment (EIA), which also includes ADB's Safeguard Policy Statement (SPS, 2009) requirements, including biodiversity conservation, climate change, and a detailed environmental management plan (EMP). The project EIA concludes that the project's environmental impacts can be mitigated to levels in compliance with national and provincial laws and the ADB's SPS, so long as the EMP is fully implemented. The EMP is the key document which will guide all environmental mitigation and monitoring during project construction and operation. The EMP defines mitigation measures, monitoring requirements, and institutional responsibilities to ensure proper environmental management throughout the project implementation and operation.

- 55. **Anticipated impacts.** Environmental impacts are anticipated, but these are largely of a temporary nature and are covered by stringent site management and procedural provisions in the EMP. During preliminary and detailed design stages, a number of environmental support provisions need to be put in place, including (i) review of the detailed designs by an environmental and water bird specialist, to evaluate the extent of potential impacts from the final design of the wastewater and storm water collection systems and pump stations, dredge methods, and/or disposal sites for dredged sediments; (ii) selection of quiet and efficient powered mechanical equipment (for construction) and pumps (for operation); (iii) training for the environmental specialists of the HMEPB and the PMO to ensure they understand well and can fully supervise the EMP; and (iv) the inclusion of the EMP mitigation and monitoring measures within the bidding documents for contractors.
- 56. During the construction stage, potential impacts include (i) soil erosion, noise, and fugitive dust from the channel dredging, transport of the dredged sediments to disposal sites, and construction of wastewater collection pipelines; (ii) odor from the dredged channel sediments; (iii) solid waste; (iv) traffic management during construction activities; (v) temporary disturbance to feeding or roosting water birds during construction of the 14.47-km embankment; and (vi) community and occupational health and safety risks. Construction-related impacts are localized, short term, and can be effectively mitigated through the application of good construction and housekeeping practices, and implementation of community and occupational health and safety plans.
- 57. During operation, potential impacts include (i) odor and/or noise from the wastewater and/or storm water pump stations; (ii) dumping of garbage into the urban water channels; (iii) seepage of polluted sediment and/or water from the sediment disposal sites into nearby water bodies; and (iv) solid waste produced by staff of the pump stations. Among mitigation and management measures within the EMP are (i) regular maintenance of pump station equipment to minimize noise and odors; (ii) regular solid waste collection at pump stations; (iii) rehabilitation of filled sediment disposal sites; and (iv) improved waste collection systems along the urban channels.
- EMP implementation responsibilities. Institutional responsibilities for EMP implementation and supervision are defined in section B of the EMP. As the executing agency, the HMG will have the overall accountability for the project, including (a) compliance with the laws and regulations of the PRC and ADB's SPS, and (b) implementation of the EMP and its environmental monitoring and mitigation plans. The PMO, in cooperation with the implementing agencies and contractors, will be responsible for EMP implementation (updating the EMP, initiating corrective actions or measurers, monitoring, and reporting). In the detailed engineering design stage, the design institutes are responsible for incorporating mitigation measures into the detailed designs. The EMP will be updated at the end of the detailed design by the design institutes, submitted to the PMO and ADB for review and disclosure, and finally be passed to the contractors. To ensure that contractors will comply with the EMP's provisions, the PMO will incorporate the following documents in the bidding documents: (i) a list of environmental management requirements to be budgeted by the bidders in their proposals: (ii) environmental clauses for contractual terms and conditions; and (iii) the full domestic EIR and the project EIA, including the EMP. Contractors will be responsible for implementing mitigation measures during construction, while the PMO and implementing agencies will be responsible for supervising the implementation of such measures during construction. During operation of facilities, the implementing agencies (O&M units) will be responsible for proper operation of the facilities according to design standards, and implementation of mitigation measures; while the PMO will be responsible for supervising the operation of the facilities, and the implementation of mitigation measures.

- 59. The HMG will appoint to the PMO an environmental staff member who will be directly responsible for coordinating the implementation of the EMP to ensure that (i) the implementing agencies and contractors understand their responsibilities under the EMP; (ii) contractors fulfill the relevant EMP requirements and include sufficient budget to achieve the requirements; (iii) all mitigation measures, the environmental monitoring program, and grievance redress mechanism (GRM) are implemented; (iv) project impact monitoring data are collected by the HMEPB and the environmental specialists engaged under project management support; (v) semiannual environmental monitoring reports are submitted from the PMO to ADB; and (vi) the budget for implementing the EMP, including expenditures for the various line items, are tracked. The PMO will also recruit a team of consultants for project management support including international and national environmental specialists who will (i) conduct independent evaluation of PMO compliance with the EMP by reviewing overall progress and random checks of construction sites, and report findings to ADB; (ii) support the PMO (particularly the environmental staff) and implementing agencies by ensuring they have the understanding and capacity to implement the EMP; (iii) provide relevant environmental training to the PMO, implementing agencies, and contractors; and (iv) assist the PMO in preparing environment sections of quarterly project progress reports and semiannual environmental monitoring reports.
- 60. **Training.** Environmental training will be essential for the PMO, the three implementing agencies, and the contactors to implement the EMP. The PMO, with the support of the environmental specialists, will be responsible for organizing training programs, which will cover (i) environmental laws, regulations, and policies; (ii) implementation of mitigation measures; (iii) operation and maintenance of project facilities; (iv) environmental monitoring and supervision; and (v) documentation and reporting. The training program for EMP implementation is defined in Section E of the EMP.

B. Land Acquisition and Resettlement

- 61. The project is classified as category A for involuntary resettlement according to ADB's SPS. Based on the extent of the impact on land acquisition and resettlement, the HMG prepared a resettlement plan in line with ADB's SPS and related laws and regulations of Huainan Municipality, Anhui Province, and the PRC. Consultation with persons to be displaced has taken place and will continue during resettlement implementation. The resettlement plan will be updated based on engineering designs; then submitted to ADB for review, revision, and approval, prior implementation. The final resettlement plan will be disclosed on ADB's website and to the people to be displaced. No civil works contracts will be awarded for activities that involve land acquisition and resettlement, before the land acquisition and resettlement are updated and approved by ADB. If any land acquisition and resettlement commences prior to ADB's approval, due diligence is required. ADB retains the right to cancel part of the loan in case the provisions in the resettlement plan are not implemented.
- 62. The PMO will be responsible for the implementation of the project, reporting overall progress and communications between ADB and the HMG; and also provision of counterpart funds. The land acquisition, house demolition, and resettlement will be implemented by the Huainan Municipal Land Resource Bureau and the House Demolition and Resettlement Office.
- 63. Table A4.4 summarizes the area of land to be acquired permanently and temporary; area of buildings to be demolished; a number of affected people.³⁹

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³⁸ Perhaps by subcomponent as timing differs.

ADB's SPS changed the terminology of "affected persons" to "displaced persons", which is defined as persons who are physically and/or economically displaced as a result of involuntary acquisition of land or involuntary restrictions on land use or on access to legally designated parks and protected areas. In the PRC, the resettlement plans maintain the original terminology of "affected persons" which is equivalent to ADB's definition of "displaced persons."

Table A4.4: Summary of Land Acquisition Impacts^a

Description	Impacts
Land Acquisition	•
Collective-owned land	1,501 <i>mu</i> ^b
State-owned land	386 <i>mu</i>
Total Land Area Acquired	1,887 <i>mu</i>
Temporary Land Acquisition	3,720 <i>mu</i>
Building Demolition	
Residential housing	17,257 m ²
Small business shops	780 m ²
Affected Persons	
Households (498)	1,963 persons
Small business shops (10)	22 persons
State-owned farm	90 persons
Total Affected Persons	2,075 persons

 m^2 = square meter.

 $\frac{1}{m}$ b mu is a measure of land area. 15 mu = 1 hectare = 10,000 square meters.

- 64. **Entitlement matrix.** The entitlement matrix established according to relevant policies is in Table A4.5.
- 65. **Reporting.** The PMO will monitor the progress of resettlement implementation and report to ADB through quarterly project progress reports. Further, the PMO will engage an independent agency acceptable to ADB, who will conduct external resettlement M&E and submit reports to ADB semiannually during resettlement implementation and annually for 2 years after completion of resettlement.
- least two full-time staff responsible for land acquisition and resettlement. The staff will take lead responsibility for coordinating the planning, implementation, financing, and monitoring of land acquisition and resettlement. They will work closely with relevant village and/or community officials, land resource bureaus, and house demolition offices; and will be responsible for supervising and monitoring resettlement (e.g., delivery of entitlements, selection of new replacement housing, restoration of incomes, provision of replacement land, and other economic measures). Training programs will be organized for the resettlement officers. The resettlement plan will be finalized based on final design and detailed measurement survey and sent to ADB for review and approval prior to commencement of land acquisition, house demolition, and award of civil works contracts. All compensation and resettlement assistance will be paid to affected persons prior to commencement of construction activities. Land acquisition and house demolition will commence from December 2013.
- 67. **Cost.** The cost estimate for land acquisition and resettlement for the project is CNY292.1 million or \$47.1 million equivalent in 2013 prices, including contingencies. Resettlement implementation will be completed prior to construction. The implementing units and district governments will ensure that such funds are made available in a timely manner and will provide funds should the costs be higher.

Based on the preliminary impact survey. An updated census and/or detailed measurement survey will be conducted upon the finalization of detailed project design, and the relevant sections of the resettlement plan will be updated prior to award of civil works.

Table A4.5: Entitlement Matrix

Impact type	Degree of Impacts	Eligible People	Entitlements	Compensation Standard	Implementing Issues
Permanent acquisition of collective land	land acquisition of 1,500.6 mu, including farmland of 980.6 mu construction land 4,310.0 mu, and unused land of 79.1 mu	1,479 people of 369 households in 33 communities, 11 towns and/or streets in Tianjia'an District, Datong District, Xiejiaji District, and Bagongshan District of Huainan municipality.	(i) Receive land compensation and resettlement subsidy; (ii) have priority to getting the working opportunity; (iii) free to get the labor working information; (iv) getting the technology training in privilege; (v) getting the labor export opportunity; and (vi) endowment insurance. The fund allocation method: (i) 70% of the land compensation fees will be paid to APs directly; the remaining 30% of land compensation will be distributed by village committees (community residential committee) for construction of infrastructure and distributing material benefits. The subsidy for resettlement will be directly distributed to APs. (ii) The ground attachments and young crops compensation belong to the	Comprehensive standard (including land compensation fee and resettlement subsidies) of CNY38,000–68,000/mu (refer to details in Table 5-1 of the RP). Compensation standards of young crops for vegetable land and cultivated land are CNY1,500/mu and CNY900/mu.	The villager community will decide the allocation of the 30% portion of land compensation fees and investment in infrastructure or production measures (training of planting techniques, irrigation techniques and service industry and etc.). If the training is needed, it shall be approved and the village collectivity's determination shall be determined by villagers' general meeting. Training, if needed, will be approved by township government and the proposal of village collective will also be supervised. Land adjustment is not a viable option although there may
Permanent acquisition of state-owned land	386.35 mu, including state- owned construction land of 33.51 mu; and state-owned land of Huainan Farm of 355.43 mu.	90 employees in Huainan Farm are affected.	owner. (i) The state-owned construction land will be obtained by allocation if the state-owned construction land is occupied. (ii) The compensation for Huainan Farm will be in accordance with the compensation standard for acquisition of collective land.	(i) No compensation required. (ii) Comprehensive standard CNY52,000/mu. Compensation standards of young crops for vegetable land and cultivated land are CNY1,500/mu and CNY900/mu.	be individual exceptions. Will be paid to farm and workers will be arranged by the farm.

Impact type	Degree of Impacts	Eligible People	Entitlements	Compensation Standard	Implementing Issues
Temporary land occupation	3,720 mu in total, including borrow area of 920 mu, spoil area of 803.1 mu, construction layout of 381 mu, construction mound of 1,041.6 mu, temporary road used by construction of 485.9 mu and other area of 88.4 mu.	Huainan farmland, etc.	 (i) The temporary land occupation and use of land with different application has different nature and influence, thus the PMO has established corresponding temporary land occupation compensation according to the actual conditions and different influences. (ii) The temporary land will be reclaimed by contractor. 	See details increase Section 5.2.2.	
Rural house Demolition	15,352 m ² of rural houses expropriated	371 persons from 97 rural households are affected.	 (i) Compensation for rural residential housing demolition mainly includes housing compensation fee, transitional allowance, relocation fee, etc. (ii) Three resettlement methods can be chosen: (a) monetary compensation, (b) rebuilding houses on allocated house site, or (c) property right exchange. (iii) Compensation for house plot can be obtained, if monetary compensation is chosen. 	Cement structure: CNY630/m² Brick and tile structure: CNY500/m² Relocation subsidies: CNY5/m² Compensation for temporary resettlement (transitional allowance): CNY10/m²/month Compensation for house plot: CNY60/m² for option (a).	 (i) If the relocation fee is less than CNY300, it will be paid at CNY300. (ii) The period for transition shall not exceed 12 months. (iii) The area for house plot is no more than 140 m².
Urban residential house demolition	1,905 m ² of urban house demolition	158 persons from 45 households of Tianjia'an District and Bagongshan District are affected.	 (i) Compensation for urban house demolition mainly includes housing compensation fee, relocation fee, and transitional allowance. (ii) The values of the acquired houses are appraised by a qualified real estate price appraisal agency according to the appraisal methods of acquired houses. (iii) Affected people can choose monetary compensation or property right exchange. 	The market prices for houses are CNY4,500/m² in Tianjia'an District and CNY3,200/m² in Bagongshan District.	 (i) The compensation standard will be as per actual evaluation price, and the price here is the average market price. (ii) The government will provide resettlement communities in unity, and APs can choose a nearby resettlement community according to their willingness.
Affected stores	780 m ² of stores to be demolished	22 workers from 10 stores	 Compensation for expropriated stores includes compensation of value of shop, 	CNY4,000/m ²	The compensation will be as per actual evaluation

Impact type	Degree of Impacts	Eligible People	Entitlements	Compensation Standard	Implementing Issues
			relocation subsidies and business suspension loss. (ii) Workers will be informed in advance and provided three months wages if they are unemployed.		price, and the price here is the average market price.
Unlicensed buildings		About 20 households	For unlicensed buildings, monetary compensation will be given based on replacement cost of the structure without land or location value. But DPs will be provided economically affordable housing or low-rent housing by Huainan PMO and government in the affected district, if they have only one house which is confirmed to be unlicensed building. The DHs are entitled to relocation subsidy.	CNY480/m ² Relocation subsidies: CNY5/m ²	
Affected working age females		About 1,000 women	 (i) They have priority to get employment opportunities and 30% of unskilled work will be delivered to women in priority.1,500 jobs during construction period and 40 jobs during O&M will be offered to women at least. (ii) Women have priorities to get trainings for agriculture and non-agriculture. A total of 800 person-times for agriculture and 600 person-times for non-agriculture technical will be provided. Among them, no less than 400 person-times (50%) will be provided to women. (iii) The women can gain the relevant information during the process of resettlement, and take part in public participation and the resettlement. (iv) In the implementation process of the resettlement, the special symposiums for the women will be held to introduce 		The Women's Federation will offer the acceptable education to the women.

