

PROJECT PREPARATORY TECHNICAL ASSISTANCE

A. Justification

1. During the country programming mission held in Manila in November 2012, the government of the People's Republic of China (PRC) requested the Asian Development Bank (ADB) to assist the governments of Hunan Province and Zixing City in preparing the Hunan Dongjiang Lake Environmental Protection and Integrated Utilization Project. The project is included in ADB's lending program for 2015 standby under the country operations business plan, 2013–2015 for the PRC. A project preparatory technical assistance (PPTA) is required to undertake due diligence in technical, safeguards, economic and financial, and poverty and social areas. The PPTA will help ensure compliance with ADB's requirements and incorporation of international best practices in the project design.

B. Major Outputs and Activities

2. The major output of the PPTA will be a project design which responds to the government's needs and fulfill ADB's requirements. Specifically, the outputs include (i) a sector assessment; (ii) financial management and procurement capacity assessments; (iii) stakeholder analysis and project design and monitoring framework (DMF); (iv) project technical, environmental, economic, financial, and social viability appraisals; (v) a gender action plan and a social action plan; (vi) a resettlement plan; (vii) an environmental impact assessment and an environmental management plan; (viii) project implementation schedule and a procurement plan; and (ix) a project administration manual. The key outputs and activities are summarized in Table A4.1.

Table A4.1: Summary of Major Outputs and Activities

Major Activities	Expected Completion Date	Major Outputs	Expected Completion Date
Initial assessment and scheduling	By Aug 2014	An inception report	By mid-Aug 2014
Sector assessment	By Oct 2014	A sector assessment report	By end Oct 2014
Stakeholder analysis, problems, and constraints identification	By Oct 2014	A problem tree and a draft project design and monitoring framework	By end Oct 2014
Social and economic survey and consultations	By Oct 2014	A gender action plan and a social action plan	Draft by Oct 2014 Final by Jan 2015
Technical, environmental, economic, financial, and social viability	By Dec 2014	An interim report A draft final report A final report	By Oct 2014 Draft by Jan 2015 Final by Feb 2015
Conduct social and safeguards assessment	By Dec 2014	A resettlement plan	Draft by Oct 2014 Final by Jan 2015
Assess environmental impacts	By Dec 2014	An environmental impact assessment report	Draft by Oct 2014 Final by Jan 2015
Assess institutional capacity and training needs	By Dec 2014	An institutional capacity assessment report	Draft by Oct 2014 Final by Jan 2015
Conduct financial management assessment	By Dec 2014	A financial management assessment report	Draft by Oct 2014 Final by Jan 2015
Conduct procurement capacity assessment	By Dec 2014	A procurement capacity assessment report and a procurement plan	Draft by Oct 2014 Final by Jan 2015
Prepare implementation plan	By Dec 2014	A project administration manual	Draft by Oct 2014 Final by Jan 2015

Source: Asian Development Bank.

C. Cost Estimate and Proposed Financing Arrangement

3. The PPTA is estimated to cost \$1,000,000 equivalent, of which \$600,000 equivalent will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-other sources); and \$200,000 equivalent will be financed on a grant basis by the Multi-Donor Trust Fund¹ under the Water Financing Partnership Facility administered by ADB. The cofinancier funds will be utilized on a front-loaded basis. The government will provide in-kind contributions (20% of the total PPTA cost), including counterpart staff remuneration, office accommodation, transportation to the project sites, access to communications and data, and other administrative support. The detailed cost estimate is presented in Table A4.2.

