



## 1. Project Data

<b>Project ID</b> P148527	<b>Project Name</b> Urumqi Urban Transport Project II	
<b>Country</b> China	<b>Practice Area(Lead)</b> Transport	
<b>L/C/TF Number(s)</b> IBRD-85680	<b>Closing Date (Original)</b> 31-Dec-2021	<b>Total Project Cost (USD)</b> 71,558,774.89
<b>Bank Approval Date</b> 21-Dec-2015	<b>Closing Date (Actual)</b> 31-Dec-2021	
	<b>IBRD/IDA (USD)</b>	<b>Grants (USD)</b>
Original Commitment	140,000,000.00	0.00
Revised Commitment	71,558,774.89	0.00
Actual	71,558,774.89	0.00

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## 2. Project Objectives and Components

### a. Objectives

The Project Development Objective (PDO) as stated in the Loan Agreement (Schedule 1, page 6) and in the Project Appraisal Document (PAD, page 6) is " **To improve mobility in selected transport corridors in Urumqi** ".

### b. Were the project objectives/key associated outcome targets revised during implementation?



Yes

**Did the Board approve the revised objectives/key associated outcome targets?**

Yes

**Date of Board Approval**

27-Mar-2021

**c. Will a split evaluation be undertaken?**

Yes

**d. Components**

**There were three components** (PAD, pages 7 - 8).

**1. Bus Rapid Transit (BRT) corridors.** The estimated cost at appraisal was US\$243.73 million. The actual cost was US\$141.42 million. The reasons for the difference between the appraisal estimate and actual cost are discussed below. Activities in this component consist of: (i) developing three new BRT lines on existing road alignments: BRT 4 (phase 1: 14.2 Kilometers (Km); Phase 2: 5.54 km), BRT 6 (18.1 km) and BRT 6B (13.5 km); (ii) procuring BRT equipment and supporting systems; and (iii) procuring articulated and regular buses. The activity of constructing phase 2 of the BRT line was dropped during implementation (discussed below).

**2. Comprehensive Transport Information Management System.** The estimated cost at appraisal was US\$63.49 million. The actual cost was US\$36.02 million. The reasons for the difference between the appraisal estimate and actual cost are discussed below. This component planned to finance the cost of developing the Urumqi Comprehensive Transport Information Management System (UCTIMS). Activities in this component comprise: (i) developing a comprehensive transport information management platform; (ii) installing traffic data collection and data exchange Information Technology Systems (ITS), and developing a Geographic Information System (GIS)-based transport data system; (iii) improving the parking management system, as well as upgrading the existing smart card system and the existing Global Positioning System (GPS) - based taxi onboard equipment.

**3. Public Transport Infrastructure.** The estimated cost at appraisal was US\$100.7 million. The actual cost was US\$111.0 million. There were three sub-components: (i) Constructing a public transport hub at the South Square of Urumqi's High-Speed Rail (HSR) Station; (ii) constructing public transport terminals at Beijiao, Midong and the North Square of Urumqi's high-speed rail (HSR) station; and (iii) constructing two public transport parking and maintenance facilities at Sangong and Midong areas.

**4. Capacity Building.** The estimated cost at appraisal was US\$6.84 million. The actual cost was US\$3.87 million. Activities in this component planned to finance strategic studies, capacity building activities and project management costs.

**e. Comments on Project Cost, Financing, Borrower Contribution, and Dates**

**Project cost.** The estimated cost at appraisal was US\$536.80 million. The actual cost was US\$347.84 million. The actual cost was lower than the appraisal due to factors such as: (i) cancelling the activity of constructing the Phase 2 BRT line; (ii) using counterpart funding to procure 112 BRT buses and cancelling



the procurement of the remaining BRT buses; (iii) savings from competitive bidding; and (iv) currency depreciation of the Renminbi (RMB) *vis-a-vis* the US\$ during implementation.

**Project financing.** An IBRD loan of US\$140.0 million financed the project. The amount disbursed was US\$71.55 million. US\$50.0 million was cancelled at project closure. According to the team, the balance of about US\$18.4 million of the undisbursed IBRD loan was also cancelled.