Impact type	Degree of Impacts	Eligible People	Entitlements	Compensation Standard	Implementing Issues
			the relevant policies of resettlement, and to improve the awareness of the women. (v) The compensation agreement shall be signed by the both of the couple.		
The vulnerable groups	Affected households enjoying the five guarantees, elderly persons of no family and disabled people	33 persons of 19 households	 (i) The family labor in the vulnerable households can get vocational training, and be provided with all kinds of employment information and guidance to have more employment opportunities, (ii) During the construction process of the Project, the family labor in vulnerable households will be of the priority to be recruited for some unskilled work (iii) During the project implementation process, the local village collective committee will help them select the house plot and assist their move, build or choose housing with priority. (iv) For elderly people without relatives, if they are willing and file an application, they can be arranged to live in welfare house by local Civil Administration Department. 		The vulnerable households/persons will be verified again after the specific design and close monitoring will be carried out till the implementation of the assistance measures are completed.
Ground attachments	Electric pole and well, etc.	Various property owners	Affected special facilities will be compensated and then reconstructed by the owner according to the original size, standard and function.		
Grievances and appeals	Compensation rates, payment of compensation, and resettlement measures	All APs	Free. All costs so reasonably incurred will be disbursed from the contingencies.		

AP = affected person; CNY = Chinese yuan; m² = square meter; DH = displaced house; DP = displaced person; O&M = operation and maintenance; mu = a Chinese land measure approximately equal to 0.06667 hectare, or 15 mu to 1 hectare; PMO = project management office, RP = resettlement plan.

C. Local Grievance Redress Mechanism (GRM)

- 68. Para. 59 of ADB's SPS requires the borrower to set up and maintain a GRM at project level to solve grievances at the local level. GRM is an arrangement for receiving, evaluating, and facilitating resolution of affected people's concerns, complaints, and grievances about the borrower's and/or client's social and environmental performance on a project. A GRM is important for development projects where ongoing adverse impacts or risks are anticipated. Affected people need a trusted way to voice and resolve project-related concerns, and the project needs an effective way to address affected people's concerns. 40
- 69. The PMO will establish local GRM for environment and for land acquisition and resettlement. The procedures are described in the following sections. At each step, a single complaints register will be maintained to record complaints received, dates on which the complaints are informed ADB of, and resolutions. It includes the following elements: (i) tracking forms and procedures for gathering information from project personnel and complainants; (ii) dedicated staff to update the database routinely; (iii) processes for informing stakeholders about the status of a case; and (iv) procedures to retrieve data for reporting purposes, including periodic reports to the ADB.
- 70. Multiple means of applying the GRM will be available, including face-to-face meetings, written complaints, telephone conversations, and e-mail. All concerns received will be treated confidentially and professionally. The identity of individuals will not be circulated among project agencies or staff and will only be shared with senior staff only when there is clear justification. During project implementation, the PMO will report progress to the ADB, and this will include reporting complaints and their resolution.
- 71. If all steps of the GRM are unsuccessful and the affected person is dissatisfied with the response, and if the complaint stems from non-compliance with ADB's SPS, he or she may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, seek resolutions of their problems, and report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to ADB's Accountability Mechanism, affected people should make a good faith effort to solve their problems by working with the contractors, implementing agencies, the PMO, and/or ADB's East Asia Department or PRC Resident Mission. Only after doing that, and if the complainants are still dissatisfied, should they approach the Accountability Mechanism. 41

1. Environmental Grievance Redress Mechanism

- 72. The environmental GRM is designed to receive, respond to, and manage public complaints about environmental impacts arising from project implementation, for example, noise, dust, odors, etc. All contractors and workers will be briefed by the PMO on the GRM. Contractors and workers will be instructed to be courteous to local residents and, in the event they are approached by the general public with an issue, to immediately halt their work and report the issue to the foreman. The foreman will immediately report the issue to the implementing agency and/or the PMO for action.
- 73. The environmental GRM is as follows and detailed in a figure below.

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⁴⁰ ADB. 2012, Environment Safeguards Good Practices Report (Draft). Para. 107. Manila.

⁴¹ For further information, see: http://www.adb.org/ Accountability-Mechanism/default.asp

- (i) **Step 1.** For environmental problems during the construction stage, affected persons can register their complaints directly with contractors. Each contractor is required to set up a complaint hotline and designate a person in charge of handling complaints, and advertise the hotline number at the main entrance to each construction site. Each contractor is required to document all complaints and to respond to complainants in writing within 7 calendar days about their proposed solutions and how they will be implemented. If a problem is resolved and the complainant (i.e. the impacted person making the complaint) is satisfied with the solution, the grievance handling ends here. Contractors are required to report complaints received, handled, resolved, and unresolved to their implementing agencies monthly.
- (ii) **Step 2.** For environmental problems that could not be resolved at the contractor level, the affected person can take the grievance to the implementing agencies and/or HMEPB. On receiving complaints, the implementing agency or the HMEPB will (i) document the complaint into a complaints register; (ii) send a copy of the complaint to the environmental staff of the PMO; and (iii) reply in writing within 14 calendar days describing the proposed solution and how it will be implemented. The results (the complainant is satisfied or unsatisfied) is documented in the complaint register and reported to the PMO quarterly.
- (iii) **Step 3.** If the affected person is not satisfied with the solutions proposed in the step 2, he or she can, upon receiving the reply, take the grievance directly to the PMO. The PMO must immediately inform ADB of the complaint. After discussing the complaint and potential solutions among ADB, PMO, environmental specialist engaged for project management support, the affected person, and the contractor, the PMO must provide the complainant with a clear and understandable reply within 14 calendar days, and record it into the complaint register.

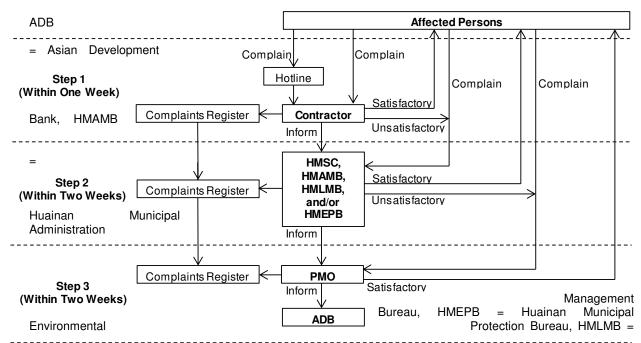


Figure A4.1: Environmental Grievance Redress Mechanism

Huainan Municipal Landscaping Management Bureau, HMSC = Huainan Municipal Sewage Company, PMO = project management office.

Source: ADB.

2. Land Acquisition and Resettlement Grievance Redress Mechanism

- 74. The land acquisition and resettlement GRM is as follows and detailed in a figure below.
 - (i) Step 1. People to be resettled who feel unsatisfied with the compensation and/or procedures can put forward complaints to the village committee or town government. The village committee or town government is required to document all complaints and to respond to complainants in writing within 14 calendar days about their proposed solutions and how they will be implemented. If a problem is resolved and the complainant (i.e., the impacted person making the complaint) is satisfied with the solution, the grievance handling ends here.
 - (ii) Step 2. For land acquisition and resettlement problems that could not be resolved at the village and town level, the affected person can take the grievance to the implementing agencies within one month after receiving the decision of the step 1. On receiving complaints, the implementing agency will (i) document the complaint into a complaints register; (ii) send a copy of the complaint to the PMO; and (iii) reply in writing within 14 calendar days describing the proposed solution and how it will be implemented. The results (the complainant is satisfied or unsatisfied) is documented in the complaints register and reported to the PMO quarterly.
 - (iii) Step 3. If the affected person is not satisfied with the solutions proposed in the step 2, he or she can, upon receiving the reply, take the grievance directly to the PMO. The PMO must immediately inform ADB of the complaint. After discussing the complaint and potential solutions among ADB, the PMO, resettlement specialist engaged for project management support, and the affected person, the

PMO must provide the complainant with a clear and understandable reply within 14 calendar days, and record it into the complaint register.

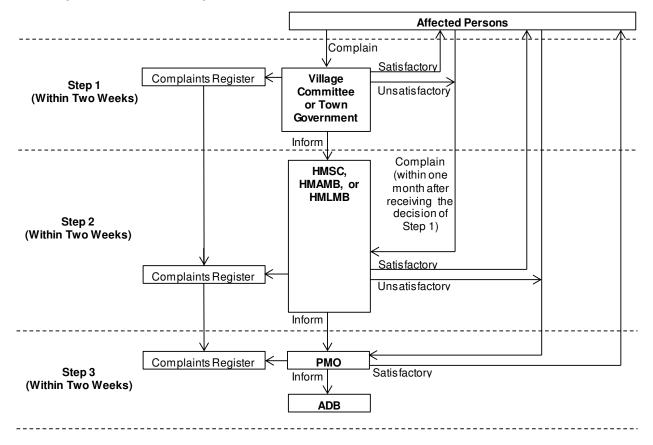


Figure A4.2: Land Acquisition and Resettlement Grievance Redress Mechanism

ADB = Asian Development Bank, HMAMB = Huainan Municipal Administration Management Bureau, HMLMB = Huainan Municipal Landscaping Management Bureau, HMSC = Huainan Municipal Sewage Company, PMO = project management office.

Source: ADB.

VIII. GENDER AND SOCIAL DIMENSIONS

A. Summary Poverty Reduction and Strategy Policy

75. A social, poverty, and gender analysis was undertaken in accordance with ADB's guidelines. The analysis collected information to assist in the design of the project by identifying the poor and economically vulnerable, examining causes of poverty and recommending poverty reduction measures within the scope of the project. The social action plan will facilitate continued consultation and participation of communities in the project, as well as ensure that labor rights and entitlements are observed and that the needs of poor households are considered. See Table A4.5 for the social action plan.

B. Gender and Development

76. The project has been designed as effective gender mainstreaming. Women focus group discussions found that environmental improvements are anticipated to have a significant gender impact, with reduced time burdens and costs for healthcare, preparation for floods, and clean-up

after floods; and with overall improvement of surroundings. The project will also create women's employment opportunities. A gender action plan (GAP) has been prepared to ensure that women are kept fully informed and consulted throughout the project. Gender specific indicators have also been included in the project's design and monitoring framework. The GAP includes measures to address gender concerns in all project components and capacity development, which include (i) ensuring that there will be sufficient project management support consultants with appropriate awareness of gender issues to effectively oversee the implementation and monitoring of the GAP; (ii) ensuring the effective inclusion of women in all project activities; and (iii) ensuring, as far as possible, that the targets set for the employment of women are met, and that the work conditions of and pay for men and women are equitable. Resettlement plan measures will mitigate any possible negative impacts of the project on women due to land acquisition and resettlement impacts. See Table A4.6 for the GAP.

77. The GAP includes provisions to ensure that staff of the PMO and implementing agencies is fully briefed on gender in development and the GAP, at the commencement of project implementation. The staff responsible for social safeguards and gender will work with women's federations, contractors, and community office staff to facilitate the participation of women in opportunities for physical works; and, ensure that all PRC labor laws and core labor standards are respected. The staff will also ensure (i) gender disaggregated baseline and survey data will be collected, (ii) the GAP is implemented, monitored, and reported to ADB through quarterly project progress reports. Social development specialists engaged for project management support will mentor the staff as necessary, and facilitate achievement of the project's gender and development objectives. The GAP will be monitored during ADB review missions and supervision will be supported by ADB's social development specialist.

