

PROJECT PREPARATORY TECHNICAL ASSISTANCE

A. Justification

1. The Jilin Provincial Government (JPG) and Baishan and Baicheng city governments, in consultation with Asian Development Bank, have identified the project components under the proposed ensuing loan. It is a multisector and technically complex project—requiring full scale due diligence in technical, economic, financial, social, resettlement, environmental, and institutional aspects through a project preparatory technical assistance (PPTA). The PPTA will develop the project, suitable for ADB funding, in conjunction with the country partnership strategy, sector, and operational experience, international best practices, and lessons from previous projects.

B. Major Outputs and Activities

2. The PPTA will have the following expected outputs and activities: (i) an inception report, outlining the overall implementation plan, to be submitted within the first month from the commencement of services; (ii) an interim report, confirming the selected components with a detailed assessment of the project along with key policy and specific project-related issues, to be submitted within the fourth month from commencement of services; (iii) draft environmental impact assessment (EIA), resettlement plans, ethnic minority development plan (EMDP), gender action plan, and social action plan, to be submitted within the sixth month from commencement of services; (iv) governance risk assessments, including aspects of public financial management, procurement, and anti-corruption, to be submitted within the sixth month from commencement of services; (v) a draft final report, with a detailed assessment of the technical, financial, economic, safeguards, social, and institutional aspects of the project, to be submitted within the sixth month from commencement of services; (vi) a final report, to be submitted within the ninth month from commencement of services; and (vii) project processing and administration of workshops, training, seminars, and surveys before completion of the PPTA. The major outputs and activities are summarized in Table A4.1.

Table A4.1: Summary of Major Outputs and Activities

Major Activities	Major Outputs	Expected Completion Date
Analysis of current situation, sector assessment, main orientation and adjustment of the PPTA, and first participatory workshop.	Inception report	Feb 2013
Develop draft ISWM roadmap, draft feasibilities study, and second participatory workshop.	Interim report	May 2013
Project design, safeguards, due diligence, RRP, PAM, and third participatory workshop.	Draft final report	Jul 2013
	Final report	Sep 2013

ISWM = integrated solid waste management, PAM = project administration manual, PPTA = project preparatory technical assistance, RRP = report and recommendation of the President.

Source: Asian Development Bank.

C. Cost Estimate and Proposed Financing Arrangement

3. The TA is estimated to cost \$850,000 equivalent, of which \$700,000 equivalent will be financed on a grant basis by ADB's technical assistance special fund (TASF-other sources) and \$150,000 equivalent will be provided by the Water Financing Partnership Facility.¹ The

¹ A multidonor trust fund under the Water Financing Partnership Facility was approved on 28 August 2012.

government will provide counterpart support in the form of counterpart staff, office accommodation, office supplies, domestic transportation, communication facilities for consultants, and other in-kind contributions. Table A4.2 presents the detailed cost estimate.

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 (22.5 person-months)	509.4
ii. National consultants (35 person-months)	204.0
b. International and local travel	35.0
c. Reports and communications ^b	10.0
2. Equipment (computer, printer, etc.) ^c	13.0
3. Workshops, training, seminars, and conferences ^d	15.0
4. Surveys	20.0
5. Miscellaneous administration and support costs	8.0
6. Representative for contract negotiations ^e	5.0
7. Contingencies	30.6
Total	850.0

^a Financed by the Asian Development Bank's technical assistance special fund (TASF-other sources) and Multi-Donors' trust Fund under the Water Financing Partnership Facilities.

^b Includes office communications, printing and translation of TA reports, and other output documents into Chinese.

^c Equipment to be procured in accordance with ADB's Procurement Guidelines (2010, as amended from time to time).

	Quantity	Cost
Computer (laptop, desktop)	6	\$5,000
Printer/photocopier/scanner	1	\$3,000
Others (projector, digital camera, facsimile, etc)	1 each	\$5,000

^d To be held in Changchun, Baishan and Bacheng municipalities. It includes (i) ADB inception, interim, and loan fact-finding workshops; and (ii) ADB's design and monitoring framework, project performance management system, procurement, disbursement, financial management, social, gender, safeguards trainings, and other capacity building training workshops.

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

Source: Asian Development Bank estimates.

D. Consulting Services

4. In accordance with ADB's Guidelines on the Use of Consultants (2010, as amended from time to time), a consulting firm will be engaged using the quality- and cost-based selection method with a ratio of 90:10 using the simplified technical proposal procedure.² The outline terms of reference for the consultant team, which is subdivided to technical, financial and economic, safeguards and social, and governance teams, is in paras. 5 to 8 (Table A4.3).