**Borrower contribution.** The Borrower contribution of US\$396.79 million was planned at appraisal. Their actual contribution was US\$276.28 million.

**Dates.** The project was approved on December 21, 2015, became effective on May 26, 2016, and closed as scheduled on December 31, 2021.

**Other changes.** There were two Level 2 restructurings.

The main change made through **the first restructuring on June 22, 2017**, was the revision of the financing arrangement.. As envisioned at design, components one and four were to be partially Bank-financed, while components two and three were to be entirely financed by counterpart funding, Due to competitive bidding, savings of about US\$27.55 million were realized. To fully utilize the Bank loan, the restructuring expanded the scope of eligible expenditures to cover all four components.

The main changes made through **the second restructuring on March 27, 2021**, are as follows:

- The activity of constructing Phase two of the BRT line four was dropped. This activity initially planned for 2016, was delayed due to the metro construction works. The metro line started operating in 2019. Most of the passenger demand for phase 2 of the BRT line was met by the metro line. Hence the phase two BRT line was no longer required. Therefore, this activity was dropped and the target for the PDO indicator on the number of people gaining access to the BRT was reduced.
- BRT lines one and three which were to be constructed by the Government were cancelled due to the opening of the metro line. Hence, the buses on BRT one and three were redeployed to the BRT lines developed for this project. Hence, the project no longer financed these activities.
- US\$68.44 million of the IBRD loan was cancelled.
- Funds were reallocated between categories.

**Split rating.** Although the PDO was unchanged, the project scope decreased, and the targets of the intended beneficiaries were reduced. Therefore, this review is based on a split rating of objectives, when 88% of the loan (US\$63.59 million) was disbursed before restructuring and the balance (US\$8.19 million) was disbursed after restructuring.

### 3. Relevance of Objectives

#### Rationale

**Country and sector context.** In 2013, over half (53.73%) of China's total population lived in urban areas, a dramatic increase from 17.9% in 1978 when the reform and opening policy was initiated. Unprecedented



increasing urban population led to rapid motorization and growing demand for urban transport infrastructure and services.

Urumqi in northwestern China, is the capital of Xinjiang Uyghur Autonomous Region (XUAR). Over 50% of Urumqi's population are ethnic minorities. At the time of appraisal, Urumqi benefitted from the central government's efforts to promote economic development of the western region. As a result since 2009, Urumqi's Gross Domestic Product (GDP) grew at an annual rate of 16% (as compared to the national average of 10%). Alongside growth, the motorization rate in Urumqi increased rapidly at about 22% per year between 2008 and 2013. Major corridors experienced severe traffic congestion during peak hours. Public transport facilities (such as interchanges, terminals and bus depots) were inadequate in Urumqi and regular bus service coverage was below national standards. Improving urban mobility was hence important to the Urumqi Municipal Government strategy.

**Government strategy.** China's 12th Five-Year Plan (FYP) for 2011 -2015, prioritized development of western regions and highlighted the need for infrastructure development in minority- dominated areas. China's 14th FYP for 2021 - 2025 specified strategies and targets to promote universal access, green and integrated transport systems in metropolitan areas and emphasized the need for developing urban public transport, metropolitan infrastructure connectivity, and low-carbon cities. The plan also highlighted the need for promoting digitalization in transport and improving city information modelling platforms. In the years before appraisal, the Government was actively promoting a comprehensive approach for urban transport management through two initiatives. The first, the Ministry of Transport's (MOT) *Transit Metropolis Demonstration Project*. Under this initiative, 37 cities were to pilot strategies on public and non-motorized transport priority schemes, travel demand management and transit-oriented development patterns. The second was the Ministry of Housing and Urban-Rural Development's *Smart City Program*. Under this initiative, 90 cities were piloting information and communication technology (ICT) applications to optimize urban transport management practices. Urumqi was a pilot city for both the initiatives.

