



Technical Assistance Report

Project Number: 51028-001
Knowledge and Support Technical Assistance (KSTA)
September 2017

People's Republic of China: Comprehensive Hub-Oriented Transportation Strategy for Urumqi Metropolitan Area

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 1 September 2017)

Currency unit	–	yuan (CNY)
CNY1.00	=	\$0.1516
\$1.00	=	CNY 6.5963

ABBREVIATIONS

ADB	–	Asian Development Bank
CAREC	–	Central Asia Regional Economic Cooperation
PRC	–	People's Republic of China
RCI	–	regional cooperation and integration
TA	–	technical assistance
XUAR	–	Xinjiang Uygur Autonomous Region

NOTE

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

Vice-President	S. Groff, Operations 2
Director General	A. Konishi, East Asia Regional Department (EARD)
Director	R. Guild, Transport and Communications Division, EARD
Team leader	K. Guy, Transport Specialist, EARD
Team members	A. Ayson, Operations Assistant, EARD R. Stapleton, Transport Specialist, EARD

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KNOWLEDGE AND SUPPORT TECHNICAL ASSISTANCE AT A GLANCE

1. Basic Data		Project Number: 51028-001	
Project Name	Comprehensive Hub-Oriented Transportation Strategy for Urumqi Metropolitan Area	Department /Division	EARD/EATC
Nature of Activity	Policy Advice	Executing Agency	Urumqi Urban Comprehensive Transport Project Research Center
Modality	Regular		
Country	China, People's Republic of		
2. Sector		ADB Financing (\$ million)	
✓ Transport	Transport policies and institutional development		0.80
		Total	0.80
3. Strategic Agenda		Climate Change Information	
Inclusive economic growth (IEG)	Pillar 1: Economic opportunities, including jobs, created and expanded	Climate Change impact on the Project	Low
Environmentally sustainable growth (ESG)	Urban environmental improvement		
Regional integration (RCI)	Pillar 1: Cross-border infrastructure		
4. Drivers of Change		Gender Equity and Mainstreaming	
Governance and capacity development (GCD)	Institutional development	No gender elements (NGE)	✓
Knowledge solutions (KNS)	Application and use of new knowledge solutions in key operational areas		
Private sector development (PSD)	Public sector goods and services essential for private sector development		
5. Poverty and SDG Targeting		Location Impact	
Geographic Targeting	No	Urban	High
Household Targeting	No		
SDG Targeting	Yes		
SDG Goals	SDG9, SDG11, SDG17		
6. Risk Categorization		Low	
7. Safeguard Categorization Safeguard Policy Statement does not apply			
8. Financing			
Modality and Sources		Amount (\$ million)	
ADB		0.80	
Knowledge and Support technical assistance: Technical Assistance Special Fund		0.80	
Cofinancing		0.00	
None		0.00	
Counterpart		0.00	
None		0.00	
Total		0.80	

I. INTRODUCTION

1. The proposed knowledge and support technical assistance (TA) will support the Government of the People's Republic of China (PRC) to prepare a comprehensive hub-oriented transportation strategy for Urumqi metropolitan area through research and analysis of current and future trends and best practices. The TA is included in the country operations business plan for the PRC, 2017–2019 of the Asian Development Bank (ADB).¹

II. ISSUES

2. Increased regional cooperation and integration (RCI) through comprehensive and integrated transportation is an important part of the PRC's development strategies. The Thirteenth Five-Year Plan for National Economic and Social Development, which covers the period 2016–2020, envisions establishing “comprehensive transportation thoroughfares that ensure unobstructed and interconnected domestic and international transportation.”² The Central Asia Regional Economic Cooperation (CAREC) program, a partnership of 11 developing member countries and 6 multilateral development partners, including the PRC (through Xinjiang Uygur Autonomous Region [XUAR] and the Inner Mongolia Autonomous Region)³ is aligned with the Silk Road Economic Belt and 21st Century Maritime Silk Road development strategy and framework (also known as the Belt and Road Initiative)⁴ which is a catalyst for supporting increased RCI and connectivity in the region and implementing the Thirteenth Five-Year Plan.

3. The PRC's western provinces and autonomous regions are vital for achieving increased RCI. Located in the PRC's northwest, XUAR is a border area linking the PRC to Central Asia and is a priority for development. XUAR is an established trade intermediary between the rest of PRC and Central Asia, and this role is expected to strengthen with increased RCI-related trade as envisioned under the Thirteenth Five-Year Plan and CAREC. In 2015, XUAR's exports—including transit from other PRC provinces—to Kazakhstan, the Kyrgyz Republic, and Tajikistan accounted for 62.3%, 74.7% and 76.7%, respectively, of the PRC's exports to these three markets. Trade volumes through XUAR more than doubled between 2009 and 2014, increasing from 20.93 million metric tons to 46.65 million metric tons.⁵ To support this increased trade, Phase 1 of the Urumqi China–Europe Freight Train Logistics Center was completed in 2016 and is expected to have a marked effect on increasing the trade volumes through XUAR.