Table A4.5: Social Action Plan

	Objectives and Monitoring	Time		Responsible	
Action	Indicators	Frame	Budget & Sources	Organization	Key Stakeholders
I. Establish Community Environmental Supervision		s			
CESFMTs will be established as a trial for two years in five typical urban communities and three rural communities that are seriously affected by water pollution and floods. Each CESFMT will consist of three community members who will be paid CNY500 per month each. At least one team member is a woman. Each CESFMT will be granted a public welfare activity fund of CNY5,000.	ill be established as a trial for two years urban communities and three rural that are seriously affected by water floods. It will consist of three community o will be paid CNY500 per month each. It be granted a public welfare activity 1. The work of CESFMTs is recognized by community members, with satisfaction not less than 90%. 2017 2017 Cost for the payment to the CESFMTs will be included in the price of a contract with consultants, which will be funded by ADB loar greatly, and unregulated		the CESFMTs will be included in the price of a contract with	PMO with assistance of district officials where CESFMT are located	HMAMB HMEPB Communities Women's Federation Residents
	3. Community residents are aware of the flood early warning and management program.4. The community participation				
	handbook is developed.				
II. Develop Measures To Ensure The Safety Of Res		And Oper	ation Stages	I	
2.1 Dust and noise pollution arising from construction day or night and during special periods (e.g., college entrance examination) should be strictly controlled. Dump trucks should have covers on loads during transport of construction materials and dredged materials to avoid spills and reduce dust.	There is no recorded grievance about illegal construction or public disturbance of construction from the public.	2013– 2017	The budget is included in ADB loan and HMG counterpart fund under the project.	Contractors	PMO HMSC HMAMB HMLMB District governments
2.2 Enclosing the construction site during construction, and posting warning signs. Warning signs should be clear and conspicuous, so that they are visible at night and do not affect regular traffic.	Warning signs are clear and conspicuous.	2013– 2017	The budget is included in ADB loan and HMG counterpart fund under the project.	Contractors	PMO HMSC HMAMB HMLMB District governments
2.3 Conspicuous safety facilities and warning signs should be set up near all open trenches and other construction sites people are likely to access. Warning signs should be conspicuous and not affect regular traffic and production.	Safety facilities and warning signs are set up rationally, and the satisfaction of the public is not less than 90%.	2014– 2017	CNY50,000 is included in ADB loan and HMG counterpart fund under the project.	Contractors	PMO HMSC HMAMB HMLMB District governments

Action	Objectives and Monitoring Indicators	Time Frame	Budget & Sources	Responsible Organization	Key Stakeholders
III. Pro-Poor Activities			,	, - y	, .,
3.1 New jobs should be first offered to the poor, women, and other vulnerable groups.	The proportion of jobs offered first to the poor is not less than 30%. The proportion of jobs offered first to women is not less than 30%.	2013– 2017	The budget is included in ADB loan and HMG counterpart fund under the project.	PMO, HMSC, HMAMB, and HMLMB working with the Contractors	PMO HMSC Huainan Capital Water Company Huainan Municipal
3.2 Subsidies are provided to people who are unable to pay increased wastewater tariff.	The subsidies are provided to the poor.	2013– ongoing	The budget will be secured by HMFB.	HMFB	Women's Federation Districts, townships, villages, and communities Residents
IV. Build Capacity of Staff And Institutions		1	T 01 11 / 12 / 12 / 13 / 13 / 13 / 13 / 13		
4.1 Regular training is provided to PMO staff.	PMO staff training includes social and gender issues so that PMO staff have basic knowledge, awareness, and social perspective for implementation of SAP, GAP, and C&P.	2013– 2017	CNY 50,000 will be funded by ADB loan.	РМО	PMO
4.2 Regular training is provided to members of CESFMTs.	Team members are trained on environmental sanitation.			PMO	HMAMB
CESFINITS.	public health, community				HMEPB
	participation, and other social work skills related to the project at least twice a year.				Communities Women's Federation Residents
Employment skills training is provided to the poor affected by land acquisition and house demolition. CESEMT – community environmental supervision.	All affected laborers have an opportunity to receive free training if they want.	2014– 2017	CNY 1,000,000 is included in the RP, and will be funded by the HMG.	PMO	Affected people Huainan Municipal Labor and Social Security Bureau

CESFMT = community environmental supervision and flood management team, CNY = Chinese yuan, C&P = community and participation plan, EMP = environmental management plan, GAP = gender action plan, HMAMB = Huainan Municipal Administration Management Bureau, HMEPB = Huainan Municipal Environmental Protection Bureau, HMFB = Huainan Municipal Finance Bureau, HMG = Huainan municipal government, HMLMB = Huainan municipal Landscaping Bureau, HMSC = Huainan Municipal Sewage Company, M&E = monitoring and evaluation, PMO = project management office, PRC = People's Republic of China, RP = resettlement plan, SAP = social action plan.

Source: Asian Development Bank.

Table A4.6: Gender Action Plan Huainan Urban Water Systems Integrated Rehabilitation Project

Action	Objectives and Monitoring Indicators	Time Frame	Budget and Sources	Responsible Organization	Key Stakeholders
Output 1: Improvement of V	Vastewater Collection				
Women's participation in discussions on detailed design	The proportion of women to all participants is not less than 40%.	2014	Included in the C&P plan and SAP	PMO with support from local design institutes	Municipal Women's Federation Districts, townships, villages, and communities Residents, including women
Women's participation in price hearings	Among all participants at the hearing, not less than 60% are ordinary residents, of which not less than 30% are women.	3 months before raising tariffs for water or wastewater	Included in the C&P plan and SAP	Municipal Finance Bureau	PMO Municipal Sewage Company Huainan Capital Water Company Municipal Women's Federation Districts, townships, villages, and communities Residents, including women
1.3. Offering jobs ⁴²	30% of employment opportunities (450 jobs) created during construction and operations are directed towards women.	2014–2017	Staff wages Included in the project budget	Contractors Municipal Sewage Company Municipal Administration Management Bureau Municipal Landscaping Management Bureau	PMO Municipal Labor and Social Security Bureau Municipal Women's Federation Districts, townships, villages, and communities
Output 2: Improvement of U	Jrban Water Channels and Floo	od Management		•	
2.1. Women's participation in discussions on detailed design	The proportion of women to all participants is not less than 40%.	2013–2015	Included in the C&P plan and SAP	PMO with support from local design institutes	Municipal Women's Federation Districts, townships, villages, and communities Residents, including women
2.2. CESFMTs ⁴³	There is at least one woman in the 3 members of each CESFMT.	2015–2017	Included in the C&P plan and SAP	PMO with assistance of communities and consultants	Municipal Administration Management Bureau Municipal Women's Federation Residents, including women

This indicator is written as "offering jobs" because there is no certainty that women will accept work.

Action	Objectives and Monitoring Indicators	Time Frame	Budget and Sources	Responsible Organization	Key Stakeholders
2.3. Participation in the development on community participation manual, ⁴⁴ and flood warning system and response plan	The proportion of women to all participants in the development of the community participation manual, and flood warning and response plan is not less than 40%.	2015–2017	Included in the C&P plan	PMO with assistance of communities and consultants	Municipal Administration Management Bureau Municipal Water Resources Bureau Municipal Women's Federation Residents, including women
2.4. Training on health awareness and knowledge	Training will be provided to pilot communities, and the proportion of women to all participants (about 8,000) is not less than 40%.	2015–2017	Included in the C&P plan and GAP	PMO with assistance of Municipal Public Health Bureau and consultants	Municipal Center for Disease Prevention and Control Municipal Women's Federation Communities Residents including women
2.5. Capacity building	 (i) Capacity building of CESFMT members and other relevant persons should include a gender perspective to give adequate consideration of women's special rights and interests, and (ii) the proportion of women to all participants is not less than 40%. 	2013–2017	Included in the C&P plan and GAP	PMO with assistance of consultants	CESFMT members Municipal Women's Federation Communities
2.6. Offering jobs (footnote 1)	30% of employment opportunities (810 jobs) created during construction and operations are directed towards women.	2014–2018	Staff wages Included in the project budget	Contractors Municipal Sewage Company Municipal Administration Management Bureau Municipal Landscaping Management Bureau	PMO Municipal Labor and Social Security Bureau Municipal Women's Federation Districts, townships, villages, and communities

⁴³ CESFMT will be established in each of eight model communities which are seriously affected by pollution and floods. CESFMTs will (i) raise the environmental awareness of community residents to eliminate waste dumping into the urban water channels, and (ii) make community residents aware of the flood warning system and flood response plan.

system and flood response plan.

44 CESFMTs will lead the development of the community participation manual. The manual is intended to provide guidelines for community residents to meet together to discuss issues in their communities and decide resolutions.

Action	Objectives and Monitoring Indicators	Time Frame	Budget and Sources	Responsible Organization	Key Stakeholders
Output 3: Improvement of U	rban Lakes				
3.1. Women's participation in discussions on detailed design	The proportion of women to all participants is not less than 40%.	2013–2015	Included in the C&P plan and SAP	PMO with support from local design institutes	Municipal Women's Federation Districts, townships, villages, and communities Residents, including women
	ent and Capacity Developmen		T	1	T
4.1. Capacity building	 (i) Capacity building of PMO staff and other relevant persons should include a gender perspective to give adequate consideration of women's special rights and interests, and (ii) the proportion of women to all participants is not less than 40%. 	2013–2017	Included in the C&P plan and GAP	PMO with assistance of consultants	PMO staff Municipal Women's Federation
4.2. Project management	The proportion of women to the PMO staff is not less than 30%.	2013–2020	Included in HMG's counterpart funds	HMG	PMO Municipal Women's Federation
4.3 Collection of gender disaggregated baseline and survey data	Gender disaggregated base- line (including women's time and costs for healthcare, preparation for floods, and clean-up after floods) will be established and monitored.	2014–2020	Included in the C&P plan and SAP	PMO with assistance of consultants	PMO staff Municipal Women's Federation

C&P = consultation and participation, CESFMT = community environmental supervision and flood management team, HMG = Huainan municipal government, PMO = project management office, RP = resettlement plan, SAP = social action plan.

Source: Asian Development Bank.

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

A. Project Design and Monitoring Framework

Data Sources						
Design	Performance Targets and	and Reporting				
Summary	Indicators with Baselines	Mechanisms	Assumptions and Risks			
Impact Improved urban water environment, public health, and quality of life for urban residents in Huainan	Overall public satisfaction with the urban water environment ^a in Huainan increased from 16% in 2012 to 50% by 2025 Health care cost per household decreased from CNY2,100/year in 2012 to CNY1,500/year in 2025 Overall public satisfaction with quality of life in Huainan increased from 63% in 2012 to 80% by 2025	Municipal reports, records, and statistics Periodic household surveys conducted by the PMO	Assumption The HMG maintains its commitment to improve the urban water environment, public health, and quality of life. Risks Other factors, such as climate change, major outbreak of epidemics, and unexpected recession, adversely affect urban water environment, public health, and quality of life. Urban growth, including influx of migrants in Huainan, exceeds forecasts, and exerts more pressure on available urban infrastructure.			
Outcome Improved management of surface water resources in Huainan	From 2012 to 2020, wastewater treatment rates increased from 64% to 75% in the eastern urban area, and from 66% to 80% in the western urban area Wastewater discharge into the urban water channels reduced from 26.0 million m³/year in 2012 to 8.9 million m³/year in 2020 Land protected against 1 in 20-year storm water increased to 3,200 hectares by 2020 from 0 in 2012 Water quality of urban water channels and lakes that are worse than class IV in 2012 improved to class IV or above by 2020	Municipal reports, records, and statistics Municipal environmental protection bureau's water quality monitoring reports	Assumptions HCWC expands the eastern and western WWTPs based on the agreement with the Huainan Municipal Urban and Rural Construction Committee. Property owners or developers connect their buildings or communities to sewers installed under the project in accordance with the Urban Wastewater Discharge Permit Management Method issued by the Ministry of Construction (Order No. 152). Drains transmit storm water to the urban water channels. The HMG properly operates and maintains the facilities constructed or improved under the project. The CESFMTs are active in the eight communities and established in other communities. Solid waste is properly collected around the urban water channels and lakes, and treated at existing waste treatment plants. The HMG implements the urban flood and waterlogging management master plan and the water quality and ecological monitoring plan.			
Outputs 1. Improvement of wastewater collection	3,200 households connected to new sanitary sewers by 2020 5,700 households reconnected from existing combined sewers to new sanitary sewers by 2020 30% of employment opportunities	Municipal reports, records, and statistics ADB mission reports Quarterly project	Assumptions Adequate counterpart funds are made available on time. The HMG maintains dedicated PMO staff at required levels and qualifications. Necessary information is available on			
	(450 jobs) created during	Quarterly project progress reports	Necessary information is available on time.			

		Data Sources	
Design Summary	Performance Targets and Indicators with Baselines	and Reporting Mechanisms	Assumptions and Risks
	construction and operations directed to women	External resettlement M&E	All geographic sites are accessible without any government restrictions.
	30% of employment opportunities (450 jobs) created during construction and operations directed to women	reports Semiannual internal environmental	The HMG accepts and adopts urban flood and waterlogging management master plan, urban water channels maintenance program, water quality and
2. Improvement of urban water channels	The six urban channels with capacity for 1 in 20-year storm water and without sludge, sediment, and solid waste	monitoring reports Project completion report	ecological monitoring plan, lake zoning plans, and integrated Shijian Lake management plan prepared under the project or the associated TA.
and flood management	operating by 2017 Seven pump stations with capacity for 1 in 20-year storm water operating by 2018		The Anhui provincial government and the three other municipalities surrounding Gaotang Lake support and facilitate preparation of an integrated Gaotang Lake management plan.
	New 14.5 km embankment along Gaotang Lake for 1 in 50-year flood operating by 2018		Risks Unexpected technical difficulties are experienced during project
	Urban flood and waterlogging management master plan approved by the HMG by 2016		implementation. The PMO has limited experience in
	Flood forecasting and warning system established by 2015		administering ADB-financed projects. Project implementation, including the
	CESFMTs (at least one female member in each) operating in eight communities by 2017		engagement of a procurement agency and project management support consultants, is delayed by external factors.
	Urban water channel maintenance and water quality and ecological monitoring regularly conducted from 2017		
	30% of employment opportunities (810 jobs) created during construction and operation directed to women		
3. Improvement of urban lakes	Five lakes protected from pollution by artificial wetlands, revetments, and revegetation by 2017		
	Water quality and ecological monitoring regularly conducted from 2017		
	Three lake zoning plans and two integrated lake management plans established by 2017 and implemented from 2018		
4. Project management and capacity	Quarterly project progress reports submitted by the PMO to ADB during 2014–2020		
development	External resettlement M&E reports submitted to ADB, by an independent agency for external resettlement M&E through the PMO, during 2014–2017		
	PMO submits acceptable (to ADB) semiannual internal environmental monitoring reports		

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
	to ADB during 2014-2018		
	8,000 people, including HMG staff and residents, trained for project management, O&M of constructed or improved facilities, and health awareness and knowledge by 2019		
	The PMO submits project completion report to ADB in 2020		