The Urumqi Municipal Government's (UMG) Transport System Plan for 2010 - 2020, prioritized the development of mass transit systems (metro and BRT) to serve as the city's backbone for urban mobility. The State Council approved Urumqi's construction plan for the first two metro lines which were completed in 2020. The first four BRT lanes were operational on some of the city's key corridors. This project was to support the development of the next three BRTs, in Urumqi's BRT master plan.

**Bank strategy.** The PDO is well-aligned with the Bank strategy. At appraisal, the PDO was consistent with two pillars of the Country Partnership Strategy (CPS) for 2013 - 2016: *greener growth and inclusive development and promoting low carbon-transport system in Chinese cities*. The Bank's current Country Partnership Framework (CPF) for 2020 - 2025 reiterated the need for "*promoting greener development and low-carbon transport and cities*" and "*reducing air, soil, water and marine plastic pollution*".

**Previous Bank experience.** When this project was under preparation, the Bank's China transport program included 13 urban transport projects. This was the second Bank-financed project in Urumqi. Like in the previous project, this follow-on project included infrastructure investments (constructing BRTs, developing the Urumqi Comprehensive Transport Information Management System and public transport infrastructure) and capacity building activities. The outputs of these activities were likely to help in improving mobility in the selected transport corridors in Urumqi (discussed in section 4). Given that the PDO continues to be relevant to the Government and Bank strategies, the relevance of objective is substantial.



## Rating

Substantial

### 4. Achievement of Objectives (Efficacy)

#### OBJECTIVE 1

##### Objective

To improve mobility in selected transport corridors in Urumqi.

##### Rationale

**Theory of change.** The activities such as constructing BRT Corridors (BRTs) (with dedicated bus lanes, priority signals, BRT buses, public transport interchanges, terminals and bus depots), were likely to improve the urban transport infrastructure. The outputs such as developing the Urumqi Comprehensive Transport Information Management System (UCTIMS) traffic data collection, communication and parking management systems, upgrading the smart card and the GIS - based taxi onboard equipment, were likely to improve data exchange among agencies. The capacity building activities were likely to improve the capacity for urban transport planning. These outputs together were likely to improve urban mobility in the selected transport corridors in Urumqi. The causal links between the project activities, outputs and outcomes were logical and the intended outcomes were monitorable. The theory of changes explicitly assumes the following: (i) there is sufficient demand for public transport; (ii) the Information technology (IT) system is used effectively by the related government agencies and service providers; and (iii) the High-Speed Rail System (HSR) supports the integration of the BRT routes.

**Outputs** (ICR, pages 11 -16 and 33 - 37).

- 46.20 km of BRT lanes (corridors 4, 6 and 6B) were operational when the project closed as per the revised target. This was short of the original target of 51.74 km (as discussed in section 2, the 5.54 km BRT phase 2 was cancelled due to the opening of the metro line). Facilities for merging between BRT and regular lines and heating facilities at BRT stations were constructed.
- BRT priority lanes were developed, and equipment (BRT priority signaling and automatic ticketing systems) were installed. By project closing, 71% of the intersections on the project supported BRT lines had priority signal lights, exceeding the target of 66%.
- The usage of smart cards (which could be used in the metro system and on the BRT and regular buses) increased to 77.7%, exceeding the target of 45%.
- 95% of the buses were parking overnight in terminals and depots in Urumqi city when the project closed, as compared to 73.8% at the baseline. This was as per the revised target, but short of the original target of 100%.
- While car ownership along the BRT corridors in Urumqi significantly increased (322 vehicles per 1000 persons in 2020, 17% higher than the urban average), the number of people using public transport along the BRT lines was three percent higher than the national average.
- The project aided in developing the Urumqi Comprehensive Transport Information Management System (UCTIMS) for sharing data among the different agencies. The UCTIMS platform was cloud-



based, and 22 institutions were connected to the platform. This exceeded the target of nine institutions.

- Eight technical assistance (TA) sub-components were completed for strengthening the knowledge base on urban transport planning and management, exceeding the target of seven. Eight domestic trainings (with 274) participants and four study tours were conducted covering traffic management, road maintenance, safety, data application, BRT asset management, fiduciary management and environmental protection as targeted.
- The construction work for one office building to house the Urumqi Comprehensive Transport Information Management System (UCTIMS) was not yet completed when the project closed. According to the clarification provided by the team, as UCTIMS was re-designed as a cloud-based system that does not need the extensive space for the data server rooms, it was housed at the Urumqi Transport Research Center. The team clarified that the office building was completed by July 2022
- and developed primarily for commercial purposes.

