

## PROJECT PREPARATORY TECHNICAL ASSISTANCE

### A. Justification

1. During the country programming mission held in Manila in October 2013, the government of the People's Republic of China requested the Asian Development Bank (ADB) to assist the governments of Heilongjiang Province and Jiamusi Municipality in preparing the Heilongjiang Jiamusi Irrigation and Drainage System Modernization Project. The project is included in ADB's lending program as standby for 2016 under the country operations business plan, 2014–2016 for the People's Republic of China.<sup>1</sup> 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 fulfills ADB's requirements. The PPTA will (i) assess the technical feasibility of the project; (ii) analyze the economic and financial feasibility of the project; (iii) conduct social and environmental assessments; and prepare safeguard documents, and gender and social action plans; (iv) assess capacity of the executing and implementing agencies for financial and procurement management; and (vi) prepare project implementation schedule and arrangements. The major outputs and activities are summarized in Table A3.1.

**Table A3.1: Summary of Major Outputs and Activities**

Major Activities	Expected Completion Date	Major Outputs	Expected Completion Date
Initial assessment and scheduling	June 2015	An inception report	June 2015
Sector assessment	August 2015	A sector assessment report	August 2015
Stakeholder analysis, problems, and constraints identification	August 2015	A problem tree and a draft project design and monitoring framework	August 2015
Assess institutional capacity and training needs	August 2015	An institutional capacity assessment report	August 2015
Social and economic survey and consultations (social assessment)	August 2015	A gender action plan and a social action plan (farmer associations)	October 2015
Technical, environmental, economic, financial, and social viability	October 2015	An interim report A draft final report A final report	July 2015 November/December 2015 January 2016
Conduct social safeguards and assess resettlement impact	October 2015	A resettlement plan A participation and communication strategy (farmer associations)	October 2015
Assess environmental impacts	October 2015	An initial environmental examination (environmental management plan)	October 2015
Conduct financial management assessment	October 2015	A financial management assessment report	October 2015
Conduct procurement capacity assessment	October 2015	A procurement capacity assessment report and a procurement plan	October 2015
Prepare implementation plan	October 2015	A project administration manual	October 2015

Source: Asian Development Bank.

<sup>1</sup> ADB. 2014. *Country Operations Business Plan: People's Republic of China, 2014–2016*. Manila.

### C. Cost Estimate and Proposed Financing Arrangement

3. The PPTA is estimated to cost \$800,000 equivalent, of which \$600,000 equivalent 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 space and communication facilities for consultants, transportation to the project sites, and other in-kind contributions. The detailed cost estimates and financing plan is presented in Table A3.2.

**Table A3.2: Cost Estimates and Financing Plan (\$'000)**

Item	Total Cost
<b>Asian Development Bank<sup>a</sup></b>	
1. Consultants	
a. Remuneration and per diem	
i. International consultants (10 person-months)	200.0
ii. National consultants (32 person-months)	192.0
b. International and local travel	54.0
c. Reports, translation, and communications	17.0
2. Equipment <sup>b</sup>	12.0
3. Workshops, training, seminars, and conferences <sup>c</sup>	35.0
4. Surveys	20.0
5. Miscellaneous administration and support costs <sup>d</sup>	15.0
6. Representative for contract negotiations <sup>e</sup>	5.0
7. Contingencies	50.0
<b>Total</b>	<b>600.0</b>

<sup>a</sup> Financed by the Asian Development Bank's (ADB) Technical Assistance Special Fund (TASF-other sources).

<sup>b</sup> Equipment will be turned over to the executing agency upon completion of the project preparatory technical assistance.

Type	Quantity	Cost (\$)
Computer	3	7,000
Printer	1	1,500
Copier	1	1,500
Other items (scanner and camera, etc.)		2,000

<sup>c</sup> 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)	Jiamusi Municipality, Heilongjiang Province
Social and environmental safeguards training	Jiamusi Municipality, Heilongjiang Province
Procurement training	Jiamusi Municipality, Heilongjiang Province
Financial management training	Jiamusi Municipality, Heilongjiang Province

<sup>d</sup> Includes costs for office operations, secretarial services, and miscellaneous travel expenses.

<sup>e</sup> Includes cost of travel, lodging, and per diem for government observers invited for contract negotiations.

Source: Asian Development Bank estimates.

### D. Consulting Services

4. It is expected that 10 person-months (pm) of international and 32 pm of national consultants are required. Table A3.3 provides a list of expertise required. 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 ratio of 90:10. The outline terms of reference for the PPTA consultants are described in paras. 5–14 (detailed terms of reference presented as a separate attachment).

**Table A3.3: Summary of Consulting Services Requirement**

International Name of Position	Person- month	National Name of Position	Person- month
Agricultural economist/team leader	6	Irrigation specialist/deputy team leader	6
Environment specialist	2	Agricultural economist	2
Social development specialist	2	Finance specialist	2
		Water resources specialist/hydrologist	2
		Environment specialist	3

International Name of Position	Person- month	National Name of Position	Person- month
		Community and social development specialist	3
		Resettlement specialist	2
		Project management and procurement specialist	4
		Constructed wetland specialist	2
		Agronomist	3
		Agricultural extension specialist	2
		Climate change specialist	1
<b>Total</b>	<b>10</b>	<b>Total</b>	<b>32</b>

Source: Asian Development Bank estimates.