Activities with Milestones

1. Improvement of wastewater collection

- 1.1 Install 191.8-km sewer by 2017
- 1.2 Construct three wastewater pump stations by 2017

Improvement of urban water channels and flood management

- 2.1 Increase the flood control capacity of three storm-water pump stations by 2015, and construct four storm-water pump stations along Gaotang Lake by 2018
- 2.2 Procure equipment for flood forecasting and warning, and water quality and ecological monitoring by 2015
- 2.3 Prepare urban flood and waterlogging management master plan, and conduct capacity development for flood forecasting and warning by 2015
- 2.4 Reconstruct or construct six urban water channels by 2017
- 2.5 Pilot CESFMTs by 2017
- 2.6 Prepare a water quality and ecological monitoring plan for the urban water channels and develop relevant HMG staff capacity for the monitoring by 2017
- 2.7 Construct 14.5-km Gaotang Lake embankment by 2018

3. Improvement of the urban lakes

- 3.1 Procure equipment for water quality and ecological monitoring by 2015
- 3.2 Construct artificial wetlands and revetments, conduct pilot revegetation, and complete dredging by 2017
- 3.3 Prepare lake zoning plans and integrated lake management plans by 2017

4. Project management and capacity development

- 4.1 Recruit project management consultants by 2014
- 4.2 Recruit an independent agency for external resettlement M&E by 2014
- 4.3 Conduct land acquisition and resettlement by 2015
- 4.4 Implement the EMP, and submit semiannual environmental monitoring reports to ADB by 2018
- 4.5 Monitor and evaluate project impact, outcome, and outputs using the project performance management system; submit quarterly project progress reports by 2020
- 4.6 Submit project completion report by 2020

I	nputs
ı	oan

ADB: \$150.00 million

	Amount
Item	(\$ million)
Civil works	119.20
Equipment	21.92
Consultants	1.54
Training, study tours,	
conferences, and workshops	0.60
Financial charges during	
implementation	6.73

HMG: \$193.33 million

	Amount
Item	(\$ million)
Civil works	69.95
Land acquisition and	44.18
resettlement	
Social and environmental	
monitoring	0.74
Survey, design, and supervision	30.21
Consultants	0.04
Contingencies	48.21

Technical Assistance Grant Multi-Donor Trust Fund^b under the Water Financing Partnership Facility: \$500.000

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	Amount
Item	(\$'000)
Consultants	453.40
Surveys	16.00
Miscellaneous administration and	
support cost	6.40
Contingencies	24.20

Note: The HMG will provide counterpart support in the form of office accommodation; domestic transportation, remuneration, and per diem; and other in-kind contributions.

ADB = Asian Development Bank, CESFMT = community environmental supervision and flood management team, EMP = environmental management plan, HCWC = Huainan Capital Water Company, HMG = Huainan municipal government, km = kilometer, M&E = monitoring and evaluation, m³ = cubic meter, O&M = operation and maintenance, PMO = project management office, TA = technical assistance, WWTP = wastewater treatment plant. Note: Numbers may not sum precisely because of rounding.

^a Urban water environment is environment in and around the urban water channels and lakes improved under the project including water quality, odor, vegetation, and flora and fauna.

^b Contributors: the governments of Australia, Austria, Norway, Spain, and Switzerland. Administered by ADB. Source: ADB estimates.

B. Monitoring

1. Project Performance monitoring

- To monitor the progress of the project in achieving the planned outcome and outputs, the PPMS, including baseline indicators and targets, was established during project preparation; and will be maintained by the PMO. The PPMS permits adequate flexibility to adopt remedial action regarding project design, schedules, activities, and development impacts. The PPMS has adopted the following agreed indicators for project management activities: (i) physical progress of project implementation, (ii) results of capacity development program, (iii) implementation of land acquisition and resettlement, (iv) implementation of environmental protection, (v) implementation of social and poverty activities, and (vi) compliance with covenants—policy, legal, financial, economic, environmental, and others. For performance management, the agreed indicators include impact-level indicators including overall public satisfaction with urban water environment, number of households experiencing floods, and overall public satisfaction with quality of life; and outcome-level indicators including wastewater collection rates, wastewater discharge into urban water channels, land area where flood management has been improved, and water quality in urban water channels and lakes. The detailed PPMS, including key indicators for performance management, is in Appendix 4. These indicators will be updated through participatory M&E using participatory methodologies and techniques, as necessary. The PMO will engage an independent national project management and procurement consultant by self-funding for initial project management activities, including capacity development for implementation of PPMS.
- 79. The PMO will be responsible for (i) analyzing and consolidating reported data through its management information system, and (ii) reporting progress to ADB through quarterly project progress reports. The PMO will prepare consolidated quarterly project progress reports indicating progress made, problems encountered during the period, steps taken or proposed to remedy the problems, proposed program of activities, and progress expected for the next six months. Within three months of physical completion of the project, the PMO will submit to ADB a project completion report that describes the achievements in relation to the project's expected impact, outcome, and outputs. These semiannual progress reports and project completion report will provide information necessary to update ADB's project performance reporting system.
- 80. **Compliance monitoring.** The compliance status of loan and project covenants will be reported and assessed through quarterly project progress reports and verified by ADB review missions. Compliance monitoring includes safeguards monitoring to ensure compliance with ADB's SPS.

2. Environment Monitoring

- 81. **Environmental monitoring and reporting arrangements.** The PMO will nominate at least one qualified full-time environmental management staff member to undertake environmental management and monitoring activities. The PMO will further engage project management support consultants including international and national environment specialists to assist the HMG, including the PMO and implementing agencies in carrying out environmental management monitoring activities, reporting to ADB through quarterly project progress reports and semiannual environmental monitoring reports, and conducting necessary training.
- 82. **Internal environmental monitoring and inspection.** Each contractor will assign staff for environmental inspection and monitoring during construction. At the start of project

implementation, contractors will prepare detailed internal environmental monitoring programs to be implemented during construction. Internal monitoring will be conducted by the contractors⁴⁵ and reported to the PMO and implementing agencies monthly during the construction period.

- 83. **Environmental impact monitoring.** The implementing agencies will contract local environmental monitoring centers (EMCs) to conduct regular environmental impact monitoring. Monitoring requirements are defined in the EMP, including the parameters to be monitored, the numbers and locations of monitoring points, as well as monitoring frequencies and durations. The EMCs will prepare and submit to the PMO and implementing agencies quarterly environmental impact monitoring reports during the construction period.
- 84. **Environment management plan compliance verification.** The environmental specialists engaged for project management support, on behalf of the PMO, will assess and verify internal monitoring conducted by the contractors, environmental impact monitoring conducted by the EMCs, as well as the contractors', implementing agencies', and the PMOs' compliance with the EMP during project implementation. The results of the EMP compliance verification will be used to assess: (i) the extent and severity of actual environmental impacts against the predicted impacts and baselines before the project implementation; (ii) performance and effectiveness of the environmental mitigation measures and compliance with pertinent environmental standards and regulations; (iii) trends in impacts; (iv) overall effectiveness of the EMP implementation; and (v) the need for additional mitigation measures and corrective actions if noncompliance is observed. The environment specialists will discuss the verification results with the HMG, including the PMO; suggest corrective actions; and reflect monitoring results and EMP compliance observations in the quarterly project progress reports and semiannual environmental monitoring reports.
- 85. The PMO, with the assistance of the environmental specialists, will monitor and assess overall project activities under the project design and monitoring framework, including environmental targets. The PMO will report to ADB the progress of the EMP, information on project implementation, environmental performance of the contactors, and environmental compliance through quarterly project progress reports and semiannual internal environmental monitoring reports.
- 86. **Environmental acceptance monitoring and audit.** Within 3 months after the construction completion or no later than 1 year, with the permission from the local environmental authority, the environmental acceptance monitoring and audit reports on the completion of the subprojects will be (i) prepared by a qualified environmental institute in line with the PRC regulation on project completion environmental audit (Ministry of Environmental Protection, formerly the State Environmental Protection Administration, 2001), (ii) reviewed and approved by the environmental authorities that have approved the environmental impact assessment reports, and (iii) finally submitted to ADB as the final semiannual environmental monitoring report.

3. Involuntary Resettlement Monitoring

87. Internal and external monitoring of implementation of the resettlement plan will be conducted. Monitoring methodologies are specified in the resettlement plan. Internal supervision and monitoring of implementation of resettlement plan will be conducted by the implementing agencies to ensure compliance with the provisions of the resettlement plan. To ensure that

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⁴⁵ Contractors may also contract licensed environmental monitoring centers (EMCs), to conduct internal environment impact monitoring during construction.

affected persons have been adequately compensated and rehabilitated, the implementing agencies will keep ADB informed of the progress in implementing the resettlement plans through quarterly project progress reports through the PMO until resettlement is completed. The PMO will engage an independent monitoring agency acceptable to ADB for semiannual monitoring during resettlement implementation and annual evaluation of resettlement results for two years after the completion of resettlement. The PMO will forward external resettlement M&E reports submitted by the independent monitoring agency in a timely manner to ADB.

4. Gender and Social Dimension Monitoring

88. The PMO, with assistance of social development specialists engaged for project management support and ADB's social development specialist, will monitor the implementation of the GAP and report the progress to ADB through quarterly project progress reports using a GAP implementation progress matrix. ADB will also monitor the implementation of the GAP during review missions. The PMO will also monitor the implementation of the social action plan and consultation and participation (C&P) plan, and report the progress to ADB through quarterly project progress reports.

C. Evaluation

89. In addition to regular monitoring, project performance will be reviewed at least once a year jointly by ADB and the HMG. The review will assess implementation performance and achievement of project outcomes and outputs, assess financial progress, identify issues and constraints affecting implementation, and work out a time-bound action plan for their resolution. ADB and the HMG will undertake a midterm review to assess implementation status and take appropriate measures—including modification of scope and implementation arrangements, and reallocation of loan proceeds, as appropriate—to achieve the project objectives. Within 3 months of physical completion of the project, the PMO will submit a project completion report to ADB.⁴⁶

D. Reporting

90. The PMO will provide ADB with (i) quarterly project progress reports in a format consistent with ADB's project performance reporting system; (ii) semiannual environmental monitoring reports; (iii) audited accounts within 6 months of the end of each fiscal year; and (iv) a project completion report within 6 months of physical completion of the project. The PMO will also forward external resettlement M&E reports to ADB. The PMO will report to ADB the implementation progress of the GAP, social action plan, and C&P plan through quarterly project progress reports.

E. Stakeholder Communication Strategy

- 91. Project information will be communicated through public consultation, information disclosure mechanism in ADB's and government's websites, meetings, interviews, focus group discussions, and community consultation meetings, in accordance with ADB's requirements.
- 92. **Environment.** Meaningful consultation, participation and information disclosure was conducted during project preparation. Information disclosure and public consultation included newspaper disclosure; informal communication with key stakeholders, including residents, local authorities and sector specific institutions and authorities; questionnaire surveys; and wider stakeholder meetings attended by affected people and other concerned stakeholders. A GRM

⁴⁶ Project completion report format is available at: http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar

has been defined to prevent and address community concerns, reduce risks, and assist the project in maximizing environmental and social benefits.

- 93. Resettlement. Affected households and communities were involved in the project impact and socioeconomic surveys. Through meetings, interviews, focus group discussions, public consultation workshops, and community consultation meetings, local representatives have participated in the planning and concerns have been integrated into the resettlement plan. Before project implementation, the PMO, implementing agencies, and other relevant leaders will further discuss and consult with the affected persons' representatives the impacts on every community and the detailed compensation plan to ensure affected persons' interests are protected, including employment opportunities to enhance the affected persons' livelihoods as a result of project implementation. The resettlement plan was posted on the ADB website on 4 July 2013. Resettlement information booklets have been distributed to affected households. This booklet contains information such as the affected project area, proposed land acquisition and relocation implementation progress and procedure, compensation standards for land acquisition, relocation assistance, and livelihood restoration strategy. Each implementing agency will establish project resettlement a unit for supervision of implementation, continued public consultation, monitoring of progress, and response to grievances. The GRM will be established and explanations have been included in the resettlement information booklets.
- 94. **Project documents.** Public disclosure of all project documents have been undertaken through the HMG and on the ADB website, including the project data sheet, design and monitoring framework, EIA, resettlement plan, and the report and recommendation of the President to the Board of Directors. Disclosure of social and environmental monitoring reports will be undertaken during project implementation.
- 95. **Consultation and participation.** Consultation with and participation of communities will take place throughout all phases of the project cycle. Actions for C&P are outlined in the C&P plan in a table below. These actions are intended to ensure that women and other vulnerable groups are not only included in communication, but also have opportunity to participate effectively. The C&P plan also documents key information dissemination and consultative activities to be implemented. The community involvement processes incorporated in the plan are intended not only to inform people about the component or specific activities related to its preparation and implementation, but also to enable people in the community to ask questions, make suggestions, state preferences and express concerns. The PMO will be responsible for ensuring that information dissemination and consultative activities are carried out in accordance with the EIA report, GAP, RP, social action plan, and C&P plan.

