



CAREC CORRIDOR PERFORMANCE MEASUREMENT AND MONITORING ANNUAL REPORT 2024



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Note:

In this report, “\$” refers to United States dollars.
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Foreword from the Director, CAREC Institute

It is my great honor to present the Corridor Performance Measurement and Monitoring (CPMM) Annual Report 2024. Building on more than a decade of empirical monitoring under the CAREC Program, this report continues to provide evidence-based insights into the performance of regional transport corridors and the efficiency of trade facilitation across CAREC member countries.

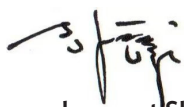
The CAREC Institute continues to lead the preparation and publication of the CPMM Annual Report, while the Asian Development Bank (ADB) remains a key partner in data collection, validation, and technical analysis. This collaboration ensures that CPMM maintains its methodological rigor and credibility, while expanding its role as a strategic knowledge product that supports policy dialogue, regional cooperation, and informed decision-making across the CAREC region.

Since its launch by ADB in 2010, CPMM has evolved into a cornerstone mechanism for assessing transport and trade facilitation performance. Using the time/cost-distance (TCD) methodology developed by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), CPMM captures real-world shipment data to measure the time and cost of moving goods along CAREC corridors. The resulting dataset highlights operational bottlenecks, procedural inefficiencies, and infrastructure constraints, offering actionable evidence for reforms and investment prioritization.

The 2024 Annual Report reflects a year of continued adjustment in regional transport dynamics. It documents the redirection of transit flows, growing pressure on legacy infrastructure, and the increasing strategic importance of railways and alternative corridors. The report is structured around four core monitoring pillars, namely Route Monitor, Policy Monitor, Border-Crossing Point (BCP) Monitor, and Corridor Performance, supplemented by country updates and a detailed case study of the border-crossings between Kazakhstan and People's Republic of China (PRC). Two BCPs are analyzed in the case study, Alashankou–Dostyk and Horgos–Nur Zholy/Altynkol, located along CAREC Corridors 1a and 1b respectively.

Beyond monitoring, CPMM serves as a platform for learning and policy innovation. Its longitudinal data allow stakeholders to track progress over time, assess the effectiveness of reforms, and recalibrate strategies in response to emerging challenges. The growing emphasis on digitalization, institutional coordination, and infrastructure-linked policy reforms across CAREC countries underscores the relevance of CPMM as a diagnostic and evaluative tool.

In conclusion, the CPMM Annual Report 2024 reaffirms the CAREC Institute's commitment to strengthening regional connectivity through robust analysis, knowledge sharing, and partnership. We remain dedicated to supporting CAREC countries in their efforts to reduce trade costs, enhance corridor efficiency, and foster sustainable and inclusive economic growth. I extend my sincere appreciation to ADB, national partner associations, and all stakeholders whose collaboration and contributions made this report possible.



Charymhammet Shallyyev

Director
CAREC Institute
April 2026

Acknowledgments

The Corridor Performance Measurement and Monitoring Annual Report is a yearly publication that highlights CAREC Corridor efficacy. The report emphasizes using actual commercial shipments as samples and assessing the time and cost indicators. These quantitative data are also compared across the six corridors and over the recent past to report on the trend. In particular, the report places strong focus on the performance at the border-crossing points (BCPs). As many of the CAREC countries are landlocked, much of the transit inefficiency stems from the problems experienced at the BCPs.

This report was prepared by the CAREC Institute, led by Ghulam Samad, under the guidance of Director Charymuhammet Shallyyev, Deputy Director One Li Kouqing, Deputy Director Two Kuat Akizhanov. ADB supported data collection and validation in CAREC countries, provided insights regarding the trends, and also reviewed the report. The report was led by Zulfia Karimova, supported by Julius Santos in data aggregation and analysis, and CPMM field consultants Max Ee and Andy Sze in analysis and insights. Xin Lei and Chen Long from the CAREC Institute contributed to typesetting review, and Ms. Emma Tong supported the overall coordination.

Finally, special thanks to the national transport and trade associations who participated in this Annual Report 2024. These CPMM partners are listed in Appendix 4 of this report. They contributed immensely to the data collection and verification and thorough surveys conducted with drivers and freight forwarders. The contribution of ADB Transport Sector and New Development Bank are also acknowledged, who shared the findings on Khorgas–Altynkol/Nur Zholy and Alashankou Port Infrastructure Development Project, where some information were included in the case studies.

Abbreviations

ADB	–	Asian Development Bank
AFG	–	Afghanistan
APTTA	–	Afghanistan–Pakistan Transit Trade Agreement 2010
AZE	–	Azerbaijan
BCP	–	border-crossing point
BTK	–	Baku–Tbilisi–Kars Line
CAREC	–	Central Asia Regional Economic Cooperation
CPMM	–	Corridor Performance Measurement and Monitoring
CRE	–	China Rail Express
EAEU	–	Eurasian Economic Union
GEO	–	Georgia
IRTCOP	–	International Road Transport Chamber of Pakistan
KAZ	–	Kazakhstan
KGZ	–	Kyrgyz Republic
MON	–	Mongolia
PAK	–	Pakistan
PCKU	–	Pakistan–China–Kyrgyzstan–Uzbekistan Logistic Corridor
PRC	–	People’s Republic of China
RIBS	–	Regional Improvement in Border Services
RUS	–	Russian Federation
SWD	–	speed with delay
SWOD	–	speed without delay
TAJ	–	Tajikistan
TCD	–	time/cost–distance
TFI	–	trade facilitation indicator
TIR	–	Transports Internationaux Routiers (International Road Transport)
TITR	–	Trans-Caspian International Transport Route
TKM	–	Turkmenistan
TTFS	–	Transport and Trade Facilitation Strategy
TUR	–	Türkiye
UZB	–	Uzbekistan
Y-o-Y	–	Year on Year

Units of Measure

km	–	kilometer
km/h	–	kilometers per hour
m	–	meter
mm	–	millimeter
TEU	–	20-foot equivalent unit
ton-km	–	ton-kilometer
hr	–	hours
\$	–	US dollars
mt	–	million tons

Executive Summary

Chapter 1: Introduction

The Corridor Performance Measurement and Monitoring (CPMM) mechanism, established by the Central Asia Regional Economic Cooperation (CAREC) Program in 2010, is an evidence-based system that evaluates transport and trade efficiency along six key regional corridors. Utilizing real shipment data collected at border-crossing points (BCPs), CPMM tracks four trade facilitation indicators: border-crossing time and border crossing cost, transport cost, and corridor speed, to identify bottlenecks and monitor the impact of infrastructure and policy reforms. Its methodology, based on actual commercial operations, offers a robust alternative to perception-based surveys, making its findings highly reliable. Aimed at informing public sector decision-makers, the CPMM Annual Report highlights trends and challenges derived from private sector operations, translating empirical insights into actionable recommendations for regional connectivity and trade facilitation improvements.

Chapters 2–4: Regional Developments, Policies, and BCP Performance

CAREC transport and trade dynamics continued to shift in response to geopolitical disruptions, prompting greater reliance on alternative multimodal corridors and targeted policy reforms. Chapter 2 (Route Monitor) highlights major route developments, including strengthened activity along the CAREC Corridor 2; renewed progress on the PRC–Kyrgyz Republic–Uzbekistan and Pakistan–Afghanistan–Uzbekistan railway projects; and growing challenges from legacy infrastructure constraints, port congestion, and gauge breaks that continue to impede efficiency. Chapter 3 (Policy Monitor) reports accelerated regional cooperation and customs modernization, such as expanded single-window systems, and streamlined “green channel” procedures in the PRC, together with broader trade facilitation incentives and institutional cooperation measures across Central and South Asia. Chapter 4 (BCP Monitor) identifies persistent operational bottlenecks at key border-crossing points, including long queues, mismatched throughput between paired BCPs, limited inspection, and congestion at high-volume gateways such as Horgos, Nur Zholy, Dostyk–Alashankou; the chapter further documents the most time-consuming and costliest road and rail BCPs, emphasizing the need for process streamlining, harmonized procedures, expanded physical capacity, and enhanced digital connectivity to reduce clearance delays and improve corridor reliability.

Chapter 5: Trade Facilitation Indicators

Chapter 5 presents an analysis of 1,850 shipment samples collected across CAREC corridors, covering road, rail, and multimodal transport. Road shipments made up the majority of observations, with perishables and TIR shipments representing notable shares of the total volumes. The Trade Facilitation Indicators (TFIs) measuring time, cost, and speed showed **mixed performance** across modes. For **road transport**, average border-crossing time increased 28% to 14.1 hours, while average border-crossing cost increased 39% to \$182. Total shipment cost decreased 10% to \$733. Both SWOD and SWD decreased in 2024. Rail transport demonstrated a **more positive trend**. Average border-crossing time decreased 13% to 25.5 hours, while average border-crossing cost was relatively unchanged at \$223. Total shipment cost increased 0.7% to \$922. SWOD and SWD increased slightly.

Chapter 6: Country Updates

Chapter 6 provides country-specific observations based on CPMM's Trade Facilitation Indicators (TFIs) across the 11 CAREC member countries. Using disaggregated data from 2022 to 2024 by transport mode (road and rail) and direction (inbound and outbound), the analysis reveals diverse performance trends in trade and transport facilitation.

Azerbaijan. TFI1 for road improved in 2024, decreasing from 4.3 hours in 2023 to 2.1 hours (–51.1%). The outbound clearance time fell to 0.9 hours (–79.6%), Border-crossing cost (TFI2) edged down to \$52.2 (–6.1%), reflecting lower outbound costs at \$38.2 (–16.8%) that were partly offset by higher inbound costs at \$76.3 (+13.9%). Transport cost per 500 km for a 20-ton load (TFI3) also fell to \$47.8 (–18.0%). Corridor speed with delay (SWD) rebounded to 26.1 km/h (+18.6%).

People's Republic of China (PRC). Performance shows rising pressure at road and rail border points but continued efficiency once shipments move beyond control zones. On the road side, TFI1 increased from 16.8 to 18.6 hours and TFI2 rose from \$356.8 to \$395.3, with outbound traffic driving both increases, while inbound remained minimal in time and dropped sharply in cost, reflecting restructured fee practices. Despite these border-side headwinds, TFI3 fell by nearly 40%, indicating much leaner long-haul operations after clearance. Road speeds softened, with SWD slipping to 29.2 km/h and SWOD to 72.5 km/h, suggesting that queue-related friction outweighed the cost savings on the corridor. Rail performance followed a similar pattern of heavier border processing but better movement onward. TFI1 rose from 14.4 to 20.2 hours, driven by longer outbound and inbound clearance, and TFI2 increased slightly, although outbound charges fell to zero while inbound fees rose moderately. Even so, TFI3 edged down and speeds strengthened: SWD climbed to 17.6 km/h and SWOD to 85.9 km/h. The overall profile points to intensified congestion at rail border nodes but improved cruising speeds and scheduling once trains access the mainline, resulting in a mixed but directionally improving rail operating environment.

Georgia. Border-crossing time (TFI1) improved dramatically, falling from 34.8 to 14.2 hours (–59.2%), with outbound clearance dropping by nearly two-thirds and inbound time compressing from 1.6 to 0.3 hours (–81.3%). Although border-crossing costs (TFI2) increased, particularly inbound charges, overall transport costs fell sharply: TFI3 plunged 75.0%, reflecting fewer delays, better fleet utilization, and stronger competition on key domestic legs. Speed indicators also point to a decisive easing of congestion. SWD more than doubled to 18.5 km/h (+103.3%), and SWOD rose modestly to 38.1 km/h (+8.2%).

Kazakhstan. For road, TFI1 rose from 4.2 to 5.2 hours (+23.8%), driven by a sharper increase in inbound processing time (+27.3%), signaling tighter arrival controls, heavier procedural load at entry and jump in traffic. Border-crossing costs (TFI2) surged 61.5% to \$143.4, with inbound fees nearly doubling, underscoring growing compliance and service-charge burdens. Yet once past the border, corridor operations became cheaper: TFI3 fell 8.5%, pointing to better fleet utilization and steadier domestic running conditions. Speed indicators softened; SWD dropped to 25.1 km/h (–13.1%) and SWOD to 41.1 km/h (–8.1%). Rail performance showed a more balanced but still mixed pattern. TFI1 improved by 19.9%, mainly due to faster inbound clearance (–19.0%), even as outbound time rose by 22.6%. Border-crossing cost (TFI2) increased modestly (+4.6%), masking opposing movements: outbound charges fell while inbound costs climbed. Haulage cost TFI3 rose 8.9%, pointing to tariff adjustments and inland operational pressures. Rail speeds diverged: SWOD improved to 67.5 km/h (+6.0%), reflecting smoother cruising on open track, while SWD fell to 8.8 km/h (–16.2%).

Kyrgyz Republic. For road transport, TFI1 surged from 1.3 to 12.3 hours (+846.2%). Outbound increased from 1.0 to 2.3 hours (+130.0%), while inbound jumped from 1.4 to 13.8 hours (+885.7%), due to lengthy arrival procedures at Irkeshtam and Torugart. TFI2 climbed from \$115.7 to \$332.8 (+187.7%), with outbound up from \$18.7 to \$48.0 (+156.7%) and inbound up from \$185.8 to \$389.7 (+114.6%). TFI3 increased from \$1,505.3 to \$1,788.1 (+18.8%), pointing to heavier delay-related and handling expenses over typical 500-km hauls. Speeds softened: SWD fell from 32.0 to 17.7 km/h (–44.6%) and SWOD from 54.1 to 49.6 km/h (–8.3%).

Mongolia. TFI1 rose from 2.0 to 24.4 hours and TFI2 jumping from \$17.2 to \$190.3, both driven entirely by inbound delays and fee escalation. Despite this, TFI3 improved by 13.3%. Speed indicators weakened significantly, with SWD falling from 41.1 to 13.8 km/h and SWOD slipping to 50.6 km/h, reflecting heavier queueing and more frequent disruptions along the route. Rail performance moved in the opposite direction and improved modestly. Rail TFI1 fell from 16.0 to 13.7 hours, TFI2 dropped by almost 24%, and TFI3 decreased slightly. Rail speeds also stabilized, with SWD increasing to 9.7 km/h and SWOD remaining relatively steady.

Pakistan. TFI1 increased from 33.1 to 38.1 hours (+15.1%). Outbound mirrored the overall movement, rising from 33.1 to 38.1 hours (+15.1%). TFI2 rose from \$238.2 to \$259.3 (+8.9%), reflecting higher border-crossing cost at Torkham and Chaman on outbound movements. TFI3 edged up from \$568.6 to \$569.8 (+0.2%), indicating broadly flat line-haul economics over typical 500-km runs, with limited relief from operating efficiencies. SWD fell from 11.4 to 10.4 km/h (–8.8%) and SWOD from 24.8 to 24.4 km/h (–1.6%).

Tajikistan. Road TFI1 held at about 4.2 hours, with outbound clearance improving by more than one third while inbound time rose modestly, indicating that gains were concentrated on departures and that arrival-side checks and queueing remained the principal constraint. Cost pressures increased sharply. TFI2 more than doubled from \$93.7 to \$228.0, driven mainly by inbound charges, which climbed by over 140% and signaled more intensive fee application or additional procedures at entry. Despite these cost increases at the border, TFI3 fell slightly, suggesting modest efficiency gains on the open corridor once trucks left control points. Speeds showed a mixed pattern: SWD inched up, reflecting slightly shorter queues or smoother processing, while SWOD fell by 20%, pointing to heavier on-route frictions such as construction zones or dispatch inefficiencies.

Turkmenistan. There were no road samples in 2024. TFI1 was essentially stable at 3.9 hours, pointing to an unchanged average clearance time at BCPs. Cost movements were mixed: the inbound component decreased (–0.1%), while other subcomponents were flat, leaving the overall picture close to steady. TFI3 changed from \$1,357.0 to \$1,285.7 (–5.3%). Speeds were steady to marginally higher: SWOD edged from 29.3 to 29.6 km/h (+1.0%), while SWD increased from 13.5 to 14.1 km/h (+4.4%).

Uzbekistan. Road TFI1 improved from 4.7 to 4.0 hours (–14.9%). Outbound shortened from 4.9 to 4.1 hours (–16.3%) and inbound from 4.4 to 3.7 hours (–15.9%). TFI2 moved up from \$50.2 to \$55.2 (+9.9%), with outbound rising from \$48.6 to \$59.1 (+21.4%) while inbound fell from \$52.6 to \$48.2 (–8.3%). By contrast, TFI3 increased sharply from \$567.6 to \$1,041.6 (+83.5%). Speeds softened: SWD declined from 33.2 to 29.6 km/h (–10.8%), and SWOD from 47.4 to 46.1 km/h (–2.7%). Rail TFI1 improved from 6.7 to 5.9 hours (–11.9%) due to inbound traffic. TFI2 decreased from \$132.4 to \$96.4 (–27.2%), driven by the inbound component moving from \$132.4 to \$96.4 (–27.2%) with no outbound observations. TFI3 fell from \$626.1 to \$471.6 (–24.7%). Rail speeds strengthened meaningfully: SWD rose from 11.9 to 18.8 km/h (+58.0%), and SWOD from 13.2 to 23.3 km/h (+75.8%).

Chapter 7: Case Study—PRC and Kazakhstan BCPs

The final chapter presents a case study of two gateway BCP pairs at the Kazakhstan–People’s Republic of China (PRC) border, namely Alashankou–Dostyk on CAREC Corridor 1a and Horgos–Nur Zholy/Altynkol on Corridor 1b. These BCPs handle large volumes of east–west rail and road traffic, underpinning bilateral merchandise trade that surged from \$14.0 billion in 2022 to \$31.5 billion in 2023 before easing slightly to \$30.1 billion in 2024. The case study highlights extensive infrastructure upgrades and operational reforms on both sides of the border: at Alashankou, an indoor transshipment center is being expanded, and at Dostyk the double-tracking of the Dostyk–Moiynty section, customs automation, and a new logistics hub are designed to substantially raise capacity and reduce border-crossing times. At Horgos–Nur Zholy/Altynkol, significant investment in roads, energy grids, inspection complexes, and the Khorgos–Eastern

Gate special economic zone, together with plans to double Altynkol's rail throughput, are transforming the node into a major logistics and industrial hub.

CPMM findings show that these investments are indeed necessary to improve border-crossing performance. Average border-crossing time for road traffic at Alashankou fell dramatically from 81.3 hours in 2022 to 19.4 hours in 2024, while at Dostyk it declined from around 20.7 hours in 2022 to 11.9 hours in 2024, largely due to reduced truck waiting times. For rail, performance improved but remains uneven: Alashankou's rail border-crossing time stabilized around 19 hours, whereas Dostyk continues to experience much longer delays (over 60 hours on average in 2024) due to capacity constraints, gauge-change operations, and tighter controls at the receiving station. The case study concludes that these Kazakhstan–PRC BCPs are critical to sustaining record freight flows across Central Asia, but that addressing structural bottlenecks (especially on the Kazakh side), aligning processing capacity across paired stations, and deepening operational coordination will be essential to unlock the full potential of Corridors 1a and 1b.

1 Introduction

Background

The Corridor Performance Measurement and Monitoring (CPMM) mechanism is an empirical tool designed by the Central Asia Regional Economic Cooperation (CAREC) Program to assess the efficiency of its six priority transport corridors.¹ The CAREC corridors link the region's key economic hubs and connect the landlocked member countries to Eurasian and global markets.²

This mechanism is used to (i) identify the causes of delay and unnecessary cost in moving cargo along the links and through the nodes of each CAREC corridor, including at border-crossing points (BCPs), and intermediate stops; (ii) help the national authorities in the CAREC countries determine how to address the bottlenecks thus identified; and (iii) assess the impact of initiatives for regional cooperation implemented by the members along these corridors.³

Launched in 2009, the CPMM methodology and collection process captures a range of ground-level information by measuring and recording data on actual cargo shipments along CAREC corridors and at high traffic BCPs prioritized by the CAREC member countries.

The CPMM employs the aggregated data collected for the four trade facilitation indicators (TFIs) to evaluate the overall performance and efficiency of the CAREC corridors each year.⁴ Measured over the years and across the corridors, the trends in the indicators provide a comparative picture for assessing and determining the effectiveness of transport and trade improvement initiatives in the region. The four TFIs are as follows:

- (i) **TFI1: Time taken to clear a BCP.** This indicator is the average length of time (in hours) taken to move cargo across a border from the entry to the exit point of each of the two countries' BCPs at that crossing. The entry and exit points are typically primary control centers where customs, immigration, and quarantine are handled. Along with the standard clearance formalities, this includes waiting time, unloading and loading time, time taken to transfer shipments when rail track gauges change at border crossings, and other factors. The aim is to capture both the complexities and inefficiencies in the border-crossing process.
- (ii) **TFI2: Cost incurred at a BCP.** This is the average total cost in US dollars of moving cargo across a border from entry to exit at a BCP. Both official and unofficial payments are included.
- (iii) **TFI3: Cost incurred to travel a corridor section.** This is the average total cost in US dollars incurred in transporting one shipment along a corridor section within a country or across borders. One shipment refers to goods carried in a truck, container or a wagon. Since each sample can have different cargo weight and travel through different distances, the weight of the goods are scaled to 20 tons and over 500 km. A corridor section is defined as a stretch of road or railway track of 500 km long. Both official and unofficial payments are included. In practice, however, transport

¹ The CAREC Program is a partnership of 11 countries—Afghanistan, Azerbaijan, People's Republic of China, Georgia, Kazakhstan, the Kyrgyz Republic, Mongolia, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan—working together to promote development, accelerate economic growth, reduce poverty reduction through cooperation. For more information, see CAREC home page www.carecprogram.org.

² The CPMM annual report is a technical document and, for the benefit of readers, includes standard explanations and definitions. Parts of the introduction contain standard and recurring descriptions of the CAREC CPMM background, methodology, names of BCPs, and appendixes, and should remain consistent with previous annual reports.

³ A detailed description of each CAREC corridor is found at www.carecprogram.org/?page_id=20.

⁴ The TFIs and their statistical derivations are explained in Appendix 8.

cost figures reported by CPMM refer to transport rates for trucks or railway tariffs for trains due to data collection constraints.⁵

- (iv) **TFI4: Speed to travel along the CAREC corridors.** This is the average speed in kilometers per hour (km/h) at which a unit of cargo travels along a corridor section within a country or across borders. Speed is calculated by dividing the total distance traveled by the duration of travel. Distance and time measurements include border crossings.

