



# Technical Assistance Report

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Project Number: 49021  
Project Preparatory Technical Assistance (PPTA)  
November 2015

## People's Republic of China: Preparing the Heilongjiang Coal-Rich Cities Redevelopment Project

(Cofinanced by the Urban Environmental Infrastructure Fund  
under the Urban Financing Partnership Facility)

Asian Development Bank

## CURRENCY EQUIVALENTS

(as of 26 October 2015)

Currency unit – yuan (CNY)

CNY1.00 = \$0.1574

\$1.00 = CNY6.3542

## ABBREVIATIONS

ADB	–	Asian Development Bank
HPG	–	Heilongjiang Provincial Government
PMO	–	project management office
PPTA	–	project preparatory technical assistance
PRC	–	People's Republic of China

## NOTE

In this report, "\$" refers to US dollars.

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## PROJECT PREPARATORY TECHNICAL ASSISTANCE

### A. Justification

1. The project preparatory technical assistance (TA) for this technically complex and multisector project covering four medium-sized cities is necessary to carefully study economic plans and potentials, refine economic development strategy, assess and identify the most suitable subcomponents that will facilitate economic development and non-coal industrial transformation, provide innovative and international best practices, further define the scope and optimize the project impact, carry out the necessary due diligence to ensure project viability and sustainability, facilitate value addition to the project, and provide training to the provincial and participating city governments.

### B. Major Outputs and Activities

2. The TA will be implemented in two phases. Phase 1 will develop an economic strategy and investment program. Consultants will (i) conduct a subregional economic diagnostic study and prepare a non-coal industry development strategy for the East Heilongjiang city cluster and the project cities; (ii) identify key economic activities and industries focusing on endogenous potentials and exploring further implementable possibilities; (iii) prepare an investment strategy and phased investment program; (iv) identify priority infrastructure that is expected to facilitate the proposed industrial transformation to be financed by the Asian Development Bank (ADB) loan; (v) assess mining impact and prepare a mining remediation strategy, identify key environmental cleanup projects, and coal mining remediation pilots to be financed by the loan; and (vi) identify urban infrastructure and services that can be delivered through public-private partnerships.

3. Phase 2 will specify the plans and conduct due diligence to prepare a project for ADB financing. Consultants will (i) further develop and refine the economic and non-coal industry development plans; (ii) prepare the non-structural components of the project including (a) strategic non-coal industry development implementation action plan for the subregion and the project cities, (b) labor force planning and human resource development strategy supporting the anticipated new industries with technical and vocational education and training, (c) private sector finance programs, (d) mining remediation management plan, and (e) East Heilongjiang smart city cluster cooperation strategy and branding, marketing, and exchange platform development; and (iii) conduct full due diligence on technical, environmental and social safeguards, and economic and financial aspects for all structural components.

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

Major Activities	Expected Completion Date	Major Outputs	Expected Completion Date
Economic diagnostics and scenarios	30 April 2016	Non-coal economic strategy	30 April 2016
Mining impact assessment and planning	30 April 2016	Mining remediation strategy	30 April 2016
Identification of key investments	30 April 2016	Phased investment program	30 April 2016
Social and poverty survey and analysis	30 June 2016	Inception report (Phase 2)	31 May 2016
Sector assessment, technical review, and technical design innovations	30 June 2016	Interim report	31 August 2016
Safeguard assessments and planning	31 August 2016	EIA and EMP	31 August 2016
Governance risk assessment	31 August 2016	GAP, resettlement plans, SDAP	31 August 2016
Economic and financial analyses	31 August 2016	Draft final report	15 November 2016
		Final report	31 March 2017

EIA = environmental impact assessment, EMP = environmental management plan, GAP = gender action plan, SDAP = social development action plan.

Source: Asian Development Bank estimates.

### C. Cost Estimate and Proposed Financing Arrangement

4. The TA is estimated to cost \$1,100,000 which will be financed on a grant basis for \$800,000 from ADB's Technical Assistance Special Fund (TASF-other sources), and \$300,000 from the Urban Environmental Infrastructure Fund under the Urban Financing Partnership Facility.<sup>1</sup> The government will provide counterpart support in the form of counterpart staff, secretarial assistance, domestic transportation, provision of office space, communication facilities, and other in-kind contributions. The detailed cost estimate is presented in Table A3.2. Proceeds will be disbursed in line with ADB's *Technical Assistance Disbursement Handbook* (2010, as amended from time to time).