5. **Agricultural economists** (international, 6 pm; national, 2 pm) **and finance specialist** (national, 2 pm). The agricultural economists will have a master's degree or above in agricultural or environmental economics, or other related fields. The finance specialist will have a master's degree in finance and a recognized professional accountancy qualification. They will have at least 10 years of work experience and familiar with ADB's project processing requirements. The international agricultural economist will serve as team leader who will assume overall responsibility for the PPTA implementation and the quality of all PPTA outputs. They will review and prepare (i) the overall project design and project performance management system; (ii) cost estimates and financing plan; (iii) economic and financial analyses; (iv) irrigation tariff and cost recovery mechanism; (v) funds flow and disbursement arrangements; (vi) financial management assessment; and (vii) implementation schedule and implementation arrangements.

6. **Environment specialists** (international, 2 pm; national, 3 pm). The specialists will have a master's degree or above in environmental studies, and at least 7 years of international project experience in environmental impact assessment. The specialists will (i) review draft domestic environmental safeguard reports; (ii) assess possible environmental impacts, and prepare a consolidated initial environmental examination report and an environmental management plan; and (iii) assist in assessing initial climate change impacts.

7. **Social development and resettlement specialists** (international, 2 pm; and national, 3 pm [community and social development] and 2 pm [resettlement]). The specialists will have a master's degree or equivalent in social sciences and/or development studies, and at least 7 years of work experience in social development and safeguard planning and implementation. The specialists will (i) assess resettlement impacts, and assist in preparing a resettlement plan; (ii) conduct a poverty and social analysis; and prepare a social action plan, participation and communication strategy, and a gender action plan; and (iii) recommend measures for empowerment of farmer organizations for irrigation management and agricultural production.

8. **Irrigation specialist/deputy team leader** (national, 6 pm). The specialist will have a master's degree or above in water resources management, or irrigation management, and at least 10 years of work experience in design and management of irrigation projects. The specialist will (i) review technical soundness of irrigation and drainage design; (ii) review current water resources management practices for crop production, and recommend water-saving measures; and (iii) prepare farmers' participation plan in irrigation management, including measures for farmers' empowerment; and (iv) operation and maintenance arrangements.

9. **Water resources specialist/hydrologist** (national, 2 pm). The specialist will have a master's degree or equivalent experience in water resources management or hydrology, and at least 7 years of work experience in hydrology and flood management. The specialist will (i) conduct water demand and water balance analyses; (ii) identify flood risks, and improve flood management design in the six rivers in Jiamusi; and (iii) assist in sector assessment.

10. **Project management and procurement specialist** (national, 4 pm). The specialist will have a university degree in engineering, and at least 7 years of work experience in project management

and procurement. The specialist will (i) conduct procurement capacity assessment, and prepare training proposals; (ii) prepare a procurement plan; and (iii) provide necessary trainings on project management, procurement, and consulting services.

11. **Constructed wetland specialist** (national, 2 pm). The specialist will have a university degree or relevant qualification in wetlands management or other related fields, and at least 7 years of experience in wetland management. The specialist will (i) review the relevant government policies 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.

12. **Agronomist** (national, 3 pm). The specialist will have a master's degree or relevant qualification in agronomy, and at least 7 years of demonstrated experience in rice and other crop production systems. The specialist will (i) review current water and farm management practices in crop production, (ii) review the viability and soundness of the agronomic measures, and (iii) recommend improvement in agricultural modernization.

13. **Agricultural extension specialist** (national, 2 pm). The specialist will have a master's degree or relevant qualification in agronomy, and at least 7 years of experience in agricultural extension services. The specialist will (i) assess the performance of various agricultural extension services in Jiamusi; (ii) review farmer organizations and their performance; and (iii) identify measures for improvement, including needs for farmers' training and empowerment.

14. **Climate change specialist** (national, 1 pm). The specialist will have a master's degree or relevant qualification in climate change or related field, and at least 7 years of work experience in agricultural adaption to climate change. The specialist will (i) assess climate change impacts and model climate projections; (ii) identify climate change risks; and (iii) identify opportunities for climate proofing, adaptation, and mitigation actions and/or activities in the water sector to be incorporated in the project design.

## E. Implementation Arrangements

15. The Jiamusi municipal government will be the executing agency responsible for overall planning and management of the PPTA. A project leading group and a project management office have been established to ensure coordination across sectors and be responsible for daily coordination of the PPTA implementation. 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).

16. The proposed PPTA processing and implementation schedule is listed in Table A3.4. The PPTA will be implemented in about 14 months from 20 May 2015 to 30 June 2016.

**Table A3.4: Technical Assistance Processing and Implementation Schedule**

Major Milestones	Expected Completion Date
Project concept paper (PPTA) approval	February 2015
Recruitment of PPTA consultants	February–May 2015
Consultant mobilization	May 2015
Inception	June/July 2015
Draft final report	November/December 2015
Final report	January 2016
PPTA closure	30 June 2016

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