CPMM uses two measures of speed: speed without delay (SWOD) and speed with delay (SWD). SWOD is the ratio of the distance travelled to the time spent by a vehicle in motion between origin and destination (actual traveling time). SWD is the ratio of the distance travelled to the total time spent on the journey, including the time the vehicle was in motion and the time it was stationary. All activities that delay the vehicle (customs controls, inspections, loading and unloading, and police checkpoints, among others) are recorded by drivers. SWOD represents a measure of the condition of physical infrastructure (such as roads and railways), while SWD is an indicator of the efficiency of BCPs along the CAREC Corridors.

The data for TFI1 and TFI2, which respectively measure the time and cost at a BCP, have three components: (i) the time from when the shipment on a truck or train begins to queue outside the gate to the time when it enters the BCP; (ii) the time it takes for the activities inside a BCP (which are typically customs, immigration, and transport inspections); and (iii) the time it then takes for the shipment to gain authorization to leave the BCP. Notably, a BCP can serve inbound as well as outbound traffic, depending on the direction of travel, inbound traffic referring to a shipment entering the BCP (import), and outbound traffic referring to a shipment leaving it (export). TFI1 and TFI2 are disaggregated at each BCP as the values differ depending on the travel direction.

Furthermore, time and cost indicator data for individual activities at each BCP are collected and assessed. The same are carried out for other intermediate stops, such as toll booths and security inspections.⁶ This helps to identify the location and the nature of the delays along a corridor.

Objectives

The objectives of the CPMM are:

- (i) implementing a robust and practical approach to evaluate corridor performance that are derived from and relatable to actual commercial shipments;
- (ii) analyzing the data and information using pre-defined indicators so that any changes to the corridors' performance could be identified and explained;
- (iii) reporting the findings to policymakers who can assess the need for infrastructure or policy changes or appraise the success of past efforts in modernizing infrastructure or policies.

While there are many other tools and methodologies used by other international development organizations, CPMM is unique because of the extremely large sample size (1,500 to 2,000 samples per year) collected every month. This frequency is important because other studies tend to focus on a certain point in time and cannot detect seasonal or monthly changes. Another unique strength of the CPMM is its samples of actual commercial shipments across CAREC corridors, collected from transport operators. Actual time and cost data for shipments that have travelled along CAREC corridors are used, and not those collected from surveys or polls of perceptions. This empirical method makes CPMM's findings more reliable than surveys that ask for opinions and perceptions.

⁵ Transport cost is viewed from the perspective of the shipper and/or receiver and represents the market rate paid to move the cargo, rather than the carrier's cost of providing the service.

⁶ Activities encompass all anticipated checks and procedures, both at BCPs and at intermediate stops along the transit corridor (see Appendix 6). Appendix 7 provides a list of CAREC BCPs covered by the CPMM.

Target Readers

CPMM Annual Reports are developed with the primary aim to serve policymakers and stakeholders in the public sector. When ADB funds technical or financial assistance to projects in CAREC, the projects are formulated and determined with policymakers as close partners. CPMM serves as a monitoring and evaluation tool to appraise the effectiveness of development efforts. Thus, the contents are tailored to report important trends, developments and performance metrics to the public sector. The aggregated nature of the findings is less useful to the private sector, which is more interested in specific origin–destination pairs and routes. This is not to reduce the significance of the private sector because the sources of the data and information originate from the transport operators representing the private sector. Some recommendations also originate from dialogues with and feedback from the private sector.

Thus, CPMM Annual Reports could be seen as a platform to gather findings from the private sector, and presenting the key messages, supported by empirical evidence, to the policymakers. This is an important way to avoid potential conflicts of interest. This is because the CPMM estimations (e.g. border-crossing time and cost) could be influenced by poor decisions in infrastructure design, or cumbersome procedures that originate from stakeholders in the public sector. Tasking these agencies to measure their own performance might not present a transparent and fair set of results.

2 Route Monitor

In 2024, CAREC transport corridors continued to evolve as vital conduits linking East Asia, Central Asia, the South Caucasus, and South Asia. Six designated CAREC corridors remain the structural backbone of regional connectivity, while several new routes and institutional initiatives signaled a broadening of multimodal and digital integration. Turbulent events and regional conflicts compelled shippers to diversify transport routes and seek resilient alternatives to traditional corridors.

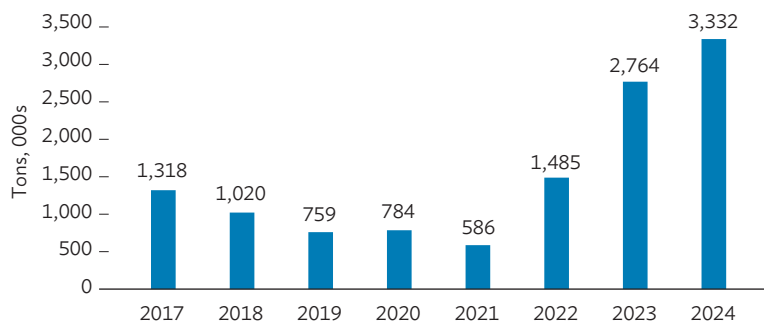
Momentum on the CAREC Corridor 2

CAREC Corridor 2 consolidated its position as the primary alternative to northern Eurasian routes. Freight volumes along the Kazakhstan–Caspian–Azerbaijan–Georgia–Türkiye route reached record highs in 2024, supported by improved coordination among corridor members and continued geopolitical shifts in global logistics. New agreements on unified tariffs and streamlined documentation were advanced through the TITR Association, while major seaports (Aktau, Kuryk, and Alat) undertook capacity expansion and digital port-community initiatives. These efforts to increase throughput are necessary to address the constraints at Caspian crossings and limited vessel availability. Kazakhstan and China also signed a rail-trade facilitation agreement that boosts multimodal exchanges through this Corridor, signaling sustained investment momentum. Freight volume (tons) transported through this corridor from 2017 to 2024 expanded at 14.2% compound annual growth rate (CAGR), while year to year growth from 2023 to 2024 was 20.5%. This suggests that the traffic growth along this corridor is accelerating. Container traffic was more impressive, reaching 30.0% CAGR from 2017 to 2024, and 175.6% year on year.

Railway Expansion Continues

In July 2024, a joint venture company was formally established, with PRC holding a 51% stake and Kyrgyz Republic and Uzbekistan sharing the remainder.⁷ Financing agreements worth \$4.6 billion were finalized,

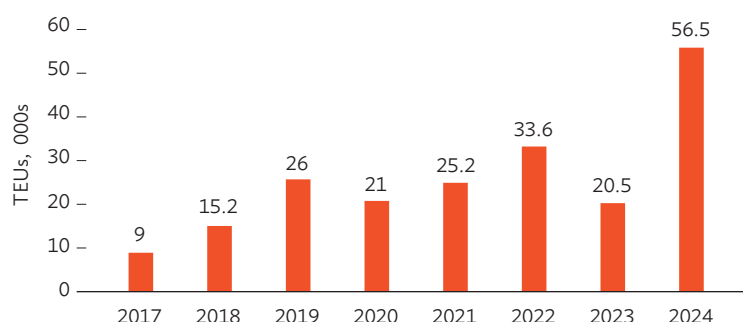
Figure 2.1: Freight Tonnage Transported Across the CAREC Corridor 2 in 2024 (000s tons)



Source: Middle Corridor (<https://middlecorridor.com/>).

⁷ Ministry of Foreign Affairs of PRC (2024). **Heads of State of China, Kyrgyzstan and Uzbekistan Extend Congratulations on the Signing of the Trilateral Intergovernmental Agreement on the China–Kyrgyzstan–Uzbekistan Railway Project via Video Link**. Accessed on 16 January 2026. Available online at: https://www.fmprc.gov.cn/eng/xw/zyxw/202406/t20240609_11415967.html.

Figure 2.2: Number of TEUs Transported Across the CAREC Corridor 2 in 2024 (TEUs, 000s)



Source: Middle Corridor (<https://middlecorridor.com/>).

and detailed engineering studies confirmed a design capacity of 12 million tons annually. Preparatory works are expected to start in 2025, with Kyrgyz Republic set to host the longest and most technically complex sections.⁸

Parallel progress continued on the Pakistan–Afghanistan–Uzbekistan Railway, with updated feasibility studies and financing discussions supported by multilateral partners.⁹ Construction has yet to commence, reflecting security challenges in Afghanistan and uncertainty over project financing. Nevertheless, the corridor remains strategically attractive as the shortest maritime link for Central Asia via Pakistani ports.

Modernization of existing trunk lines, including the Baku–Tbilisi–Kars (BTK) railway and network upgrades in Kazakhstan and Uzbekistan, enhanced the region’s east–west and north–south linkages. Together, these developments underline a decisive regional turn toward multimodal connectivity.

Border Infrastructure Supporting Economic Corridors

The Almaty–Bishkek Economic Corridor (ABEC) cross-border connectivity study for this corridor was completed in April 2024.¹⁰ The report confirmed that the key BCPs in Kazakhstan and the Kyrgyz Republic operated above their design capacity. Future increase in traffic would result in physical congestion and increase the border-crossing time, adversely impacting bilateral trade and commerce. As Kyrgyz Republic has a smaller economy and its trade is more oriented towards international markets, such border inefficiencies would affect the country more than Kazakhstan.

The Shymkent–Tashkent–Khujand Economic Corridor (STKEC) made progress with the operationalization of the International Centre for Industrial Cooperation (ICIC), which began implementing selected joint investment projects in food processing and textiles.¹¹ According to the plan, the ICIC will cover

⁸ The State Council of PRC (2024). **China–Kyrgyzstan–Uzbekistan railway set to enhance regional connectivity**. Accessed on 16 January 2026. Available online at: https://english.www.gov.cn/news/202412/28/content_WS676f37fcc6d0868f4e8ee532.html.

⁹ UNESCAP (2024). **“Uzbekistan–Afghanistan–Pakistan” Railway Construction Project**. Accessed on 16 January 2026. Available online at: https://www.unescap.org/sites/default/d8files/event-documents/Apr30-15_Uzbekistan.pdf.

¹⁰ ADB (2025). **Proposed Loan and Grant for Kyrgyz Republic: Almaty–Bishkek Economic Corridor Regional Improvement of Border Services Project**. Accessed on 16 January 2026. Available online at: <https://www.adb.org/sites/default/files/project-documents/54439/54439-001-rrp-en.pdf>.

¹¹ The Astana Times (2025). **Kazakhstan–Uzbekistan Industrial Cooperation Center Set for 2027 Launch, Boosting Regional Trade**. Accessed on 16 January 2026. <https://astanatimes.com/2025/02/kazakhstan-uzbekistan-industrial-cooperation-center-set-for-2027-launch-boosting-regional-trade/>.

100 hectares, half of which will be allocated to Kazakhstan and half to Uzbekistan. A designated portion of the area will be granted the status of a regional industrial zone.

Emerging North–South Corridor

Beyond the dominant east–west corridors, 2024 saw fresh impetus for north–south and multimodal corridors. Uzbekistan, Turkmenistan, and Türkiye advanced discussions to operationalize a multimodal passageway linking Central Asia with Persian Gulf and Mediterranean ports. Kazakhstan and Azerbaijan also explored trans–Caspian shipping connections that integrate with the International North–South Transport Corridor (INSTC). These shifts indicate that CAREC economies are increasingly aligning east–west and north–south connectivity to build redundancy and resilience into continental trade networks.

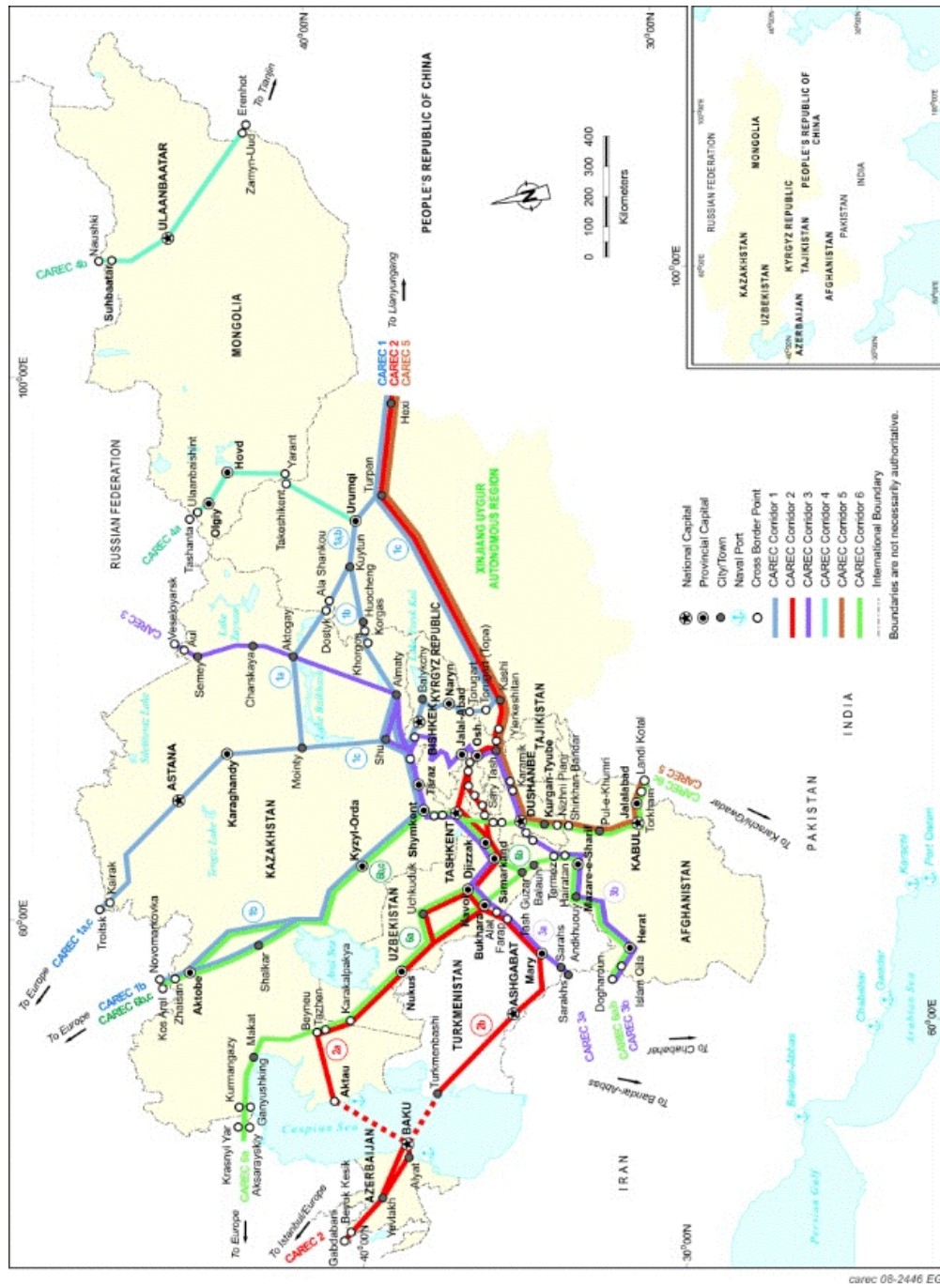
Central Asia–South Asia Connectivity

Although the two regions are located next to each other, the level of regional trade between the two has been relatively small compared to their overall trade volume. Nonetheless, the governments from both regions recognize this and efforts such as the Pakistan–Afghanistan–Uzbekistan Railway are underway to build greater connectivity. There are two main corridors that connect these two regions. One is Pakistan–Afghanistan–Central Asia, and the second is Pakistan–PRC–Central Asia. The first has Afghanistan as a transit country and connects Pakistan to three Central Asian Republics (Tajikistan, Turkmenistan and Uzbekistan), following CAREC Corridors 5a and 5c. In the second corridor, PRC serves as a transit country and connects Pakistan to Kazakhstan and Kyrgyz Republic, following CAREC Corridor 5b.

ADB CAREC promoted the Quadrilateral Traffic in Transit Agreement (QTTA) in 2015 and held the first technical consultation workshop involving Kazakhstan, Kyrgyz Republic, Pakistan and PRC. Despite the various technical assistance and consultations, the QTTA did not attract much cross-border shipments in this direction. CAREC Corridor 5b remains as a bilateral corridor serving Pakistan and PRC, with no international transit to a third country. Trials have been piloted in the past but the shipment from Pakistan was not permitted to move beyond Horgos (into Kazakhstan). As such, shipments have always move along Pakistan–Afghanistan–Central Asia. Security issues, the international sanctions on the Taliban government and ad-hoc border closures affecting the BCPs' performance at the border between Afghanistan and Pakistan.

In 2024, the International Road Transport Chamber of Pakistan (IRTCOP) promoted the idea of Pakistan–China–Kyrgyzstan–Uzbekistan (PCKU) Logistic Corridor. This is to diversify the heavy reliance on Afghanistan and revisit the transit through PRC to connect with Central Asia. There are discussions required to reboot the QTTA so that the agreement can be implemented and enforced to facilitate cross-border shipments between Central and South Asia. IRTCOP expects to conduct some field trips to assess the border operations and trial shipments along the PCKU Logistic Corridor in 2025.

Figure 2.3: Six Central Asia Regional Economic Cooperation Corridors



CAREC = Central Asia Regional Economic Cooperation.
 Source: Asian Development Bank, Six Central Asia Regional Economic Cooperation Corridors, <https://www.carecprogram.org/uploads/2017-carec-corridor-map-FIN.pdf>.

3 Policy Monitor

In 2024, member countries of the CAREC program implemented an array of transport, transport facilitation, trade, and trade facilitation policies. These measures respond to the persistent challenges documented in the CPMM reports, highlighting border delays, high compliance costs, and fragmented procedures as key impediments to regional trade. Encouragingly, many governments have demonstrated a commitment to digitalization, regulatory alignment, and corridor development, all of which are core strategies that reduce the time and cost incurred on the corridors. This chapter synthesizes the notable national policy advancements and assesses their likely impact on cross-border efficiency and regional integration.

Corridor Modernization and Infrastructure-Linked Policies

In 2024, the Xinjiang Pilot Free Trade Zone introduced significant trade-incentive and regulatory-liberalization measures: a “green channel” cut customs declaration time for agricultural exports to one day; market access was expanded for high-quality resources from neighboring countries; the zone accelerated the development of strategic industries (e.g., new energy, new materials, textile/refinery); and multi-modal logistics hubs such as the China–Europe Railway Express and a cross-border customs supervision center were put into operation.

Digitalization and Single Window

Work in progress the momentum toward digital trade facilitation accelerated in 2024. In 2024, under the Khorgos corridor (within the Xinjiang Pilot Free Trade Zone) the Chinese government introduced a “green channel” for rapid customs clearance of “agricultural and sideline product” exports, decreasing declaration time from five days to one day and brought into operation a China–Europe Railway Express assembly center and a multi-modal customs supervision hub to bolster its role as a land-transport and Eurasian logistics node.¹² Customs General Administration of Mongolia advanced significant reforms, including expanding digital services with self-declaration and e-payment across 13 services for individuals and 33 for businesses, and strengthened regional cooperation through the launch of an enhanced Authorized Economic Operator (AEO) programme.¹³ Pakistan made notable progress by expanding its National Single Window (NSW) to integrate quarantine and health agencies, significantly reducing clearance times for agricultural exports.¹⁴ Turkmenistan and Uzbekistan strengthened their bilateral transport cooperation by agreeing to launch a digital-“E-permit” system for freight transport, establish an inter-agency working group to resolve logistics issues in real time, and from 2025 adopt equal transport fees for carriers of both countries.¹⁵ Despite these achievements, progress remains uneven, as smaller border-crossing points in Tajikistan and Afghanistan continue to rely on manual paperwork, causing bottlenecks that slow regional trade.

¹² Ministry of Commerce of PRC (2024). **The China (Xinjiang) Pilot Free Trade Zone is about to celebrate its first anniversary.** Accessed on 16 January 2026. Available online at: https://english.mofcom.gov.cn/PressConferenceHomepage/ForeignTrade/art/2024/art_bb35664c6f7b497a8538024409f825ce.html.

¹³ CAREC (2024). **Border Management Modernization and Trade Supply Chain.** Accessed on 16 January 2026. Available online at: https://www.carecprogram.org/uploads/Session-05_BM-Modernization-and-Trade-Supply-Chain-DDG-Enkhtaivan.pdf.

¹⁴ Pakistan Single Window (n.d.). Accessed on 16 January 2026. Available online at: <https://www.psw.gov.pk/>.

¹⁵ Kun.uz (2024). **Uzbekistan and Turkmenistan to launch electronic permit system for freight transportation.** Accessed on 16 January 2026. Available online at: https://www.carecprogram.org/uploads/Session-05_BM-Modernization-and-Trade-Supply-Chain-DDG-Enkhtaivan.pdf.

In October 2023, Azerbaijan, Georgia, and Uzbekistan took an important step forward by signing the CAREC Advanced Transit System (CATS) Memorandum of Understanding, committing to pilot and operationalize the system. Building on this momentum, 2024 marked a year of accelerated technical work, particularly through the testing and refinement of the CATS prototype and its associated Information Common Exchange (ICE) platform. These tests focus on interoperability between national customs systems, the secure exchange of advance electronic data, and the use of risk-management tools that allow compliant traders to enjoy faster transit processing. The participating countries have been aligning their customs IT interfaces and refining data protocols to ensure seamless system-to-system communication.¹⁶

Institutional Cooperation and Customs Harmonization

Institutional reforms also advanced during 2024, with the aim of reducing fragmentation in customs processes. Tajikistan and Uzbekistan successfully implemented their bilateral permit-free transport protocol, which now covers around 80% of mutual trade between the two countries.¹⁷ Kazakhstan, Georgia, and Azerbaijan jointly launched a TITR Digital Platform, harmonizing tariffs and allowing the issuance of unified waybills across the corridor. In South Asia, Afghanistan and Pakistan agreed to expand the scope of the Afghanistan–Pakistan Transit Trade Agreement (APTTA), adding provisions for electronic seals and pre-arrival data exchange. These developments mark important steps toward institutional cooperation, though sanitary and phytosanitary (SPS) standards remain fragmented, creating persistent barriers for agricultural and perishable goods.