Table A4.3: Summary of Consulting Services Requirement

International Name of Positions	Person- months	National Name of Positions	Person- months
Civil engineer (team leader)	6.0	Civil Engineer (co- team leader)	7.0
Solid waste management expert	3.5	Solid waste management expert	4.5
		Landfill management expert	2.0
Water supply expert	3.5	Water supply expert	5.0
Urban planning expert	2.0	Urban planning expert	4.0

² The ratio of 90:10 is adopted due to the project design complexity, which requires rigorous technical review for innovative approaches in ISWM, and best practices in water resource management and urban development.

International Name of Positions	Person- months	National Name of Positions	Person- months
Environment expert	2.5	Environment expert	4.0
Resettlement and social development expert	2.5	Resettlement expert	2.5
Finance and economic analysis expert	2.5	Social development expert	2.0
		Finance analysis expert	2.0
		Economic analysis expert	2.0
TOTAL	22.5		35.0

Source: Asian Development Bank.

1. Civil engineers/team leaders (international, 6 person-months; national, 7 person-months)

5. The consultants should have relevant master's degree, at least 15 years (international) and 8 years (national) relevant work experience in their respective field, and have urban road engineering backgrounds. The experts will carry-out the following tasks: (i) guide, coordinate, and supervise the consulting team's inputs, and will be responsible for preparing and finalizing TA outputs, including the inception report, interim report, draft final report, and final report; (ii) develop the project design and monitoring framework and guide the project design, incorporating lessons and experiences from other ADB-financed urban projects; (iii) undertake a technical review of the design and feasibility analyses prepared for urban road and associated facilities components to make sure that roads and associated networks are properly designed and fully meet technical standards, including national safety and environmental requirements; (iv) explore options to introduce improved public transport system, especially to connect the residents to the "city center" and the "economic/industrial districts; (v) work with the urban planning team to optimize the road layout and explore transit-oriented development solution and land capture value; (vi) focus the road component design on (a) promoting a public transport oriented development supporting a viable public transport network to link different city areas, (b) developing a high-quality walking and cycling environment, and (c) increased road safety; (vii) energy efficient specific features, such as energy efficient lighting or pumping station; (viii) strengthening the design and implementation arrangements for the component; and (ix) review contract packaging arrangements and the procurement capacity assessment, coordinate and consolidate each expert team input to preparation of the project procurement plan, and advise on the preparation of the bidding documents for the first national competitive bidding package.³

2. Solid waste management experts (international, 3.5 person-months; 2 national, 6.5 person-months)

6. The consultants have relevant master's degree, at least 15 years (international) and 8 years (national) relevant work experience in solid waste management, and have extensive experience in designing and implementing integrated solid waste management (ISWM). The experts will carry-out the following tasks: (i) collect baseline data, assesses current situation including source identification, quantification, and characterization of different types of waste and projections for future waste generation; (ii) assess all present aspects of waste management system; (iii) identify issues of concern covering all areas, such as economic, technical, institutional, environmental, and social; (iv) formulate an integrated waste management plan; (v) work closely with the local design institute to develop components related to waste collection, segregation, and transport according waste type, transfer stations, and material recovery facilities; (vi) work with the social development expert to promote community-

³ The consultant will use the MOF's "Chinese Model Bidding Documents – Procurement of Civil Works under NCB", effective June 2012.

led solid waste collection; (vii) analyze design criteria and technical due diligence for landfill upgrading and extension ensuring that engineering design and specifications are adequate and in line with the regulation of the People's Republic of China (PRC) and international standards; (viii) improve corporate arrangement and formulate public-private partnerships options; (ix) formulate cost estimate, appropriate procurement packages and plans, and relevant institutional arrangement; and (x) develop an education and information campaign.

3. Water supply experts (international, 3.5 person-months; national, 5 person-months)

7. The consultants should have relevant master's degree, at least 15 years (international) and 8 years (national) relevant work experience in their respective field, and have sound experience in non-revenue water (NRW) reduction and water quality improvement. The experts will carry-out the following tasks: (i) review the current situation of the water supply scheme of Baishan City; (ii) work with the urban planner specialist on future population growth and the water demand; (iii) work with the local design institute to identify the outdated or cracked distribution mains; (iv) review the proposed design and drawings including intake, sedimentation tank, raw water main and supply mains, treatment plant, and storage reservoirs; (v) finalize the treatment plant process and technical specifications of the materials to be used in the plants; (vi) implement a diagnostic of the NRW situation, possible targets, and timeframes for NRW reduction; (vii) identify investments needed, expected results and other changes including organizational, legislation, and contractual that would be needed to enable NRW reduction to occur; (viii) formulate a capacity development to enable the achievement and sustain targeted NRW levels; (ix) identify and assess all events that affect the safety of the water supply from the catchment through the treatment and distribution to the consumers' point of use; (x) assess the risk presented by each hazard and hazardous events and assess the controls and barrier in place for each significant risk; (xi) implement an improvement management plan and advice on investments needed; (xii) improve relevant institutional and corporate arrangement, and formulate public-private partnerships options; (xiii) formulate cost estimate and appropriate procurement packages and plans; and (xiv) develop a monitoring program to ensure the efficiency and sustainability of the system.

