



Technical Assistance Report

Project Number: 46062
(PPTA)
June 2013

People's Republic of China: Preparing the Gansu Baiyin Urban Development II Project

Asian Development Bank

PROJECT PREPARATORY TECHNICAL ASSISTANCE

A. Justification

1. The project preparatory technical assistance (PPTA) comprising of two specialized teams of individual consultants and a PPTA consulting firm is needed to define the scope of the proposed project. The objectives of the overall technical assistance are to: (i) design the project suitable for ADB financing by identifying the most appropriate project components and providing innovative idea, management approach, and technology to effectively contribute to the designed project impact; (ii) review proposed project components based on detailed due diligence assessment on industrial sector demand, technical, economic and financial, governance, safeguards, poverty and social, and project risks; (iii) provide trainings to the executing and implementing agencies, and other relevant stakeholders, to increase institutional capacity on project development and implementation procedures; and (iv) formulate measures to ensure long-term sustainability of project facilities, by improving the management and governance capacity of executing and implementing agencies.

B. Major Outputs and Activities

2. Two specialized teams of individual consultants on transportation management and vocational education will have required outputs of: (i) an inception report outlining the overall implementation plan within the first month of consultant mobilization; (ii) a draft final report with comprehensive review, proposed components' design of investment and non-investment components, institutional framework, and required capacity development needs and activities within the third month of consultant mobilization; and (iii) a final report within the fifth month of consultant mobilization. The consultants are expected to deliver capacity building training on their respective sector issues to the relevant agencies including executing agency and implementing agencies.

3. The PPTA consulting firm will have expected outputs of: (i) an inception report outlining the overall implementation plan within the first month of consultant mobilization; (ii) an interim report with a detailed assessment of the project components at the interim stage along with key policy and specific project-related issues within the fourth month of consultant mobilization; (iii) project environmental impact assessment (EIA), draft resettlement plans, draft gender action plan (GAP), draft social action plan (SAP), draft procurement capacity assessment (PCA), and draft financial management assessment within the sixth month of consultant mobilization; (iv) a draft final report with a detailed assessment of the technical, financial, economic, environmental, social, and institutional aspects within the seventh month of consultant mobilization; and (v) a final report before completion of the PPTA. The PPTA consulting firm will deliver capacity building training on project design and project performance and monitoring system, ADB's safeguards policy, and ADB's disbursement and procurement policies and guidelines. The major outputs and activities of the technical assistances are summarized in Table A4.1.

Table A4.1: Summary of Major Outputs and Activities of Consulting Services

Major Activities	Expected Completion Date	Major Outputs	Expected Completion Date
Two Specialized Teams of Individual Consultants			
Capacity building training	31 December 2013	Inception report	31 August 2013
		Draft final report	31 October 2013
		Final report	31 December 2013
Consulting Firm			
Project design and PPMS training	31 December 2013	Inception report	7 October 2013
		Interim report	1 January 2014
ADB's safeguard policy training	31 December 2013	Draft project EIA, resettlement plans, GAP, SAP, PCA, FMA	1 March 2014
ADB's disbursement and procurement training	31 December 2014	Draft final report	1 April 2014
		Final report	1 December 2014

ADB = Asian Development Bank, GAP = gender action plan, EIA = environmental impact assessment, FMA = financial management assessment, PCA = procurement capacity assessment, PPMS = project performance monitoring system, SAP = social action plan.

Source: Asian Development Bank estimates.

C. Cost Estimate and Proposed Financing Arrangement

4. The TA is estimated to cost \$700,000 equivalent, of which \$600,000 will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-other sources). The government will provide counterpart support in the form of counterpart staff, office accommodation, and draft domestic environmental impact assessments, draft domestic feasibility reports and draft resettlement plans. The detailed cost estimate is 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 (13.5 person-months)	297.0
ii. National consultants (26.0 person-months)	182.0
b. International and local travel	53.0
c. Reports and communications	3.0
2. Equipment ^b	12.0
3. Workshops and training ^c	10.0
4. Surveys	15.0
5. Miscellaneous administration and support costs	3.0
6. Representative for contract negotiations	5.0
7. Contingencies	20.0
Total	600.0

^a Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF-other sources).