Trade Incentives and Policy Liberalization

Several CAREC countries also pursued broader reforms aimed at enhancing trade competitiveness. In 2024, the Xinjiang Pilot Free Trade Zone introduced significant trade-incentive and regulatory-liberalization measures: a “green channel” cut customs declaration time for agricultural exports to one day; market access was expanded for high-quality resources from neighboring countries; the zone accelerated the development of strategic industries (e.g., new energy, new materials, textile/refinery); and multi-modal logistics hubs such as the China–Europe Railway Express and a cross-border customs supervision center were put into operation. Pakistan extended its Special Economic Zone (SEZ) incentives to logistics firms along the China–Pakistan Economic Corridor (CPEC), encouraging further investment in trade facilitation infrastructure.¹⁸ Collectively, these reforms highlight a regional shift toward aligning digital innovations, corridor-linked incentives, and regulatory liberalization. However, the pace of reform remains uneven, and sustained coordination will be essential to realize the full benefits of these initiatives.

¹⁶ CAREC (2024). **CAREC 2030 Strategy Midterm Review**. Accessed on 16 January 2026. Available online at: <https://www.carecprogram.org/uploads/CAREC-2030-Strategy-Midterm-Review-Final-MC-2024-Documents-ENG.pdf>.

¹⁷ UZ Daily (2024). **Uzbekistan and Tajikistan to eliminate permit forms for transit cargo transportation**. Accessed on 16 January 2026. Available online at: <https://www.uzdaily.uz/en/uzbekistan-and-tajikistan-to-eliminate-permit-forms-for-transit-cargo-transportation>.

¹⁸ Invest Pakistan (n.d.). **Special Economic Zone Framework in Pakistan**. Accessed on 16 January 2026. Available online at: <https://invest.gov.pk/sez#:~:text=The%20SEZ%20Act%20was%20promulgated,Approval%20and%20the%20Approval%20committee>.

4 BCP Monitor

This chapter, another new addition to this annual report, examines BCP performance, decomposed by road and rail transport, and further delineated by the direction of traffic (inbound or outbound). The most inefficient BCPs were identified and are listed here.

Road BCPs

In 2024, the most time-consuming BCP in the outbound direction was Nur Zholy, averaging 64.9 hours. The timing was recorded for two shipments from Kazakhstan to Horgos, and the main delay was due to the waiting time at the BCPs. Horgos and Nur Zholy handled the highest freight volume in the region, and traffic congestion was common leading to long crossing timings. Erenhot was the second most time-consuming BCP. The border-crossing time surged in 2024. This was due to the container congestion at Tianjin in CAREC Corridor 4, bound for Ulaanbaatar. These containers were withheld in the seaport due to insufficient rail capacity to move the containers. Shippers resorted to using trucks to move the containers, which contributed to increased traffic affecting Erenhot and Zamiin-Uud. Chaman is a regular name on the list of most time-consuming as the procedure to complete border-crossing between Afghanistan and Pakistan used to be cumbersome due to strict checks on smuggling. After the Taliban took over Afghanistan in 2021, CPMM detected faster border-crossing. However, ad-hoc closures and unrest in the region acted against the seamless movements of freight between the two countries.

Horgos is the adjacent BCP of Nur Zholy. Both BCPs are elaborated in the case study. Alashankou serves road traffic too but mainly deals with rail traffic and is also featured in the case study. Peshawar is the busiest BCP in the CAREC Corridor 5 serving bilateral and transit trade between Afghanistan and Pakistan. CPMM captured shipments from Karachi to Torkham and these shipments passed through Peshawar (to reach Kabul and Central Asia) or through Chaman to reach Kandahar. Sarp-Sarpi is the BCP at Türkiye ad Georgia, a gateway seaport facilitating Turkish trade with the Caucasus and Central Asia. Irkeshtan is a BCP at the border between Kyrgyz Republic and PRC, serving mainly transit traffic to Osh and beyond to Tajikistan and Afghanistan.

For inbound shipment, Irkeshtan took the top spot at 28.1 hours. Traders often remarked on the congestion at Irkeshtan, and freight movements can face delays due to temporary border closures

Table 4.1: The Most Time-Consuming Road BCPs, Outbound (hours)

BCP	Country	Corridor	Mean	Median
Nur Zholy	KAZ	1	64.9	64.9
Erenhot	PRC	4	53.7	36.6
Chaman	PAK	5,6	52.0	51.9
Horgos	PRC	1	44.8	35.0
Torkham	PAK	5,6	35.8	28.3
Alashankou	PRC	1,2	19.4	20.0
Sarpi	GEO	2	18.4	18.7
Tsiteli Khidi	GEO	2	15.6	12.1
Irkeshtan	PRC	2,5	15.5	9.5

PRC = People's Republic of China, GEO = Georgia, KAZ = Kazakhstan, PAK = Pakistan, UZB = Uzbekistan.
Source: CAREC Institute.

(especially during the Chinese public holidays and severe winter weather from October to April that periodically shuts mountain passes). There were some discussions by the authorities to pilot a 24/7 clearance at this BCP in 2025, which was subsequently implemented by PRC.

Yarant is the Mongolian BCP opposite Takeshikent in PRC. This BCP serves primarily coal shipments from Mongolia and imports of consumer goods and equipment from PRC. Torkham is the BCP at the Afghanistan and Pakistan border, serving the bilateral and transit trade. The modernization of the Torkham BCP expanded the capacity on the Pakistan side, but congestion could still develop at the Afghan side.

Table 4.2: The Most Time-Consuming Road BCPs, Inbound (hours)

BCP	Country	Corridor	Mean	Median
Irkeshtam	KGZ	2,5	28.1	27.5
Yarant	MON	4	24.4	14.2
Torkham	AFG	5,6	23.9	21.5
Nur Zholy	KAZ	1	22.0	16.4
Dostyk	KAZ	1,2	11.9	12.2
Zamiin-Uud	MON	4	10.1	10.3
Spin Buldak	AFG	5,6	8.6	8.5
Panji Poyon	TAJ	2,5,6	8.1	8.8
Hairatan	AFG	3,6	7.4	7.4
Dautota	UZB	2,6	5.1	6.5

AFG = Afghanistan, KAZ = Kazakhstan, KGZ = Kyrgyz Republic, MON = Mongolia, TAJ = Tajikistan, UZB = Uzbekistan.

Source: CAREC Institute.

In terms of cost, the costliest BCP for outbound direction was Horgos at \$712 followed by Alashankou at \$678. Past CPMM estimations have also found elevated border-crossing fees at these BCPs, due to the need for transfer to goods to temporary storage in the customs bonded zone. Unlike trucks within the Central Asian Republics, Chinese trucks seldom go across the border but rely on Kazakh registered trucks to enter the Chinese BCP to pick up the goods and then return to the Kazakh side. This impediment, which is also common between Central Asia and South Asia, make it inefficient for cross-border trade and resulted in elevated shipping rates.

Table 4.3: The Costliest Road BCPs, Outbound (\$)

BCP	Country	Corridor	Mean	Median
Horgos	PRC	1	712	720
Alashankou	PRC	1,2	678	831
Nur Zholy	KAZ	1	410	410
Takeshikent	PRC	4	329	338
Shir Khan Bandar	AFG	2,5,6	302	301
Peshawar	PAK	5,6	294	292
Torghondi	AFG	2,6	276	276
Hairatan	AFG	3,6	154	144
Tsiteli Khidi	GEO	2	149	155
Termez	UZB	3,6	147	147

AFG = Afghanistan, PRC = People's Republic of China, GEO = Georgia, KAZ = Kazakhstan, PAK = Pakistan, UZB = Uzbekistan.

Source: CAREC Institute.

For inbound direction, the costliest BCP was Shirkhan Bandar at \$710. This is located at the border between Afghanistan and Tajikistan. This was due to relatively large payment to settle border security fee and also visa related charges. At Dostyk, the main cost driver was the high customs related fees. At Irkeshtam BCP, there is a transit fee of \$900–\$1,000 now officially required for Chinese-registered trucks and drivers traveling to Osh. This fee, mandated by Decree No. 433 (August 28, 2023), allows these vehicles to bypass the traditional trans-loading process at the Irkeshtam border. Under this law, international cargo from PRC to Uzbekistan that transits across the Kyrgyz Republic must undergo mandatory customs procedures and road fund payments at the Karatay terminal, a measure designed to regulate foreign carrier movements while increasing transit administrative revenue.

Table 4.4: The Costliest Road BCPs, Inbound (\$)

BCP	Country	Corridor	Mean	Median
Shirkhan Bandar	AFG	2,5,6	710	710
Dostyk	KAZ	1,2	633	650
Irkeshtam	KGZ	2,5	624	950
Nur Zholy	KAZ	1	411	330
Torkham	AFG	5,6	204	220
Panji Poyon	TAJ	2,5,6	204	238
Sarp	OTH	2	202	200
Yarant	MON	4	190	200
Kuryk	KAZ	2	181	150
Sarpi	GEO	2	160	160

AFG = Afghanistan, GEO = Georgia, KAZ = Kazakhstan, KGZ = Kyrgyz Republic, MON = Mongolia, OTH = Others, TAJ = Tajikistan.
Source: CAREC Institute.

Rail BCPs

The limited scope of coverage for rail transport in CPMM was attributed to the difficulty of securing local partners that can collect rail performance. Rail terminals are high security locations and the operation is usually run by a state centralized entity. Thus, the number of BCPs and the sample size for rail transport are not as numerous as the road samples.

In 2024, Horgos and Alashankou took the top two time-consuming spots for rail BCPs, requiring around 20 hours to cross, due to the high freight traffic and time-consuming gauge change procedures. At Sarygash, the average border-crossing time took 13 hours. This is a busy rail station serving rail traffic to and from Uzbekistan, in the direction of Almaty–Sarygash–Keles–Tashkent. Kazakhstan and Uzbekistan have a plan to construct a bypass called the Darbaza–Maktaaral railway for transit traffic. In this way, shipments such as Kazakh wheat to Afghanistan do not need to move through Sarygash since the shipments are destined for southern locations. This would relieve the congestion at Sarygash–Keles and possibly reduce the border-crossing time in future.

Dostyk and Altynkol, the adjacent rail BCPs in Kazakhstan, surfaced as the most time-consuming rail BCPs (outbound direction) in 2024. These BCPs are discussed further in the case study.

The costliest rail BCP for outbound direction is Torghondi, located at the Afghanistan and Turkmenistan border. The Torghondi–Serket Abad BCP handled multimodal transfer, as Afghanistan does not have a comprehensive rail network. So for Afghan goods to be transported to Turkmenistan, shippers usually opt for rail inside Turkmenistan due to cost reason, and thus the trans-loading process takes place at the border.

Table 4.5: The Most Time-Consuming Rail BCPs, Outbound (hours)

BCP	Country	Corridor	Mean	Median
Horgos	PRC	1	22.6	13.7
Alashankou	PRC	1,2	19.2	7.7
Saryagash	KAZ	3,6	13.0	14.2
Erenhot	PRC	4	10.3	3.0
Zamiin-Uud	MON	4	5.8	2.7
Torghondi	AFG	2,6	3.9	3.9

AFG = Afghanistan, PRC = People's Republic of China, KAZ = Kazakhstan, MON = Mongolia.
Source: CAREC Institute.

Table 4.6: The Most Time-Consuming Rail BCPs, Inbound (hours)

BCP	Country	Corridor	Mean	Median
Dostyk	KAZ	1,2	61.0	60.6
Altynkol	KAZ	1	59.9	63.7
Zamiin-Uud	MON	4	31.6	20.7
Erenhot	PRC	4	26.6	19.6
Termez	UZB	3,6	8.1	8.2
Serkhet Abad	TKM	2,6	3.9	4.0
Keles	UZB	3,6	3.3	3.0
Sukhbaatar	MON	4	2.4	1.7

PRC = People's Republic of China, KAZ = Kazakhstan, MON = Mongolia, TKM = Turkmenistan,
UZB = Uzbekistan.
Source: CAREC Institute.

Table 4.7: The Costliest Rail BCPs, Outbound (\$)

BCP	Country	Corridor	Mean	Median
Torghondi	AFG	2,6	231	237
Saryagash	KAZ	3,6	113	113

AFG = Afghanistan, KAZ = Kazakhstan.
Source: CAREC Institute.

Table 4.8: The Costliest Rail BCPs, Inbound (\$)

BCP	Country	Corridor	Mean	Median
Altynkol	KAZ	1	393	425
Dostyk	KAZ	1,2	357	300
Erenhot	PRC	4	93	130
Keles	UZB	3,6	85	75
Serkhet Abad	TKM	2,6	81	81
Termez	UZB	3,6	66	32
Zamiin-Uud	MON	4	31	24

PRC = People's Republic of China, KAZ = Kazakhstan, MON = Mongolia, TKM = Turkmenistan,
UZB = Uzbekistan.
Source: CAREC Institute.

Altynkol and Dostyk were costliest BCP due to the border-crossing fees imposed as well as the change of gauge operation. Chinese trains operate on 1,435 mm gauge must go through change of gauge at Altynkol or Dostyk. The shipments are transferred to Kazakh trains that operate on 1,520 mm gauge. There is no further need to change gauge for cargo moving beyond Kazakhstan to the Russian Federation, the Kyrgyz Republic, Uzbekistan, Turkmenistan and Tajikistan, as the Russian Federation and these CIS countries all use the 1,520 mm gauge. For container express trains bound for Europe, the next change of gauge operation happens at the border between Poland and Belarus.

5 Corridor Performance

CPMM samples comprise commercial shipments moving through Central Asia. Although most of these shipments originate or end in CAREC countries, some origins and destinations are located outside the region, such as the EU, Iran, the Russian Federation, and Türkiye.

Data Samples

A total of 1,850 samples were collected in 2024. Seven partners (associations) participated in CPMM. These associations come from seven countries. There were no CPMM partners in Azerbaijan, Kazakhstan, Kyrgyz Republic and Turkmenistan. The performance of these four countries was analyzed by transit shipments from other CPMM partners that shipped through these two countries.

Table 5.1: CPMM Partners

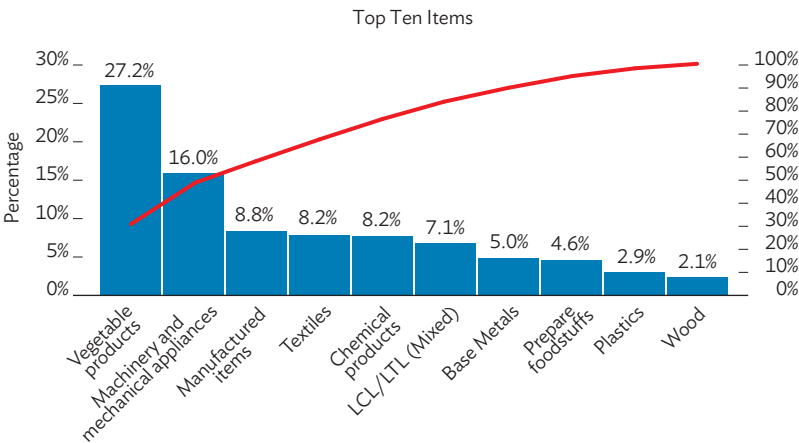
	Country	Association	Abbreviation
1	Afghanistan	Association of Afghanistan Freight Forwarding Companies	AAFFCO
2	PRC	Xinjiang Uygur Autonomous Region Logistics Association	XULA
3	Georgia	Georgia International Road Carriers Association	GIRCA
4	Mongolia	Mongolia Logistics Association	MLA
5	Pakistan	Pakistan International Freight Forwarders Association	PIFFA
6	Tajikistan	Association of Road Transport Operators of Republic of Tajikistan	ABBAT
7	Uzbekistan	Association of International Road Carriers of Uzbekistan	AIRCUZ

Source: Asian Development Bank.

Shipments studied in CPMM showed a wide variety of merchandise being transported. The top 10 items accounted for 91% of all merchandise. Vegetables was the top-ranking category (27.2%), followed by machineries (16.0%) and miscellaneous manufactured goods (8.8%). Textiles and chemical products each accounted for 8.2%. Less than a truckload or container load goods (7.1%), base metals (5.0%), prepared foodstuffs (4.6%), plastics (2.9%) and wood (2.1%) completed the top 10 products list.

CPMM samples contained mainly road transport, contributing 53% in total. Rail transport contributed another 30%. Multimodal shipments formed the remaining 17%. Perishables shipments accounted for 21% of all shipments. These were mainly sent on road transport. Shipments that used TIR accounted for 24% of all road samples.

Figure 5.1: The Most Common Items Transported in CPMM Samples in 2024



Source: CAREC Institute.

Figure 5.2: Transport Modes

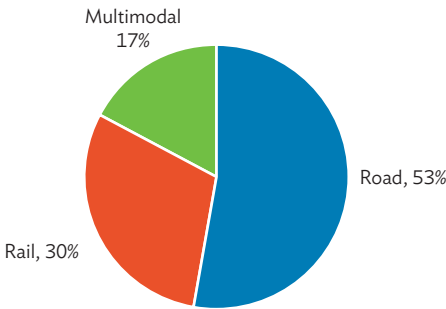


Figure 5.3: Perishables

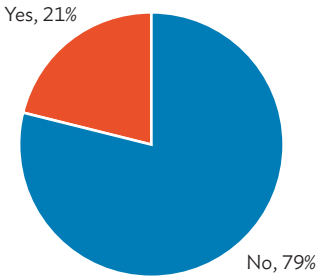
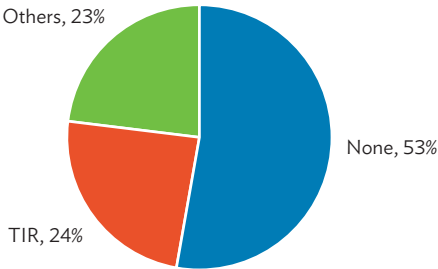


Figure 5.4: Transit Schemes



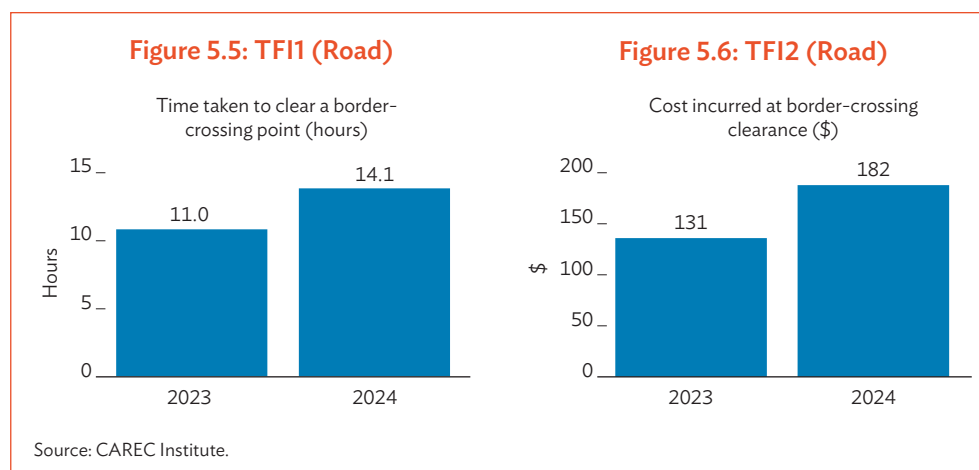
Source: CAREC Institute.

Road Transport

Road transport in terms of TFIs reported decline in performance in 2024 over the previous year. Average border-crossing time increased 28% to 14.1 hours, while average border-crossing cost increased 39% to \$182. Total shipment cost decreased 10% to \$733. Both SWOD and SWD decreased in 2024.

TFI1 (road) reported an increase from 11.0 hours (2023) to 14.1 hours (2024). This increase was driven by the rise in average border-crossing times at Corridor 1 and 4.

- In the period 2023 to 2024, TFI1 for Corridor 1 rose from 14.7 hours to 23.5 hours. Nur Zholy's duration rose from 16.5 hours to 22.0 hours.
- The delays in Corridor 4 was more serious. Erenhot's duration surged from 1.8 hours to 36.6 hours, while Zamiin-Uud's duration rose from 1.8 hours to 10.1 hours.
- In both cases, waiting time in queue was the main cause, implying capacity constraints.

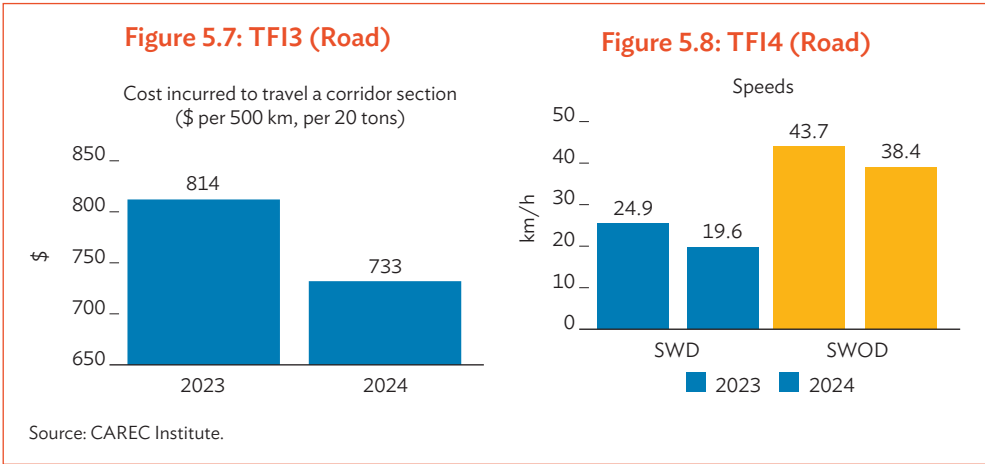


TFI2 (road) reported an increase from \$131 (2023) to \$182 (2024). Similar to TFI1 (road), this was led by a rise in the fee size at Corridor 1 from \$347 to \$505, and at Corridor 4 from \$25 to \$260.

- TFI2 (road) at Nur Zholy rose from \$311 to \$419. This was attributed to increased compliance cost to the transit requirements.
- TFI2 (road) at Erenhot rose from \$17 to \$112. This was caused by loading and unloading fees.