Table A4.7: Consultation and Participation Plan

	Objectives and Monitoring	Time	Budget and	Responsible	
Action	Indicators	Frame	Sources	Organization	Key Stakeholders
Project Design Disclosure and Participation 1.1 Public participation and information disclosure in detailed designing The participation of all stakeholders in detailed designing should be ensured. 2) The final project design should be disclosed before	 The public is able to obtain the project design information from public sources. The satisfaction of the public with the project design is not less than 70%. 	2013– 2014	CNY50,000 is being provided by the HMG for design costs.		
the commencement of construction. 1.2 Information disclosure on dredging disposal program. Test results of dredged materials and final disposal program should be disclosed on mass media and communities where disposal sites are located.	1. The public is able to obtain the test results and final disposal program from public sources. 2. The satisfaction of the public with the final disposal program is not less than 90%.	2013– 2014	CNY10,000 Will be provided by the HMG for the implementation of the environmental management plan.	PMO with support from local design institutes	Communities
1.3 Information disclosure on sewer network program Public consultation and information disclosure on the sewer network program is conducted by mass media and in communities connected to the sewer network.	 Detailed information on the program is available from public sources. The satisfaction of the public with the final implementation program is not less than 90%. 	2013– 2014	CNY50,000 is being provided by the HMG for design costs.		
 1.4 Consultation and information disclosure on compensation and resettlement programs for land acquisition and house demolition 1) Consultation on resettlement programs with the affected persons. 2) Disclosure of the RP on the ADB website 	Detailed information on compensation and resettlement programs for land acquisition and house demolition is available from public sources. The affected persons accept the RP.	2013– 2014	CNY50,000 is being provided by the HMG for preparation of the RP.	PMO	PMO RP preparation agency Land and Resources Bureau Labor and Social Security Bureau Demolition Management Office
1.5 Disclosure of the EIA report on the ADB website	Full disclosure	2013	Not applicable	ADB	PMO

Action	Objectives and Monitoring Indicators	Time Frame	Budget and Sources	Responsible Organization	Key Stakeholders
Disclosure in detail of the wastewater and solid waste treatment fees and their structure in all communities in project area	No less than 50% of the normal (representative) citizens in the Project Area know about and are familiar with the fee standard and its structure	2013	CNY 50,000 will be provided by the HMG and Huainan Capital Water Company	HMSC Huainan Capital Water Company	PMÓ, Communities
II. Public Participation In Project Implementation					
Disclosure of construction program and relevant information The construction program should be disclosed on mass media and in the directly affected area.	 Impacts on the public's regular production and livelihoods should be minimized. The satisfaction of the public with solutions to negative impacts during construction and their effects is not less than 80%. 	2013– 2017	CNY50,000 will be provided by the HMG	IAs PMO Contractors	Mass media Communities
Publicity on public environmental awareness and public health knowledge Publicity on public environmental awareness and public health knowledge should be given on mass media and in the directly affected area.	The awareness of health knowledge among local residents is not less than 70%.	2013– 2017	CNY50,000 will be provided by the HMG	PMO with assistance of municipal Health Bureau	Mass media Communities Municipal Environmental Protection Bureau Municipal Center for Disease Prevention and Control
2.4 Public health knowledge of construction workers The contractor should give publicity and training diseases common to construction workers and sexually transmitted diseases including HIV/AIDS. The contractor should be assisted by the municipal health and disease control department.	No increase in disease rate of local population living in proximity to construction sites from common diseases.	2013– 2017	Contractor [no budget amount because this is by the contractor for the contractor's work force	Contractor with assistance of Municipal Health Bureau	Mass media Communities Contractors Municipal Center for Disease Prevention and Control

Action	Objectives and Monitoring Indicators	Time Frame	Budget and Sources	Responsible Organization	Key Stakeholders
2.5 Price hearing for water and wastewater If the water or wastewater tariff is to increase during project implementation or after project completion, a price hearing should be held according to PRC law.	Among all participants at the hearing, not less than 60% are ordinary residents, of which not less than 30% are women.	3 months before rise	Cost will paid by the HMG as a routine and required activity	Municipal Prices Bureau	PMO Municipal Administration Management Bureau Huainan Capital Water Company
III. Public Participation In Project Management					
 3.1 Development and disclosure of a community participation manual 1) Development of a community participation manual. 2) Printing and distribution of the community participation manual. 	At least 8 communities participate in the development of the community participation manual. At least 70% of local residents are aware of the community participation manual.	2013– 2017	Will be funded by ADB loan under the project	PMO	Municipal Administration Management Bureau Communities Municipal Women's Federation Huainan Capital Water Company Municipal Environmental Protection Bureau Consultants
3.2 Participation in and disclosure of flood early warning and management program	At least 8 communities (villages) participate in the development of the flood warning and	2013– 2017	Will be funded by ADB loan under the	PMO with assistance of Municipal	Municipal Administration Management
Community participation should be ensured when the flood early warning and management program is developed.	management plan. 2. The plan is disclosed via public sources, and the public awareness of the program in key areas affected by floods is not		project	Water Resources Bureau	Bureau Consultants Communities
The flood warning and management plan should be disclosed and publicized. ADD Asian Daysland Park CNIV Chicago and	less than 70%.			in al. Cavavana ant	LIMCO

ADB = Asian Development Bank, CNY = Chinese yuan, EIA = environmental impact assessment, HMG = Huainan Municipal Government, HMSC = Huainan Municipal Sewage Company, PMO = project management office, PRC = People's Republic of China, RP = resettlement plan.

Source: ADB.

X. ANTICORRUPTION POLICY

- 96. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project.⁴⁷ All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all project contractors, suppliers, consultants and other service providers. Individuals and/or entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the project.⁴⁸
- 97. To support these efforts, relevant provisions are included in the loan and project agreements and the bidding documents for the project.

XI. ACCOUNTABILITY MECHANISM

98. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make a good faith effort to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism (footnote 34).

XII. RECORD OF PAM CHANGES

99. All revisions and/or updates during course of implementation should be retained in this section to provide a chronological history of changes to implemented arrangements recorded in this project administration manual.

⁴⁸ ADB's Integrity Office web site is available at: http://www.adb.org/integrity/unit.asp

⁴⁷ Available at: http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf

OUTLINE TERMS OF REFERENCE FOR CONSULTINGSERVICES FOR PROJECT MANAGEMENT SUPPORT

A. Introduction

1. This document sets out the terms of reference for consulting services needed to ensure the smooth implementation of the Anhui Huainan Urban Water Systems Integrated Rehabilitation Project. The direct client for the consulting services is the project management office (PMO) established in the Huainan municipal government (HMG), although the consulting services will also be provided to three implementing agencies: the Huainan Municipal Sewage Company, the Huainan Municipal Administrative Management Bureau, and the Huainan Municipal Landscaping Management Bureau.

B. Overall Scope of Work

2. The consultants will provide the PMO and implementing agencies with project management support, including support for project performance management system, environmental management, land acquisition and resettlement, procurement, consultant recruitment, and capacity development.

C. Implementation Arrangements

3. The consulting services for project management support will be carried out by a team of consultants through a firm. A total of 17.0 person-months of international and 41.5 personmonths of national consulting services will be required. The consulting services will be financed by Asian Development Bank (ADB) and the consultants will be recruited by the PMO according to ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). The consulting firm will be selected by (i) inviting simplified technical proposals; and (ii) using the quality- and cost-based selection method, with a quality-cost weighting ratio of 80:20. The consulting services are expected to start in January 2014 and finish in September 2019.

D. Reporting Requirements

- 4. The consultant team will produce (i) an inception report within 4 weeks of the start of the consulting services, (ii) an annual report by the end of each year during 2014–2018, (iii) draft final report by the end of 2019, and (iii) a final report at the conclusion of the consulting services. The inception, annual, and draft final reports will be subject to tripartite reviews by ADB, the PMO, and the consultants. All reports are to be written in English and translated into Chinese. One soft and five scanned copies of each report are to be submitted to ADB (English version only) and the PMO (both Chinese and English versions).
- 5. The inception report will present an approach for the consulting services, including a work plan and an implementation schedule. The annual, draft final, and final reports will present activities conducted by the consultants, effects of the consulting services, issues encountered, and recommendations to improve project management.

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Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at: http://www.adb.org/documents/handbooks/project-implementation/.

E. Other Requirements

6. The consultant team will provide a fully qualified interpreter to work with the consultants on a full-time basis and support the ADB missions.

F. Scope of Services

1. International Consultant

7. For each of the international consultant positions, (i) possession of a related degree, qualification, and/or memberships of related academic societies; and/or past participation in related training courses; (ii) experience in similar positions for projects or technical assistance (TA) projects; and (iii) experience in projects in the People's Republic of China will be highly evaluated.

a. Project Management Specialist and Team Leader (9.0 personmonths)

8. The specialist, together with the national project management specialist and deputy team leader, will (i) coordinate all project management support activities as team leader; (ii) finalize the approach for project management support; (iii) prepare the inception, annual, draft final, and final reports; (iv) assist the PMO and implementing agencies in preparing, implementing, monitoring, and evaluating² the overall project and subprojects; (v) assist the PMO in preparing guarterly project progress reports in a format provided by ADB; (vi) monitor the PMO's procurement activities under the project, and assist the PMO in preparing, updating. and implementing the procurement plan; (vii) assist the PMO and implementing agencies in preparing and implementing a financial management system; (viii) assist the PMO and implementing agencies in preparing withdrawal applications and improving efficiency by streamlining the preparation of withdrawal applications; (ix) assess the need for capacity development of the staff of the PMO and implementing agency; and plan, design, organize, and implement seminars, workshops, training, and/or study tours for project management, financial management, disbursement arrangements, implementation, monitoring, and evaluation of resettlement, gender development, and environmental management, and project monitoring and evaluation;³ (x) assist the PMO in preparing a project completion report on the execution and initial operation of the project, including its cost, the performance by the HMG of its obligations under the project agreement, and the accomplishment of the purposes of the project; (xi) monitor compliance with the loan covenants, assess key implementation issues, and make recommendations for improvement; and (xii) conduct any other necessary work for smooth and appropriate implementation of the project.

b. Social Development and Resettlement Specialist (4.0 personmonths)

9. The specialist will lead the national resettlement and social development specialists to accomplish the tasks described in paras. 13 and 14 following ADB's Safeguard Policy

² Socioeconomic, health, and environmental indicators to measure project impacts are shown in the design and monitoring framework (Appendix 1 of the Report and Recommendation of the President [RRP]) and Summary Poverty Reduction and Social Strategy (Linked document 10 of the RRP).

³ Costs for seminars, workshops, training, and study tours, excluding consulting services (costs for venues, printing, accommodation and transport for participants, etc.), will be funded from the ADB loan under the project separately from the contract for the consulting services.

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Statement (SPS, 2009)⁴ and its procedural requirements regarding land acquisition and resettlement and ADB's guidelines and handbooks on resettlement and poverty and social analysis. The specialist will also undertake any other necessary work assigned by the team leader.

c. Environmental Specialist (4.0 person-months)

The specialist will (i) assist the HMG and implementing agencies in constructing, operating, maintaining, and monitoring the project facilities in strict conformity with all applicable laws and regulations, including national and local regulations and standards for environmental protection, health, labor, and occupational safety; and ADB's SPS, and the environmental mitigation and monitoring measures detailed in the approved environmental impact assessment (EIA) report and environmental management plan (EMP)⁵ for the project; (ii) assist the PMO in preparing and submitting to ADB semiannual environmental monitoring reports in a format acceptable to ADB during construction and implementation of the project; (iii) monitor compliance with the EIA report and EMP, assess the degree of impacts and key implementation issues, explain key issues to the PMO and implementing agencies, and assist them in conducting follow-up actions to address the key issues; (iv) provide the PMO with support for the preparation of environmental management aspects of a project completion report; (v) provide supports to the international and national project management specialists for assessing needs for capacity development, and planning, designing, organizing, and implementing seminars, workshops, training, and/or study tours for environmental management; (vi) provide support to the international and national project management specialists for preparing the inception, annual, draft final, and final reports; and (vii) undertake any other necessary work assigned by the team leader.

2. National Consultants

11. For each of the national consultant positions, (i) possession of a related degree, qualification, and/or memberships of related academic societies; and/or past participation in related training courses; (ii) experience in similar positions for projects or TA projects; and (iii) experience in working with international organizations and/or consultants will be highly evaluated.

a. Project Management Specialist and Deputy Team Leader (14.0 person-months)

12. The specialist, together with the international project management specialist and team leader, will conduct the tasks described in para. 8; and undertake any other necessary work assigned by the team leader.

b. Resettlement Specialist (9.0 person-months)

13. The specialist will (i) assist the PMO, implementing agencies, and design institutes in updating the resettlement plan approved by ADB, in ADB formats, based on the detailed designs, disclosing it to the affected persons prior to ADB's approval, and obtaining ADB's approval of it; (ii) assist the HMG and implementing agencies in implementing land acquisition and resettlement in accordance with the resettlement plan, (iii) assist the PMO and

⁵ The EMP is included in the EIA report.