^b Equipment (the equipment will be turned over to the executing agency upon completion of technical assistance activities)

Type	Quantity	Cost
Computer (Laptop, Desktop)	2 laptop, 2 desktop	\$5,000
Printer, photocopier	1	\$4,000
Scanner	1	\$1,500
Others (Projector)	1	\$1,500

^c Workshops and training

Purpose	Venue
ADB inception, midterm and loan fact-finding workshop	Baiyin, Gansu Province, PRC
ADB project design and project performance monitoring system training	Baiyin, Gansu Province, PRC
ADB safeguards and social development training	Baiyin, Gansu Province, PRC
ADB project financial management, disbursement and procurement training	Baiyin, Gansu Province, PRC
Other relevant capacity building training	Baiyin, Gansu Province, PRC

Source: Asian Development Bank estimates.

D. Consulting Services

5. The PPTA will have three consulting service packages namely, two specialized teams of individual consultants and a consulting firm. The total inputs of the two specialized teams will be 2 international consultants, with a total of 2.0 person-months; and 2 national consultants with a total of 4 person-months with expertise in vocational education and transport management. The consulting firm will have 6 international consultants with a total of 11.5 person-months, and 8 national consultants with a total of 22 person-months with expertise in civil engineering (e.g., road, plant construction), urban water supply and sanitation, economic and financial analysis, industrial sector analysis, poverty and social development, resettlement, and environment (Table A4.3). The two specialized teams will be engaged through individual consultant selection, while the consulting firm will be engaged on the basis of quality- and cost-based selection method, with a quality-cost ratio of 80:20, using simplified technical proposal procedures. Procurement of consultancy services and equipment under the PPTA will be carried out in accordance with ADB's Guidelines on the Use of Consultants (2010, as amended from time to time) and ADB's Procurement Guidelines (2010, as amended from time to time), respectively. The outline terms of references are described below.

Table A4.3: Summary of Consulting Services Requirement

International Name of Positions	Person- months	National Name of Positions	Person- months
Transport Management Team			
Transport specialist ^a	1.0	Transport specialist ^a	2.0
Vocational Education Team			
Vocational education specialist ^a	1.0	Vocational education specialist ^a	2.0
Consulting Firm			
Project manager/civil engineer	3.0	Urban and civil engineer	5.0
Water and sanitation engineer	1.0	Water and sanitation engineer	2.0
Financial and economic specialist	2.0	Financial specialist	2.5
		Economist	2.5
Industrial sector specialist	1.0	Industrial sector specialist	2.0
Environment specialist	2.5	Environment specialist	3.0
Resettlement and social development specialist	2.0	Resettlement specialist	3.0
		Social development specialist	2.0

^a Engaged through individual consulting service selection.

Source: Asian Development Bank estimates.

Transport Management Team

6. **Transport specialists** (international, 1.0 person-month; national, 2.0 person-months). Transport specialists shall have relevant degrees in transport engineering and management, with relevant work experience in the field of urban transport planning and management, especially in design and installation of intelligent transport management system. The transport specialists will: (i) critically review urban master plan, transport master plan, present traffic conditions and transport management, and identify traffic management needs in the Baiyin District; (ii) propose and design most suitable packages of intelligent transport systems (ITS) by considering cost efficiency, system operation and expansion, long-term practicality, capacity of operators and other relevant factors (e.g., provision of smooth operation of public transportation); (iii) recommend other relevant factors to enhance sustainable transport management of Baiyin District, including design of urban road network and nonmotorized transportation, segregation of heavy vehicles and freight transport for road safety; (iv) formulate short-, medium-, and long-term transportation management policies, and strategies for Baiyin District; (v) propose and design appropriate non-engineering measures to enhance the transport management in Baiyin District including public awareness campaign and public education; (vi) assess adequacy of detailed cost estimate; (vii) identify appropriate procurement packaging for the ITS; (viii) assess operation and maintenance (O&M) requirement of the ITS; (ix) propose and draft preliminary transportation management plan for the eastern Baiyin urban area including a feeder transportation for industrial workers; and (x) analyze capacity development needs of the executing agency and implementing agencies, and conduct the training.