TFI3 (road) reported a decrease from \$814 (2023) to \$733 (2024). There was a general decline in the average freight rates across the corridor.

- Both Corridors 1a and 1b reported a slight drop in TFI3 (road), suggesting that the road freight rate from PRC to Kazakhstan decreased in 2024.
- Corridor 3 showed a noticeable decline from \$515 to \$362. The TFI3 (road) in Corridor 3a was \$689, but there was no data in 2024. Corridor 3b reported a decrease from \$436 (2023) to \$362 (2024).

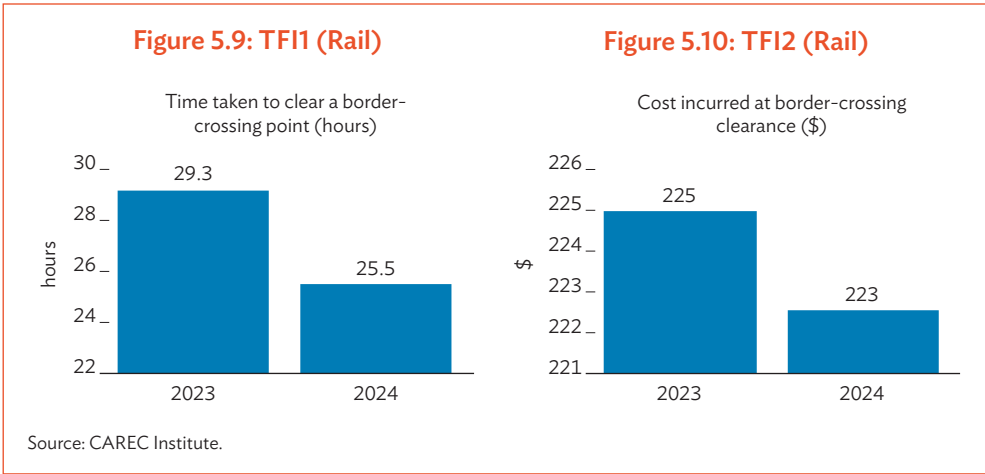


SWOD and SWD reported a reduction in speeds. In the period 2023 to 2024, SWOD decreased from 43.7 to 38.4 km/h, while SWD declined from 24.9 to 19.6 km/h.

- For SWOD, Corridor 1 reported the best performance at 63.4 km/h. The slowest speed was recorded at Corridor 5 at 27.4 km/h, implying the need to develop the transport infrastructure. This Corridor resides mainly in Pakistan and Afghanistan region, where road transport is the dominant mode.
- For SWD, Corridor 3 reported the best performance at 37.6 km/h. The slowest speed was recorded at Corridor 5 at 10.7 km/h. Corridor 5 suffered from underdeveloped transport infrastructure as well as border-crossing delays, resulting in further reduction in overall speed.

Rail Transport

Rail transport TFIs reported improvement in 2024 over the previous year. Average border-crossing time decreased 13% to 25.5 hours, while average border-crossing cost was relatively unchanged at \$223. Total shipment cost increased 0.7% to \$922. SWOD and SWD increased slightly.

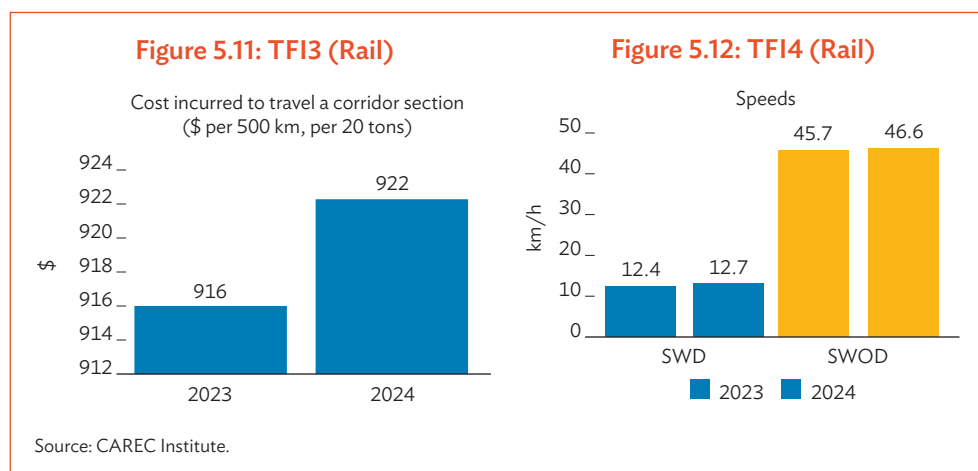


TFI1 (rail) reported a decrease from 29.3 hours (2023) to 25.5 (2024). The time reduction was attributed to shorter border-crossing time at Corridor 1, although Corridor 4 increased, negating some of the benefit.

- At Corridor 1, the time reduction led by shortening of inbound border-crossing time at Dostyk (74.3 hours to 61.0 hours) and Altynkol (76.4 hours to 59.9 hours) year on year.
- Corridor 4 reported long duration. Erenhot's TFI1 (rail) doubled from 5.3 hours to 10.3 hours. At Zamiin-Uud, the TFI1 (rail) rose slightly from 30.6 hours to 31.6 hours.

TFI2 (rail) reported similar levels, from \$225 (2023) to \$223 (2024).

- Gauge change operations at Dostyk and Altynkol accounted for the bulk of the TFI1 (rail). Another cost driver was customs inspection in 2024.
- However, there were divergent patterns observed in TFI2 (rail) at Corridor 1a and Corridor 1b. Between 2023 to 2024, the former declined slightly from \$343 to \$324, while Corridor 1b rose from \$279 to \$359, becoming more expensive than 1a. This increase in border-crossing fees is usually employed by regulators to control the flow of rail traffic to Alashankou and Horgos. Thus, it suggested that the fee along 1b (Horgos) was increased in reaction to rising traffic at Horgos, so that shippers consider diverting some rail freight to 1a (Dostyk).
- Data from China Railway Express supported this hypothesis.¹⁹ For 2024, the number of trains and TEUs classified as China to Asia (mainly to Kazakhstan and Mongolia, followed by less important stations outside of CAREC region) that passed through Dostyk changed by -2.2% and -32.9%, while at Horgos the change was positive, at 16.3% and 24.4%. Thus, while traffic at Dostyk decreased, the traffic at Horgos increased.



TFI3 (rail) reported an increase from \$916 in 2023 to \$922 (2024), which was relatively unchanged.

- The rail corridors did not reflect any significant increase. This hinted that rail freight rates remained stable in 2024.
- However, there were divergent patterns along Corridors 1a and 1b. TFI3 (rail) along 1a changed from \$828 (2023) to \$809 (2024), while 1b showed the change to be \$866 to \$962 in the same

¹⁹ China Railway Express, <https://www.crexpress.cn/zoblmenu/en/single-news>. Data was only available from January to November 2024. Unfortunately, December 2024 data was not available.

period. For reasons explained in TFI2 (rail), TFI3 (rail) increased according to the border fee policy by the Chinese regulators.

Speeds (both SWOD and SWD) remained relatively unchanged. SWOD increased from 45.7 km/h to 46.6 km/h in 2024, but SWD remained rather unchanged from 12.4 km/h (2023) to 12.7 km/h (2024).

- A notable progress was the rise in SWOD in Corridor 1. Corridor 1a improved from 72.0 km/h to 79.5 km/h, while 1b rose from 67.0 km/h to 85.6 km/h. This is an impressive feat as the speeds were nearly double that for road transport.
- However, the long border-crossing time resulted in a significant speed reduction. Accounting for the delays, the TFI4 (rail) for Corridor 1a and 1b were 20.6 km/h and 9.4 km/h. Thus, improving the border operations along 1a and 1b remains a priority.
- The speeds along other rail corridors were less impressive, where SWOD ranged from 20 km/h to 30 km/h. The overall SWOD and SWD were affected by these corridors and resulted TFI4 (rail) estimations as reported.

Conclusion

The 2024 CPMM findings presented a mixed picture. The TFIs for road transport showed deterioration, whereas the TFIs for rail transport signaled some improvements. Truck drivers generally faced longer border-crossing time and paid more for border operations. Road freight cost declined, providing some relief, and the speeds for road transport were reduced slightly. TFIs for rail transport showed that border-crossing time reduced, while fees stayed stable. Rail freight rate rose very slightly, while the speeds held stable.

The results indicated that CAREC members still need to cooperate and improve overall corridor performance. While addressing internal efficiency is important, cross-border shipments require both BCPs to be efficient. Otherwise, the throughput rate becomes mismatched and could result in congestion at the more efficient side as the less efficient BCP stops incoming traffic.

6 Country Updates

This chapter presents an analytical review of transport and trade facilitation performance in each CAREC country, using the CPMM indicators TFI1 to TFI3 and TFI4 speed performance (SWD and SWOD). The analysis also provides insights into evolving trade logistics efficiency in light of the external regional dynamics and domestic infrastructure developments in each country.

Azerbaijan

Azerbaijan continued to strengthen its position as a key node in the CAREC Corridor 2 in 2024, consolidating its role as a multimodal hub connecting Central Asia, the Caucasus, and Europe. Increased cargo throughput at the Alat Port and expanding container services reflected steady logistics activity despite external trade headwinds. The government's sustained investments in digital trade facilitation and customs automation further supported operational efficiency, even as intermittent port congestion and border coordination challenges at Krasnyi Most persisted. Overall, 2024 marked a year of incremental progress, with improved trade facilitation indicators underpinned by ongoing infrastructure and institutional reforms.

Azerbaijan's border-crossing time (TFI1) improved in 2024, decreasing from 4.3 hours in 2023 to 2.1 hours (–51.1%). The outbound clearance time fell to 0.9 hours (–79.6%), reflecting continued operational gains at the Krasnyi Most BCP, including more efficient document handling and higher throughput synchronization with Tsiteli Khidi on the Georgian side. Inbound clearance time, however, remained relatively stable at 4.1 hours.

Table 6.1: Trade Facilitation Indicators for Azerbaijan (2022–2024)

Trade Facilitation Indicators		Road Transport			
		2022	2023	2024	% change
TFI1	Time taken to clear a border-crossing point (hour)	4.0	4.3	2.1	–51.1%
	Outbound	5.3	4.4	0.9	–79.6%
	Inbound	2.5	4.1	4.1	0.0%
TFI2	Cost incurred at border-crossing clearance (\$)	52.5	55.6	52.2	–6.1%
	Outbound	42.1	45.9	38.2	–16.8%
	Inbound	63.4	67.0	76.3	13.9%
TFI3	Cost incurred to travel a corridor section (\$, per 500 km, per 20-ton cargo)	50.5	58.3	47.8	–18.0%
SWD	Speed to travel on CAREC Corridors (km/h)	28.9	22.0	26.1	18.6%
SWOD	Speed without Delay (km/h)	53.3	49.8	48.9	–1.8%

Source: CAREC Institute.

Border-crossing cost (TFI2) edged down to \$52.2 (–6.1%), reflecting lower outbound costs at \$38.2 (–16.8%) that were partly offset by higher inbound costs at \$76.3 (+13.9%). Transport cost per 500 km for a 20-ton load (TFI3) also fell to \$47.8 (–18.0%). Despite inflationary pressures and moderate increases in fuel and service charges, the consistency of cost reduction suggests that procedural efficiency gains are beginning to translate into tangible savings for traders.

Corridor speed with delay (SWD) rebounded to 26.1 km/h (+18.6%), suggesting shorter dwell and queue times, while speed without delay (SWOD) was broadly stable at 48.9 km/h (–1.8%), indicating underlying cruising speeds changed little.

Overall, Azerbaijan’s trade facilitation indicators in 2024 highlight sustained structural improvements. The combined impact of expanded port capacity, digital integration of customs systems, and enhanced logistics management continues to yield efficiency dividends. However, harmonization with neighboring border agencies and the full deployment of interoperable digital platforms remain critical to achieving seamless cross-border movement and cementing Azerbaijan’s role as a reliable transit hub in the CAREC Corridor 2.

People’s Republic of China (PRC)

In 2024, both road and rail reported some deterioration. On road corridors, clearance time and BCP charges increased, while corridor costs and speeds moved lower, suggesting heavier pressure at BCPs and more frictions on the move. Rail transport, conversely, saw higher clearance times but modestly rising speeds without delay and a small reduction in corridor haul costs, indicating better cruising conditions even as BCPs’ delay time stretched.

On road, TFI1 increased from 16.8 to 18.6 hours (+10.7%). Outbound rose from 17.0 to 20.0 hours (+17.6%), while inbound held steady at 2.1 to 2.1 hours (0.0%). Due to much higher export from China to Central Asia, the sample size for outbound traffic far exceeded the sample size for inbound traffic. TFI2 climbed from \$356.8 to \$395.3 (+10.8%): outbound moved up from \$358.2 to \$442.1 (+23.4%), while inbound fell sharply from \$233.3 to \$16.0 (–93.1%), implying a recalibration of inbound fees or ancillary charges at BCPs. Despite the time-and-fee headwinds, TFI3 dropped from about \$2,041.9 to \$1,236.3 (–39.5%), consistent with leaner line-haul operations once trucks cleared control points. SWD slipped from 31.4 to 29.2 km/h (–7.0%), and SWOD from 80.5 to 72.5 km/h (–10.0%). The combination suggests that queue-driven delays and on-route frictions outweighed the corridor-cost relief.

For rail, TFI1 rose from 14.4 to 20.2 hours (+40.3%), with outbound up from 14.0 to 18.6 hours (+32.9%) and inbound up from 16.3 to 26.6 hours (+63.2%). TFI2 edged higher from \$89.9 to \$96.0 (+6.8%), masking divergent movements while inbound increased from \$90.5 to \$96.0 (+6.0%). TFI3 decreased from \$612.3 to \$599.3 (–2.1%), indicating a small reduction in overall long-haul cost intensity. Speeds were mixed in

Table 6.2: Trade Facilitation Indicators for the People’s Republic of China (2022–2024)

Trade Facilitation Indicators		Road Transport				Rail Transport			
		2022	2023	2024	% change	2022	2023	2024	% change
TFI1	Time taken to clear a border-crossing point (hour)	20.7	16.8	18.6	10.7%	35.4	14.4	20.2	40.3%
	Outbound	20.8	17.0	20.0	17.6%	33.9	14.0	18.6	32.9%
	Inbound	0.3	2.1	2.1	0.0%	53.7	16.3	26.6	63.2%
TFI2	Cost incurred at border-crossing clearance (\$)	638.1	356.8	395.3	10.8%	120.5	89.9	96.0	6.8%
	Outbound	638.1	358.2	442.1	23.4%	53.3	40.0	0.0	–
	Inbound	–	233.3	16.0	–93.1%	130.0	90.5	96.0	6.0%
TFI3	Cost incurred to travel a corridor section (\$, per 500 km, per 20-ton cargo)	3,444.5	2,041.9	1,236.3	–39.5%	763.1	612.3	599.3	–2.1%
SWD	Speed to travel on CAREC corridors (km/h)	26.1	31.4	29.2	–7.0%	13.5	15.0	17.6	17.3%
SWOD	Speed without Delay (km/h)	83.5	80.5	72.5	–10.0%	82.4	80.2	85.9	7.1%

Source: CAREC Institute.

a favorable way: SWD improved from 15.0 to 17.6 km/h (+17.3%), and SWOD from 80.2 to 85.9 km/h (+7.1%). In short, driving speed improved, even as BCP clearance times lengthened; an operational profile consistent with better scheduling and pathing on the network but persistent pressure at busy rail yards and interchange points.

In 2024, uptick in TFI1 and TFI2 estimated for road transport, together with weaker SWD and SWOD, points to tighter conditions at BCPs and heavier frictions along key corridors; reinforcing risk-based inspections, digitized fee/payment flows, and coordinated peak management would help compress dwell and stabilize charges. On rail, rising TFI1 alongside improving SWD and SWOD suggests that the core network is running faster once moving, but that BCPs (especially for inbound traffic) are the binding constraint; targeted collaboration with Kazakhstan and Mongolia on joint efforts to improve efficiency is essential.

Georgia

Georgia's role as the Black Sea gateway in the CAREC Corridor 2 strengthened in 2024 as border processing became markedly faster and corridor movement more fluid. The turnaround was driven by operational streamlining at key crossings and better synchronization with counterpart agencies, which reduced queuing and cut variability in trip times.

Border-crossing time (TFI1) improved dramatically. Overall clearance fell from 34.8 to 14.2 hours (–59.2%). Outbound movements posted the largest gain, dropping from 45.3 to 16.1 hours (–64.5%), consistent with observed improvements at Azerbaijan. Inbound time also compressed from 1.6 to 0.3 hours (–81.3%), indicating that previously persistent hold-ups at entry were largely cleared, though from a much lower base. Reviewing the 3 years period, it must be highlighted that the TFI improvement in 2024 was a resumption to normal times (2022). The surge in traffic due to rerouting of shipments from Ukraine in 2023 temporarily overwhelmed the capacity of transport infrastructure and BCPs, but this situation cleared in 2024.

Costs moved in the opposite direction at the border. TFI2 rose from \$121.0 to \$131.4 (+8.6%), with outbound edging up from \$122.8 to \$127.6 (+3.9%) and inbound jumping from \$114.3 to \$160.0 (+40.0%). By contrast, TFI3 (typical 500-km road haul cost) plunged from \$1,371.5 to \$342.5 (–75.0%), reflecting fewer delay-related expenses, improved fleet utilization, and likely sharper competition on core domestic transit legs.

Table 6.3: Trade Facilitation Indicators for Georgia (2022–2024)

Trade Facilitation Indicators		Road Transport			
		2022	2023	2024	% change
TFI1	Time taken to clear a border-crossing point (hour)	18.0	34.8	14.2	–59.2%
	Outbound	23.3	45.3	16.1	–64.5%
	Inbound	1.6	1.6	0.3	–81.3%
TFI2	Cost incurred at border-crossing clearance (\$)	83.4	121.0	131.4	8.6%
	Outbound	81.1	122.8	127.6	3.9%
	Inbound	94.1	114.3	160.0	40.0%
TFI3	Cost incurred to travel a corridor section (\$, per 500 km, per 20-ton cargo)	1,484.9	1,371.5	342.5	–75.0%
SWD	Speed to travel on CAREC Corridors (km/h)	14.0	9.1	18.5	103.3%
SWOD	Speed without Delay (km/h)	40.6	35.2	38.1	8.2%

Source: CAREC Institute.

Speed indicators confirm that congestion eased materially while cruising conditions improved modestly. SWD more than doubled from 9.1 to 18.5 km/h (+103.3%), signaling shorter queues and quicker turnarounds at control points. SWOD rose from 35.2 to 38.1 km/h (+8.2%), suggesting incremental gains from smoother dispatching and fewer on-route frictions. Taken together, Georgia's 2024 profile shows a decisive reduction in time duration and a leaner cost base on corridor runs, even as inbound border charges warrant monitoring to preserve hard-won competitiveness.

Kazakhstan

Kazakhstan's role as the principal overland bridge of the CAREC Corridor 2 remained pivotal in 2024. The data show contrasting dynamics across modes: road border processes faced renewed pressure on time and charges, while rail posted shorter inbound clearance times but saw higher corridor costs and mixed speed outcomes. Together, these results reflect continued throughput growth at high-volume gateways, evolving fee structures, and uneven relief of delay points along multimodal routes.

Table 6.4: Trade Facilitation Indicators for Kazakhstan (2022–2024)

Trade Facilitation Indicators		Road Transport				Rail Transport			
		2022	2023	2024	% change	2022	2023	2024	% change
TFI1	Time taken to clear a border-crossing point (hour)	4.3	4.2	5.2	23.8%	67.4	69.7	55.8	-19.9%
	Outbound	4.0	3.9	4.4	12.8%	6.8	10.6	13.0	22.6%
	Inbound	4.6	4.4	5.6	27.3%	78.0	74.7	60.5	-19.0%
TFI2	Cost incurred at border-crossing clearance (\$)	317.3	88.8	143.4	61.5%	297.0	331.0	346.2	4.6%
	Outbound	19.1	26.4	29.5	11.7%	185.0	132.3	112.5	-15.0%
	Inbound	503.7	125.0	199.6	59.7%	312.9	343.9	372.2	8.2%
TFI3	Cost incurred to travel a corridor section (\$, per 500 km, per 20-ton cargo)	1,493.4	1,029.9	942.3	-8.5%	882.6	1,052.7	1,146.0	8.9%
SWD	Speed to travel on CAREC corridors (km/h)	31.2	28.9	25.1	-13.1%	10.4	10.5	8.8	-16.2%
SWOD	Speed without Delay (km/h)	51.1	44.7	41.1	-8.1%	57.9	63.7	67.5	6.0%

Source: CAREC Institute.

TFI1 for road transport rose from 4.2 to 5.2 hours (+23.8%). Outbound time increased from 3.9 to 4.4 hours (+12.8%), while inbound rose more sharply from 4.4 to 5.6 hours (+27.3%), indicating that pressure was stronger on arrival procedures. TFI2 climbed from \$88.8 to \$143.4 (+61.5%), with outbound up from \$26.4 to \$29.5 (+11.7%) and inbound up from \$125.0 to \$199.6 (+59.7%). In contrast, TFI3 fell from \$1,029.9 to \$942.3 (-8.5%), pointing to leaner running costs and better asset utilization once trucks left control points. Speed indicators softened: SWD fell from 28.9 to 25.1 km/h (-13.1%) and SWOD from 44.7 to 41.1 km/h (-8.1%), reflecting the impact of increased border-crossing time and queue-related slowdowns outweighed the corridor-cost relief.

For rail transport, TFI1 improved from 69.7 to 55.8 hours (-19.9%), driven mainly by faster inbound clearance from 74.7 to 60.5 hours (-19.0%), even as outbound increased from 10.6 to 13.0 hours (+22.6%). TFI2 rose modestly from \$331.0 to \$346.2 (+4.6%), masking divergent movements on outbound, which decreased from \$132.3 to \$112.5 (-15.0%), and inbound, which increased from \$343.9 to \$372.2 (+8.2%). Corridor haul cost (TFI3) increased from \$1,052.7 to \$1,146.0 (+8.9%). Rail speeds were mixed: SWD declined from 10.5 to 8.8 km/h (-16.2%), pointing to longer dwell/queuing on certain segments, while SWOD improved from 63.7 to 67.5 km/h (+6.0%), indicating better cruising conditions where trains were not delayed.