Table A4.2: Cost Estimates and Financing Plan
(\$'000)

Item	Total Cost
Asian Development Bank^a	
1. Consultants	
a. Remuneration and per diem	
i. International consultants (15 person-months)	300.0
ii. National consultants (47 person-months)	235.0
b. International and local travel	70.0
c. Reports and communications	20.0
2. Equipment (computer, printer, etc.) ^b	20.0
3. Workshops, training, seminars, and conferences ^c	
a. Facilitators	10.0
b. Training program	30.0
4. Surveys	30.0
5. Miscellaneous administration and support costs ^d	20.0
6. Representative for contract negotiations ^e	7.0
7. Contingencies	58.0
Total	800.0

^a Financed by the Asian Development Bank's (ADB) Technical Assistance Special Fund (TASF-other sources) and the Multi-Donor Trust Fund under the Water Financing Partnership Facility (footnote 1). The cofinancier fund is administered by ADB on a front-loaded basis.

^b Equipment will be turned over to the executing agency upon completion of the project preparatory technical assistance.

Type	Quantity	Cost (\$)
Computer	4	10,000
Printer	2	3,000
Copier	1	3,000
Digital camera	2	2,000
Other items (scanner etc.)		2,000

^c Workshops, training, seminars, and conferences (Advances to the consultants to cover the costs will be liquidated by the consultants within 30 days of each event.)

Purpose	Venue
Stakeholder analysis (problems and constraints)	Zixing City/Chenzhou Municipality, Hunan Province
Design and monitoring framework	Zixing City/Chenzhou Municipality, Hunan Province
Social and environmental safeguards training	Zixing City/Chenzhou Municipality, Hunan Province
Procurement training	Zixing City/Chenzhou Municipality, Hunan Province
Financial management training	Zixing City/Chenzhou Municipality, Hunan Province

^d Includes costs for office operations, secretarial services, miscellaneous travel expenses, and site interpretation and translation.

^e Includes cost of travel, hotel, and per diem for government observers invited for contract negotiations.

Source: Asian Development Bank estimates.

¹ Contributors: the governments of Australia, Austria, Norway, Spain, and Switzerland.

D. Consulting Services

4. It is expected that 15 person-months (pm) of international and 47 pm of national consultants are required. The consultants will support the executing and implementing agencies in completing the project feasibility studies and safeguard documents to a standard consistent with the requirements of ADB and the government. The consultants will also provide start-up project implementation support to the executing and implementing agencies. ADB's Guidelines on the Use of Consultants (2013, as amended from time to time) will be applied in recruiting consultants. A consulting firm will be engaged using quality- and cost-based selection method with quality and cost ratio of 80:20. Table A4.3 provides details of the required expertise. The outline terms of reference for the PPTA consultants are described in paras. 5–20 (detailed terms of reference presented as a separate attachment).

Table A4.3: Summary of Consulting Services Requirement

International Name of Position	Person- month	National Name of Position	Person- month
Water environmental management specialist/team leader	6	Wastewater management specialist/deputy team leader	6
Economics and finance specialist	3	Environment economist	3
Environment specialist	3	Financial analyst	2
Social development and resettlement specialist	3	Environment specialist	3
		Social development specialist	3
		Resettlement specialist	3
		Climate change and water resources management specialist	4
		Financial management specialist	2
		Institutional and capacity development specialist	3
		Project management and procurement specialist	3
		Solid waste management specialist	2
		Nonpoint source pollution management specialist	3
		Soil conservation and vegetation specialist	2
		Biodiversity and wetland management specialist	3
		Eco-compensation specialist	3
		Water supply specialist	2
Total	15	Total	47

Source: Asian Development Bank estimates.

5. **Water environmental management specialist/team leader** (international, 6 pm), and **wastewater management specialist/deputy team leader** (national, 6 pm). The specialists will have a master degree or above in water environmental management, wastewater management, or other related fields. They shall have 10 years of work experience in project development and implementation, and familiar with ADB's project processing requirements. The team leader will have overall responsibility for the PPTA coordination and implementation, and the quality of all PPTA outputs. Specifically, the specialists will (i) prepare a sector assessment report; (ii) conduct stakeholder analyses, and develop the project DMF; (iii) review the overall project design; (iv) recommend a project performance management system; (v) prepare the implementation schedule and the detailed implementation arrangements; (vi) analyze lessons learned from the previous projects financed by ADB, other development partners, and the government; and incorporate them in the project design; (vii) prepare inception, interim, draft final, and final reports; (viii) project scenarios of future water quality in the absence of the project; and (ix) organize and implement training for the executing and implementing agencies.