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

Item	Total Cost
<b>A. Asian Development Bank<sup>a</sup></b>	
1. Consultants	
a. Remuneration and per diem	
i. International consultants (31 person-months)	480.0
ii. National consultants (56 person-months)	380.0
b. International and local travel	60.0
c. Reports and communications <sup>b</sup>	20.0
2. Equipment <sup>c</sup>	5.0
3. Workshops, training, seminars, and conferences <sup>d</sup>	
a. Facilitators	10.0
b. Training program	10.0
4. Surveys <sup>e</sup>	40.0
5. Miscellaneous administration and support costs	10.0
6. Representative for contract negotiations	5.0
6. Contingencies	80.0
<b>TOTAL</b>	<b>1,100.0</b>

<sup>a</sup> Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF-other sources) (\$800,000); and Urban Environmental Infrastructure Fund under the Urban Financing Partnership Facility (\$300,000).

<sup>b</sup> Includes communications facilities, printing and binding of reports, and translation of inception, interim, draft final, and final project preparatory technical assistance (TA) reports and other TA output documents into Chinese.

<sup>c</sup> The equipment will be procured according to ADB's Procurement Guidelines (2015, as amended from time to time). All equipment will be turned over to the executing agency upon completion of the TA activities.

Type	Quantity	Cost
Laptop computers	3	\$3,000
Printer/scanner/photocopier	1	\$1,000
Projector	1	\$1,000

<sup>d</sup> Workshops, training, seminars, and conferences to be administered by the consultants (including translation and interpretation services)

Purpose	Venue
Inception, interim, fact-finding workshops	Hegang, Jixi, Qitaihe, and Shuangyashan
Trainings for city/district/county governments	Hegang, Jixi, Qitaihe, and Shuangyashan

<sup>e</sup> Surveys include a contingent valuation survey for project economic analysis and a socioeconomic baseline survey of selected components including affordability analysis for social and financial aspects, and surveys for safeguards due diligence.

Source: Asian Development Bank estimates.

### D. Consulting Services

5. Phase 1 will be carried out by individual consultants while phase 2 will be done by a consulting firm. The individual consultants will be engaged for a total of 22 person-months (13 international and 9 national). An international climate change specialist and hydrologist will be

<sup>1</sup> Financing partner: the Government of Sweden. Administered by the Asian Development Bank.

engaged to provide a total of 5 person-months.<sup>2</sup> The consultants' inputs will be part of the TA draft final report, the project environment impact assessment (EIA), and a supplementary appendix to the report and recommendation of the President. An international consulting firm will be engaged from March 2016 to March 2017 for an indicative total of 71 person-months (21 international and 50 national). The consultants will be engaged in line with ADB's *Guidelines on the Use of Consultants* (2013, as amended from time to time) using individual consultant selection method to engage individual specialists and quality- and cost-based selection method with a quality-cost ratio of 90:10, through simplified technical proposal procedure to engage the firm.

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

<b>Positions</b>	<b>International Person-Months Required</b>	<b>National Person-Months Required</b>
<b>Individual Consultants</b>		
Regional development economists	3.0	3.0
Urban planners	2.0	3.0
Mining remediation specialists	3.0	3.0
Climate change specialist <sup>a</sup>	3.0	
Hydrologist <sup>a</sup>	2.0	
<b>Subtotal (A)</b>	<b>13.0</b>	<b>9.0</b>
<b>Consulting Firm<sup>b</sup></b>		
Municipal engineers (water, wastewater, drainage, district heating)/team leader and deputy team leader	5.0	5.0
Solid waste management specialists	2.0	2.0
River rehabilitation and flood risk management specialists	2.0	3.0
Road and sustainable urban transport specialists	2.0	3.0
Water safety plan specialist		3.0
Technical and vocational education and training specialists	2.0	2.0
Smart city and ICT application specialist		3.0
Environment specialists	3.0	5.0
Involuntary resettlement specialist		6.0
Poverty, social, and gender specialist		5.0
Infrastructure economists	3.0	3.0
Infrastructure finance specialists	2.0	3.0
Procurement specialist		3.0
Governance and institutional capacity development specialist		4.0
<b>Subtotal (B)</b>	<b>21.0</b>	<b>50.0</b>
<b>Total (A + B)</b>	<b>34.0</b>	<b>59.0</b>

<sup>a</sup> To be financed from the Asian Development Bank Climate Change Fund.