The 2024 picture suggests that road movements faced tighter inbound controls and higher fee burdens at the BCPs, even as line-haul costs eased; prioritizing risk-based inspections, digital payments, and coordinated peak-flow management would help rebalance the cost-time trade-off. On rail, faster inbound clearance and higher free-flow speeds are encouraging, but the rise in corridor costs and SWD declines point to capacity and scheduling frictions away from the border; sustained timetable discipline, wagon/locomotive turn-round optimization, and targeted yard process improvements would reinforce the gains.

Kyrgyz Republic

The Kyrgyz Republic's 2024 profile showed that for road transport, pressure at BCPs led to sharply longer clearance times and higher charges, with slower corridor speeds. Rail transport indicated no recorded CPMM rail observations.

For road transport, TFI1 surged from 1.3 to 12.3 hours (+846.2%). Outbound increased from 1.0 to 2.3 hours (+130.0%), while inbound jumped from 1.4 to 13.8 hours (+885.7%), due to lengthy arrival procedures at Irkeshtam and Torugart. TFI2 climbed from \$115.7 to \$332.8 (+187.7%), with outbound up from \$18.7 to \$48.0 (+156.7%) and inbound up from \$185.8 to \$389.7 (+114.6%). TFI3 increased from \$1,505.3 to \$1,788.1 (+18.8%), pointing to heavier delay-related and handling expenses over typical 500-km hauls. Speeds softened: SWD fell from 32.0 to 17.7 km/h (–44.6%) and SWOD from 54.1 to 49.6 km/h (–8.3%), indicating more queueing and on-route frictions despite stable cruising capabilities.

Note: There were rail samples collected in 2023, but due to the sample size reduction in 2024, no rail samples were collected in the country.

Table 6.5: Trade Facilitation Indicators for the Kyrgyz Republic (2022–2024)

Trade Facilitation Indicators		Road Transport			
		2022	2023	2024	% change
TFI1	Time taken to clear a border-crossing point (hour)	2.8	1.3	12.3	846.2%
	Outbound	2.1	1.0	2.3	130.0%
	Inbound	3.2	1.4	13.8	885.7%
TFI2	Cost incurred at border-crossing clearance (\$)	30.7	115.7	332.8	187.7%
	Outbound	26.0	18.7	48.0	156.7%
	Inbound	34.0	185.8	389.7	114.6%
TFI3	Cost incurred to travel a corridor section (\$, per 500 km, per 20-ton cargo)	1,888.2	1,505.3	1,788.1	18.8%
SWD	Speed to travel on CAREC corridors (km/h)	26.5	32.0	17.7	–44.6%
SWOD	Speed without Delay (km/h)	51.8	54.1	49.6	–8.3%

Source: CAREC Institute.

The road results suggest congestion and fee pressures at BCPs, particularly on inbound legs, combined with cost pass-throughs along the corridor; prioritizing risk-based inspections, coordinated peaks management, and digital payments would help compress time and stabilize charges. Addressing bottlenecks and delays in inbound process is important as the country is a net importer in cross-border trade.

Mongolia

Mongolia's 2024 results diverged by mode. Road movements faced pronounced pressures at BCPs, with clearance times and charges rising and corridor speeds falling. Rail performance improved on time and costs overall, with slightly better queue conditions but only marginal change in cruising speed.

TFI1 results for road transport increased from 2.0 to 24.4 hours (+1,120.0%). Inbound traffic rose from 2.0 to 24.4 hours (+1,120.0%), indicating that delays were concentrated on arrival. TFI2 climbed from \$17.2 to \$190.3 (+1,006.4%), again driven by inbound, which rose from \$17.2 to \$190.3 (+1,006.4%). TFI3 eased from \$1,242.4 to \$1,077.4 (–13.3%), resulting in some savings on line-haul despite BCP pressures. SWD fell from 41.1 to 13.8 km/h (–66.4%) and SWOD from 57.3 to 50.6 km/h (–11.7%), pointing to heavier queueing and more on-route frictions even when moving.

As reported in Annual Report 2023, there was a severe situation where containers at Tianjin port bound for Ulaanbaatar was stuck for 3 months or longer. Thus, Mongolian consignees resorted to use road transport instead of the traditional and more cost-effective transport mode to move the containers from PRC to Mongolia. As Zamiin-Uud is the only BCP to serve CAREC Corridor 4 for this route, the influx of trucks resulted in the inbound time and cost pressures as reported in 2024. The situation may improve as the backlog of containers clear in Tianjin in 2025, depending on the processing capacity.

Table 6.6: Trade Facilitation Indicators for Mongolia (2022–2024)

Trade Facilitation Indicators		Road Transport				Rail Transport			
		2022	2023	2024	% change	2022	2023	2024	% change
TFI1	Time taken to clear a border-crossing point (hour)	4.0	2.0	24.4	1,120.0%	12.2	16.0	13.7	–14.4%
	Outbound	–	–	–	–	20.1	6.3	5.8	–7.9%
	Inbound	4.0	2.0	24.4	1,120.0%	9.3	22.4	19.5	–12.9%
TFI2	Cost incurred at border-crossing clearance (\$)	22.0	17.2	190.3	1,006.4%	20.0	41.0	31.2	–23.9%
	Outbound	–	–	–	–	5.1	25.0	–	–
	Inbound	22.0	17.2	190.3	1,006.4%	25.3	41.4	31.2	–24.6%
TFI3	Cost incurred to travel a corridor section (\$, per 500 km, per 20-ton cargo)	1,454.9	1,242.4	1,077.4	–13.3%	439.8	981.9	958.7	–2.4%
SWD	Speed to travel on CAREC corridors (km/h)	31.4	41.1	13.8	–66.4%	12.6	8.8	9.7	10.2%
SWOD	Speed without Delay (km/h)	52.2	57.3	50.6	–11.7%	21.2	14.1	13.5	–4.3%

Source: CAREC Institute.

Rail TFI1 improved from 16.0 to 13.7 hours (–14.4%). Outbound edged down from 6.3 to 5.8 hours (–7.9%) and inbound from 22.4 to 19.5 hours (–12.9%). TFI2 decreased from \$41.0 to \$31.2 (–23.9%), and inbound from \$41.4 to \$31.2 (–24.6%). TFI3 declined slightly from \$981.9 to \$958.7 (–2.4%). Queue conditions improved, with SWD up from 8.8 to 9.7 km/h (+10.2%), while SWOD edged down from 14.1 to 13.5 km/h (–4.3%), suggesting small gains at control points and broadly stable cruising speeds.

These results suggest that the situation is improving for rail transport. Although rail transport showed broad improvements compared to the previous year, it is noteworthy to recall that there was a severe delay of containers from Tianjin to Ulaanbaatar then, so these results suggested that the backlog of containers held up at Tianjin seaport is being resolved, but the issue might have impacted on road performance as shippers resorted to use trucks to expedite shipment.

Pakistan

Pakistan serves as a key southern gateway for CAREC corridors 5 and 6, offering vital access to Arabian Sea ports, namely Karachi, Port Qasim, and Gwadar. With over 92% of freight moved by road, the country's 263,000-km road network forms the backbone of domestic and regional trade. Rail contributes only 8% of the freight volume, hindered by aging infrastructure and limited freight capacity.

Pakistan's road performance in 2024 shows longer clearance times at BCPs and slightly higher charges, while corridor haul costs were largely stable. Speeds eased further, pointing to persistent queueing and on-route frictions despite continued streamlining at selected gateways. Road transport formed the backbone of the country's transportation network, serving the north-south movements of goods and the Afghan Transit Trade, as Pakistan serves as a transit country for goods moving to and from Afghanistan. CPMM does not collect rail samples in Pakistan.

Table 6.7: Trade Facilitation Indicators for Pakistan (2022–2024)

Trade Facilitation Indicators		Road Transport			
		2022	2023	2024	% change
TFI1	Time taken to clear a border-crossing point (hour)	28.2	33.1	38.1	15.1%
	Outbound	28.2	33.1	38.1	15.1%
	Inbound	–	–	–	–
TFI2	Cost incurred at border-crossing clearance (\$)	237.8	238.2	259.3	8.9%
	Outbound	237.8	238.2	259.3	8.9%
	Inbound	–	–	–	–
TFI3	Cost incurred to travel a corridor section (\$, per 500 km, per 20-ton cargo)	546.3	568.6	569.8	0.2%
SWD	Speed to travel on CAREC Corridors (km/h)	13.3	11.4	10.4	–8.8%
SWOD	Speed without Delay (km/h)	25.2	24.8	24.4	–1.6%

Source: CAREC Institute.

TFI1 increased from 33.1 to 38.1 hours (+15.1%). Outbound mirrored the overall movement, rising from 33.1 to 38.1 hours (+15.1%). TFI2 rose from \$238.2 to \$259.3 (+8.9%), reflecting higher bordercrossing cost at Torkham and Chaman on outbound movements. TFI3 edged up from \$568.6 to \$569.8 (+0.2%), indicating broadly flat line-haul economics over typical 500-km runs, with limited relief from operating efficiencies. SWD fell from 11.4 to 10.4 km/h (–8.8%) and SWOD from 24.8 to 24.4 km/h (–1.6%), signaling more time lost to queues and slightly heavier on-route frictions even when moving.

The 2024 pattern suggests the need to tighten peak-flow management and risk-based inspections at priority BCPs, while reinforcing digital payments and document handling to contain charges and stabilize turnarounds.

Tajikistan

Tajikistan's road performance in 2024 was mixed. Overall clearance time at BCPs was broadly stable, with faster outbound processing offset by longer inbound procedures. Border charges rose, especially on inbound legs, while corridor haul costs eased slightly. Speeds showed a small improvement with delay but a noticeable dip in free-flow cruising, indicating more on-route frictions even when vehicles were moving.

TFI1 was unchanged at 4.2 hours. Outbound improved from 3.6 to 2.3 hours (–36.1%), while inbound increased from 4.5 to 4.9 hours (+8.8%). This pattern suggests that 2024 gains were concentrated on departures, with arrival-side checks and queuing exerting upward pressure on inbound times.

Table 6.8: Trade Facilitation Indicators for Tajikistan (2022–2024)

Trade Facilitation Indicators		Road Transport			
		2022	2023	2024	% change
TFI1	Time taken to clear a border-crossing point (hour)	4.1	4.2	4.2	0.0%
	Outbound	3.0	3.6	2.3	–36.1%
	Inbound	4.7	4.5	4.9	8.8%
TFI2	Cost incurred at border-crossing clearance (\$)	84.7	93.7	228.0	143.3%
	Outbound	23.3	23.2	31.1	34.0%
	Inbound	115.9	130.0	307.6	136.6%
TFI3	Cost incurred to travel a corridor section (\$, per 500 km, per 20-ton cargo)	579.1	642.8	616.3	–4.1%
SWD	Speed to travel on CAREC Corridors (km/h)	20.1	26.8	27.2	1.5%
SWOD	Speed without Delay (km/h)	34.6	58.2	46.6	–20.0%

Source: CAREC Institute.

TFI2 rose from \$93.7 to \$228.0 (+143.3%). Outbound increased from \$23.2 to \$31.1 (+34.0%), and inbound jumped from \$130.0 to \$307.6 (+136.6%), pointing to higher fee burdens and more intensive procedures on arriving consignments. By contrast, TFI3 declined from \$642.8 to \$616.3 (–4.1%), indicating modest savings on typical 500-km runs, from better fleet utilization and fewer unscheduled stops (e.g. police checkpoints) once beyond BCPs.

SWD edged up from 26.8 to 27.2 km/h (+1.5%), consistent with slightly shorter queues or quicker turnarounds at control points. SWOD fell from 58.2 to 46.6 km/h (–20.0%), suggesting heavier on-route frictions, such as work zones, routing constraints, or dispatch/handling practices, which reduced cruising efficiency. The 2024 profile points to two near-term priorities: contain inbound BCP charges and time via tighter risk-based inspections and digital payments, and address on-route bottlenecks to improve speeds and lock in the modest corridor-cost relief.

Turkmenistan

Turkmenistan’s 2024 picture is shaped by data coverage on road and steady but modest movements on rail. The road side shows 0.0 entries across indicators for 2024, signaling no recorded CPMM observations. Rail, by contrast, presents small, directionally mixed changes: clearance time was broadly unchanged, selected cost components eased, and cruising speeds were essentially stable.

On rail, TFI1 was essentially stable from 3.9 hours pointing to an unchanged average clearance time at BCPs. Cost movements were mixed: the inbound component decreased (–0.1%), while other subcomponents were flat, leaving the overall picture close to steady. TFI3 moved only slightly (about –5.3%), consistent with largely unchanged long-haul economics on typical runs. Speeds were steady to marginally softer: SWOD edged from 29.3 to 29.6 km/h (+1.0%), while SWD rose from 13.5 to 14.1 km/h (+4.4%), indicating similar dwell/queuing conditions year on year.

Given the absence of 2024 road observations, policy conclusions for road should be deferred until representative samples are restored. For rail, the near-flat TFI1 and SWOD suggest stable BCP and cruising conditions; the modest easing in selected cost components indicates incremental efficiency in

Table 6.9: Trade Facilitation Indicators for Turkmenistan (2022–2024)

Trade Facilitation Indicators		Road Transport				Rail Transport			
		2022	2023	2024	% change	2022	2023	2024	% change
TFI1	Time taken to clear a border-crossing point (hour)	10.1	5.5	–	–	3.7	3.9	3.9	0.0%
	Outbound	34.6	–	–	–	–	–	–	–
	Inbound	5.0	5.5	–	–	3.7	3.9	3.9	0.0%
TFI2	Cost incurred at border-crossing clearance (\$)	62.4	70.0	–	–	80.9	80.9	80.8	–0.1%
	Outbound	52.2	–	–	–	–	–	–	–
	Inbound	70.0	70.0	–	–	80.9	80.9	80.8	–0.1%
TFI3	Cost incurred to travel a corridor section (\$, per 500 km, per 20-ton cargo)	604.3	590.8	–	–	1,308.2	1,357.0	1,285.7	–5.3%
SWD	Speed to travel on CAREC corridors (km/h)	26.4	25.3	–	–	13.9	13.5	14.1	4.4%
SWOD	Speed without Delay (km/h)	53.5	45.5	–	–	29.3	29.3	29.6	1.0%

Source: CAREC Institute.

handling or path allocation. Continued attention to pre-arrival processing and coordinated yard procedures would help lock in small gains, while resuming CPMM road sampling is the priority to re-establish a reliable view of BCP performance and corridor conditions for 2024.

Uzbekistan

Uzbekistan's 2024 results show solid efficiency gains at BCPs and stronger cruising on rail, offset by higher road corridor costs. Road clearance times improved and inbound fees eased, but line-haul expenses rose sharply; speeds dipped slightly. Rail moved in the opposite direction on costs and time; both improved while speeds strengthened markedly, indicating healthier network operations once trains were moving.

Road TFI1 improved from 4.7 to 4.0 hours (–14.9%). Outbound shortened from 4.9 to 4.1 hours (–16.3%) and inbound from 4.4 to 3.7 hours (–15.9%), pointing to broad-based gains at BCPs. TFI2 moved up from \$50.2 to \$55.2 (+9.9%), with outbound rising from \$48.6 to \$59.1 (+21.4%) while inbound fell from \$52.6

Table 6.10: Trade Facilitation Indicators for Uzbekistan (2022–2024)

Trade Facilitation Indicators		Road Transport				Rail Transport			
		2022	2023	2024	% change	2022	2023	2024	% change
TFI1	Time taken to clear a border-crossing point (hour)	4.2	4.7	4.0	–14.9%	6.8	6.7	5.9	–11.9%
	Outbound	3.5	4.9	4.1	–16.3%	–	–	–	–
	Inbound	5.5	4.4	3.7	–15.9%	6.8	6.7	5.9	–11.9%
TFI2	Cost incurred at border-crossing clearance (\$)	74.4	50.2	55.2	9.9%	132.6	132.4	96.4	–27.2%
	Outbound	86.9	48.6	59.1	21.4%	–	–	–	–
	Inbound	62.8	52.6	48.2	–8.3%	132.6	132.4	96.4	–27.2%
TFI3	Cost incurred to travel a corridor section (\$, per 500 km, per 20-ton cargo)	686.8	567.6	1,041.6	83.5%	635.4	626.1	471.6	–24.7%
SWD	Speed to travel on CAREC corridors (km/h)	29.6	33.2	29.6	–10.8%	11.8	11.9	18.8	58.0%
SWOD	Speed without Delay (km/h)	45.6	47.4	46.1	–2.7%	13.1	13.2	23.3	75.8%

Source: CAREC Institute.

to \$48.2 (–8.3%). By contrast, TFI3 increased sharply from \$567.6 to \$1,041.6 (+83.5%), indicating heavier line-haul cost intensity over typical 500-km runs despite faster clearances. Speeds softened: SWD declined from 33.2 to 29.6 km/h (–10.8%), and SWOD from 47.4 to 46.1 km/h (–2.7%), suggesting more on-route frictions that outweighed the BCP time improvements.

Rail TFI1 improved from 6.7 to 5.9 hours (–11.9%). Outbound remained at 0.0 hours (no recorded observations), while inbound mirrored the overall movement from 6.7 to 5.9 hours (–11.9%). TFI2 decreased from \$132.4 to \$96.4 (–27.2%), driven by the inbound component moving from \$132.4 to \$96.4 (–27.2%) with no outbound observations. TFI3 fell from \$626.1 to \$471.6 (–24.7%), indicating leaner long-haul cost intensity. Rail speeds strengthened meaningfully: SWD rose from 11.9 to 18.8 km/h (+58.0%), and SWOD from 13.2 to 23.3 km/h (+75.8%), pointing to reduced dwell and significantly better cruising conditions on core links.

For road, the combination of faster BCP processing and higher corridor costs suggests that efficiency gains at the border were offset by on-route conditions (fuel, handling, or scheduling frictions) that raised line-haul expenses and trimmed speeds; prioritizing targeted cost controls and operational smoothing between hubs would help convert time gains into end-to-end savings. For rail, improved clearance times, lower costs, and stronger speeds indicate maturing operating discipline; reinforcing pre-arrival processing at BCPs and sustaining wagon/locomotive turn-round practices can lock in the 2024 gains and deepen Uzbekistan's role as a reliable transit hub.

7 Case Study: Kazakhstan–PRC Border

The concluding chapter analyzes the performance of two key BCPs at the border between Kazakhstan and the People's Republic of China (PRC), namely Alashankou–Dostyk and Horgos–Nur Zholy/Altynkol.²⁰ Alashankou–Dostyk is the gateway BCP in CAREC Corridor 1a, and Horgos–Nur Zholy/Altynkol serves as the gateway BCP for CAREC Corridor 1b. Both corridors serve high volume freight traffic in the east–west direction. While manufactured goods flow from east to west, raw and bulky commodities move from west to east due to the trade structure of the two countries. The two BCP pairs handle both road and rail traffic. In CPMM, the samples are collected on cross-border shipments from PRC to Kazakhstan and beyond.

Profile of BCPs

Bilateral Trade

Bilateral merchandise trade between Kazakhstan and the People's Republic of China (PRC) expanded sharply in 2023 and eased slightly in 2024. Total bilateral trade surged from \$14.0 billion in 2022 to \$31.5 billion in 2023, before moderating to \$30.1 billion in 2024. Kazakhstan's exports to the PRC increased from \$10.46 billion in 2022 to \$14.76 billion in 2023 and \$14.90 billion in 2024, while imports from the PRC climbed from \$3.58 billion in 2022 to \$16.77 billion in 2023 and then \$15.15 billion in 2024.²¹

The trade pattern showed that Kazakhstan supplied raw materials and semi-processed goods to the PRC, while the latter sold capital goods, transport equipment, and manufactured products for consumers to Kazakhstan. Kazakhstan exported ores, slag, and ash, mineral fuels and oils, copper, inorganic chemicals, iron and steel, machinery, zinc, residues and waste from the food industries, cereals, and animal and vegetable fats and oils. In return, Kazakhstan imported machinery, electrical machinery and equipment, vehicles and parts, apparel not knitted or crocheted, articles of iron or steel, plastics, apparel knitted or crocheted, footwear, optical and precision instruments, and rubber articles.

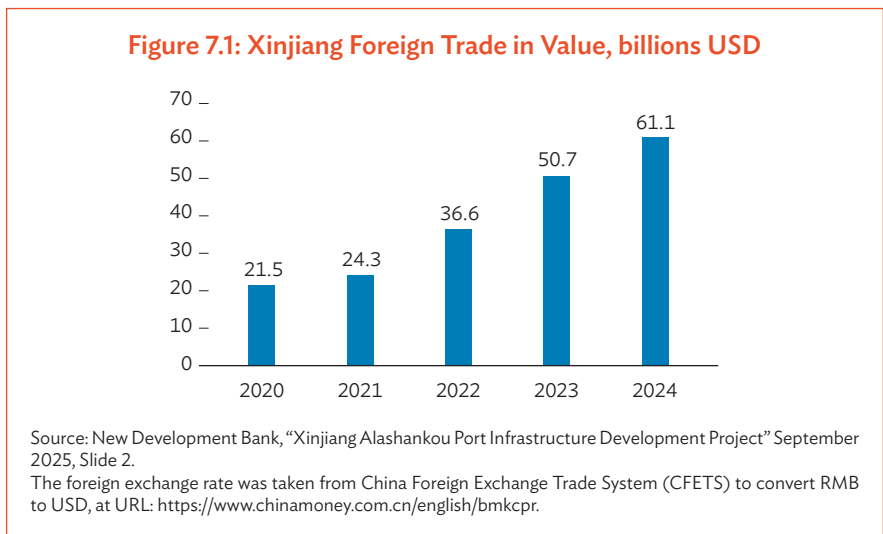
A record 32 million tonnes was achieved in 2024 between Kazakhstan and China. Kazakhstan's exports increased by one million tons to 13.7 million tons. Imports also grew by 5%, while transit shipments through Kazakhstan increased by 19% to 15.3 million tons. The container freight transit from PRC to Europe across Kazakhstan reported the highest growth at 43% year on year.²² The catalyst for this event was the launch of the Kazakhstan's Cargo Terminal in Xi'an, where more than 300 container trains passed through this terminal and Port of Aktau, rising 30 times more than the levels seen in 2023.