The following activities were not completed as targeted.

- The phase II of the BRT line was dropped following the opening of the metro line.
- The number of buses to be procured was reduced from 181 to 112 and this activity was not financed by the Bank but eventually through counterpart funding.

### **Outcomes.**

The outputs were expected to improve urban mobility in the selected corridors in Urumqi. Mobility was measured along four dimensions: (i) accessibility (the number of beneficiaries with direct access to the BRT corridors); (ii) service quality (measured by the user satisfaction rate); (iii) transport efficiency (measured by the average passenger boardings per hour km during peak corridors on BRT corridors and peak hour vehicle BRT speed on the corridors; and (iv) information sharing (measured by the daily traffic of data exchange of the UCTIMS).

- 546,961 people (including 263,691 females) had direct access to the BRT corridors at project closure. This exceeded the revised target of 495,000 (238,700 females) but was short of the original target of 645,000 (311,100 females).
- According to the user satisfaction survey, 89.5% of the respondents were satisfied with the quality of BRT services as compared to 72% at the baseline. This exceeded the target of 83%.
- 5,686 passengers were boarding and alighting BRT and regular buses at Beijiao Hub and High-Speed Rail (HSR) South Hub during peak hours when the project closed. This exceeded the revised target of 5,600 but was short of the original target of 9,300.
- The peak hour in -vehicle BRT (bus speed) on BRT four corridor increased from 12.5 (Km/h) at the baseline to 18.7 km/h, exceeding the target of 15.5. On the BRT 6 corridor, it increased from 16.8 at the baseline to 20.2 (target 19 km/h). And, on the BRT 6b corridor, it increased from 14.8 at the baseline to 17.4 (target 17).
- The daily traffic exchange volume of UCTIMS (a measure of utilization of transport information rate by the different institutions and the public) was 16.23GB, slightly exceeding the target of 16.

Three of the five outcome targets namely service quality, increased public transport efficiency and reduced travel time and improved information sharing among government agencies were fully realized before project restructuring. The fourth element of the PDO, the 'mobility and accessibility' measured by the number of



beneficiaries was 84.8 percent achieved prior to the restructuring (ICR page 12, Table 1). Moreover, the mobility and accessibility of the remainder of the original beneficiaries was met by the metro line. Therefore, efficacy before restructuring was **substantial**.

## Rating

Substantial

## OBJECTIVE 1 REVISION 1

### Revised Objective

There was no change in the PDO, but the targets of the indicators were revised.

### Revised Rationale

#### Outputs.

- 46.20 km of BRT lanes (corridors 4, 6 and 6B) were operational when the project closed as per the revised target. Facilities for merging between BRT and regular lines and heating facilities at BRT were constructed as targeted.
- BRT priority lanes were developed and BRT priority signaling and automatic ticketing system were installed. By project closure, 71% of the intersections on the BRT lines had priority signal lights, exceeding the target of 66%.
- The usage of smart card increased to 77.7%, exceeding the target of 45%
- 95% of the buses parking overnight in terminals and depots in Urumqi city increased from 73.80% at the baseline to 95% as per the revised target.
- UCTIMS was developed for sharing data among the different agencies.
- TA activities were completed as targeted (discussed above).

#### Outcomes.

- 546,961 people (including 263,691 females) had direct access to the targeted BRT corridors when the project closed. This exceeded the revised target of 495,000 (238, 700 females).
- According to the user satisfaction survey, 89.5% of the respondents were satisfied with the quality of BRT services, exceeding the target of 83%,
- 5,686 passengers were boarding and alighting BRT and regular buses at Beijiao Hub and High-Speed Rail (HSR) South Hub during peak hours when the project closed, exceeding the revised target of 5,600.
- The peak hour in -vehicle BRT (bus speed) on BRT four corridor increased from 12.5 (Km/h) at the baseline to 18.7 km/h, exceeding the target of 15.5 km/h. On the BRT 6 corridor, it increased from 16.8 km/h at the baseline to 20.2 km/h (target 19 km/h). On the BRT 6b corridor, it increased from 14.8 at the baseline to 17.4 (target 17).
- The daily traffic exchange volume of UCTIMS was 16.23 GB, slightly exceeding the target of 16.