Vocational Education Team

7. **Vocational education specialists** (international, 1.0 person-month; national, 2.0 person-months). Vocational education specialists shall have relevant degrees in education and social development, with relevant work experience in the field of secondary and tertiary vocational education and training. The specialists will: (i) critically review the present framework, program and curriculum of secondary and tertiary vocational education and local training courses offered in Baiyin, especially in the Jingyuan County; (ii) based on in-depth consultation with relevant stakeholders, formulate short-, medium- and long-term policies and strategies for secondary and tertiary vocational training; (iii) propose potential project component including an industrial training center to strengthen local vocational capacity development activities and enhance local people's benefits from the development of industrial areas in eastern Baiyin urban area; (iv) propose appropriate institutional arrangement to implement the proposed component and to enhance the overall secondary and tertiary vocational education and training activities; (v) identify mechanisms to strengthen school/industry partnerships and identify opportunities

such as internships, specialized learning with instructors from the industries, and placement programs; (vi) provide advice on vocational education and training program and curriculums; (vii) assess adequacy of detailed cost estimate of the proposed component; (viii) identify appropriate procurement packaging and procurement plans; (ix) assess O&M and sustainability of the proposed component; and (x) analyze capacity development needs of the executing agency and implementing agencies, and conduct the training.

Consulting Firm

8. **Urban and civil engineers/team leader and deputy team leader** (international, 3.0 person-months; national, 5.0 person-months). Urban and civil engineers should be civil engineering graduates and have more than 15 years (international) and 12 years (national) of relevant work experience in the field of urban infrastructure construction including roads, water and wastewater treatment plants, and various pipeline constructions. Familiarity with procurement of civil works and goods, contract management, institutional management for O&M of urban infrastructures is also required. The urban and civil engineers will: (i) guide, coordinate and supervise the consulting team's inputs, and will be responsible for preparing and finalizing all PPTA outputs; (ii) analyze design criteria and technical due diligence of water, wastewater and land development components, ensuring that engineering design and specifications are adequate and in line with regulations of the People's Republic of China (PRC) as well as international standards; (iii) provide better alternative engineering and non-engineering options, innovative ideas and technical advice to improve overall project design and avoid oversized facilities construction; (iv) work closely with the two specialized teams of individual consultants to ensure their advice and outputs are incorporated into the project design; (v) assess adequacy of detailed cost estimate and identify appropriate procurement packaging and procurement plans for the project components; (vi) assess institutional capacity of the implementing agencies and/or proposed project facilities' operators to design, implement, operate, maintain and manage the facilities; (vii) prepare institutional capacity development programs for relevant project components; (viii) propose a detailed, realistic, and operationally sound organization of the project management office to ensure efficient implementation of the project and an efficient structure for the implementing agencies and proposed project operators; (ix) conduct procurement capacity assessment and governance risk assessment of executing agency and implementing agencies; (x) closely collaborate with the other team members to analyze policy recommendations on water and wastewater sector reform including tariff reform; (xi) propose a coordination mechanism for multiple stakeholders; and (xii) design and conduct training workshops to cover ADB's project design, project performance management system, financial management system, safeguards and social requirements, and ADB's procurement and disbursement.

9. **Water and sanitation engineers** (international, 1.0 person-month; national 2.0 person-months). Water and sanitation engineers should be engineering graduates and have more than 15 years (international) and 12 years (national) of relevant work experience in designing urban water supply and sanitation systems, and water resources management. The water and sanitation engineers will: (i) review existing water and wastewater treatment policies, plans, and strategies; (ii) analyze technical due diligence of water and wastewater components, ensuring that engineering design and specifications of treatment processes are adequate and in line with PRC regulation as well as international standards; (iii) provide better alternative engineering and non-engineering options, innovative ideas and technical advice in water supply and sanitation components including scheme of treated wastewater reuse; (iv) prepare a water conservation and management plan for mainstreaming efficiencies in water use based on critical assessments of water balance, demand–supply, wastewater reuse option and corporatization of water and sanitation sector in the eastern Baiyin urban area; (v) draft a local water management plan including non-revenue water management of the existing water supply system; (vi) assess adequacy of detailed cost estimate; (vii) identify appropriate procurement packaging and procurement plans for water and wastewater components; (viii) assess institutional capacity of existing water and wastewater service providers, and O&M requirement of water and wastewater components, including potential of public-private partnerships options; and (ix) analyze capacity development needs of executing agency and implementing agencies for water and wastewater components, and conduct the training.