At the regional level, the Xinjiang Uygur Autonomous Region (XUAR) located in northwest part of PRC functions as a gateway for foreign trade with Kazakhstan and the other Central Asian Republics. Closer trade ties, policies that promote trade growth and complementary trade structure has driven XUAR's trade volume to grow at a CAGR of close to 30% in the past five years, reaching \$61.1 billion in 2024. Two BCP pairs are instrumental to realize this phenomenal growth. The first one is Alashankou–Dostyk, located along CAREC Corridor 1a. This used to be the main rail BCP until 2011–2012 when an alternative rail route commenced operation at Horgos. The second BCP pair is Horgos–Altynkol (rail) and Horgos–Nur Zholy (road), located along CAREC Corridor 1b. In the following sections, these two BCPs will be discussed.

²⁰ In CPMM, the name 'Horgos' is used to refer to the BCP on the Chinese side, while the name 'Khorgos' refers to the entire area. On the Kazakhstan side, Nur Zholy is the road BCP while Altynkol refers to the rail BCP.

²¹ The trade data was obtained from ITC TradeMap, <https://www.trademap.org/>.

²² The Astana Times (2025). Kazakh–China Rail Cargo Transportation Reaches Record 32 Million Tons in 2024. Accessed on 16 January 2026. Available online at: <https://astanatimes.com/2025/01/kazakh-china-rail-cargo-transportation-reaches-record-32-million-tons-in-2024>.



Alashankou–Dostyk BCP

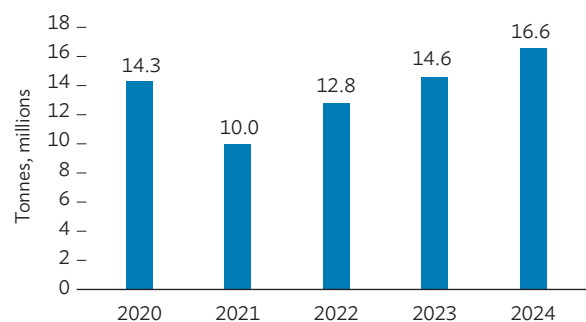
Alashankou is one of PRC’s busiest land port, it features an indoor transshipment center built in 2008 to withstand strong winds and expedite gauge changes. This center, capable of handling 6 to 8 trains per day, is being expanded with a new facility to further increase capacity. On the Kazakh side, the Dostyk (formerly ‘Druzba’)-Alashankou line is being upgraded to double its capacity. The second track on the Dostyk–Moiynty section is underway, boosting throughput from an estimated 12–18 daily train pairs to up to 60 pairs. Modernization of the Dostyk customs post, including automation and a new temporary storage warehouse, aims to shorten clearing times to around 30 minutes and increase throughput sixfold. Additionally, a new transport-logistics hub has opened near the road checkpoint, tripling road cargo handling capacity from 200 to 600 freight vehicles per day and increasing daily throughput from 4,000 to 12,000 tons.

Despite serving a high level of cross-border traffic, there was little value-added manufacturing or processing done at Alashankou. In order to promote a more comprehensive role at Alashankou, the Chinese government established the Alashankou Comprehensive Bonded Zone (ACBZ) in 2011 to attract industries such as grain, timber, equipment and pharmaceuticals to manufacture here. Cross-border e-commerce is also a key part of this strategy, serving the Central Asia region. In 2020, Alashankou is designated as a National Logistics Hub to recognize its role as a gateway for foreign trade. This drove rapid growth in the total for import and export, rising from \$252.9 million in 2021 to \$693.5 million in 2024, expanding at a CAGR of 40%, even higher than XUAR’s overall growth rate.

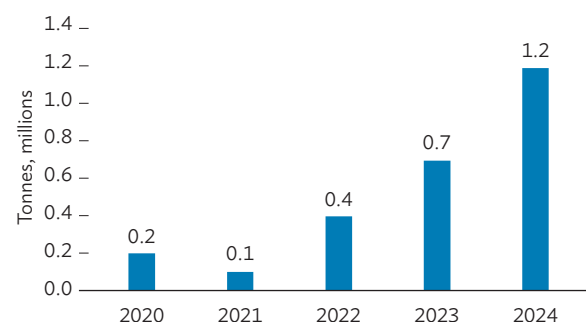
In terms of cross-border freight throughput, Alashankou saw small growth for rail but substantial growth for road traffic. From 2020 to 2024, rail throughput rose from 14.3 million tonnes to 16.6 million tonnes, achieving a CAGR of 3.8%. In the same time period, road throughput surged from 0.2 million tonnes to 1.2 million tonnes, a sixfold expansion. This rapid growth was partly fueled by the COVID-19 when PRC adopted a zero tolerance policy, so while rail traffic continued to move goods across the border, road traffic was minimal due to the national policy and restrictions to minimize contacts between drivers. This contributed to a decline in 2021 but has expanded rapidly since 2022.

Horgos–Nur Zholy and Altynkol BCPs

Khorgos has rapidly evolved from an international border checkpoint into a full-fledged logistics and industrial hub. Trade through Khorgos grew from \$10 billion in 2022, to \$12 billion in 2023 (+20%), and

Figure 7.2: Alashankou Rail Throughput

Source: New Development Bank, “Xinjiang Alashankou Port Infrastructure Development Project” September 2025, Slide 3.

Figure 7.3: Alashankou Road Throughput

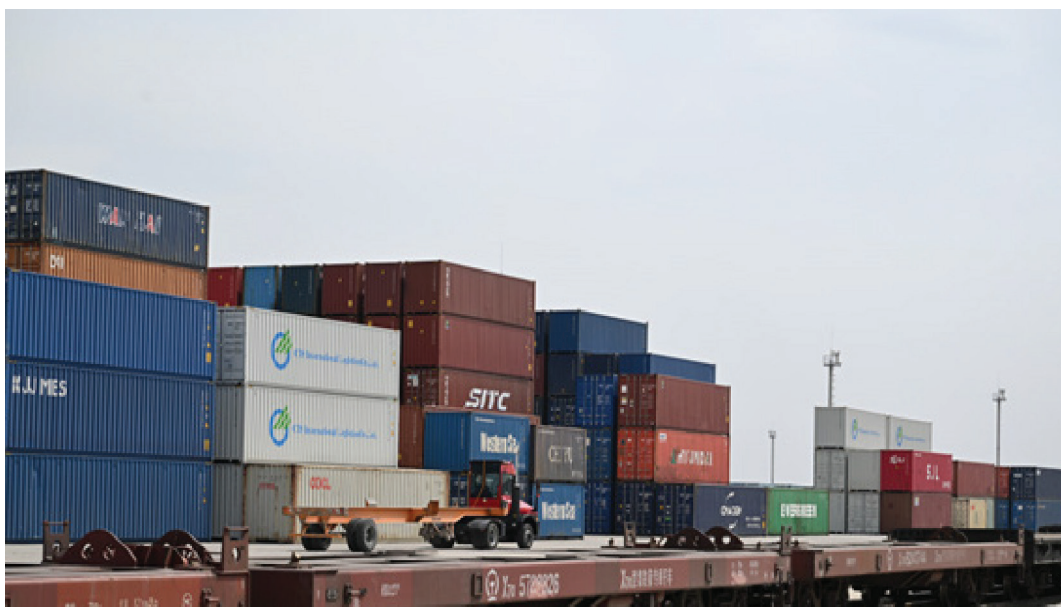
Source: New Development Bank, “Xinjiang Alashankou Port Infrastructure Development Project” September 2025, Slide 3.

\$12.5 billion in 2024 (+4%). To support this growth, significant infrastructure investments have been made, including roads, overpasses, tunnels, energy grids, and vehicle inspection complexes totaling US\$77.5 million. The Khorgos–Eastern Gate SEZ is expected to attract up to \$1 billion by 2030 and 85 companies, \$1.3 billion by 2035 and 95 companies, expanding logistics, industry, and cross-border trade. This SEZ has an overall area of 5,431.5 hectares, with facilities such as an industrial zone and an airport hub (640 hectares) and a logistics zone (483.4 hectares). The SEZ is projected to generate 20,500 jobs by 2030 and 22,000 by 2035.²³ Kazakhstan intends to double Altyntkol’s rail throughput from 18 to 33 trains/day by adding six shunting tracks, a hump yard, and double tracks along Zhetygen–Altyntkol and beyond. A cargo/passenger airport is also in planning by a German consortium, with capacity up to 377 tonnes/day and 450 permanent jobs projected.

BCP Performance

At Alashankou, the average border-crossing time for road traffic has reduced significantly from 81.3 hours in 2022, to 37.2 hours in 2023 and 19.4 hours in 2024. The duration has shrunk more than 4 times in the

²³ The Astana Times (2025). Kazakhstan Creates Khorgos – Eastern Gate New Special Economic Zone. Accessed on 16 January 2026. Available online at: <https://astanatimes.com/2025/07/kazakhstan-creates-khorgos-eastern-gate-new-special-economic-zone>.

Figure 7.4: Khorgos–Eastern Gate New Special Economic Zone

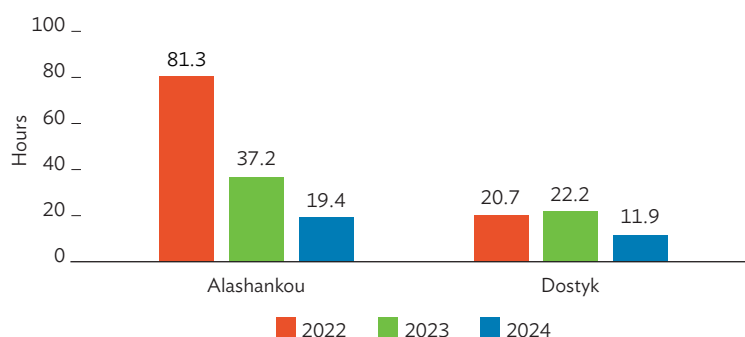
Source: Astana Time (refer to footnote 23).

three years period. This pattern must however be understood against the context that PRC imposed very strict border-crossing measures under the zero tolerance policy during the COVID years and was only gradually loosening those restrictive measures in 2023. During the COVID years, border-crossing was very cumbersome necessitating the multiple transfer of freight to a controlled zone by dedicated team, to reduce contact between personnel at the BCP. Thus, 2024 could be recognized as the start of a period that resembled the pre-COVID periods when conditions were not so restrictive.

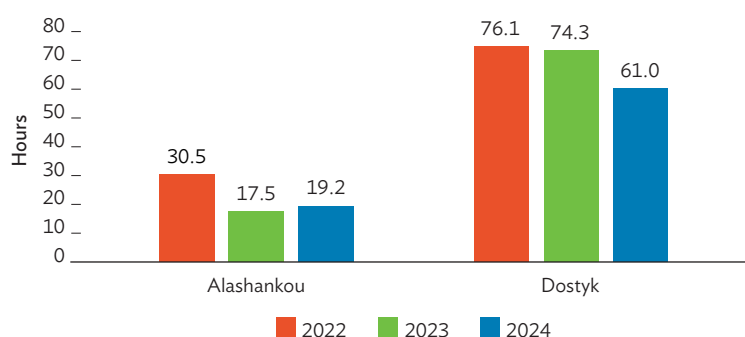
At Dostyk, the average border-crossing time was 20.7 hours in 2022, 22.2 hours in 2023, and reached a three years low 11.9 hours in 2024. The substantial improvement was achieved due to the reduction of trucks' waiting time at Dostyk, falling from 18.8 hours in 2023 to 8.1 hours in 2024.

For rail transport, the average border-crossing time at Alashankou exhibited a stable pattern. The duration was at a high of 30.5 hours in 2022, dropping to 17.5 hours in 2023 when the strict measures were lifted, and increased to 19.2 hours in 2024. This was due to restriction of train movements from other domestic train terminals in Xinjiang to Alashankou due to capacity limits at the latter. However, Alashankou has a huge processing capacity and this phenomenon could be attributed to Dostyk. When comparing the border-crossing times, it is apparent that Dostyk's size of the delay is three times higher than Alashankou. The border-crossing time at Dostyk was 76.1 hours in 2022, decreased to 74.3 hours in 2023 and continued to drop and reached 61.0 hours in 2024. While the trend has shown improvement, the fact is that Dostyk remains as a structural constraint in this node along CAREC Corridor 1a. As long as both stations have different throughput rates, Alashankou would not be able to release outbound trains to Dostyk. This issue is compounded by the fact that the receiving station has to perform the change of gauge operation and is typically subject to stricter customs controls.

Turning attention to CAREC Corridor 1b, Horgos reported some improvement in 2024. For road transport, the three years trend showed that average border-crossing time was 23.5 hours in 2022, rose to 51.4 hours in 2023, and dropped to 44.8 hours in 2024. At Nur Zholy, a worrisome trend has developed;

Figure 7.5: Border-crossing Time at Alashankou–Dostyk Road BCP, 2022 to 2024

Source: CAREC Institute.

Figure 7.6: Border-crossing Time at Alashankou–Dostyk Rail BCP, 2022 to 2024

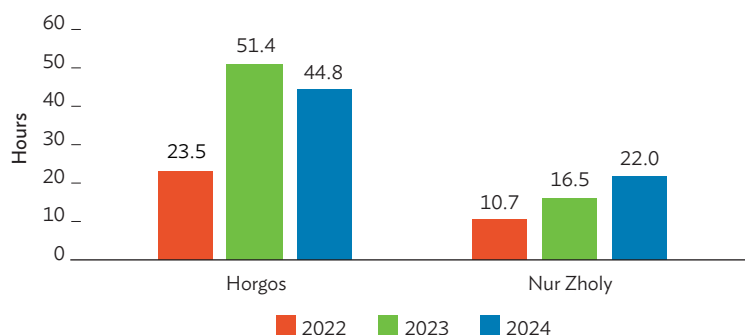
Source: CAREC Institute.

the 3 years estimated border-crossing time continued to increase, from 10.7 hours in 2022 to 16.5 hours in 2023 and reaching a high of 22.0 hours in 2024. This suggested that the congestion at Nur Zholy is worsening. This is supported by CPMM data; the average waiting time in 2023 was 13.4 hours, which increased to 18.5 hours in 2024.

The pattern reported here resembled that in the past years. For road traffic, Horgos's time performance continued to show higher magnitudes relative to Nur Zholy. This is because the trucks carrying exports for Kazakhstan and Central Asia congregated at Horgos but need to transfer the merchandize (typically an assortment of consumer goods) to a temporary warehouse. This is because only bonded carriers in PRC could directly transport goods from PRC to Kazakhstan, but they are very limited in number of bonded trucks and the price is expensive. Once in the temporary warehouses inside the customs bonded zone in Horgos, the freight forwarder would arrange a Kazakh carrier to come to Horgos and pickup the goods, complete the customs formalities at Nur Zholy and then go to Almaty where final customs clearance and consolidation and deconsolidation are done.

The situation for rail transport is different, where the Kazakhstan side (Altynkol) reported much higher border-crossing time. At Horgos, the duration was 34.8 hours in 2022, dropped to 12.5 hours in 2023 and rose to 22.6 hours in 2024. At Altynkol, the average border-crossing time was 82.6 hours in 2022, dropped to 76.9 hours in 2023 and continued to decrease and reached 59.9 hours in 2024.

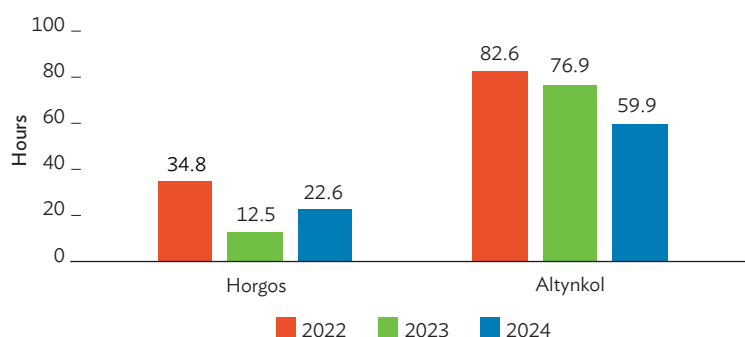
Figure 7.7: Border-crossing Time at Horgos–Nur Zholy Road BCP, 2022 to 2024



Source: CAREC Institute.

While the continued reduction of border-crossing time at Altynkol was commendable, the magnitude is about 3 times higher than that in Horgos. This uneven performance implied imbalanced processing rate at Horgos and Altynkol, leading to trains held up in Horgos even though they have completed the formalities at the Chinese side, because Altynkol would not authorize movements of incoming trains from PRC until they completed the border and customs controls inside the BCP, as well as the change of gauge operation.

Figure 7.8: Border-crossing Time at Horgos–Altynkol Rail BCP, 2022 to 2024



Source: CAREC Institute.

Issues

The two BCP pairs are gateway BCPs that are comparatively modern and serve huge road and rail freight traffic not commonly seen at other BCPs. There are some structural and operational issues that reduce the efficiency of the BCPs, as follow.²⁴

²⁴ A survey was conducted for Horgos and Nur Zholy in 2024 through the local CPMM partner. The issues described in this chapter reflect those problems uncovered in the survey. However, no survey was done for Alashankou and Dostyk.

Common Issues at the Two BCP Pairs

1. **Absence of Single Window.** There is no single window introduced at the two BCP pairs. Given the high volume of freight traffic through these BCPs, transforming the serial inspection and control to a single window treatment will help expedite the border-crossing.
2. **Rail Gauge Change.** Countries that operate rail networks decide its own rail gauge dimension, an important technical specification. This refers to the width of the rail track, measured by the distance between the two inner linings of two parallel rail tracks. This is one factor that affects the weight of the load the track can bear and typically, a wider gauge is able to service a higher payload. PRC adopts the 1,435 mm gauge which is the most widely adopted standard globally with around 60% share (e.g., West European countries), but the Russian Federation and most of the former Soviet states use the 1,520 mm gauge with around 20% of global share, also known as broad gauge.²⁵ These differences create a structural impediment at the border when trains cross between two countries that have different gauge standards. Trains cannot move directly and therefore have to stop at the border to perform a change of gauge operation so that the passengers or cargo can continue in the train running on different types of rail tracks. Although this is often mentioned as an issue, there is no realistic solution to resolve this rail gauge difference. It is not practical nor economical to standardize rail gauge dimensions by asking one party to ditch the existing assets and rebuild a new rail network. What can be improved though is through process optimization to increase the number of trains handled per day in the gauge change operation, as well as matching the throughput capacity of both sides. If one station can handle 10 trains per day (for example), but the adjacent station can only handle 5 trains per day, the mismatch implies a bottleneck will always remain.
3. **Restricted border-crossing hours.** The two BCP pairs have limited operating hours and do not yet offer 24-hour clearance. With rising freight volumes, shorter working hours contribute to congestion and long queues, especially during peak months. The new terminal in Xi'an mentioned earlier would also continue to direct increasing number of container express trains to these two BCP pairs, and the issue would only worsen if not addressed.
4. **Mismatch in operating hours.** Further limiting the operational duration is the time difference. The two border-crossing points operate on different schedules due to the one-hour time difference between China and Kazakhstan. For instance, Horgos operates from 10:00–22:00 (Beijing time), while Nur Zholy operates from 08:00–20:00 (Kazakhstan time). The one hour time difference results in queues and idle waiting when vehicles arrive before the partner BCP opens.
5. **Unreliable Internet and Info communications Technology (ICT) infrastructure.** The Kazakh side experiences unstable Internet connectivity, slowing down customs procedures and electronic data exchange. Strengthening ICT infrastructure would help improve efficiency and coordination.

Specific Issues at Alashankou–Dostyk

1. **Congestion at Alashankou–Dostyk.** At Dostyk–Alashankou the number of trains from Kazakhstan to China fell sharply (e.g., from 16 down to 5–6 per day) leading to accumulation of thousands of rail wagons waiting at the border. This is due to the two BCPs working at near design capacity. Kazakhstan temporarily halted or restricted certain cargo types through Dostyk–Alashankou (grain, containers) due to capacity and border-clearance limitations.

²⁵ There are different gauge standards besides 1,435 mm and 1,520 mm. For example, Pakistan uses the 1,696 mm rail gauge. Most CAREC members adopt 1,520 mm standard due to their history with the Russian Federation.

Specific Issues at Horgos–Altynkol/Nur Zholy

1. **Trans-loading at the BCP for Road Shipments.** CPMM study shows that the border-crossing times at Horgos have been consistently high, and Nur Zholy displays a worrisome increasing trend. The huge amount of cross-border trade drives the volume of cross-border shipment, and thus the BCPs naturally face a long line of queues where trucks spend days crossing the border. Notwithstanding, there are also man-made impediments related to the road quota and permit system. To understand this, one has to understand that road freight in CAREC region is determined by a road quota system, where the two countries negotiate and agree on the number of road permits for the upcoming year. A road operator will need to secure the permit (usually from the Ministry of Transport) before performing a carriage to another country. Expanding foreign trade, and ad-hoc events such as the Ukraine War that led to a sudden interest in the CAREC Corridor 2 resulted in a general shortage of quotas in the past few years, especially for carriage in Kazakhstan. As these road quotas were pre-agreed and issued, it is not easy to adjust within the year. Thus, most Chinese operators can only send their goods not to Almaty directly (which would save time and cost) but to Horgos and arrange for temporary storage in a customs bonded warehouse (costing more than \$300). Kazakh carriers would then come to Horgos and pick up the cargoes and return to Nur Zholy and Almaty. There were tactical solutions implemented to improve efficiency such as an electronic queuing system called CargoRuqsat, and anecdotal feedback from drivers mentioned that there are still instances of certain operators bypassing the queue, causing other operators to question the system's transparency.
2. **Insufficient road and lane capacity.** The connecting road between Horgos and Nur Zholy has only one lane in each direction, creating a persistent bottleneck. The road should be widened to allow two lanes in each direction to improve traffic flow.
3. **Limited parking space and queuing capacity.** The Nur Zholy BCP's parking area can accommodate only about 200 trucks, which is inadequate for the volume of cross-border freight. Expanding capacity to at least 300 trucks is recommended.
4. **Insufficient inspection capacity at Horgos.** The Chinese side currently operates eight truck examination lanes, which is inadequate for handling the growing trade volume. Increasing the number of lanes, including additional green lanes for expedited clearance, is recommended.