Efficacy was high after restructuring as all the revised targets were exceeded.



### Revised Rating

High

## OVERALL EFFICACY

### Rationale

Efficacy was rated as substantial before restructuring.

### Overall Efficacy Rating

Substantial

## OVERALL EFFICACY REVISION 1

### Overall Efficacy Revision 1 Rationale

Efficacy was high after restructuring.

### Overall Efficacy Revision 1 Rating

High

## 5. Efficiency

**Economic analysis.** A benefit-cost analysis was conducted to assess the economic viability of the infrastructure investments. These components accounted for 98% and 66% of the appraised and actual costs respectively. The methodology entailed a comparison of benefits "with" and "without" the project. The quantifiable benefits were assumed to come from: (i) savings in vehicle operating costs in urban areas; (ii) savings in passenger time; (iii) benefits due to reduced accidents; and (iv) reduction in greenhouse gas (GHS) emissions. The Net Present Value (NPV) at 12% discount rate at closure was US\$268.00 million, as compared to the NPV of US\$157.05 million at appraisal. The ex-post Economic Internal Rate of Return (EIRR) was 16.83% as compared to the ex-ante EIRR of 17%. The ex-post EIRR was slightly lower than the ex-ante EIRR, due to the longer construction period and lower benefits in the early years of operation, especially during the COVID-19 pandemic period (ICR, paragraph 33).

**Financial analysis.** A financial analysis of the Urumqi Urban Transport Investment Company (UUTIC) was conducted at closure. Results from the analysis showed that as expected at appraisal, UUTIC did not generate adequate revenues to cover operating costs. The ICR (paragraph 34) noted that bus fares are set well below cost recovery levels in China as public transport is considered as a public good.





**Administrative and Operational efficiency.** The project was restructured to cancel phase II of BRT (5.54 km, 10% of the total planned length), due to the opening of the metro line. The actual project cost was US\$356.68 million, well below the appraised cost of US\$514.04 million, due to a combination of factors including, dropping the phase 11 of BRT, savings realized due to the effective procurement and contract management and exchange rate fluctuations. Despite the restrictions due to the COVID - 19 pandemic in the final years of the project, the revised scope of project activities were completed, with no extension of the closing date.

In sum, efficiency is rated as substantial.

### Efficiency Rating

Substantial

a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal	✓	16.83	98.00 <input type="checkbox"/> Not Applicable
ICR Estimate	✓	17.00	66.00 <input type="checkbox"/> Not Applicable

\* Refers to percent of total project cost for which ERR/FRR was calculated.

### 6. Outcome

**Under the original outcome targets.** With substantial relevance of objectives, substantial efficacy and efficiency, the overall rating is **satisfactory (5)**.

**Under the revised outcome targets.** With substantial relevance of objectives and efficiency, and high efficacy, the overall rating is **satisfactory (5)**.

A split rating is applied based on the disbursement shares before and after the project restructuring in 2021, when a disbursement share was at 88.6% and 11.4% respectively (amount disbursed was US\$63.59 million before restructuring, and US\$8.19 million after restructuring. The overall outcome rating is **Satisfactory**, the weighted value of outcome rating is  $0.88 \times 5 + 0.11 \times 5 = 4.43 + 0.57 = 5$ ).

#### a. Outcome Rating

Satisfactory

### 7. Risk to Development Outcome



**Financial risk.** There is moderate financial risk to the sustainability of the development outcome. As public transport fare are kept very low in Urumqi to ensure its affordability, BRT could not cover the operational costs. The ICR (paragraph 79) notes that the Urumqi Municipal Government (UMG) is however committed to providing Operations and Maintenance (O&M) subsidies to the BRT company to sustain the BRT services. The ICR also notes that UMG has introduced various measures such as station and vehicle body advertising and land leasing to improve the financial viability of BRT operations.