10. **Industrial sector specialists** (international, 1.0 person-month; national, 2.0 person-months). Industrial sector specialists shall have relevant degrees in economics and public policy with relevant work experience in the field of industrial sector analysis and industrial development policy. The industrial sector specialists will: (i) review macroeconomic climate and trends especially in view of industrial sector development in the PRC and the western inland regions; (ii) critically review (a) the PRC's national and provincial policies and plans on industrial development and its transition, (b) current development trends and situations of industrial areas/zones in the PRC, and (c) short-, medium- and long-term prospects of industrial area/zone development and their characteristics in the PRC; (iii) based on the review, conduct a demand analysis of industry by projecting what industries will potentially be attracted to move in to the proposed project area and Gansu province; (iv) conduct site visits, if necessary, to collect information through a face-to-face interview and a survey in various industrial areas; (v) draft detailed and comprehensive sector assessment report on industrial development in the PRC, Gansu province, and Baiyin municipality; (vi) based on the assessment, identify factors (e.g., technical design, resource and facility availability, environmental management policy) to attract industries to the proposed project area and input to the project design; and (vii) propose and draft preliminary industrial area development and management plan for the eastern Baiyin urban area to ensure successful industrial transformation and economic diversification of Baiyin.

11. **Financial and economic specialists** (international, 2.0 person-months; national, 2.5 person-months for financial specialist; national, 2.5 person-months for economist). Financial specialists and economists should be finance and/or economics graduates and have more than 12 years (international) and 8 years (national) of relevant work experience in project financial and economic analysis of urban development projects. For the financial aspect, the specialists will undertake the financial analyses of project components in accordance with relevant ADB documents.¹ The specialists will: (i) work with the economist to provide financial information and analysis relevant to a review of policy and practice relating to financing, operating, and maintaining urban infrastructure services; (ii) assess the financial sustainability of project components; (iii) identify capacity development needs of financial management system; (iv) review financial performance of executing agency and implementing agencies in the past five years and evaluate their financial capacity regarding cost recovery, borrowing capacity, and subsidies; (v) prepare income statements, balance sheets, and cash flow statements for proposed project operators in nominal terms, forecast the results for 20 years after the beginning of full sector subproject operation, and calculate relevant financial ratios; (vi) review detailed cost tables with unit costs, physical quantities, and phasing of the project cost; (vii) review and identify contract packages and financing plan, and propose most appropriate funds flow and disbursement mechanisms; (viii) conduct financial management assessment of executing agency, implementing agencies, and proposed project facilities' operators; and (ix) suggest an appropriate funds flow mechanism and disbursement procedures for project implementation.

12. For the economic aspect, the specialists will undertake the economic analysis according to PRC's standards for the economic analysis of projects and ADB's Guidelines for the Economic Analysis of Projects, Economic Analysis of Water Supply Projects, and other relevant publications. The specialists will: (i) review the economic analysis of the domestic feasibility studies and identify any divergence from ADB's Guidelines for the Economic Analysis of Projects and other relevant publications; (ii) conduct cost-benefit analysis required to appraise the economic basis for each subproject, including estimating the economic internal rate of return; (iii) review the economic rationale for each project component and analyze project economic impacts based on improved accessibility of safe drinking water, wastewater, job opportunities, avoided accidents, and other relevant items; (iv) review of the analysis of options for each component, and ensure that the least-cost option is identified; (v) assist to design household questionnaire survey; (vi) apply modern welfare theory to estimate the welfare impact of each subproject on the poorest households; (vii) undertake a contingent valuation survey to include a willingness-to-pay

¹ Framework for the Economic and Financial Appraisal of Urban Development Sector Projects; Guidelines for Financial Management and Analysis of Projects; and Guidelines for the Financial Governance and Management of Investment Projects Financed by the ADB.

study to facilitate the economic analysis; and (viii) develop appropriate design and monitoring indicators of the project.