4. Urban growth in XUAR is substantial, and the urban population is expected to reach 56% by 2020, nearly the targeted PRC average of 60%. Most of the urban population is in northern XUAR and concentrated in Urumqi, where the urban population will reach 4.65 million by 2020. Most of the city's residents travel by foot or public transport; however, as is the case across the PRC, private vehicle ownership has grown substantially, doubling between 2008 and 2013 to

¹ The TA is listed as “Implementing Strategies of Urumqi Towards a Modernized and Comprehensive Transport Hub-Oriented City” in: ADB. 2017. *Country Operations Business Plan: People's Republic of China, 2017–2019*. Manila. The TA first appeared in the business opportunities section of ADB's website on 7 September 2017.

² Government of the PRC. 2016. *The Thirteenth Five-Year Plan for National Economic and Social Development*. Beijing.

³ ADB. 2014. *CAREC Transport and Trade Facilitation Strategy 2020*. Manila.

⁴ Unveiled in 2015, the Belt and Road Initiative aims to revive the overland Silk Road's historical trade route and expand maritime trade by promoting the integration of Asian, European, and African markets through investing in connectivity networks and building on regional economic cooperation.

Government of the PRC, State Council. 2015. *Vision and Actions on Jointly Building Silk Road Economic Belt and 21st Century Maritime Silk Road*. Beijing.

⁵ Statistical Bureau of Xinjiang Uygur Autonomous Region. 2015. *Xinjiang Statistical Yearbook 2014*. Beijing: China Statistics Press.

125 vehicles per 1,000 residents in Urumqi. Congestion in the city, especially on the main arterial roads, has also increased. Metro and bus rapid transit lines are under construction, but they may be insufficient under the growth that is expected through expanded RCI-related trade.

5. XUAR aims to transform into a hub for transport, trade and logistics, finance, culture, science and education, and medical services. Urumqi, the XUAR's capital, and its surrounding cities will lead this transformation by building rail and road networks; upgrading urban infrastructure, inland port facilities, and the airport; and supporting the development of small and medium-sized enterprises throughout the Urumqi metropolitan area. Urumqi's transformation will be possible only if the existing and future transport constraints are alleviated; congestion and fragmentation, and the resulting inefficiencies in moving people and goods, are major impediments to the growth of cities. Many of the PRC's largest cities are facing these constraints; congestion in Beijing was found to cost the economy CNY72 billion (\$10.7 billion) annually.⁶

6. The Urumqi metropolitan area comprises nine cities: Changji, Fukang, Hutubi, Qitai, Shawan, Shihezi, Turpan, Urumqi, and Wujiaqu.⁷ The population is 6.7 million people, and the gross domestic product growth in each city is 5.5%–11.1% annually. The area is linked by railways to six major domestic cities—Beijing, Chengdu, Lanzhou, Shanghai, Xi'an, and Zhengzhou—and three border and trade cities in XUAR—Alashankou, Kashgar, and Khorgos, bordering Kazakhstan and the Kyrgyz Republic. The area is linked by expressway to these and several more major cities in the PRC. Public transport and logistics in the area's cities (except Urumqi) and intercity linkages are underdeveloped.

7. To support increasing RCI, several projects for transport and trade and logistics have been announced in the Urumqi metropolitan area; however, there has been limited planning and coordination between government agencies. The current master plans were prepared in 2010 and thus do not account for the additional growth expected and lack focus on intercity connectivity within the Urumqi metropolitan area. Development of a strategy and action plan for transforming the area into a transport and logistics hub, based on the expected growth, is necessary to optimize the area's future development.

III. THE TECHNICAL ASSISTANCE

A. Impact and Outcome

8. The TA is aligned with the following impacts: (i) build a comprehensive transportation system that connects domestic and international transportation routes, extensively covers both urban and rural areas across regions, incorporates hubs with optimized functions, and provides integrated, efficient services (footnote 2), and (ii) transformation of XUAR into a hub for transport, trade and logistics, finance, culture, science and education, and medical services (footnote 4). The TA will have the following outcome: transport and logistics strategies and plans for Urumqi metropolitan area improved. The design and monitoring framework is in Appendix 1.

B. Output, Methods, and Activities

9. **Output 1: Comprehensive hub-oriented transportation strategy for Urumqi metropolitan area completed.** The strategy will include: (i) the desktop review and case studies

⁶ Wang, L., Xu, J. & Qin, P. 2014. Will a driving restriction policy reduce car trips? The Case Study of Beijing, China. *Transportation Research Part A*. 67. pp. 27–290.