According to the clarifications provided by the team, BRT operations had returned to normal since 2021 and BRT ridership was increasing steadily until August 2022. However, there was another COVID - 19 outbreak in Xianjiang in August 2022. Urumqi has been under lockdown since then and most public transport services were suspended. The team further clarified that Chinese cities are still imposing the same level of strict COVID-19 restrictions to date.

**Institutional risk.** The ICR (paragraph 80) notes that rapid urban development could pose challenges to urban mobility and that to sustain and continue improving the public transport system in Urumqi, continued commitment by the UMG is required beyond project closure.

## 8. Assessment of Bank Performance

### a. Quality-at-Entry

The Bank prepared this project based on the experiences from the previous Bank-financed urban transport projects in China and around the world. Lessons incorporated at design included: (i) focusing on institutional coordination and cooperation for urban interventions; (ii) using a customer-focused approach for such interventions; and (iii) user consultations during planning and implementation. The preparation team also conducted technical analysis to support the project feasibility study and developed a conceptual design for an effective BRT system. The Bank's sound technical support on BRT and ITS ensured a well-designed project. The project preparation was accelerated by strong government leadership.

The implementation arrangements at appraisal proved to be effective during implementation. This included: the overall responsibility for project coordination with the Project Leading Group (PLG) in the Urumqi Municipal Government (UMG); the Project Management Group (PMG) under the Urumqi Urban Comprehensive Transport Research Center (UCTRC) responsible for day-to-day implementation; and a Project Implementing Unit (PIU) established in the Urumqi Municipal Engineering Construction Division (UMECD) responsible for civil works contracts (PAD, paragraph 43). The arrangements for monitoring and evaluation and safeguards and fiduciary compliance were appropriate (discussed in sections 9 and 10).

The Bank identified several risks at appraisal including the weak institutional capacity for implementation (as the project was to be carried out in parallel with other metro development and construction efforts in the city), the risk of coordination and cooperation among the several municipal government agencies responsible for infrastructure development, and the risk that the Urumqi Government may take a long time to establish a dedicated institution for maintaining the information system platform. Mitigation measures incorporated at design, included advance procurement on the civil works for the BRT corridor, and a Loan Covenant for establishing a transport information center early during implementation. Even



with these mitigation measures, the overall risk was rated as substantial at appraisal (PAD, paragraphs 49 - 52).

The risk associated with development of the Metro line was not adequately considered at design. According to the clarifications provided subsequently by the team, construction of the metro line has many certainties and that even for approved projects, there is a chance that construction could be stopped or changed due to the Central Government's decision. The team also clarified that at the time when the project was prepared, neither the Bank team nor the Urumqi Municipal Government could be sure whether or when the construction of the Metro line would be approved, while the residents living under the alignment of BRT 4 were in urgent need for a mass transit system.

Overall, the quality of entry was satisfactory.

### **Quality-at-Entry Rating**

Satisfactory

#### **b. Quality of supervision**

Eleven Implementation Status Results (ISR) reports were filed over the project lifetime of six years, implying on average twice a year supervision missions. The ICR (paragraph 53) notes that the supervision missions included meetings with government, stakeholders and affected people, as well as visits to project sites. Due to travel restrictions in the wake of the COVID - 19 pandemic, missions since 2020 were conducted virtually, except for one mission in July 2021. During implementation, the Bank team mobilized international experts to advise on project implementation and facilitated several capacity building workshops on mass transit and Information Technology Systems (ITS). The task team leader was changed twice during the execution period. The support provided by the supervision team aided in safeguards and fiduciary compliance (discussed in section 10).

The supervision team was diligent. The ICR (paragraph 56) noted that the Project Management Unit (PMU) wished to utilize the loan savings by adding investment activities and the Bank team held meetings to discuss and review the proposals. Due to the changes in World Bank's development strategies and heightened risk of operations in XUAR, the Bank concluded that these activities could not be supported, and the loan amount was subsequently cancelled.