<sup>b</sup> Indicative list of specialists and person-months to be defined in Phase 1 based on subcomponent selection.

ICT = information and communication technology.

Source: Asian Development Bank estimates.

**6. Economic revitalization, non-coal industrial transformation planning, and investment program development.** Four experts (11 person-months) will (i) collect data and review national, provincial, regional, and municipal economic and social development plans and relevant policies and guiding documents; (ii) prepare a subregional economic diagnostic study and development strategy; (iii) carry out workshops in the cities on regional and urban economic development and non-coal industrial transformation; (iv) identify key strategies and associated key investment components that facilitate non-coal economic transformation; and (v) develop a prioritized and phased investment program identifying subcomponents to be financed by the loan.

<sup>2</sup> ADB's Climate Change Fund will finance \$100,000 to conduct climate risk and vulnerability assessment through its direct charge modality.

7. **Mining remediation management and environmental cleanup plan.** Two experts (6 person-months) will assess mining impact and develop an integrated mining remediation plan for the subregion and the project cities. They will assess mining impacts on environmental degradation and pollution and develop a subregional environmental cleanup plan and city-specific plans to mitigate mining impacts.

8. **Technical.** Indicatively 12 experts (36 person-months) will review and recommend technical solutions to the overall sector systems plans for effective and efficient integration of much needed basic infrastructure and services identified during Phase 1. The consultants will review and prepare a technical report on strategies, plans, and designs of all components to ensure that they (i) are properly scaled to meet demand, (ii) are technically sound and compatible with local conditions, (iii) meet all relevant technical standards and safeguard requirements, and (iv) are suitable for ADB financing. The consultants will perform risk assessment for projects and associated projects and recommend innovations and improvements to refine the technical design of each subcomponent.

9. **Financial and economic.** Four experts (11 person-months) will conduct economic and financial analyses of all components and the overall project including demand assessments, contingent valuation survey results analysis, cost effectiveness analysis of various options, including the without project option, and affordability analysis, meeting ADB requirements.<sup>3</sup> Economic rationale will be developed and economic justification will be evaluated for each component and the project as a whole. The consultants will undertake financial reviews and analysis of each project component, and detailed assessment of the financial performance of the implementing agencies and project implementation units (PIUs) in accordance with ADB guidelines.<sup>4</sup> This includes assessments and analyses of (i) financial management and strength and internal and external audit systems of implementing agencies and PIUs; (ii) soundness of financing plan and counterpart funding; (iii) possible cofinancing sources, including private sector especially for revenue-generating components; (iv) least-cost, cost-benefit, and fiscal analyses; and (v) financial and affordability analyses of revenue-generating components and review of tariffs and fees.<sup>5</sup>

10. **Environment.** Two experts (8 person-months) will prepare an EIA across the project cities based on the review of the subproject EIAs and ensure that they meet the requirements of ADB's Safeguard Policy Statement (2009). The consultants will prepare a consolidated EIA, including an environmental management plan both in English and in Chinese in ADB's required format. The consultants will guide the implementing agencies, PIUs, local institutes, and the EIA preparation team on ADB's environmental assessment requirements. A climate risk and vulnerability assessment will be conducted including hydrologic modelling and recommendations for structural and non-structural measures to mitigate climate risks and variability. A water safety plan will be prepared in association with the water supply components including recommendations for project design.

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<sup>3</sup> ADB. 1997. *Guidelines for the Economic Analysis of Projects*. Manila; ADB. 2003. *Economic Analysis Retrospective 2007: Strengthening the Quality of Project Economic Analysis in ADB Operations*. Manila; ADB. 2003. *ERD Technical Note: Strengthening the Economic Analysis of Natural Resource Management Projects*. Manila; ADB. 2003. *Key Areas of Economic Analysis of Projects*. Manila; ADB. 2002. *Handbook for Integrating Risk Analysis in the Economic Analysis of Projects*. Manila.