Recommendations

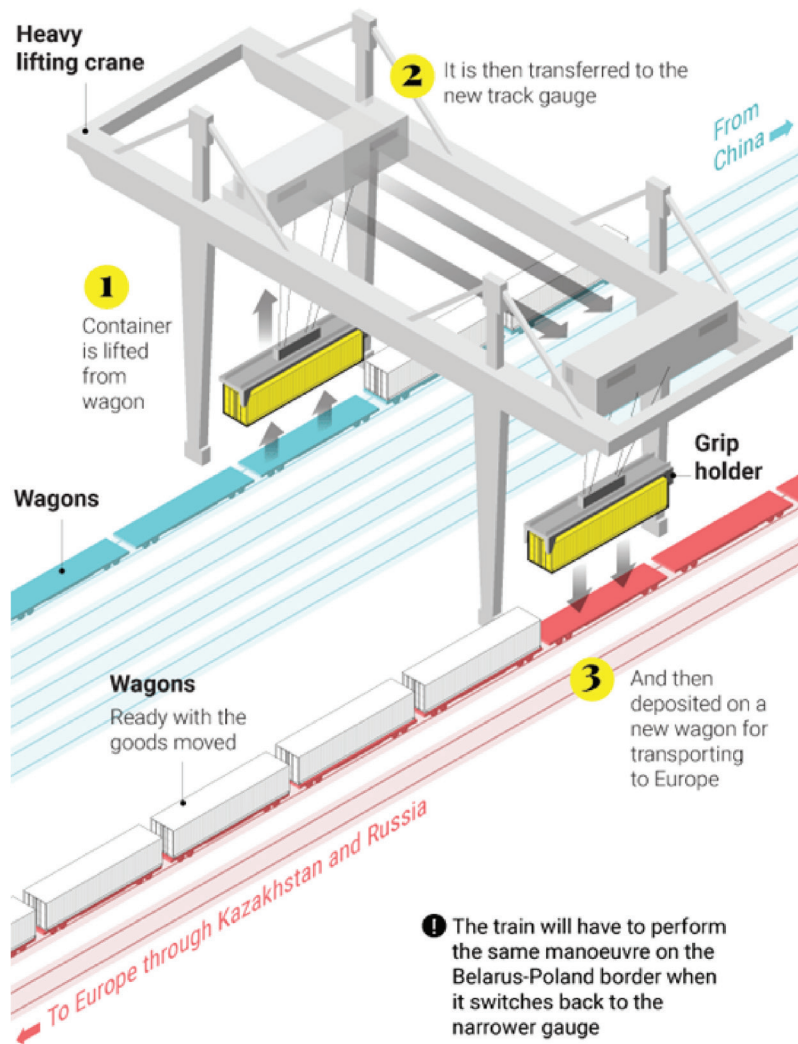
General Recommendations

1. **Introduce Single Window.** A Single Window (SW) is an electronic platform for trade facilitation, allowing businesses to submit all required import, export, and transit information to a single-entry point, instead of dealing separately with multiple government agencies like Customs, Health, or Agriculture. Many countries in Asia are in the process to develop and implement such a solution to address inefficiencies in the trade systems, and to reduce shipments time and cost. Although CPMM does not specifically measure the performance of the 'behind the borders' processes such as the time to apply and obtain a permit or license, CPMM partners surveyed in 2024 expressed the need for single window at the Kazakhstan–PRC borders. This could require technical assistance to align and integrate the operations on each side and then consider to automate data exchange (customs to customs) to expedite cross-border shipments.
2. **Addressing the rail gauge change by modernizing infrastructure, equipment and system.** Delays caused by rail gauge change is experienced by both Alashankou–Dostyk and Horgos–Altynkol. The focus should be expanding the capacity at the Kazakhstan's BCP and improving the process efficiency. This needs to address three elements. First, the infrastructure at Dostyk and Altynkol need to be modernized and achieve a design capacity that can match the throughput

Figure 7.9: Change of Gauge

Change of gauge

In the dry port of Khorgos, all merchandise from China has to be transferred to different trains. As a former Soviet republic, Kazakhstan shares the same five foot track gauge as Russia.



Source: South China Morning Post. <https://multimedia.scmp.com/news/china/article/One-Belt-One-Road/khorgos.html>.

rate of the incoming trains at the adjacent Chinese BCPs. This would require new chambers and exploring the feasibility of existing or emerging solutions in change of gauge. Secondly, new lifting equipment and rolling stocks would be needed to support the additional capacity. Finally, digital tools and applications would also be essential, such as a Terminal Operating System (TOS) to manage the operations. It is not surprising to find many rail BCPs and inland stations lack Enterprise Resource Planning (ERP) system or a TOS and still rely heavily on basic tools such as Microsoft Excel to perform the operations, which is highly inefficient. Investment and financing is a key constraint and this is where development partners can work with policymakers and agencies to plan, coordinate and support these initiatives.

3. **Extend and harmonize operating hours.** Both sides should consider gradually moving toward 24-hour border operations to match increasing freight demand. Extending daily working hours will ease vehicle accumulation during peak periods and enhance throughput efficiency.
4. **Synchronize operational schedules between BCPs.** The border authorities should align working hours across the PRC–Kazakhstan border to eliminate idle waiting caused by the one-hour time difference. A joint coordination mechanism can ensure consistent and simultaneous opening and closing times.
5. **Enhance digital connectivity and ICT systems.** The Kazakhstan side should strengthen Internet reliability and cross-border data exchange systems. Investments in fiber-optic infrastructure, backup connections, and compatible electronic customs platforms would streamline document handling and improve coordination.

At Alashankou–Dostyk

1. **Expand rail handling capacity at the Dostyk and Altynkol.** To relieve chronic congestion, the Kazakhstan side should accelerate the construction of additional rail lines, sidings, and transshipment facilities. Coordinated train scheduling and digital data exchange between railway operators will optimize wagon turnover and minimize idle times. In the medium term, both governments should explore establishing a joint border terminal management framework to balance inbound and outbound flows more effectively.

At Horgos–Altynkol/Nur Zholy

1. **Addressing the delays due to trans-loading at road BCPs.** Recognizing the root cause as the need to trans-load at BCPs due to the road quota and permit system, a strategic solution is to expand the number of permits. However there are political considerations as policymakers have to be mindful of cabotage rules and concerns, the ability of the paved road network to support additional road traffic (note that heavy transport vehicles used by operators are typically five or six axle, axle load standards are different between CAREC member countries), a more practical solution would be a gradual but targeted improvement aimed at specific segments of the cross-border traffic. First, time-sensitive items such as perishables and cross-border e-commerce deliveries should be given priority. Second, green lanes should be implemented at the BCPs to let authorized economic operators (AEOs) and TIR Carnet Holders move through quickly. To further improve the process, both Kazakhstan and PRC can review the AEO standards and establish a mutually recognized AEO system so that a selected group of freight operators from both countries can enjoy expedited crossings. This would then encourage more adoption of AEO standards and let high priority shipments by competent operators to cross efficiently, without worrying about a sudden influx of operators crossing the border. Diverting shipments to rail is also another relief option, though the effect might be limited. This is because road shipments tend to carry an assortment of consumer items, and these products are usually not suitable for rail carriage, also known for longer delivery lead-time. In the long term, a coordinated border management involving a joint customs control might be the ideal solution that can dramatically transform the overall border-crossing efficiency. This means a driver and truck only stop once at the border and complete a joint control by both Chinese and Kazakh border agencies, without the need to stop twice and undergo the same ritual. Such revolutionary practice is rare at present, because it requires immense political will, process redesign, systems integration and the acceptance of transparency to both border agencies.
2. **Upgrade road infrastructure between Horgos and Nur Zholy.** The connecting segment should be expanded from one lane to two lanes in each direction to reduce bottlenecks and ensure smoother traffic flow. Future upgrades should also include proper shoulders, lighting, and intelligent traffic management systems to enhance safety and efficiency.

3. **Expand truck parking and queuing areas.** The Nur Zholy BCP should increase its parking capacity from 200 to at least 300 spaces, with dedicated waiting zones for export, import, and transit trucks. Implementing an e-queue management system could also minimize on-site congestion.
4. **Increase inspection capacity at Horgos.** The number of truck examination lanes should be raised from eight to at least ten, including additional green lanes for expedited clearance. Equipment such as X-ray scanners and drive-through inspection systems should be expanded to handle higher volumes without delaying shipments

APPENDIX 1

2024 Updates on Routes

The chapter on ‘Routes’ was first introduced in Annual Report 2023. The context and the physical characteristics of the different routes described in this report was elaborated in that report. Readers can refer to the Annual Report 2023 (Appendix 1) for a detailed background and understanding of each route.

Table A1.1: Updates of Key CAREC Transport Routes (2024)

Route	CAREC Countries	2024 Developments
CAREC Corridor 2 (also known as the Middle Corridor)	Kazakhstan, Azerbaijan, Georgia, Turkmenistan	BTK railway resumed service in May 2024; digital transit permits introduced; persistent port and gauge bottlenecks.
PRC–Kyrgyz Republic–Uzbekistan Railway	PRC, Kyrgyz Republic, Uzbekistan	Joint venture company established July 2024; \$4.6 billion financing finalized; design capacity 12 million tonnes per year; preparatory works planned.
Pakistan–Afghanistan–Uzbekistan Railway	Pakistan, Afghanistan, Uzbekistan	Trilateral agreement in 2024 on surveys and financing; construction pending due to security and funding challenges.
Shymkent–Tashkent–Khujand Economic Corridor (STKEC)	Kazakhstan, Uzbekistan, Tajikistan	The International Center for Industrial Cooperation operationalized in 2024; initial joint projects in food processing and textiles launched.
Almaty–Bishkek Economic Corridor (ABEC)	Kazakhstan, Kyrgyz Republic	Feasibility studies completed for cross-border logistics and trade centers; progress in tourism and agriculture cooperation.
China–Europe Container Block Trains (CRE)	PRC, Kazakhstan, Mongolia, Russia, Belarus, Europe	17,000 trains in 2024; decline in volumes due to EU demand; persistent bottlenecks at Dostyk, Altyntol, Brest.
PRC–Mongolia Route	PRC, Mongolia	Zamiin–Uud congestion persists despite road BCP upgrades; average container delays tool more than one month to move from Tianjin to Ulaanbaatar.
Baku–Tbilisi–Kars (BTK) Railway	Azerbaijan, Georgia, Türkiye	Full operations resumed in May 2024 after renovations; this is expected to boost CAREC Corridor 2 capacity.

Source: Compiled by CAREC Institute.

APPENDIX 2

2024 Updates on Policies

Notable Updates on Policies in Azerbaijan (2024)

Name	Stakeholders	Description
Expansion of the East–West/CAREC Corridor 2 Transit Capacity^a	Ministry of Digital Development and Transport; Coordinating Council on Transit Freight	In 2024 Azerbaijan accelerated efforts to solidify its position as a logistics hub within the East–West and North–South transport corridors (including the Trans Caspian International Transport Route). The country implemented an action plan (2024–2026) to enhance transit infrastructure—such as railway upgrades, multimodal terminals and port expansion—and to deepen coordination across corridor partners to reduce transit time (for example targeting 12-day shipments from China to Europe via Azerbaijan). These investments and institutional reforms aim to capture growing transit flows in a geopolitically shifting Eurasian logistics environment.
Digitalization of Transport–Transit Services and Trade Facilitation^b	Ministry of Digital Development and Transport; Port of Baku; State Customs Committee	In 2024 Azerbaijan advanced digital-trade and transit facilitation reforms by introducing smart customs and logistics processing systems—such as electronic queue management at major border and port facilities, digital tracking of multistage cargo shipments, and integration of transport-transit data platforms. These reforms are intended to reduce documentation delays, improve transparency of transit flows, and boost attractiveness for multimodal cargo traversing the Caspian, Caucasus and beyond.
Enhanced Bilateral and Multilateral Transit Trade Agreements^c	Ministry of Digital Development and Transport; Ministry of Economy	Azerbaijan further pursued regional cooperation by negotiating and formalizing transit-trade protocols, including expanded frameworks for freight traffic via Azerbaijan to neighboring states and ports. These agreements cover transit vehicle permits, harmonized standards for logistics operations, and mutual recognition of customs guarantees—thereby lowering non-tariff barriers, enabling smoother cross-border freight flows and embedding Azerbaijan deeper into regional value chains.

Notable Updates on Policies in the People’s Republic of China (2024)

Name	Stakeholders	Description
Promotion of Regional Cooperation Mechanisms with Central Asian Countries^s	Ministry of Foreign Affairs; Ministry of Commerce; Xinjiang Regional Government	In 2024 PRC strengthened regional cooperation with Central Asian partners through the China–Central Asia (C+C5) mechanism, emphasizing coordinated customs procedures, trade facilitation, and supply-chain resilience. Joint working groups expanded collaboration on transport connectivity, logistics harmonization, and digital trade solutions, strengthening institutional ties across the CAREC transport and trade corridors.
Strengthening Multimodal Transport Infrastructure Connecting Central Asia^t	National Development and Reform Commission (NDRC); China Railway Express	PRC continued to invest in multimodal transport infrastructure serving Central Asia, including expanding capacity on key railway segments feeding into the Alashankou and Horgos ports and improving road and warehousing facilities supporting export shipments. These measures aim to reduce congestion, increase cargo-handling efficiency, and sustain the growing number of PRC–Europe and PRC–Central Asia freight trains operating through the CAREC region.

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Table continued

Name	Stakeholders	Description
Digitalization of Customs and Cross-Border Trade Procedures^u	General Administration of Customs of China (GACC); Ministry of Transport	PRC advanced large-scale customs digitalization, particularly in land ports bordering Kazakhstan, Kyrgyz Republic, and Mongolia. Improvements included expanded electronic declarations, integrated automated risk-management tools, and pilot testing of blockchain-based data exchange mechanisms for cross-border freight. These digital solutions reduce transaction costs, streamline inspection timelines, and enhance data-sharing reliability with CAREC partners.

Notable Updates on Policies in Georgia (2024)

Name	Stakeholders	Description
Enhancement of CAREC Corridor 2 Transit Capacity^d	Ministry of Economy and Sustainable Development; Georgian Railway	In 2024 Georgia intensified efforts to position itself as a key node on the Trans-Caspian/CAREC Corridor 2 route by upgrading railway access from the Black Sea ports to inland hubs, enhancing train handling capacity and synchronizing schedules with neighboring transit partners, such as PRC. This included deepening the channel at the port of Poti, extending freight yard space, and coordinating logistics flows to reduce dwell time for cargo transitioning between sea, rail and road. These enhancements aim to capture increasing trade flows from Central Asia to Europe, boost transit revenue, and reinforce Georgia's competitive transit role.
Expansion of Digital Customs Services^e	Georgia Revenue Service (GRS)	In 2024 the Georgia Revenue Service advanced its digital transformation by integrating additional permits and authorizations into its online customs system, enabling businesses to submit certificate-of-origin, phytosanitary and transit declarations entirely electronically. These reforms substantially reduce manual document handling, accelerate processing times at border crossings, and enhance data interoperability across agencies, thereby facilitating smoother trade flows and positioning Georgia as a modern transit hub for regional supply chains.
Modernization of Border and Transit Procedures^f	Georgia Revenue Service; Ministry of Finance	Georgia introduced a set of reforms in 2024 aimed at streamlining border and transit operations: risk-based inspection regimes were expanded, customs-checkpoint staffing and infrastructure upgraded (including X-ray and scanning systems), and the legal basis for participation in multilateral transit conventions amended. Together these measures reduce border bottlenecks, improve predictability of movements and strengthen Georgia's appeal as a transit corridor for Eurasian freight flows.

Notable Updates on Policies in Kazakhstan (2024)

Name	Stakeholders	Description
Development of Border and Logistics Hubs for Multimodal Connectivity^g	Ministry of Trade and Integration; National Company "Kazakhstan Temir Zholy"	Kazakhstan advanced five major cross-border transport and logistics hubs positioned along routes with China, the Kyrgyz Republic, Uzbekistan, Russia and the Caspian coast. These hubs, integrating rail and road links, aim to increase non-commodity exports by about 30%, simplify logistics procedures and strengthen inter-modal connectivity—thereby enhancing the country's ability to capture regional transit flows and integrate with Eurasian supply chains.

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Name	Stakeholders	Description
Trade-Facilitation Portal and Paperless Trade Enhancements^h	Ministry of Trade and Integration; National Trade Facilitation Committee	Kazakhstan continued to expand its trade-information and facilitation infrastructure in 2024, building on earlier portals. Its participation in regional digital trade-platform initiatives enabled better access to up-to-date information on border procedures and allowed automated information retrieval for traders across Central Asia. These efforts support smoother cross-border exchanges, greater transparency and improved alignment with international trade-facilitation standards.
Digitalization of Cross-Border Permits and Customs Servicesⁱ	Ministry of Trade and Integration; Customs Committee of Kazakhstan	Kazakhstan launched a digital exchange of foreign-permit forms (FPFs) with the People's Republic of China, replacing paper-based systems for international cargo transportation and thereby reducing administrative turnaround time. At the same time, the country advanced its national “single-window” for trade and customs, enabling greater paperless processes, risk-based inspection and integrated data flows—improving efficiency in import/export procedures and enhancing trade-facilitation.

Notable Updates on Policies in Kyrgyz Republic (2024)

Name	Stakeholders	Description
Modernization of Border-Crossing Points with China (Torugart and Irkeshtam)^j	Ministry of Transport and Communications; State Customs Service	In 2024 the Kyrgyz Republic accelerated plans to modernize its two key border-crossing points with China—Torugart and Irkeshtam—by upgrading inspection infrastructure, expanding throughput capacity, and strengthening customs coordination with Chinese authorities. These BCPs handle virtually all bilateral surface trade with China, and the upgrades aim to reduce congestion, speed up clearance times, and better accommodate growing containerized and road freight flows on the China–Kyrgyzstan–Uzbekistan corridor.
Digitalization of International Road Transport Permits^k	Ministry of Transport and Communications; State Agency for Road Transport	The government expanded digital permit systems for international freight transport in 2024, including new electronic permit-exchange mechanisms with Uzbekistan and ongoing integration with over 40 partner countries. The reforms replace paper-based permits, reduce administrative processing time, and help carriers plan routes more efficiently—supporting lower logistics costs and improved compliance monitoring.
Advancement of the China–Kyrgyzstan–Uzbekistan Railway Project^l	Ministry of Transport and Communications; Kyrgyz Temir Jolu (Kyrgyz Railways)	Following the completion of a feasibility study in 2023, the Kyrgyz Republic took further steps to advance the long-planned China–Kyrgyzstan–Uzbekistan railway by refining route alignments, evaluating financing models (including PPP, BOT, and credit arrangements), and holding trilateral consultations. The railway is projected to become a transformative regional link that shortens transit times between East Asia and the Middle East/Europe while opening new economic zones along its alignment.

Notable Updates on Policies in Mongolia (2024)

Name	Stakeholders	Description
Support for Trade Diversification through Logistics and Transit Reforms^m	Ministry of Economy and Development; World Bank (Technical Report)	In early 2024 a World Bank diagnostic emphasized how bottlenecks in logistics and trade-facilitation were constraining Mongolia's ability to diversify away from mining. In response, the government embarked on reforms to reduce trade costs, improve border infrastructure, and incentivize logistics-centric investments—thus creating policy momentum for Mongolia to strengthen its transit role in Central Asia.

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Name	Stakeholders	Description
Implementation of the “2024–2028 Government Action Programme” with Transport and Regional Development Focusⁿ	Government of Mongolia; Ministry of Road and Transport	In October 2024 the Mongolian Parliament approved the Government’s 2024–2028 Action Programme, which places significant emphasis on transport-network improvements, regional connectivity (including five vertical and three horizontal corridors linking Asia and Europe), and modernizing transit infrastructure for freight-traffic flows across Mongolia’s territory. The programme thus signals a renewed policy commitment to scale transit capacity and integrate Mongolia into broader Eurasian logistics systems.
Ratification and Operationalization of the “Intergovernmental Agreement on International Road Transport along the Asian Highway Network”^o	Mongolian Customs General Administration	In 2024 Mongolia formally ratified and actively implemented the intergovernmental road-transport agreement linking Mongolia, Russia and China under the Asian Highway Network framework. The move aimed to streamline cross-border trucking operations, reduce administrative obstacles, and leverage Mongolia’s ‘land-linked’ transit potential by ensuring its participation in a broader network of international road-cargo flows.

Notable Updates on Policies in Pakistan (2024)

Name	Stakeholders	Description
Expansion of the Pakistan–Afghanistan–Uzbekistan (PAKAFUZ) Transit Framework^p	Ministry of Commerce; Ministry of Foreign Affairs; Ministry of Railways	Pakistan advanced its cooperation under the PAKAFUZ transit and rail framework by continuing implementation of transit-facilitation measures agreed with Afghanistan and Uzbekistan, including simplified permit regimes, harmonized transit fees and pre-arrival data exchange for regional freight. These steps support Pakistan’s strategy to deepen connectivity with Central Asia and position Karachi and Gwadar as gateways for north–south trade.
Data Exchange between Pakistan and PRC via single window^q	Pakistan Single Window; General Administration of Customs of PRC	In June 2024, Pakistan and PRC commenced on the exchange of trade data via their respective national single window. This paperless method of data exchange promises to expedite border-crossing, reduces corruption and streamline workflow.
Expanded Use of TIR in Pakistan^r	Federal Board of Revenue; Pakistan National Committee of the International Chamber of Commerce; National Logistics Company (NLC)	Pakistan expanded use of the TIR (Transports Internationaux Routiers) system for cross-border transit in 2024, including additional authorized transporters, improved digital tracking, and wider deployment of secure transit guarantees. These reforms strengthen the reliability of regional trade routes linking Pakistan with Iran, Afghanistan, and Central Asia, lowering costs and improving predictability for shippers.