The supervision team aided in facilitating an innovative financing mechanism. Based on the analysis of policy requirements of the revised budget law for borrowings and discussions with the Urumqi Municipal Government (UMG), the project adopted a revenue-based financing method based on future BRT revenues and budgeted operational subsidies. The project mobilized a loan commitment of RMB 1.385 million from the China Development Bank (CDB) to the Urumqi Urban Transport Investment Company as part of counterpart fund (accounting for 57.2% of counterpart fund to co-finance the project). During implementation, the CDB loan expired and was replaced by the Guangdong Development Bank. The refinancing successfully reduced the interest rate from 4.9% to 4.65% and contributed to a total saving of around RMB 25.00 million during implementation.



According to the Borrower's ICR (Annex 5), "the World Bank provided timely and efficient answers to the problems raised by the project implementation unit and gave necessary guidance to the documents and problems put forward by the project unit on a daily basis".

The quality of supervision was satisfactory.

In sum, overall Bank performance is rated as satisfactory.

### **Quality of Supervision Rating**

Satisfactory

### **Overall Bank Performance Rating**

Satisfactory

## **9. M&E Design, Implementation, & Utilization**

### **a. M&E Design**

The key outcome indicators - the number of beneficiaries (disaggregated by gender) with direct access to the BRT corridors, service quality (measured by bus user satisfaction rate), the average number of passenger boardings during peak hours, the peak hour BRT speed on the corridors and the daily traffic of data traffic exchange of the Urumqi comprehensive transport information management system - were appropriate for the PDO monitoring urban mobility. The intermediate indicators were set to directly monitor the implementation progress of the key interventions, such as the length of BRT operators in operation, percentage of intersections with bus priority signals and the number of technical assistance activities that were completed. The Project Monitoring Office (PMO) was overall in charge for M&E with the data provided by BRT, smart-card companies, and the traffic information network (PAD, paragraph 43).

There was one shortcoming in M&E design. The indicator for the number of passengers boarding and alighting BRT and regular buses at the Beijiao Hub and High Speed Rail (HSR) during peak hours was not well-defined, as the peak time of the HSR South Hub was related to the schedule of the high-speed railway line, which was different from the peak hour of public transport in the city.

### **b. M&E Implementation**

The ICR (paragraph 59) notes that the arrangement for monitoring and reporting during implementation proved to be appropriate. The M&E data were collected from the BRT operator, smart-card company and the traffic information center. Additional information for monitoring came from the user satisfaction survey. The results framework was modified with the project restructuring and the targets were adjusted with the cancellation of the activity. The ICR notes that the quality of M&E was sound throughout implementation and the regular reporting by the Project Management Office allowed the Bank team to assess progress towards achieving the project outcomes.



### c. M&E Utilization

The M&E data on the length of completed BRT lines, the average passenger boarding, peak hour speed and data exchange enabled the Project Management Office and the Bank to track implementation progress, identify bottlenecks and facilitate decision-making. The user satisfaction surveys conducted by a third-party consultant were used to assist the evaluation of the service quality of the three BRT corridors and identify areas for improvement. The ICR (paragraph 60) notes that the user satisfaction surveys were expanded to the public transport system citywide to monitor and evaluate public transport service quality in Urumqi.

In sum, M&E is rated as substantial.

### M&E Quality Rating

Substantial

## 10. Other Issues

### a. Safeguards

The project was classified as a Category A (full assessment) project under the World Bank safeguard policies. Two safeguard policies were triggered at appraisal: Environmental Assessment (OP/BP 4.01) and Involuntary Resettlement (OP/BP 4.12) (PAD data sheet). The summary reporting below on the compliance with Bank safeguards is based on the detailed discussion provided in the ICR (pages 24 - 26).

**Environmental Assessment.** Construction-related impacts, such as noise and dust, waste disposal, vegetation loss, sewage discharge, social disturbance and safety were expected from project activities and appropriate mitigation measures were put in place. An Environmental Assessment (EA) summary, an Environmental Impact Assessment (EIA) and an Environmental Management Plan (EMP) were prepared and publicly disclosed by the implementing agency at appraisal. The project was in compliance with the environmental safeguards.