⁷ The focus of the TA will be the urban areas of the cities in the Urumqi metropolitan area.

focusing on planning documents in the Urumqi metropolitan area, trends in trade, economy, and demographics, and best practices of international comprehensive transport-hub cities; (ii) the transport and logistics outlook requiring data collection and analysis, demand analysis, and forecasting and gap analysis to determine priority areas for development; (iii) the urban transport strategy and the urban logistics strategy both building upon the desktop review and outlook and including monitoring and evaluation indicators, policy recommendations, and action plans; and (iv) the implementation plans involving identifying and prioritizing projects required for the Urumqi metropolitan area's transition to a comprehensive transport-hub city.

10. The output aims to strengthen planning, particularly the intercity linkages, across the Urumqi metropolitan area for (i) public transport and road network development with consideration of transit-oriented development and mode and route preference; and (ii) urban logistics development with a focus on existing locations, potential for clustering and integration, multimodal connectivity, and mode and route preference. The public and private sectors will be consulted throughout the TA. The output will be disseminated digitally.

C. Cost and Financing

11. The TA is estimated to cost \$880,000, of which \$800,000 will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-other sources). The expenditure items are listed in Appendix 2.

12. The government will provide counterpart support in the form of professional and support staff; a suitably furnished office with utilities and telecommunication access; materials, maps, available data, and documents required by the TA; the cost of utilities (excluding telephone) for the consultants; and other in-kind contributions.

D. Implementation Arrangements

13. ADB will administer the TA (Table 1). ADB will select, supervise, and evaluate consultants. The Urumqi Urban Comprehensive Transport Research Center, as the executing agency, will be responsible for guiding TA activities, coordinating government agencies and organizations, and reviewing and commenting on the consultant outputs. A working group of representatives from each of the cities in Urumqi metropolitan area will provide guidance to the consultant team. Up to four workshops and one multi-stakeholder workshop will be held in Urumqi to review the TA results and receive feedback from the expert panel.

Table 1: Implementation Arrangements

Aspects	Arrangements		
Indicative implementation period	December 2017–February 2019		
Executing agency	Urumqi Urban Comprehensive Transport Research Center		
Consultants	To be selected and engaged by ADB		
	QCBS with a quality–cost ratio of 90:10	71 person-months	\$800,000
Asset turnover or disposal arrangement upon TA completion	When the TA is completed, the consultant will promptly turn over any purchased equipment to the Government of the People's Republic of China. The consultant will then submit a certificate of turnover to ADB.		

ADB = Asian Development Bank, QCBS = quality- and cost-based selection, TA = technical assistance.
Source: ADB.

14. **Consulting services.** ADB will select a team of consultants from a firm specialized in transport and logistics planning through quality- and cost-based selection method on a lump-sum contract with milestone payments and with a provision for fixed out-of-pocket expenditure not exceeding \$800,000. The consulting services include 12 person-months of international inputs and 59 person-months of national inputs. The TA will be implemented over 14 months. ADB will engage the consultants following its Guidelines on the Use of Consultants (2013, as amended from time to time). The consultants will procure goods following ADB's Procurement Guidelines (2015, as amended from time to time). TA disbursements will be made following ADB's *Technical Assistance Disbursement Handbook* (2010, as amended from time to time). The terms of reference for consultants is accessible from the list of linked documents (Appendix 3).

IV. THE PRESIDENT'S DECISION

15. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$800,000 on a grant basis for the Government of the People's Republic of China for the Comprehensive Hub-Oriented Transportation Strategy for Urumqi Metropolitan Area, and hereby reports this action to the Board.