6. **Economics and finance specialists** (international, 3 pm; national environmental economist, 3 pm; and national financial analyst, 2 pm). The specialists will have a master degree or above in economics or finance, and 7 years of work experience in economic and financial analyses of ADB- or World Bank-financed projects. The specialists will (i) review and prepare project cost estimates and financing plan; (ii) conduct project economic and financial analyses, covering demand forecast, least-economic cost analysis, economic and financial cost-and-benefit analysis, economic and financial internal rates of return, sensitivity analysis, and benefit distributional analysis; (iii) conduct analysis on the wastewater tariffs covering policies and regulations, existing structures, cost-recovery tariff setting, cross-region comparison, and other related issues; (iv) conduct willingness-to-pay and affordability analysis; and (v) review the fund flow, loan repayment, and disbursement arrangements.

7. **Environment specialists** (international, 3 pm; national, 3 pm). The specialists will have a master degree or above in environmental studies and 10 years of work experience in environmental assessment. The specialists will (i) review draft domestic environmental safeguard reports, and obtain any additional information needed to comply with ADB's requirements; (ii) assess possible environmental impacts of each subproject, and prepare a consolidated environmental impact assessment report and an environmental management plan to meet ADB's requirements, including description of each mitigation measure and cost estimates, environmental monitoring plan, institutional arrangements, implementation schedule, and public consultations; (iii) coordinate with the social development plans for the inputs to be covered in the consolidated environmental assessment, including livelihood issues related to environment; and (iv) assess initial climate change impacts, and recommend options on how to cope with climate change.

8. **Social development and resettlement specialist** (international, 3 pm). The specialist will have a master degree or equivalent qualification in social sciences and/or development studies, and at least 7 years of work experience in social development, with proven experience in social safeguards and/or resettlement planning and implementation. Extensive experience in social assessment, poverty analysis, and gender analysis is essential, as is familiarity with qualitative and quantitative methodology. The consultants should have good knowledge on rural poverty and rural–urban inequality issues in the PRC, including poverty trends, geographical and/or regional distribution of the poor, and characteristics of typical poor households in the rural PRC. Knowledge of the Chinese language will be an asset. Recent experience in preparing resettlement plans and social analysis for ADB-financed projects, and familiarity with the ADB policies and guidelines on safeguards, resettlement, poverty and social analysis, gender mainstreaming, and consultation and participation will be highly regarded. The specialist will lead the national resettlement and social development specialists to accomplish the tasks described in paras. 9 and 10 following the sections of ADB's Safeguard Policy Statement (2009) and other ADB policies regarding poverty and social analysis, gender, consultation and participation, etc. The specialist will be responsible for coordinating social development and social safeguard requirements with the work of the other PPTA team members.

9. **Social development specialist** (national, 3 pm). The specialist will have at least a master's degree in a social science or a relevant field, and at least 7 years of experience working on social development, preferably on rural development and water resource projects financed by ADB or the World Bank group. Extensive experience in social assessment, poverty analysis, and gender analysis is essential, as is familiarity with qualitative and quantitative methodology. The specialist will support the international social development and resettlement specialist to conduct a poverty and social analysis; prepare social development documents; and prepare social surveys and other research to assess poverty, gender, labor, and other social

dimensions, with the objective of preparing design elements that will make the project socially and economically inclusive in the sense that the poor, vulnerable, and excluded households will benefit from the project; and that will contribute to increased gender equity. The specialist will assess whether safeguard requirements 3 in ADB's Safeguard Policy Statement (2009) will be triggered; and if triggered, will assist in preparing an ethnic minority development plan.