⁴ Available at: http://www.adb.org/Documents/Policies/Safeguards/Safeguard-Policy-Statement-June2009.pdf

implementing agencies in supervising contractors to ensure compliance with requirements of the resettlement plan, applicable laws and regulations, and ADB's SPS; (iv) assist the PMO and implementing agencies in supervising the processes of resettlement by collecting and updating basic data, and closely coordinating between the PMO, implementing agencies, and an external resettlement monitor; (v) review external monitoring and evaluation (M&E) reports prepared by the external resettlement monitor and ADB's comments on the reports, monitor compliance with the resettlement plan, assess the degree of impacts and key implementation issues, explain key issues to the PMO and implementing agencies, and assist them in conducting follow-up actions to address the key issues; (vi) assist the PMO to monitor compliance with the resettlement plan, assess key implementation issues, formulate remedial measures, and assist them in conducting follow-up actions: (vii) provide the PMO with support for the preparation of resettlement aspects of quarterly progress reports and a project completion report; (viii) provide support to the international and national project management specialists for assessing needs for capacity development, and planning, designing, organizing, and implementing seminars, workshops, training, and/or study tours for implementation and M&E of resettlement: (ix) provide support to the international and national project management specialists for preparing the inception, annual, draft final, and final reports; and (x) undertake any other necessary work assigned by the team leader.

c. Social Development Specialist (6.5 person-months)

14. The specialist will (i) assist the HMG and implementing agencies in implementing the social action plan (SAP), the gender action plan (GAP), and the consultation and participation (C&P) plan prepared during project preparation; (ii) assist the PMO and implementing agencies in supervising contractors to ensure compliance with requirements of the and C&P plan, GAP. and SAP; and applicable laws and regulations; (iii) monitor compliance with the C&P plan, GAP, and SAP; assess the degree of impacts and key implementation issues; explain key issues to the PMO and implementing agencies; and assist them in conducting follow-up actions to address the key issues; (iv) provide the PMO with support for the preparation of social aspects of quarterly progress reports and a project completion report; (v) provide support to the international and national project management specialists for assessing needs for capacity development, and planning, designing, organizing, and implementing seminars, workshops, training, and/or study tours for implementation and M&E of the C&P plan, GAP, and SAP; (vi) provide support to the international and national project management specialists for preparing the inception, annual, draft final, and final reports; and (vii) undertake any other necessary work assigned by the team leader.

d. Environmental Specialist (9.0 person-months)

15. The specialist, together with the international environment specialist, will conduct the tasks described in para. 10, and undertake any other necessary work assigned by the team leader.

e. Economic Specialist (1.5 person-months)

16. The specialist will (i) review background documents, including the economic analysis of the project undertaken during project preparation; (ii) conduct economic analyses of the overall project and each subproject to determine economic internal rate of return of the overall project and each subproject at the midterm of project implementation (in 2016 or 2017), and at physical completion of the project; (iii) provide support to the international and national project management specialists for assessing needs for capacity development; and planning,

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designing, organizing, and implementing seminars, workshops, training, and/or study tours for economic analysis, as necessary; (iv) provide support to the international and national project management specialists for preparing the inception, interim, draft final, and final reports; and (v) undertake any other necessary work assigned by the team leader.

f. Financial Specialist (1.5 person-months)

17. The specialist will (i) review background documents, including the financial analysis of the project undertaken during project preparation; (ii) conduct financial analysis at the midterm of project implementation (in 2016 or 2017), and at physical completion of the project, including (a) financial sustainability analysis to assess the fiscal sustainability debt repayment capacity of the HMG as a whole; and (b) an assessment of the financial viability of the revenue-generating components, i.e., the wastewater collection and transmission system; (iii) provide support to the international and national project management specialists for assessing needs for capacity development; and planning, designing, organizing, and implementing seminars, workshops, training, and/or study tours for financial analysis, as necessary; (iv) provide support to the international and national project management specialists for preparing the inception, interim, draft final, and final reports; and (v) undertake any other necessary work assigned by the team leader.

OUTLINE TERMS OF REFERENCE FOR CONSULTINGSERVICES FOR SUSTAINABLE URBAN WATER AND LAKE MANAGEMENT

A. Introduction

1. This document sets out the terms of reference for consulting services for sustainable urban water and lake management under the Anhui Huainan Urban Water Systems Integrated Rehabilitation Project. The direct client for the consulting services is the project management office (PMO) established in the Huainan municipal government (HMG), although the consulting services will also be provided to two implementing agencies—the Huainan Municipal Administration Management Bureau (HMAMB) and Huainan Municipal Landscaping Management Bureau (HMLMB).

B. Overall Scope of Work

- 2. The consultants will work with the PMO, implementing agencies, design institutes, and other relevant agencies to do the following tasks:
 - (i) Establish community environmental supervision and flood management teams (CESFMT, see Annex for a description). It is envisioned there will be teams in five urban communities and three rural communities for a total of eight CESFMTs. Budget for the teams will be provided. The consultants will conduct some pilot trials providing related capacity and institutional development. Activities with the CESFMTs should include
 - (a) development of methods of publicizing status of water quality using words and formats the public can understand;
 - (b) improvement of solid waste disposal so it does not go into urban water channels (relocation of neighborhood trash disposal sites, cooperation with the district environmental service office for provision of large disposal bins and more frequent pickup of garbage, public awareness raising, community enforcement, etc.);
 - (c) development and publication of flood warning, evacuation, and emergency response procedures.
 - (ii) Develop a water quality and ecological monitoring plan for the six urban water channels and five lakes to be improved under the project, closely working with the HMAMB, the HMLMB, the Huainan Municipal Environmental Protection Bureau, and the PMO. The plan should specify (a) the specific pollutants and ecological parameters to be monitored, including selected aquatic biodiversity and water turbidity; (b) the agencies to implement the program; (c) the monitoring frequency (e.g., quarterly or semiannual); (d) budget and financing source; (e) program duration (at least 10 years); (f) monitoring locations; (g) sampling and analytical methods and equipment; and (h) reporting of results to the public. The development of the plan will include capacity and institutional development to make it sustainable. The plan must be coordinated with the environmental safeguards monitoring to be separately conducted to avoid duplication and conflict.
 - (iii) Assist the HMAMB, the implementing agency for component 2 of the project, in developing an urban water channel maintenance program for the six urban water channels to be rehabilitated or constructed under the project. This program will

include inspection, maintenance activities, equipment for maintenance, staffing, and training, as well as institutional arrangements. The program will include procedures for reporting activities that (i) reduce capacity of the channels, (ii) interfere with the water flow, and (iii) pollute the water (e.g., unauthorized construction and encroachment, illegal dumping of solid waste, wastewater discharges). The development of the program will include capacity and institutional development to make it sustainable.

- (iv) Provide technical assistance to the HMLMB and design institutes for artificial wetlands and revetments in and along the lakes, including the design, planning, selection of native plant species appropriate given potential climate change, construction, monitoring, and maintenance; and also conduct capacity development for operations, maintenance, and monitoring of the constructed artificial wetlands and revetments.
- (v) Support the pilot shoreline re-vegetation in the area between the embankment constructed under component 2 of the project and the lake to reduce soil erosion, enhance biodiversity, and provide educational resources: (a) facilitate identification and selection of the trial site(s), (b) establish the biodiversity and ecological values of the site(s), (c) develop the specific ecological and biodiversity objectives for each site, (d) design the site habitats (plant species selection, creation of habitats for key native species), (e) facilitate participatory planning with local residents and their active involvement and management of activities, (f) prepare a monitoring plan to assess the success of this trial activity, and (g) develop the capacity of HMG staff for future re-vegetation around Gaotang Lake after the project.
- (vi) Develop lake zoning plans for Caoling Lake, Dajianguo Wetlands, and Long Lake to ensure that the natural and biodiversity values of the lakes are safeguarded closely working with the HMLBM, design institutes, and other relevant agencies by identifying management zones for the lakes, including designated uses for certain areas within the lake such as recreation, fishing, and aquaculture and along the lake shoreline. Existing plans for parks to be built around the lakes should be considered, and the management zones identified should be incorporated into these plans.
- (vii) Develop integrated lake management plans for Gaotang Lake and Shijian Lake. The plans will include (i) recommendation for the development of a managing agency or commission composed of representatives from local governments around the lake (for Gaotang Lake only); and (ii) current and future functions and uses of the lakes, including management zones, based on (a) ecologically-sensitive areas; (b) pollution sources into the lakes; and (c) meetings with stakeholders for agriculture, forestry, fisheries, environmental protection, and others, for sustainable and integrated management that balances the needs of different stakeholders as well as ecosystem protection.

C. Implementation Arrangements

3. The consulting services will be carried out by a team of consultants through a firm. A total of 7.0 person-months of international and 26.5 person-months of national consulting services will be required. The consulting services will be financed by the Asian Development

Bank (ADB), and the consultants will be recruited by the PMO according to ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). The consulting firm will be selected by (i) inviting simplified technical proposals; and (ii) using the quality- and cost-based selection method, with a quality-cost weighting ratio of 80:20. The consulting services are expected to start in November 2014, and will be implemented over about 3 years intermittently.

D. Reporting Requirements

- 4. The consultant team will produce (i) an inception report within 4 weeks of the start of the consulting services, (ii) an annual report by the end of each year during 2015–2016, (iii) draft final report by the end of 2017, and (iii) a final report at the conclusion of the consulting services. The inception, annual, and draft final reports will be subject to tripartite reviews by ADB, the PMO, and the consultants. All reports are to be written in English and translated into Chinese. One soft and five scanned copies of each report are to be submitted to ADB (English version only) and the PMO (both Chinese and English versions).
- 5. The inception report will present an approach for the consulting services, including a work plan and an implementation schedule. The annual, draft final, and final reports will present activities conducted by the consultants, effects of the consulting services, issues encountered, and recommendations to resolve the issues.

E. Scope of Services

1. International Consultant

6. For each of the international consultant positions, (i) possession of a related degree, qualification, and/or memberships of related academic societies; and/or past participation in related training courses; (ii) experience in similar positions for loan or technical assistance projects; and (iii) experience in projects in the People's Republic of China will be highly evaluated.

a. Lake Management and Planning Specialist and Team Leader (4.0 person-months)

7. The specialist, together with the national lake management and planning specialist and deputy team leader, will (i) coordinate all project management support activities as team leader; (ii) finalize the approach for the consulting services; (iii) prepare the inception, annual, draft final, and final reports; (iv) lead tasks (iv), (v), (vi), and (vii) in para. 2; and (v) conduct any other necessary work for smooth and appropriate implementation of the consulting services.

b. Water Quality and Ecological Monitoring Specialist (1.0 personmonth)

8. The specialist, together with the national water quality and ecological monitoring specialist, will (i) lead the task cited in para. 2(ii)—the development of a water quality and ecological monitoring for urban water channels and lakes, including sampling, methods of analysis, and evaluation and reporting of results, involving the Huainan Municipal Environmental Protection Bureau that will conduct the sampling and analysis; (ii) assist the national community

⁶ Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at: http://www.adb.org/documents/handbooks/project-implementation/.

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development specialist in publicizing status of water quality in the urban water channels and lakes; (iii) provide supports to the team leader and deputy team leader in preparing the inception, annual, draft final, and final reports, and (iv) undertake any other necessary work assigned by the team leader.

c. Wetlands Construction Specialist (2.0 person-months)

9. The specialist will (i) advise a local design institute about best practices for designing artificial wetlands; (ii) review and comment on engineering design drawings and specifications the design institute has prepared; (iii) develop and implement a capacity development program for operations, maintenance, and monitoring of the constructed artificial wetlands; (iv) provide supports to the team leader and the deputy team leader in preparing the inception, annual, draft final, and final reports; and (v) undertake any other necessary work assigned by the team leader.

2. National Consultants

10. For each of the national consultant positions, (i) possession of a related degree, qualification, and/or memberships of related academic societies; and/or past participation in related training courses; (ii) experience in similar positions for loan or TA projects; and (iii) experience in working with international organizations and/or consultants will be highly evaluated.

a. Lake Management and Planning Specialist and Deputy Team Leader (8.0 person-months)

11. The specialist, together with the international project management specialist and team leader, will conduct the tasks described in para. 7; and undertake any other necessary work assigned by the team leader.

b. Water Quality and Ecological Monitoring Specialist (3.5 personmonths)

12. The specialist, together with the international water quality and ecological monitoring specialist, will conduct the tasks described in para. 8; and undertake any other necessary work assigned by the team leader.

c. Community Development Specialist (7.0 person-months)

13. The specialist will (i) lead the task cited in para. 2, particularly on developing and training the CESFMTs and providing support for their work; (ii) follow up the pilot CESFMT activities every 6 months for 2 years; and recommend adjustments to the pilot activities, as necessary; (iii) make recommendations for the set-up of additional CESFMTs in other communities based on the results of the pilot activities results; (iv) provide support to the team leader and the deputy team leader in preparing the inception, annual, draft final, and final reports; and (v) undertake any other necessary work assigned by the team leader.

d. Urban Water Channel Specialist (2.0 person-months)

14. The specialist will (i) lead the task cited in para. 2 (iii) —development of a urban water channels maintenance program —with assistance of the team leader, the deputy team leader,

the HMAMB, and the PMO; (ii) review the implementation of the program and recommend adjustments, as necessary; (iii) provide support to the team leader and the deputy team leader in preparing the inception, annual, draft final, and final reports; and (iv) undertake any other necessary work assigned by the team leader.

e. Wetlands and Vegetation Specialist (2.5 pm)

15. The specialist will (i) assist the international and national lake management and planning specialists in conducting the tasks cited in para. 2(iv) and (v); (ii) identify native plant species that are tolerant of predicted increases in temperature and changes in precipitation; (iii) select the native plant species for the artificial wetlands and the Gaotang Lake pilot re-vegetation; and plan the sourcing, propagation, planting, and maintenance of the established vegetation communities; (iv) assist the international wetlands construction specialist in implementing a capacity development program for operations, maintenance, and monitoring of the constructed artificial wetlands; (v) provide support to the team leader and the deputy team leader in preparing the inception, annual, draft final, and final reports; and (vi) undertake any other necessary work assigned by the team leader.

f. Wetlands Biodiversity Specialist (2.0 person-months)

16. The specialist will (i) assist the international and national lake management and planning specialists in conducting the tasks cited in para. 2(iv) and (v); (ii) provide supports to the team leader and the deputy team leader in preparing the inception, annual, draft final, and final reports; and (iii) undertake any other necessary work assigned by the team leader.

g. Institutional Specialist (1.5 person-months)

17. The specialist will (i) under direction of the team leader and the deputy team leader, assess the agencies responsible for urban water channels and lakes; and recommend a capacity building and institutional strengthening program for their operation, maintenance, and management; (ii) provide support to the team leader and the deputy team leader in preparing the inception, annual, draft final, and final reports; and (iii) undertake any other necessary work assigned by the team leader.