4. Urban planning experts (international, 2 person-months; national, 4 person-months)

8. The consultants should have relevant master's degree, at least 15 years (international) and 8 years (national) relevant work experience in their respective field, and have experience in urbanization in PRC and economic zone development. The experts will carry-out the following tasks: (i) review the current urban development plan strategy, master plan and vision of both cities, assess pattern and trend of in-migration from surrounding countryside, and review the population growth forecast; (ii) provide the strategic territorial development background at the provincial and prefectural level to strengthen the project rationale; (iii) in Baishan, work with the water supply experts to assess the water supply demand forecast; (iv) in Baicheng, (a) assess the economic base and development potential, poverty and migration issues, and collect and compile basic data and information relating to the urban development, inclusiveness, and competitiveness; (b) provide strategic and policy direction to formulate an urban development strategy that will lead to economic growth, job creation, and address inequities including intra-urban or regional disparities; (c) advise on improving the general development plan and city zoning, and advise on economic zone and industrial park development to ensure the city competitiveness, inclusiveness, and green development; (d) work with the civil engineers team to improve the road layouts, transport, and communication linkages according to the urban

development plan formulated. Work with the civil engineer/transport specialist to explore transit-oriented development solution and land capture value.

5. Environment experts (international, 2.5 person-months; national, 4 person-months)

9. The consultants should have relevant master's degree and at least 15 years (international) and 8 years (national) work experience in environmental impact assessment for urban environmental infrastructure. The experts will carry-out the following tasks: (i) advise the executing agency and the design institutes on the environment impact assessment requirements specified in ADB's Safeguard Policy Statement (2009) (SPS) and review the environment impact statements (EIS) prepared for each project component; (ii) prepare an initial environment examination (IEE) report and an environmental management plan in compliance with SPS; (iii) evaluate the environmental appropriateness of project components and recommend environmentally friendly options for project component design and construction; (iv) establish robust ecological baseline and performance targets for both output and outcome indicators; (v) assist the executing agency and implementing agencies with stakeholder participation, consultation, and involvement during preparation of EIA and disclosure of relevant information; (vi) discuss with executing agency and implementing agencies a project-level grievance redress framework covering formal and informal channels; ensure domestic approval of environment assessments for the project; (vii) explore governmental incentive such as green programs to encourage private sector participation in solid waste management; (viii) provide environment-related sections in the draft report and recommendation of the president, loan and project agreements, and project administration manual; (ix) present draft IEE at ADB peer review meeting (at least via video conference); and (x) revise the project IEE based on comments received from ADB and external reviewers.

6. Resettlement and social experts (international, 2.5 person-months; 2 national, 4.5 person-months)

10. The consultants should have relevant master's degree and experience in social sector surveys and analyses with at least 15 years (international) and 8 years (national) work experience in resettlement, indigenous peoples, and gender and social impact assessment, preferably for urban environmental infrastructure. The experts will carry-out the following tasks: (i) review the poverty situation in project areas and assess the project's potential impact on the poor; (ii) conduct key informant, focus group discussions, and survey project beneficiaries; (iii) identify vulnerable groups and ethnic minorities, conduct affordability analysis and gender analysis, assess project impacts, and recommend mitigating measures and design options to maximize benefits; (iv) help the executing agency to design, if necessary, the EMDP with reference to SPS; (v) prepare a social action plan to mitigate and maximize positive and adverse impacts and prepare a gender action plan reflecting actions and indicators in the design and monitoring framework; (vi) collect and analyze project monitoring data, which will be used to develop a project performance management system; (vii) assess the policy and legal framework for resettlement in the PRC, and propose measures to bridge any gap between ADB and PRC policies; (viii) assist the implementing agencies to prepare the draft resettlement in compliance with the SPS and provide guidance in finalizing the resettlement plans; (ix) define categories for impact and compensation eligibility of affected people, and prepare an entitlements matrix based on PRC laws and regulations and SPS; (x) identify compensation and rehabilitation options, and develop time-bound livelihood rehabilitation and improvement programs in consultation with affected people; (xi) develop consultation mechanisms during project preparation and implementation with displaced people, including affected ethnic minorities that