10. **Resettlement specialist** (national, 3 pm). The specialist will have a master's degree or equivalent qualification in a field relevant to social safeguards, and at least 7 years of work experience in resettlement in internationally financed projects with rural land acquisition impact. The specialist will have extensive experience in involuntary resettlement safeguard planning documents, and in-depth knowledge of current PRC legislation and policy regarding land acquisition, land tenure consolidation, and land transfer. The specialist will support the international social development and resettlement specialist to (i) collect data on land use in project impact areas and assess whether the project will cause any resettlement impacts; (ii) review past, present, and future social impacts, conduct consultation to determine the economic and sociocultural conditions of potentially affected persons; (iii) confirm and verify presence or absence of persons who may be differentially or disproportionately affected by the project; and (iv) assist the implementing agency in preparing a resettlement plan; and (v) confirm and verify presence or absence of complaints in relation to the project and selected sites, etc. The specialist will be responsible to coordinate social safeguard requirements with the work of the other national PPTA team members.

11. **Climate change and water resources management specialist** (national, 4 pm). The specialist will have (i) a graduate degree or equivalent experience in water resources management, hydrology, water engineering, ecology, or environment, or equivalent; (ii) at least 10 years of work experience in integrated water resources management and climate change; (iii) demonstrated expertise in evaluating potential impacts of climate change on water security and making recommendations for adaptation in the water sector; and (iv) proficiency in spoken and written English. Specifically, the specialist will (i) review the water resources development and conservation plans in the project area; (ii) assist in sector assessment; (iii) conduct water demand and water balance analyses, including consideration of climate variability and changes; (iv) assess climate change impacts and model climate projections; (v) assess climate change risks; and (vi) identify opportunities for climate proofing, adaptation, and mitigation actions and/or activities to be incorporated in the project design.

12. **Financial management specialist** (national, 2 pm). The specialist will have a degree in financial management and at least 7 years of work experience in project financial management assessment. The specialist will (i) conduct a financial management assessment of the executing and implementing agencies; (ii) assess their policies and capacity for financial and disbursement management; (iii) review existing procedures for disbursement, funds flow, and approvals; and recommend streamlined procedures for contracting and disbursement under the project, and internal control and audits; (iv) review onlending arrangements; and (v) assist in financial projections and analyses.

13. **Institutional and capacity development specialist** (national, 3 pm). The specialist should have a degree in management or related field, and at least 7 years of work experience with ADB or other externally funded projects. Experience with ADB- or World Bank-financed projects in the water resources management and environment sectors is expected. The specialist will (i) assess the institutional settings for environmental and lake management; (ii) review, assess, and prepare the institutional impacts of the project following ADB guidelines; (iii) assess the existing management for water resources protection and wetland management in

the project area and their capacity, and propose institutional and capacity development plans to be included in the project; and (iv) recommend measures for improving performance.

14. **Project management and procurement specialist** (national, 4 pm). The specialist will have a degree in engineering and at least 7 years of work experience in project management, and procurement and consulting services. The specialist will (i) conduct procurement capacity assessment for the executing and implementing agencies to undertake procurement and consultant recruitments envisaged under the project; (ii) prepare a procurement plan; (iii) assess the capacity of the executing and implementing agencies for project implementation, and prepare training proposals to be included under the project; (iv) provide necessary trainings on project management, procurement, and consulting services; and (v) assist in developing the DMF and performance targets.

15. **Solid waste management specialist** (national, 2 pm). The specialist will have a degree in environment or relevant field, and at least 7 years of work experience in waste treatment and environmental management. The specialist will (i) review the relevant government policy and plans regarding solid waste treatment in Zixing City; (ii) assist in assessing the pollution status in Dongjiang Lake catchment; and (iii) review the measures of solid waste management, and recommend measures for improvement under the project to reduce water pollution.