Annex: Community Environment Supervision and Flood Management Team

- 1. For the ADB's Anhui Chao Lake Environmental Rehabilitation Project,⁷ the community environment supervision and management teams (CESMTs) are planned to work with local residents to develop and implement community environmental management rules to promote changes of public behavior toward the environment. The CESMT consists of at least three community representatives, including at least one woman. The CESMT is also responsible for organizing public activities and lectures to promote education and guidance and improve community environment.
- 2. For the ADB's Anhui Huainan Urban Water Systems Integrated Rehabilitation Project, the concept is expanded to include flood management. The plan is to establish community environmental supervision and flood management teams (CESFMTs) as a trial for 2 years in five typical urban communities and three rural communities that are seriously affected by water pollution and floods. This is a nonstructural measure of the project implemented by the project management office with assistance of district governments where the CESFMTs are located.
- 3. Each CESFMT should consist of three community members, at least one woman. Each CESFMT member will be paid CNY500 per month, and each team will be granted a public welfare activity fund of CNY5,000 for 2 years. Team members are selected for terms of 2 years and can serve no more than two terms.
- 4. The purposes of the CESFMT are to raise the environmental awareness of community residents, eliminate improper disposal of solid waste and waste dumping into the drainage channels, and make community residents aware of the flood early warning and management program. The methods used will be based on the experience of the Anhui Chao Lake Environmental Rehabilitation Project currently in progress. Particularly for flood early warning and management program, community participation should be ensured when the program is developed.
- 5. The CESFMT will also be the lead for development of a community participation manual. Written in Chinese language, it is intended to provide guidelines for community residents to meet together to discuss issues their communities facing and decide upon priorities for short-term improvements to submit to the district governments, i.e., a bottom-up planning approach.

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⁷ ADB. 2012. Report and Recommendation of the President: Proposed Loan to the People's Republic of China for the Anhui Chao Lake Environmental Rehabilitation Project. Manila.

OUTLINE TERMS OF REFERENCE FOR EXTERNAL RESETTLEMENT MONITORING AND EVALUATION

Part I: Overview

A. Introduction

1. This document sets out the terms of reference for independent external resettlement monitoring and evaluation (M&E) needed to ensure that the Anhui Huainan Urban Water Systems Integrated Rehabilitation Project is implemented in conformity with the People's Republic of China (PRC) laws and regulations and the Asian Development Bank's (ADB's) Safeguard Policy Statement (SPS, 2009),⁸ including involuntary resettlement. The direct client for the consulting services is the project management office (PMO) established in the Huainan municipal government.

B. Overall Scope of Work for this Consulting Services

- 2. According to ADB's requirements, the implementation of the resettlement plan should—besides internal monitoring undertaken by the PMO and implementing agencies—be monitored by a competent independent external monitoring agency (EMA). The EMA to be selected will monitor the implementation of the resettlement plan; and report progress semiannually during the implementation of land acquisition and resettlement, and annually for two years after the completion of the land acquisition and resettlement. External resettlement M&E reports will be submitted to ADB and the PMO for review and follow-up action, if required.
- 3. The external resettlement M&E will be carried out by a team of specialists through an EMA firm. The M&E will be financed by ADB, and the team of specialists will be recruited by the PMO according to ADB's Guidelines on the Use of Consultants (2013, as amended from time to time)⁹ through consultants' qualifications selection. The PMO and implementing agencies will provide assistance to the EMA, particularly in the aspects of field survey, staffing, and logistics.

Part II: Requirements of the Services

A. Objectives

4. The general objective of the external resettlement M&E is to assess the compliance with principles, policies, and requirements mentioned in the resettlement plan, such as

- to determine and assess whether or not the compensation payment, support and resettlement for the affected persons as well as the process of community consultation, information disclosure and resolution of complaints and grievances are being carried out in compliance with principles, requirements and procedures according to the resettlement plans;
- (ii) to review whether or not the resettlement plans' objectives, especially those that improve or at least restore affected persons' living standards are adequately implemented and achieved; and
- (iii) to review shortcomings in the implementation of the resettlement plans, and develop recommended solutions for discussion with the implementing agencies.

⁹ Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at: http://www.adb.org/documents/handbooks/project-implementation/.

Available at: http://www.adb.org/documents/safeguard-policy-statement

B. Detail Tasks of the Consulting Services

- 5. To carry out the M&E, the EMA will address the following tasks:
 - (i) **Periodic monitoring.** During the implementation of land acquisition and resettlement, the EMA will periodically monitor the implementation of the resettlement plan according to the progress of each subproject mobilized by the PMO (fundamentally semiannually for each subproject);
 - (ii) **Post resettlement monitoring.** For two years after the completion of the implementation of the resettlement plan for the whole project, the EMA will carry out post resettlement monitoring to evaluate the results of resettlement implementation and impact of resettlement on the affected persons (fundamentally annually for each subproject); and
 - (iii) Participate with the PMO in ADB's review missions, as required.

C. Monitoring Indicators

- 6. There are various monitoring indicators on the implementation of the resettlement plan. Once selected, the EMA will have to present in detail the monitoring indicators to the PMO and ADB for approval. Below are main monitoring indicators that need to be focused during the monitoring.
 - (i) Monitoring on compliance of compensation payment and support provision:
 - (a) Compensation for affected land. In case of land-for-land compensation, whether the replaced land is equal in area and location as well as production, living conditions in comparing with the affected land; in case of cash–for-affected land, whether the replacement cost principle is ensured;
 - (b) Whether compensation for affected structures is equal to materials and labor replacement cost according to standards and specification of the work, not to deduct or discount the reused materials; nor depreciate assets based on age;
 - (c) Whether compensation for trees and/or crops takes into account market rates:
 - (d) Whether compensation is fully paid to affected persons; either single installment or multiple installments; and
 - (e) Whether other assistance as specified in the resettlement plan is provided to affected persons, as required.
 - (ii) Monitoring on compliance of information disclosure and community consultation:
 - (a) Whether project documents are disseminated to communities (resettlement information booklet and relevant documents);
 - (b) Whether information is promulgated at public places (results of detailed measurement survey, prices application, disbursement of payment), and whether the process was effective;
 - (c) Whether the affected persons are fully consulted about issues of land recovery, policies on compensation, resettlement, livelihood restoration; as well as access to a grievance redress mechanism; and

- (d) Whether the concerns and recommendations of the affected persons are resolved during the implementation of the resettlement plans; as well as the manner by which they have been addressed.
- (iii) **Relocation plan and implementation.** Consult about resettlement methods, participation in relocation planning, announcement of relocation plan, and support to relocated households.
- (iv) Monitoring on compliance of resettlement implementation for the relocated affected persons:
 - (a) Review housing and living conditions in resettlement sites (such as road, domestic power, water distribution and/or drainage system, etc.); and restoration of community, education, and health services;
 - (b) Whether replacement housing was provided in a complete and timely manner:
 - (c) Any issues related to transitional housing and/or period; and
 - (d) Has the new location had any impact on the affected persons' livelihoods?
- (v) Monitoring on compliance of income restoration, and support to livelihood stabilization:
 - (a) Whether support to income restoration is adequately provided; and efficiency of the income restoration support (e.g., training, credit assistance);
 - (b) Post resettlement life and production stabilization: how do affected persons stabilize their life and production?;
 - (c) Problems that affected persons are facing during the income restoration and life stabilization; and
 - (d) Compensation and restoration of temporary land occupation.
- (vi) M&E on compliance of the satisfaction of the affected persons:
 - (a) Satisfaction of the determination of losses and compensation valuation;
 - (b) Satisfaction of compensation payment and other assistance;
 - (c) Satisfaction of information disclosure, consultation;
 - (d) Satisfaction on life stabilization and income restoration support activities; and
 - (e) Satisfaction of resettlement site, relocation site, completeness of facilities.
- (vii) Monitoring on compliance of grievance redress mechanism of the affected persons:
 - (a) Degree of the efficiency of the grievance redress mechanism (time, efficiency of resolution);
 - (b) Results of complaint resolution at various levels; and
 - (c) Satisfaction of the grievance redress mechanism.

D. Methodology of Monitoring

7. The EMA will apply both qualitative and quantitative methods during monitoring, which includes:

- (i) Quantitative methods:
 - (a) Baseline survey (prior to start of land acquisition and resettlement) and report covering a representative sample of affected persons, focusing more on those seriously affected and vulnerable affected persons;
 - (b) Semiannual and annual questionnaire survey during project implementation. 50% of severely affected households (about 185 households) and 20% of all other affected households (about 26 households):
 - (c) Use the existing statistical data at local levels, and data from district and/or county resettlement bureaus:
 - (d) Survey of affected businesses and workers; and
 - (e) Final M&E of resettlement implementation (prior to project completion) by conducting a sample survey on 50% of severely affected households and 20% of all other affected households.

(ii) Qualitative methods:

- (a) Review project documents (feasibility study reports, resettlement plan); ADB relevant policies; laws and regulations of the PRC, Anhui Province, and Huainan Municipality;
- (b) Consult and discuss with different stakeholders, including implementing agencies and social organizations through consultation meetings, indepth interviews, and group discussions; and
- (c) Undertake focus group discussions, in-depth interviews with the target affected persons; and/or groups such as severely affected households, relocated households, vulnerable households, and women's groups.
- (iii) **Site visits.** Conduct site visits to original housing areas and resettlement sites, as well as project construction sites to check whether resettlement sites are constructed with complete infrastructure and identify potential impacts on local people during civil works construction.
- 8. All information and data collected will be processed, analyzed, and included in the baseline or subsequent monitoring reports. The EMA must store the processed data to serve for the next M&E. These data will belong to (and will be the asset of) the PMO and will be made available to ADB or the PMO upon request. All documentation will be transferred to the PMO at the completion of the contract.

E. Monitoring Frequency

- 9. Two types of monitoring will be carried out, including
 - (i) **Periodic monitoring.** Periodic monitoring will be carried out in project sites at least twice a year or at suitable schedules determined by the PMO to collect information and apply the above-mentioned monitoring indicators. The periodic monitoring report will be submitted not later than 30 days after the completion of field investigations; and
 - (ii) **Post-resettlement monitoring.** Post-resettlement M&E will be carried out for two years after the completion of resettlement activities, at least once a year or at suitable scheduled determined by the PMO, to evaluate the efficiency of the resettlement works. The post resettlement evaluation report will be submitted to

ADB and the PMO not later than 30 days after the completion of the field investigations.

F. Reporting Requirements

10. The EMA will submit to ADB and the PMO semiannual external resettlement M&E reports for the implementation of land acquisition and resettlement, and annual external resettlement M&E reports for 2 years after the completion of the land acquisition and resettlement. Printed reports will be in Chinese (5 copies) and English (3 copies). The EMA will take full responsibility about the contents and quality of the reports; and if necessary, must revise reports upon the comments of ADB and the PMO. Format of the reports will be proposed by the EMA in the technical proposal. The EMA may seek guidance from ADB's Involuntary Resettlement Sourcebook and from examples of reports on ADB website.

G. Qualifications Required and Detailed Tasks of Personnel

- 11. The EMA should be a registered social organization (research institution, design institute, consulting institution and/or firm, university, or nongovernment organizations) without direct administrative subordination relations with the project owners or the resettlement implementation agencies. The EMA should have 5 or more qualified technical staff members; while its professional staff members should have degrees in economics, sociology and/or anthropology; or a relevant field of social sciences; are familiar with ADB's or World Bank's resettlement policies and procedures; have previous experience in resettlement, social investigation, and/or analysis and evaluation for projects funded by ADB or World Bank. The EMA should also have experience in undertaking similar projects in the PRC.
- 12. The EMA will establish a monitoring team. The main duties of the team are to (i) carry out the monitoring on the implementation of the resettlement plan to ensure it is in compliance with the resettlement plan; (ii) advise relevant agencies on the implementation of the resettlement plan to ensure policies and procedures are complied with; and (iii) provide information and data, monitoring results, and observations that the team leader will aggregate into the resettlement monitoring report.
- 13. All team members must be fluent in Chinese, but reports submitted to ADB will be in English. For each of the members, (i) possession of a related degree, qualification, and/or memberships of related academic societies; and/or past participation in related training courses; (ii) experience in similar positions for projects; and (iii) experience in working with international organizations and/or international consultants will be highly evaluated.

a. Resettlement Specialist and Team Leader (8.0 person-months)

14. The specialist will conduct, but not limited to, the following tasks: (i) lead all the activities of the team; (ii) lead and set up the monitoring methodology, including design of baseline and tracer surveys; (iii) work and coordinate with relevant agencies and/or bodies within the project to implement the task of monitoring resettlement activities; (iv) lead and conduct the monitoring activities and required surveys to collect data and information at office and project sites, and then analyze the findings; (v) prepare external resettlement M&E reports which include conclusions and recommendations; (vi) discuss findings with the PMO and implementing agencies to reach agreement on follow-up actions; and (vi) participate in ADB review missions.

b. Social Evaluation Specialist (8.0 person-months)

15. The specialist will conduct, but not limited to, the following tasks: (i) monitor the land acquisition activities mentioned in the resettlement plan to ensure land acquisition is being carried out in compliance with principles, requirements, and procedures according to the resettlement plan and the government's laws and/or regulations; and monitor the compensation payments and livelihood restoration of the affected persons; (ii) provide inputs to the external resettlement M&E reports, which would include progress, challenges and/or bottlenecks during implementation; and proposed solutions and/or recommendations to address these issues; and (iii) participate in ADB review missions, if required.

c. Field Surveyors (two positions, 8.0 person-months each)

16. The surveyors will (i) assist the resettlement and social evaluation specialists in carrying out the monitoring on the implementation of the resettlement plan so that the project resettlement implementation is in compliance with the resettlement plan; (ii) under the guidance of the resettlement and social evaluation specialists, carry out field surveys; (iii) analyze the data collected from the field surveys; (iv) provide assistance to the resettlement and social evaluation specialists for the preparation of the external resettlement M&E reports; and (v) any other duties assigned by the team leader.