are culturally appropriate and gender-responsive; (xii) review the organizational structure and capacity to implement resettlement, and recommend improvements and actions required before the start of land acquisition; (xiii) prepare a summary resettlement plan and a detailed resettlement implementation schedule that is linked to the overall project implementation schedule; (xiv) help the executing agency to setup a grievance redress mechanism, institutional arrangement, budget and monitoring and evaluation system (internal and external); and (xv) conduct due diligence in case land has been already acquired in anticipation of ADB project.

7. Finance and economic analysis experts (international, 2.5 person-months; 2 national, 4.0 person-months)

11. The consultants have relevant master's degree and at least 15 years (international) and 8 years (national) work experience in project financial and economic analysis. The consultants will conduct a financial analysis of the project in order to satisfy ADB's financial due diligence requirements by performing the following tasks: (i) review the economic rationale and investment priorities, and analyze project economic impacts based on improved accessibility of road network, safe drinking water, job opportunities, and avoided flood impacts; (ii) analyze alternative options for each component, and ensure that the least-cost option is identified; (iii) prepare a detailed cost estimates, summary cost estimates table, financing plan and financial analysis, in accordance with ADB's Guidelines for Financial Management and Analysis of Projects (2005) and Financial Due Diligence Methodology Note (2009); (iv) conduct the economic analysis for the project in accordance with ADB's Guidelines for Economic Analysis of Projects and other relevant policies and guidelines (a least cost, alternative analysis, demand analysis, and sustainability analysis will be undertaken as part of economic analysis); (v) reviewing the fiscal arrangement and fiscal capacity of the executing agency to sustain the investment; (vi) prepare the design of the funds flow and disbursement mechanisms for the ensuing project, based on financial management assessment (FMA) of executing and implementing agencies; (vii) undertaking a financial management and procurement capacity assessment of the implementing agencies for the project in accordance with ADB's Guidelines for ADB's FMAQ and Financial Management and Analysis of Projects Guidelines (2005); (viii) identify any further capacity building (financial management and ADB's disbursement procedures) that will be necessary for the project, based on the results of the FMA; and (ix) develop an appropriate design and monitoring indicators for the project.⁴

E. Implementation Arrangements

12. The PPTA will be implemented over 11 months. It will start on 15 January 2013 and will be completed by 15 November 2013. JPG will be the executing agency. A steering committee has been established to provide overall guidance, monitoring, and evaluation to the preparation and implementation of the project. The steering committee includes representatives from Jilin Development Reform Commission, Jilin Finance Bureau, Jilin Housing and Urban Construction Bureau, and Baishan and Baicheng Governments. The committee will be chaired by the Jilin Province vice governor. A PMO has been established at the Jilin Housing and Urban Construction Bureau. In-kind contributions from JPG will include (i) office accommodation and district/county level transport; (ii) local support staff; and (iii) draft feasibility reports, domestic EIAs and resettlement plans to the PPTA consultant. Consulting services will be engaged in accordance with ADB's Guidelines on the Use of Consultants (2010, as amended form time to

⁴ ADB. 2009. *Financial Due Diligence—A Methodology Note*. Manila; ADB. 2005. *Financial Management and Analysis of Projects*. Manila; ADB. 1998. *Guidelines for the Economic Analysis of Water Supply Projects*. Manila; and ADB. 1997. *Guidelines for the Economic Analysis of Project*. Manila.

time). The TA equipment will be procured by the consultants in accordance with ADB's Procurement Guidelines (2010, as amended from time to time) and transferred to JPG upon TA completion. TA funds will be disbursed in accordance with ADB's *Technical Assistance Disbursement Handbook* (2010, as amended from time to time). The proposed TA implementation schedule is in Table A4.4.

Table A4.4: Proposed Technical Assistance Processing and Implementation Schedule

Major Milestones	Expected Completion Date
Concept paper clearance and TA approval	August 2012
Selection and recruitment of consultants	August-December 2012
Commencement of PPTA	January 2013
Inception report submission	February 2013
Interim report submission	April 2013
Draft final report submission	June 2013
Final tripartite meeting (loan fact-finding mission)	July 2013
Final report submission	August 2013
Completion of the PPTA	November 2013
Financial closure of the PPTA	February 2014

PPTA = project preparatory technical assistance.

Source: Asian Development Bank estimates.