**Involuntary Resettlement.** The project activities entailed permanent acquisition of rural collective and state-owned land, physical displacement and resettlement. A Resettlement Action Plan (RAP) was prepared and publicly disclosed at appraisal.

The project complied with the social safeguards. A total of 70 households were resettled. By the end of July 2021, with the exception of one household who chose cash compensation were compensated. The project had a Grievance-Redressal Mechanism (GRM) throughout the project. There were no pending grievance issues when the project closed.

Ethnic minority households were not disproportionately affected by the project, and they were also consulted on project construction as well as in maintenance and operational activities.



**b. Fiduciary Compliance**

**Fiduciary Management.** The Bank conducted a financial management assessment at appraisal. The financial risk was assessed as substantial, as the Urumqi Urban Comprehensive Transport Research Center's (UCTRC) did not have experience with Bank policies. Several mitigation measures were incorporated at design such as training the UCTRC staff (PAD, paragraph 64).

The project complied with the legal covenants. The unqualified audit reports from 2016 - 2020 were submitted in a timely fashion. Minor deficiencies such as delayed contract payments were rectified with Bank support.

**Procurement Management.** The Bank conducted a procurement assessment at appraisal. Key risks identified at appraisal included, the weak implementation capacity and possible delays due to the differences between the Bank procurement's requirements and domestic practices. The preparation team confirmed with the domestic procurement authorities that the Bank's procurement procedures will take precedence in case of inconsistencies between the domestic and Bank procurement practices. The other mitigation measures included, training officials and preparation of a procurement plan. Even prior to the signing of the Loan Agreement, contracts to the value of US\$28.00 million were signed through advance procurement procedures.

According to the ICR (paragraph 71), procurement activities were carried out in accordance with the rules and procedures as specified in the Loan and Project Agreements and there were no reported cases of mis procurement.

**c. Unintended impacts (Positive or Negative)**

There were no unintended outcomes or impacts (ICR, paragraph 45).

**d. Other**

None.

**11. Ratings**

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Satisfactory	Satisfactory	
Bank Performance	Satisfactory	Satisfactory	
Quality of M&E	Substantial	Substantial	



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Quality of ICR                      ---                      Substantial

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## 12. Lessons

The ICR draws the following main lessons from the experience of implementing this project, with some adaptation of language.

**1. A robust technical analysis can help in designing an effective BRT system that are tailored to the needs of the country.** This project adopted a closed BRT system with segregated, median bus lanes and stations, pedestrian crossings with footbridges and underpasses, BRT priority signals and overtaking lanes at locations where space was available to mitigate queueing at BRT stations. These designs were determined based on detailed surveys and traffic modelling.

**2. Urban transport interventions can benefit from engaging with citizens.** This project entailed extensive public participation and consultation both during preparation and during implementation. The public transport surveys helped in identifying the key issues faced by travelers.

**3. Effective inter-agency collaboration and coordination help in ensuring success of an urban transport project.** Urban transport project requires close collaboration between multiple agencies in planning, construction, public transport regulations and operation and traffic management. This project was set up by a Project Leading Group (PLG) led by the Executive Vice Mayor to coordinate the local agencies during preparation and implementation. PLG's role was particularly important when the project faced challenges due to the evolving circumstances such as new metro opening and the outbreak of the COVID - 19 pandemic.

## 13. Assessment Recommended?

No

## 14. Comments on Quality of ICR

The ICR is well-written. The theory of change articulating the links between the project activities, outputs and outcomes is clear. The theory of change explicitly states the assumptions for the intended outcomes. The ICR candidly acknowledges the challenges due to the opening of the metro line and appropriately does a split rating of objectives, given that the original targets were scaled back. The analysis provided in the ICR is adequate to assess project performance. The ICR draws good lessons from the experience of implementing this project. The photographs provided in the text enables the reader to visualize the changes.

One minor problem with the ICR is its length. The main body of the text at about twenty five pages is more than the recommended length of fifteen pages.



**a. Quality of ICR Rating**  
Substantial