<sup>4</sup> ADB. 2003. *Financial Management and Analysis of Projects*. Manila; ADB. 2008. *Technical Note: Preparation and Presentation of Cost Estimates for Projects Financed by ADB*. Manila; ADB. 2002. *Financial Governance and Management of Investment Projects*. Manila.

<sup>5</sup> *The Financial Due Diligence: A Methodology Note* (2009), *Financial Management Technical Guidance Note: Guidance on Using the Audited Project Financial Statements (APFS) Standard Review Checklist* (2013), Financial Management Assessment Questionnaire, and other documents will be provided to the TA consultants.

11. **Involuntary resettlement and ethnic minority.** One or two experts (6 person-months) will review draft resettlement plans and assist the implementing agencies to engage a qualified survey institute to conduct surveys, and improve and finalize resettlement plans in accordance with ADB requirements.<sup>6</sup> The consultants will conduct a thorough scoping of ethnic minority issues in the project area and confirm category C for indigenous peoples safeguards (or, if deemed necessary, prepare ethnic minority development plan) in accordance with ADB requirements.<sup>7</sup>

12. **Social and poverty.** One or two experts (5 person-months) and a survey team will carry out a poverty and social survey and analysis, and assess the project's short- and long-term impacts and benefits for poor and vulnerable groups, including gender analysis in accordance with ADB requirements.<sup>8</sup> Based on the analysis, the consultants will prepare a summary poverty reduction and social strategy, a social development action plan, and a gender action plan in accordance with ADB guidelines and templates.<sup>9</sup>

13. **Governance and risk management.** Two experts (7 person-months) will prepare (i) a procurement risk assessment of the implementing agencies and PIUs in accordance with ADB guidelines and templates,<sup>10</sup> (ii) a procurement plan, (iii) master bidding documents, and (iv) conduct training on ADB's procurement and consultant engagement guidelines. The consultants will assess the financial management system, accounting rules and practices, administrative procedures, internal control and audit systems, external audit, technical capabilities of the implementing agencies and identify potential risks in public financial management, procurement, anticorruption, and technical; and prepare a governance risk assessment and management plan. The consultants will facilitate cross-sector and inter-jurisdiction coordination.

## E. Implementation Arrangements

14. Heilongjiang Provincial Government will be the project executing agency. The city governments of Hegang, Jixi, Qitaihe, and Shuangyashan will be the project implementing agencies, each with a subproject leading group and a subproject management office. Project implementation units will be established under the concerned city administration bureaus or investment companies that are the final owners and operators of the subprojects. The proposed TA processing and implementation schedule is listed in Table A3.4.

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

Major Milestones	Expected Completion Date
TA commencement	15 November 2015
Inception report	31 March 2016
Interim report	30 June 2016
Draft final report	31 October 2016
Loan fact-finding mission	15 December 2016
Final report	31 March 2017
TA financial closure	15 October 2017

Source: Asian Development Bank.

<sup>6</sup> Safeguards Requirements 2 on Involuntary Resettlement in ADB *Safeguard Policy Statement* (2009).

<sup>7</sup> Safeguards Requirements 3 on Indigenous Peoples in ADB *Safeguard Policy Statement* (2009).

<sup>8</sup> ADB. 2007. *Handbook on Social Analysis*. Manila; ADB. 2006. *Poverty Handbook*. Manila; ADB. 2001. *Handbook for Integrating Poverty Impact Assessment in Economic Analysis of Projects*. Manila; ADB. 2006. *Strengthening Participation for Development Results: Staff Guide to Consultation and Participations*. Manila; ADB. 2006. *Core Labor Standards Handbook*. Manila.

<sup>9</sup> ADB. 1998. *Policy on Gender and Development*. Manila; ADB. 2010. *Gender Checklists and Toolkit*. Manila.

<sup>10</sup> ADB. 2015. *Procurement Guidelines*. Manila; ADB. 2015. *Guide on Assessing Procurement Risks and Determining Project Procurement Classification*. Manila.