16. **Nonpoint source pollution management specialist** (national, 3 pm). The specialist will have a degree in environment or relevant field, and at least 7 years of work experience in nonpoint source pollution management and environmental management. The specialist will (i) review the relevant government policy and plans regarding nonpoint source pollution management; (ii) assess nonpoint sources pollution status; and (iii) review the measures of managing nonpoint source pollution, and propose measures for mitigating and reducing nonpoint source pollution under the project.

17. **Soil conservation and vegetation specialist** (national, 2 pm). The specialist will have a master degree or above in botany, or environment or other relevant field, and at least 10 years of work experience in soil conservation, re-vegetation, restoration, and rehabilitation of degraded landscape. The specialist will (i) review the relevant government policy and plans regarding soil conservation and reforestation; (ii) assess the soil conservation and reforestation programs and plans; and (iii) review the proposed activities to be included in the project, and provide recommendations for improvement.

18. **Biodiversity and wetland management specialist** (national, 3 pm). The specialist will have a master degree or above in ecology or biodiversity or other relevant fields, and at least 10 years of work experience in wetland rehabilitation and management. The specialist will (i) review the relevant government policy and plans relating to wetland management; (ii) assess wetland rehabilitation programs and plans; and (iii) review the proposed wetland rehabilitation interventions to be included in the project, and provide recommendations for improvement.

19. **Eco-compensation specialist** (national, 3 pm). The specialist will have a degree in environment or relevant field, and at least 7 years of work experience in eco-compensation and payment for environmental services. The specialist will (i) review the relevant government policy and plans regarding eco-compensation; (ii) assess the value of the ecosystem of Dongjiang Lake; (iii) review the proposed activities under the project, and provide recommendations for improvement; and (iv) recommend policy reforms, and propose several eco-compensation options for government to further take actions.

20. **Water supply specialist** (national, 2 pm). The specialists will have a degree in water supply or other related fields; 10 years of work experience in water supply and water resources management project development and implementation; and familiar with ADB's project processing requirements. The specialists will (i) assist in preparing a sector assessment report, and identify issues and constraints of water supply in the project area; (ii) assess water demand forecasts and the feasibility of the water supply systems to be developed under the project, and propose recommendations for improving project design; (iii) estimate operation and maintenance costs of the project, including the recurrent cost of implementing social and environmental safeguards; and (iv) assist in preparing a procurement plan and the project implementation schedule.

E. Implementation Arrangements

21. The Zixing city government will be the executing agency responsible for overall planning and management of project. A project leading group, chaired by the mayor of the Zixing city government, has established and will ensure coordination across sectors; and provide guidance to the PPTA implementation, project preparation, and implementation. A project management office, headed by the deputy director of the Zixing City Development and Reform Bureau, has also been formed to be responsible for daily coordination of the PPTA implementation, preparation, and implementation of the project. In Chenzhou Municipality, a project leading group will be established to guide, coordinate, and support project preparation and implementation. The Hunan Provincial Development and Reform Commission and the Hunan Provincial Finance Department will provide overall guidance, coordination, and supervision. The equipment will be procured by the consulting firm following ADB's Procurement Guidelines (2013, as amended from time to time) and will be handed over to the executing agency upon completion of the PPTA. The training and workshop funds will be administered through the consultants. The disbursement will be done following ADB's *Technical Assistance Disbursement Handbook* (2010, as amended from time to time).

22. The PPTA will be implemented in about 18 months from 15 July 2014 to 31 December 2015. The proposed PPTA processing and implementation schedule is listed in Table A4.4.

Table A4.4: Technical Assistance Processing and Implementation Schedule

Major Milestones	Expected Completion Date
Project concept paper (PPTA) approval	April 2014
Recruitment of PPTA consultants	March–July 2014
Consultant mobilization	July 2014
Inception	August 2014
Interim report	October 2014
Draft final report	January 2015
Final report	February 2015
PPTA closure	31 December 2015

PPTA = project preparatory technical assistance.
Source: Asian Development Bank estimates.