13. **Environment specialists** (international, 2.5 person-months; national, 3.0 person-months). Environment specialists should be environmental and/or urban engineering graduates and have more than 15 years (international) and 12 years (national) of relevant work experience in environmental impact assessment within the context of urban infrastructure development. The specialists should be experienced with environment management planning of industrial zones, preferably with PRC experience in the field. The environment specialists will: (i) provide guidance and training to the domestic design institutes, executing agency, and implementing agencies on ADB's environment safeguards requirements; (ii) review the domestic environmental impact statements and strategic environmental impact assessment (EIA) prepared for the project components and the new urban development area, and ensure that all environmental impact statements and the strategic EIA meet the requirements specified in ADB's Safeguard Policy Statement (2009) to an extent possible; (iii) based on the review, help prepare a consolidated project EIA report including an environment management plan in ADB's required format, owned by the executing agency; (iv) assess the capacity of executing agency and implementing agencies for environmental management, monitoring and supervision, and recommend required measures for capacity building and institutional strengthening; (v) review the environmental management system proposed for the industrial zones of the eastern Baiyin urban area, help the executing agency in strengthening the environmental management system and identifying necessary capacity building measures including implementation of the circular economy concept; (vi) assist the executing agency with meaningful consultation and participation during EIA, and help establish a project level grievance redress mechanism; (vii) conduct due diligence of project associated facilities, as required; (viii) prepare contractor specifications for environmental management and monitoring; (ix) establish environmental baseline indicators and performance targets for the design and monitoring framework; (x) review institutional framework of environmental monitoring, industrial pollution control and waste minimization in the eastern Baiyin urban area, and propose appropriate measures and capacity development programs for relevant local agencies; and (xi) prepare the required appendices for the report and recommendation of the President.

14. **Resettlement and social development specialists** (international, 2.0 person-months; national, 3.0 person-months for resettlement specialist, and 2.0 person-months for social development specialist). Resettlement and social development specialists should be social science graduates and have more than 15 years (international) and 8 years (national) of relevant work experience in involuntary resettlement and social development including gender analysis within the context of urban infrastructure development. The consultants will: (i) orient the executing agency and implementing agencies on ADB's Safeguard Policy Statement (2009) requirements and procedures and assess the policy and legal framework for involuntary resettlement that are relevant to the project, and propose measures to bridge any gap between ADB and the PRC policies; (ii) review the documents prepared by the implementing agencies and draft resettlement plans; (iii) help the implementing agencies engage a qualified survey institute(s) to conduct household census and socioeconomic survey of displaced persons and project beneficiaries, and to review and draft resettlement plans, SAP, and GAP; (iv) undertake consultation with the affected people and relevant government agencies with regard to compensation, relocation choices, and entitlements; (v) conduct due diligence for pre-project land acquisition in anticipation of ADB project, and identify appropriate gap filling measures to ensure that the completed pre-project land acquisition meets the ADB Safeguard Policy Statement (2009); (vi) assess land acquisition and resettlement impacts and compensation rates for project associated facilities; (vii) identify key project stakeholders, and using culturally appropriate and gender-sensitive process, have meaningful consultation at each stage of project preparation and implementation, taking into account review and baseline information; and (viii) finalize the resettlement plans, SAP, and GAP in accordance with ADB's Safeguard Policy Statement (2009) and other ADB requirements.

E. Implementation Arrangements

15. The two specialized team of individual consultants will be mobilized for five months from August 2013 to December 2013. The consulting firm will be implemented over sixteen months, from September 2013 to December 2014 and will be financially closed in March 2015. Baiyin Municipal Government will be the executing agency. In-kind contributions from Baiyin Municipal Government will include (i) office accommodation, (ii) local counterpart support staff, and (iii) draft environmental impact assessments, feasibility reports, and resettlement plans to the consulting firm. Workshops and training will be administered by the consulting firm. Technical assistance funds will be disbursed in accordance with ADB's *Technical Assistance Disbursement Handbook* (2010, as amended from time to time). The proposed technical assistance implementation schedule is in Table A4.4.

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

Major Milestones	Expected Completion Date
Two specialized teams of individual consultants	
Commencement of specialized studies	1 August 2013
Inception report submission	31 August 2013
Draft final report submission	31 October 2013
Final report submission	31 December 2013
Consulting Firm	
Commencement of project preparatory technical assistance	7 September 2013
Inception report submission	7 October 2013
Interim report submission	1 January 2014
Draft final report submission	1 April 2014
Final tripartite meeting (loan fact-finding mission)	15 April 2014
Final report submission	1 December 2014
Completion of the project preparatory technical assistance	31 December 2014
Financial closure of the project preparatory technical assistance	31 March 2015
Source: Asian Development Bank estimates.	