PROJECT PERFORMANCE MANAGEMENT SYSTEM

	Performance Monitoring Indicator	Target	Baseline	Monitoring Mechanism	Responsible agency	Frequency
1.	Impact Indicators (to be achieved by end of		1	•	, ,	
1.1	Overall public satisfaction with urban water environment in Huainan Municipality increased from 16% in 2012 to 50% by 2025 (an also by gender)	50%	16%	Survey	PMO	Midterm report, and completion report during project implementation Once every two years after project completion
1.2	Healthcare cost per household decreased from CNY2,100/year in 2012 to CNY1,500/year in 2025	CNY1,500/ year	CNY2,100/ye ar	Survey on residents living along six channels and lakes	PMO	Midterm report, and completion report during project implementation Once every two years after project completion
1.3	Overall public satisfaction with quality of life in Huainan Municipality increased from 63% in 2012 to 80% by 2025 (and also by gender and by urban and rural residents)	80%	63%	Survey external monitoring report	PMO	Midterm report, and completion report during project implementation Once every two years after project completion
1.4	Overall % of survey respondents suffering from flooding every year reduced from 30% in 2012 to 0% in 2025	0%	30%	Survey	PMO	Midterm report, and completion report during project implementation Once every two years after project completion
2.	Outcome Indicators					
2.1	From 2012 to 2020, wastewater treatment rates increased from 64% to 75% in the eastern area From 2012 to 2020, wastewater treatment rates increased from 66% to 80% in the western area	75% 80%	64%	Volume of wastewater collected divided by volume of wastewater generated in	PMO and Huainan Municipal Sewage Company	Once a year
				eastern urban area		

	Performance Monitoring Indicator	Target	Baseline	Monitoring Mechanism	Responsible agency	Frequency
2.2	Wastewater discharge into the urban water channels reduced from 26.0 million m³/year in 2012 to 8.9 million m³/year in 2020	8.9 million m³/year	26.0 million m³/year	Survey	PMO and Huainan Municipal Sewage Company	Once a year
2.3	Land protected against 1/20-year storm water increased from 0 ha in 2012 to 3,200 ha by 2020	3,200 ha	0 ha	Huainan Statistic Bureau	PMO and Huainan Municipal Administrative Management Bureau	Midterm report, and completion report during project implementation Once every two years after project completion
2.4	Water quality of urban water channels and lakes which are worse than class IV in 2012 improved to class IV or above by 2020	Class IV or above	Worse than class IV	Lake quality report	PMO and HMEPB	Once a year
2.5	Reduced pollutant discharges by 4,000 tons/year COD and 300 tons/year NH ₃ -N	COD: 4,000 tons/year NH ₃ -N: 300 tons/year		Annual report of HMEPB Volume of wastewater collected multiplies (COD in WWTP-COD out WWT)	PMO and HMEPB	Once a year
3.	Output Indicators					
3.1	Improvement of Wastewater Collection	3,200	O bougabald-	Number of	DMO orad	T
3.1.1	3,200 households connected to new sanitary sewers by 2020	households 0 nouseno	0 households	Number of households in the service	PMO and Huainan Municipal	
	5,700 households reconnected from existing combined sewers to new sanitary sewers by 2020	5,700 households	0 households	area	Sewage Company	

	Performance Monitoring Indicator	Target	Baseline	Monitoring Mechanism	Responsible agency	Frequency
3.1.2	30% of employment opportunities (450 jobs) created during construction and operations directed towards women	30% (450 jobs)	0% (0 job)	Data reported by contractors	PMO and Huainan Municipal Sewage Company	Midterm report, and completion report during project implementation
3.1.3	191.8 km of new sewers and three new wastewater pump stations operational by 2017	191.8 km of new sewers Three new wastewater pump stations	0.0 km of new sewers Zero new wastewater pump stations	Progress report (investment completed and length of pipes constructed	PMO and Huainan Municipal Sewage Company	Quarterly
3.2	Improvement of Urban Water Channels a					
3.2.1	The six urban channels with capacities for 1/20-year storm water and without sludge, sediment, and solid waste operational by 2017	Six water channels with capacities for 1 in 20-year storm water and without sludge, sediment, and solid waste	Zero water channels with capacities for 1/20-year storm water and without sludge, sediment, and solid waste	Progress report (investment completed and length of channels rehabilitated or constructed)	PMO and Huainan Municipal Administrative Management Bureau	Quarterly
3.2.2	Seven pump stations with capacities for 1/20-year storm water operational by 2018	Seven pump stations with capacities for 1 in 20- year storm water	Zero pump stations with capacities for 1 in 20-year storm water	Progress report (investment completed and number of pumps improved or constructed)	PMO and Huainan Municipal Administrative Management Bureau	Quarterly

	Performance Monitoring Indicator	Target	Baseline	Monitoring Mechanism	Responsible agency	Frequency
3.2.3	New 14.5-km embankment along Gaotang Lake for 1/50-year flood operational by 2018	14.5-km embank- ment along Gaotang Lake for 1 in 50-year flood	No embankment along Gaotang Lake for 1 in 50-year flood	Progress report (investment completed and length of the embankment constructed)	PMO and Huainan Municipal Administrative Management Bureau	Quarterly
3.2.4	Urban flood and waterlogging management master plan approved by the HMG by 2016	Urban flood and water- logging manage- ment master plan approved	Urban flood and waterlogging management master plan does not exist	Progress report (investment completed and number of pump stations constructed)	PMO and Huainan Municipal Administrative Management Bureau	Quarterly
3.2.5	Flood forecasting and warning system established by 2015	Flood forecasting and warning system established	Flood forecasting and warning system does not exist	Progress report	PMO and Huainan Municipal Administrative Management Bureau	Quarterly
3.2.6	CESFMTs (at least one female member in each) operational in eight communities by 2017	CESFMTs operational in eight communities	CESFMTs do not exist	Progress report	PMO and Huainan Municipal Administrative Management Bureau	Quarterly

				Monitoring	Responsible	_
	Performance Monitoring Indicator	Target	Baseline	Mechanism	agency	Frequency
3.2.7	Urban water channels maintenance and water quality and ecological monitoring regularly conducted from 2017	Urban water channels mainte- nance regularly conducted Water quality and ecological monitoring regularly	Urban water channels maintenance is not regularly conducted Water quality and ecological monitoring is not regularly	Progress report	PMO and Huainan Municipal Administrative Management Bureau	Quarterly
		conducted	conducted			
3.2.8	30% of employment opportunities (810 jobs) created during construction and operations directed towards women	30% (810 jobs)	0% (0 job)	Data reported by contractors	PMO and Huainan Municipal Administrative Management Bureau	Midterm report, and completion report during project implementation
3.3	Improvement of Urban Lakes					
3.3.1	Five lakes protected from pollution by artificial wetlands, revetments, and revegetation by 2017	Yes	No	Progress report	PMO and Huainan Municipal Landscaping Management Bureau	Twice a year
3.3.2	Water quality and ecological monitoring regularly conducted from 2017	Water quality and ecological monitoring regularly conducted	Water quality and ecological monitoring is not regularly conducted	Progress report	PMO and Huainan Municipal Landscaping Management Bureau	Quarterly

	Performance Monitoring Indicator	Target	Baseline	Monitoring Mechanism	Responsible agency	Frequency
3.3.3	Three lake zoning plans and two integrated lake management plans established by 2017 and implemented from 2018	Three lake zoning plans established Two integrated lake management plans established	No lake zoning plans established No integrated lake management plans established	Progress report	PMO and Huainan Municipal Landscaping Management Bureau	Quarterly
3.3.4	Annual pollution reduction (COD and NH ₃ -N) of wetlands meet the designed target	COD: 476 tons NH ₃ -N:121 tons TN: 119 tons TP: 10 tons	0	Progress report	PMO, Huainan Municipal Landscaping Management Bureau, and HMEPB	Twice a year
3.4 3.4.1	Capacity Building Outputs Quarterly project progress reports submitted from the PMO to ADB during 2014–2020	Yes	No	Number and quality of progress reports	PMO and project management support consultants	Quarterly
3.4.2	External resettlement M&E reports submitted to ADB during 2014-2017	Yes	No	Number and quality of the M&E reports	External resettlement monitoring agency	Semiannually
3.4.2	Semiannual internal environmental monitoring reports acceptable to ADB submitted from the PMO to ADB during 2014–2018	Yes	No	Number and quality of the reports	PMO and environment specialists engaged under the project	Semiannually

	Performance Monitoring Indicator	Target	Baseline	Monitoring Mechanism	Responsible agency	Frequency
3.4.3	8,000 people, including HMG staff and residents, trained for project management, O&M of constructed or improved facilities, and health awareness and knowledge by 2019	8,000 people	0 people	Progress report	PMO and project management support consultants	Twice a year
3.4.4	Project completion report submitted from the PMO to ADB in 2020	Yes	No	Quality of the project completion report	PMO and project management support consultants	Within 3 months after the physical completion of the project
3.4.5	Percentage of staff satisfied with training	90%	n/a	Progress report	PMO and project management support consultants	Twice a year
3.5	Other Outputs					
3.5.1	Number of temporary construction jobs created	5,000	0	Progress report	Implementing agencies and PMO	Once a year
3.5.2	Number of permanent jobs created	112	0	Progress report	Implementing agencies and PMO	Once a year
4.	Safeguard Compliance Indicators			-L		
4.1	Involuntary Resettlement					
4.1.1	Income increase percentage of affected persons	10% annually	0	Survey Semiannual external monitoring report	PMO and external resettlement monitoring agency	Once a year

	Performance Monitoring Indicator	Target	Baseline	Monitoring Mechanism	Responsible agency	Frequency
4.1.2	Percentage of land acquisition and resettlement milestones met	100%	0	Survey Semiannual external monitoring report	PMO and external resettlement monitoring agency	Twice a year
4.2	Environmental Protection					
4.2.1	Compliance with environmental management plans	100%	0	Survey Semiannual external monitoring report	PMO, HMEPB, and environment specialists engaged under the project	Twice a year
4.3	Social Development					
4.3.1	Compliance with the social action plan	100%	0	Survey Semiannual external monitoring report	PMO and social development specialist engaged under the project	Once a year
4.3.2	Percentage of gender actions successfully discharged	100%	0	Survey Semiannual external monitoring report	PMO and social development specialist engaged under the project	Once a year
4.3.3	Percentage of female participants attending project capacity-building training sessions	20%	n/a	Record of training activities	PMO and social development specialist engaged under the project	Twice a year

	Performance Monitoring Indicator	Target	Baseline	Monitoring Mechanism	Responsible agency	Frequency
4.3.4	Percentage of female participants attending community-based public awareness sessions	40%	n/a	Record of activity of community- based public awareness sessions	PMO and social development specialist engaged under the project	Twice a year
4.3.5	Percentage of women obtaining construction-related jobs	30% of 5,000 jobs available	n/a	Contractor reports	Implementing agencies, PMO, and social development specialist engaged under the project	Once a year
4.3.6	Percentage of women obtaining permanent project jobs	30% of 119 jobs available	n/a	Personnel reports by HMG work units	Implementing agencies, PMO, and social development specialist engaged under the project	Once a year
5.	Project Implementation Progress Indicate	ors				
5.1 5.1.1	Area (percentage) of project land made available as scheduled	>70%	n/a	Progress report	Implementing agencies and PMO	Quarterly
5.1.2	Area (percentage) of project land made available up to 6 months late	<20%	n/a	Progress report	Implementing agencies and PMO	Quarterly
5.1.3	Area (percentage) of project land made available over 6 months late	10%	n/a	Progress report	Implementing agencies and PMO	Quarterly

	Performance Monitoring Indicator	Target	Baseline	Monitoring Mechanism	Responsible agency	Frequency
5.2	Contract Letting	<u> </u>	1	'	, ,	
5.2.1	Number of contracts let on time	>70%	n/a	Progress report	Implementing agencies and PMO	Quarterly
5.2.2	Number delayed 3 months or less	<20%	n/a	Progress report	Implementing agencies and PMO	Quarterly
5.2.3	Number delayed 3 to 6 months	<10%	n/a	Progress report	Implementing agencies and PMO	Quarterly
5.2.4	Number delayed 6 to 12 months	0%	n/a	Progress report	Implementing agencies and PMO	Quarterly
5.2.5	Number delayed more than 12 months	0%	n/a	Progress report	Implementing agencies and PMO	Quarterly
5.3	Contract Completion	1	II.		1	1
5.3.1	Contracts completed on time	>60%	n/a	Progress report	Implementing agencies and PMO	Quarterly
5.3.2	Number delayed 3 months or less	<30%	n/a	Progress report	Implementing agencies and PMO	Quarterly
5.3.3	Number delayed 3 to 6 months	<10%	n/a	Progress report	Implementing agencies and PMO	Quarterly
5.3.4	Number delayed 6 to 12 months	0%	n/a	Progress report	Implementing agencies and PMO	Quarterly
5.3.5	No delayed more than 12 months	0%	n/a	Progress report	Implementing agencies and PMO	Quarterly

	Performance Monitoring Indicator	Target	Baseline	Monitoring Mechanism	Responsible agency	Frequency
5.4	Disbursement Progress					
5.4.1	Percentage of planned cumulative disbursement	100%	n/a	Progress report	PMO	Quarterly
5.4.2	Percentage of current year target	100%	n/a	Progress report	PMO	Quarterly
5.5	Covenant Compliance					
5.5.1	Number fully complied with	80% or more	n/a	ADB mission	ADB and PMO	Twice a year
5.5.2	Number with delayed compliance	20% or less	n/a	ADB mission	ADB and PMO	Twice a year
5.5.3	Number not complied with	none	n/a	ADB mission	ADB and PMO	Twice a year
5.6	Capacity-Building Inputs	<u>'</u>		1	1	
	Amount of consults' inputs	152 person- months	0	Progress report	PMO	Twice a year
	Number of training days	tbd	0	Progress report	PMO	Twice a year

ADB = Asian Development Bank, CESFMT = community environmental supervision and flood management team, CNY = Chinese yuan, COD = chemical oxygen demand, ha = hectare, HMEPB = Huainan Municipal Environmental Protection Bureau, HMG = Huainan municipal government, km = kilometer, M&E = monitoring and evaluation, m³/year = cubic meter per year, n/a = not applicable, NH₃-N = ammonia, PMO = project management office, tbd = to be decided once training plan has been finalized, TN = total nitrogen, TP = total phosphorus, WWT = wastewater treatment, WWTP = wastewater treatment plant. Source: ADB estimates.