DESIGN AND MONITORING FRAMEWORK

Impact the TA is Aligned with			
<p>Build a comprehensive transportation system that connects domestic and international transportation routes, extensively covers both urban and rural areas across regions, incorporates hubs with optimized functions, and provides integrated, efficient services (The Thirteenth Five-Year Plan for National Economic and Social Development)^a</p> <p>Transformation of Xinjiang Uygur Autonomous Region into a hub for transport, trade and logistics, finance, culture, science and education, and medical services achieved (to support the Central Asia Regional Economic Program and the Vision and Actions on Jointly Building Silk Road Economic Belt and the 21st century Maritime Silk Road)^b</p>			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
<p>Outcome Transport and logistics strategies and plans for Urumqi metropolitan area improved</p>	<p>a. A comprehensive hub-oriented transportation strategy for Urumqi metropolitan area accepted by the government by Mar 2019 (2016 baseline: NA)</p>	<p>a. Urumqi municipal government</p>	<p>Change in personnel or reorganization within the municipal government delays adoption of the strategy</p>
<p>Output 1. Comprehensive hub-oriented transportation strategy for Urumqi metropolitan area completed</p>	<p>1a. Desktop review and case studies completed by Mar 2018 (2016 baseline: 0)</p> <p>1b. Transport and logistics outlook completed by Jun 2018 (2016 baseline: 0)</p> <p>1c. Urban transport strategy completed by Sep 2018 (2016 baseline: 0)</p> <p>1d. Urban logistics strategy completed by Oct 2018 (2016 baseline: 0)</p> <p>1e. Implementation plans completed by Dec 2018 (2016 baseline: 0)</p>	<p>1a.–1e. Final report, review meeting, and presentation in workshops</p>	<p>Support and participation from stakeholders are not sustained because of shifting priorities</p>
Key Activities with Milestones			
<p>1.1 Desktop review and case studies (Mar 2018)</p> <p>1.1.1 Review planning documents for each city within the Urumqi metropolitan area and trends in trade, economy, and demographics.</p> <p>1.1.2 Review CTC, best practices, and lessons.</p> <p>1.1.3 Review detailed case studies of national and international CTCs and logistics hubs to identify challenges and solutions for Urumqi.</p>			

<p>1.2 Transport and logistics outlook (Jun 2018)</p> <p>1.2.1 Collect and analyze passenger and freight data, capacity, and throughput of existing and planned facilities, including consultations with public and private sectors.</p> <p>1.2.2 Analyze development and investment plans and infrastructure, and identify bottlenecks and capacity constraints based on expected growth through expanded RCI-related trade.</p> <p>1.2.3 Develop demand analysis and forecasting for each city's urban transport and logistics.</p> <p>1.2.4 Conduct gap analysis to determine priority areas for development.</p> <p>1.3 Urban transport strategy (Sep 2018)</p> <p>1.3.1 Develop an overall strategy for public transport (intercity and intracity) and road network development, considering transit-oriented development and mode and route preference.</p> <p>1.3.2 Identify M&E indicators.</p> <p>1.3.3 Develop policy recommendations.</p> <p>1.3.4 Develop plans for public transport.</p> <p>1.4 Urban logistics strategy (Oct 2018)</p> <p>1.4.1 Develop an urban logistics strategy with focus on location, potential for clustering and multimodal connectivity, and mode and route preference.</p> <p>1.4.2 Identify M&E indicators.</p> <p>1.4.3 Develop policy recommendations, particularly for multimodal management.</p> <p>1.4.4 Develop plans for urban logistics.</p> <p>1.5 Implementation plan (Dec 2018)</p> <p>1.5.1 Develop a longlist of projects required to enable the strategies.</p> <p>1.5.2 Identify the process and conduct prioritization of projects.</p> <p>1.5.3 Identify the necessary organization structure and coordination among government agencies.</p>
<p>Inputs</p> <p>ADB: \$800,000</p> <p>Note: The government will provide counterpart support in the form of professional and support staff; a suitably furnished office with utilities and telecommunication access; materials, maps, available data, and documents required by the TA; the cost of utilities (excluding telephone) for the consultants; and other in-kind contributions.</p>
<p>Assumptions for Partner Financing</p> <p>Not Applicable</p>

ADB = Asian Development Bank, CTC = comprehensive transport-hub cities, M&E = monitoring and evaluation, NA = not applicable, RCI = regional cooperation and integration, TA = technical assistance.

^a Government of the PRC. 2016. *The Thirteenth Five-Year Plan for National Economic and Social Development*. Beijing.

^b Government of the People's Republic of China, State Council. 2015. *Vision and Actions on Jointly Building Silk Road Economic Belt and 21st Century Maritime Silk Road*. Beijing.

Source: ADB.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Amount
Asian Development Bank^a	
1. Consultants	
a. Remuneration and per diem	
i. International consultants	293.8
ii. National consultants	384.7
b. Out-of-pocket expenditures	
i. International and local travel	35.5
ii. Goods (rental and/or purchase)	5.0
iii. Surveys	8.0
iv. Training, seminars, and conferences ^b	25.0
v. Reports and communications	5.0
vi. Miscellaneous administration and support costs	5.0
2. Contingencies	38.0
Total	800.0

Note: The technical assistance (TA) is estimated to cost \$880,000, of which contributions from the Asian Development Bank are presented in the table above. The government will provide counterpart support in the form of professional and support staff; a suitably furnished office with utilities and telecommunication access; materials, maps, available data, and documents required by the TA; the cost of utilities (excluding telephone) for the consultants; and other in-kind contributions. The value of government contribution is estimated to account for 9% of the total TA cost.

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

^b Estimated five workshops in Urumqi targeting 20–30 participants.

Source: Asian Development Bank estimates.

LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/LinkedDocs/?id=51028-001-TARreport>

1. Terms of Reference for Consultants