Notable Updates on Policies in Tajikistan (2024)

Name	Stakeholders	Description
Integrated Border Management at the Fotehobod–Oybek BCP^v	Ministry of Transport; Tajikistan Customs	In 2024, ADB in cooperation with Tajikistan’s Ministry of Transport, launched a feasibility study for integrated border management at the Fotehobod–Oybek border crossing with Uzbekistan. The proposed measure is intended to strengthen Tajikistan’s performance in customs processing and transit services at one of the country’s key cross-border gateways.
Simplified Road Freight Agreement with Uzbekistan^w	Ministry of Transport	In 2024, Tajikistan’s Parliament ratified a protocol amending the international road transport agreement with Uzbekistan, simplifying procedures for truck freight and reinforcing bilateral transport cooperation, boosting cross-border movement of goods.

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Name	Stakeholders	Description
Tajikistan and PRC bilateral cooperation on Transport and Logistics^x	Ministry of Transport; Tajik Railways	In July 2024, China and Tajikistan reaffirmed commitments to strengthen transport and logistics cooperation, including improving cross-border connectivity, developing international transport corridors, and expanding China–Europe freight train services. The cooperation aims to facilitate trade, enhance transit efficiency, and support regional economic integration.

Notable Updates on Policies in Turkmenistan (2024)

Name	Stakeholders	Description
Promotion of the Caspian Sea Multimodal Transit Corridor^y	Ministry of Foreign Affairs; Turkmenbashi Seaport; Turkmen Railway Authority	Turkmenistan actively promoted the Caspian multimodal corridor by coordinating with Azerbaijan, Kazakhstan, and Türkiye on shipping schedules, rail connections, and transit harmonization. Promotional roadshows and technical dialogues emphasized Turkmenistan's growing maritime capacity, new shipping assets, and strengthened port–rail interface, aiming to attract higher container volumes and position the country as a competitive link within the CAREC Corridor's supply chain.
New Strategy for Sustainable Transport^z	Agency for Transport and Communications	In 2024, the Asian Development Bank introduced a new strategy to support Turkmenistan's transition toward a sustainable, climate-resilient, and competitive economy. The strategy emphasizes infrastructure investment, private-sector development, regional connectivity, pilot projects, and policy reforms to strengthen economic diversification and resilience.
Launch of Trade Single Window^{aa}	State Customs Service of Turkmenistan; Ministry of Finance and Economy	Turkmenistan launched Trade Single Window, instrumental in streamlining import, export, and transit procedures by integrating multiple agencies into one digital platform. The system reduces processing time and costs, improves transparency, and supports trade growth by facilitating smoother cross-border movements and more efficient transit operations.

Notable Updates on Policies in Uzbekistan (2024)

Name	Stakeholders	Description
Launch of the Uzbekistan–Türkiye Electronic Permit (E-Permit) System^{bb}	Ministry of Transport of Uzbekistan;	In 2024 Uzbekistan and Türkiye agreed to introduce a bilateral electronic permit system for freight transport, replacing paper-based permits and enabling real-time verification of transit authorizations. The cooperation framework also established a joint working group to resolve problematic issues regarding visas, permits, and transit fees faced by carriers along the route.
Deepening Transport Cooperation with Kazakhstan via Expansion of Road and Rail Connectivity^{cc}	Ministry of Transport; Uzbekistan Railways, Uzbekistan Road Committee	In May 2024, Kazakhstan and Uzbekistan discussed priorities to strengthen transport cooperation, focusing on expanding road and rail connectivity, modernizing border crossings, and increasing freight capacity. The talks aimed to facilitate trade, improve transit efficiency, and support the growth of regional transport corridors linking Central Asia.
Development of the China–Kyrgyzstan–Uzbekistan railway^{dd}	Ministry of Transport; Uzbekistan Railways,	The China–Kyrgyzstan–Uzbekistan railway, set to begin construction in 2025, will create a faster land route between China and Europe, strengthening Central Asia's role in global supply chains. The project, part of the Belt and Road Initiative, will reduce transport time and costs, improve logistics efficiency, boost regional trade, attract investment, and enhance transit connectivity for landlocked Central Asian countries.

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APPENDIX 3

Corridor Performance Measurement and Monitoring Methodology

The Corridor Performance Measurement and Monitoring (CPMM) methodology is based on a time/cost-distance (TCD) framework and involves four major stakeholders: (i) drivers, (ii) CPMM partners and coordinators, (iii) field consultants, and (iv) the Central Asia Regional Economic Cooperation (CAREC) Program trade facilitation unit.

The TCD methodology, developed by the United Nations Economic and Social Commission for Asia and the Pacific, focuses on the time and costs involved in transportation and analyzes transport inefficiency and bottlenecks. It lays out the cost and time components of door-to-door movements of a vehicle along a transport corridor, and tracks delays at borders and other inspection points along the corridor.

Under the CAREC CPMM, coordinators of each CPMM partner every month, and randomly select drivers transporting cargoes passing through the six CAREC priority corridors to fill up the drivers' CPMM forms. The coordinators enter data from the drivers' forms into TCD spreadsheets. Each partner association completes about 10–30 TCD forms a month, which are submitted to the field consultants and screened for consistency, accuracy, and completeness.

The TCD data submitted by partner associations is normalized so each TCD sheet can be summed up and analyzed at the subcorridor, corridor, and aggregate level of reporting.

Normalization is done in terms of a 20-ton truck in the case of road transport, or a twenty-foot equivalent unit (TEU) in the case of rail traveling 500 kilometers (km). The number of border-crossing points (BCPs) for subcorridors is also normalized for each 500-km segment.

Normalization of each TCD sheet comprises the following steps:

- (i) Each TCD is split between the non-BCP portion and BCP portion in case the shipment crossed borders.
- (ii) The time and cost figures for the non-BCP portion are normalized to 500 km by multiplying the ratio of 500 km by the actual distance traveled.
- (iii) The time and cost figures for the BCP portion are normalized based on the ratio of a predetermined number of BCPs for each 500-km segment over the actual number of BCPs crossed.
- (iv) The TCD is reconstituted by combining the normalized non-BCP portion and the normalized BCP portion.

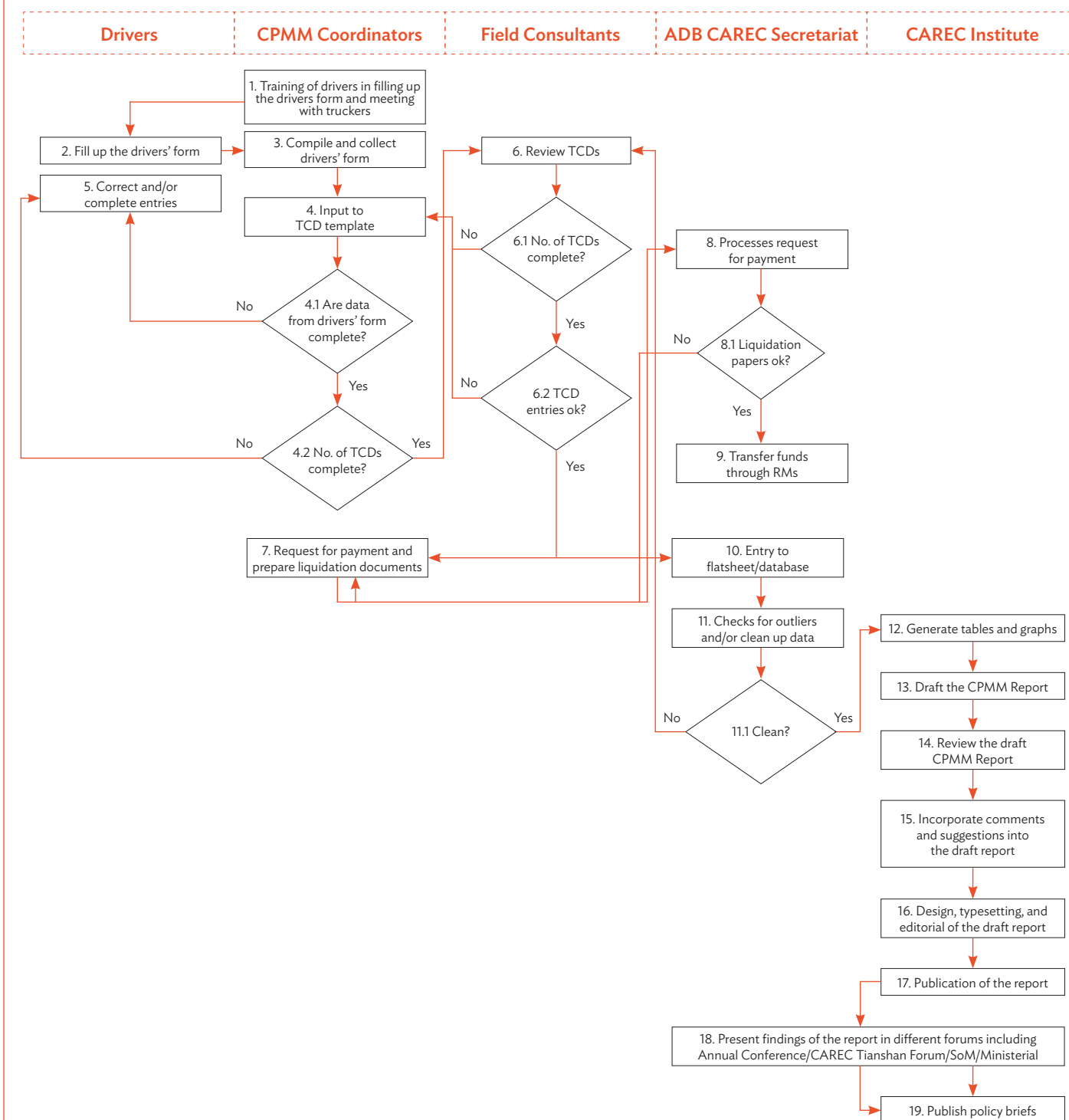
To measure the average speed and cost of transport for trade, the cargo tonnage or number of TEU containers is used as weights (normalized at 20 tons) in calculating the weighted averages of speed and cost for subcorridors, corridors, and for the overall data, based on normalized TCD samples.

The detailed CPMM flow chart is in Figure A3.

CPMM Partners

CPMM partners are national transport carriers and forwarders selected to work with the CAREC Trade Facilitation Unit in implementing the CPMM. A specific person is assigned by each partner to receive

Figure A3: Corridor Performance Measurement and Monitoring Flowchart



ADB = Asian Development Bank, CAREC = Central Asia Regional Economic Cooperation, CPMM = Corridor Performance Measurement and Monitoring, MC = ministerial conference, RM = resident mission, SOM = Senior Officials' Meeting, TCD = time/cost-distance.
Source: Asian Development Bank.

training on the CPMM mechanism, train the drivers, customize the drivers' form, and enter the data into a customized spreadsheet. ADB pays the CPMM partners based on a pre-determined unit rate per survey.

National Association Drivers

To ensure accuracy of CPMM data analysis, raw data should be collected as close to the source as possible. Drivers are asked to record how long (time) or how much (cost) it takes them to move from origin to destination. The drivers use a country-specific driver's form to record and submit data to the CPMM partners.

Field Consultants

Two international field consultants work with the CAREC trade facilitation team to develop the CPMM methodology, and travel to the CAREC countries to standardize implementation. They also analyze the aggregated data and draft CPMM quarterly and annual reports.

CAREC Trade Facilitation Unit

Based in the headquarters of the Asian Development Bank, Manila, the CAREC Trade Facilitation Unit is responsible for collecting and aggregating all completed CPMM spreadsheets. Using specialized statistical software, the team constructs the charts and tables for analysis by the field consultants and assists in CPMM report preparation.

APPENDIX 4

2024 Partner Associations

The Central Asia Regional Economic Cooperation (CAREC) Corridor Performance Measurement and Monitoring (CPMM) partners are national carrier and forwarder associations already established in CAREC member countries and are essential to the success of the CPMM mechanism. Trained to gather CPMM raw data, their key responsibilities include the following:

- (i) act as the local focal point to collaborate with the Asian Development Bank (ADB) CAREC trade facilitation team in conducting the CPMM annual exercise;
- (ii) organize and train drivers to use customized drivers' forms for data collection;
- (iii) review completed drivers' forms to ensure data completeness and correctness;
- (iv) input raw data from drivers' forms into the CPMM spreadsheets; and
- (v) submit completed CPMM files to CAREC.

Table A4: 2024 Corridor Performance Measurement and Monitoring Partner Associations

	Country	Association		Data Collected in 2024
1	Afghanistan	Association of Afghanistan Freight Forwarding Companies	AAFFCO	360
2	PRC	Xinjiang Uygur Autonomous Region Logistics Association	XULA	540
3	Georgia	Georgia International Road Carriers Association	GIRCA	120
4	Mongolia	Mongolia Logistics Association	MLA	240
5	Pakistan	Pakistan International Freight Forwarders Association	PIFFA	230
6	Tajikistan	Association of Road Transport Operators of Republic of Tajikistan	ABBAT	120
7	Uzbekistan	Association of International Road Carriers of Uzbekistan	AIRCUIZ	240
			TOTAL	1,850

PRC = People's Republic of China.
Source: Asian Development Bank.

APPENDIX 5

Trade Facilitation Indicators

Recognizing the pivotal roles of trade facilitation and transport connectivity in the economic growth of the Central Asia Regional Economic Cooperation (CAREC) region, member countries jointly developed and endorsed the CAREC Transport and Trade Facilitation Strategy (TTFS) in 2007. The TTFS had an integrated approach that centered on the development of six priority CAREC corridors through transport infrastructure investments and trade facilitation initiatives. It also mandated the monitoring and periodic measurement of the performance of the six transport corridors to

- (i) identify the causes of delays and unnecessary costs along the links and nodes of each CAREC corridor, including border-crossing points (BCPs) and intermediate stops;
- (ii) help authorities determine how to address the identified bottlenecks; and
- (iii) assess the impact of regional cooperation initiatives.

In 2010, the Asian Development Bank (ADB) developed the CAREC Corridors Performance Measurement and Monitoring (CPMM) methodology that offers an accurate and evidence-based foundation for policies aimed at addressing these objectives. The current CPMM methodology is a result of modifications to the original time/cost–distance (TCD) methodology of the United Nations Economic and Social Commission for Asia and the Pacific, which optimized its ability to measure and monitor effectively the border crossing and corridor performance of CAREC corridors over time. The TCD methodology offers an extensive picture of the time and cost dimensions of transport and trade facilitation, particularly with regard to border crossings and other impediments along a transit corridor. Aside from time and cost, measures derived such as speed can be used to assess traffic density and road quality. With these factors, several measures and indicators can be developed for the monitoring of border-crossing and customs service efficiency, as well as road and rail infrastructure performance along corridors. When the corridors are monitored regularly, policy makers can easily pinpoint areas that need improvement and financial investment.

With data from TCD-format questionnaires, four trade facilitation indicators (TFIs) are monitored regularly to enable assessment of improvements made in the CAREC corridors. However, unlike other indicators, TFIs are less easy to quantify as they depend on a variety of factors such as (i) the quality and availability of physical infrastructure, (ii) national policies and regulations for transit and trade, (iii) border-crossing procedures, and (iv) the degree of harmonization among countries. Figure A5 Source: Asian Development Bank illustrates the scope and extent measured in each indicator.

- (i) **TFI1: Time taken to clear a BCP.** This TFI refers to the average length of time (hours) it takes to move cargo across a border from entry to exit of a BCP. The entry and exit points are typically primary control centers where customs, immigration, and quarantine are handled. Along with the standard clearance formalities, this measurement includes waiting time, unloading or loading time, and time taken to change rail gauges, among other indicators. The intent is to capture both the complexity and the inefficiencies inherent in the border-crossing process.
- (ii) **TFI2: Costs incurred at a BCP.** This is the average total cost, in United States dollars (\$), of moving cargo across a border from entry to exit of a BCP. Both official and unofficial payments are included. This indicator assumes 20 tons of cargo, so that the average costs across various samples are comparable.

The CPMM mechanism also analyzes unofficial payments: these are defined as a sum paid on top of that officially recognized by law, with the aim of gaining favored, preferential treatment in return. No official receipt is given. Tracking an unofficial payment is inherently difficult due to the opaque nature of the transaction.

Figure A5: Measuring the Trade Facilitation Indicators

For Road Transport



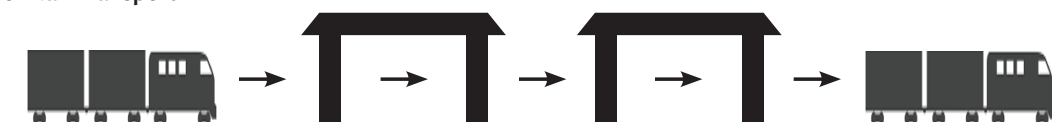
1 At Origin	2 Outbound Border-Crossing Point	3 Inbound Border-Crossing Point	4 At Destination
CPMM starts measurement when goods are loaded at the origin. Often, a truck must stop at intermediate nodes (for activities such as traffic police checkpoints) before reaching the outbound BCP of the country of departure.	The truck driver then waits in line for his turn to enter the BCP. When the truck is admitted into the BCP, the driver has to undergo a series of border activities. For BCPs that offer single-window services, the process could be faster. Any transloading (transfer of goods between trucks) is also done here under customs' supervision. Upon completion of border-crossing procedures, the truck exits the BCP, proceeds through the "no man's land" until it arrives at the inbound BCP of the adjacent country.	The truck driver again waits in line for his turn to enter the BCP. Inside the inbound BCP, the driver completes another series of border activities. Upon completion, the truck exits the BCP and proceeds with its journey. TFI1 and TFI2 measure the duration and cost, respectively, of the activities upon reaching a BCP, waiting in line, and exiting the BCP.	The process of exiting a country and entering another is repeated until the shipment reaches the final destination. At the final destination, the goods or containers are offloaded, and this will end the scope of CPMM data collection. In general, CPMM does not include the customs clearance and cargo collection time and cost by the consignee.

TFI3 measures the total transport rate from origin to destination, including cost of activities at BCPs and intermediate stops, per 500 km and per payload of 20 tons.

SWOD is derived from the speed of the truck while it is in transit.

TFI4 is derived by adding the time spent on BCPs and intermediate stops.

For Rail Transport



1 At Origin	2 Outbound Border-Crossing Point	3 Inbound Border-Crossing Point	4 At Destination
CPMM tracks the movement of a specific wagon or container, and not the entire train, as reported by its partner international freight forwarders. CPMM starts measurement when goods are loaded at the origin. Oftentimes, a train stops at intermediate nodes (for activities such as classification and marshalling) before reaching the outbound BCP of the country of departure.	At the outbound BCP, the shipment undergoes customs formalities, as well as other rail operations, to ensure the safety of the train and goods. After completion, the train is released to the inbound BCP of the adjacent country. At times, trains are withheld if the inbound BCP is congested.	At the inbound BCP, the shipment undergoes another set of customs formalities and necessary rail operations. TFI1 and TFI2 measure the duration and cost, respectively, of the activities upon reaching a BCP, waiting in line, and exiting the BCP.	The process of exiting a country and entering another is repeated until the shipment reaches the final destination. At the final destination, the wagons or containers are offloaded, and this will end the scope of CPMM data collection. In general, CPMM does not include the customs clearance and cargo collection time and cost by the consignee.

TFI3 measures the total transport rate from origin to destination, including cost of activities at BCPs and intermediate stops, per 500 km and per payload of 20 tons.

SWOD is derived from the speed of the truck while it is in transit.

TFI4 is derived by adding the time spent on BCPs and intermediate stops.

BCP = border-crossing point, CPMM = Corridor Performance Measurement and Monitoring, TFI = trade facilitation indicator.
Source: Asian Development Bank.

- (iii) **TFI3: Costs incurred while traveling along a corridor section.** This is the average total costs, in \$, incurred for a unit of cargo traveling along a corridor section within a country or across borders. A “unit of cargo” refers to a cargo truck or train with 20 tons of goods. A “corridor section” is defined as a stretch of road 500 kilometers (km) long. Both official and unofficial payments are included.

TFI3 is the sum of border-crossing cost and vehicle transport cost. Vehicle transport cost is defined as the variable cost component for a shipment: including remuneration for the driver during the shipment; sustenance cost (food and drink, accommodation); fuel cost; parking fees; and minor repairs.

The cost components must be specific to the shipment. Nonspecific cost items that are overheads or annual fees such as vehicle tax, insurance, depreciation, and one-time vehicle overhaul are not included in the calculation of vehicle transport cost. In general, the main drivers for this cost are driver remuneration and fuel cost.

Many factors can affect vehicle transport cost and, thus, influence the total transport cost. Factors such as distance, weight of cargo, quality of transport infrastructure, number of BCPs, oil price, foreign currency exchange rate, time of year of travel, empty backhaul, market competition, and new legislation can exert a sizable influence on it. All things being equal, vehicle transport cost will be primarily affected by the distance and cargo weight, as this is the basis for the carrier’s quote of the shipment price. In practice due to data collection constraints, transport cost figures reported in CPMM refer to transport rates for trucks, or railway tariffs for trains. “Transport cost” is viewed from the perspective of the shipper and/or receiver. It represents the market rate paid to move the cargo—not the carrier’s cost of providing the service.

To standardize transport cost, the CPMM adopts 500 km as a unit of distance, and 20 tons as a unit of weight. This standardized unit enables comparisons to be made between road shipments across different corridors with varying distance and weight.

- (iv) **TFI4: Speed of travel along a corridor section.** This is the average speed, in kilometers per hour (km/h), at which a unit of cargo travels along a corridor section within a country or across borders. Again, a “unit of cargo” refers to a cargo truck or train with 20 tons of goods, and a “corridor section” refers to a stretch of road 500 km long. Speed is calculated by dividing the total distance traveled by the duration of travel. Distance and time measurements include border crossings.

The CPMM uses two measures of speed: speed without delay (SWOD) and speed with delay (SWD). SWOD is the ratio of the distance traveled to the time spent by a vehicle in motion between origin and destination (actual traveling time). SWD is the ratio of distance traveled to the total time spent on the journey, including the time the vehicle was in motion and the time it was stationary. Under the CPMM, all activities that cause delays (customs controls, inspections, loading and unloading, and police checkpoints, among others) are recorded by drivers. SWOD represents a measure of the condition of physical infrastructure (such as roads and railways), while SWD is an indicator of the efficiency of BCPs along the corridors.

Statistical Derivation of the Trade Facilitation Indicators

TFI1: Time Taken to Clear a Border-Crossing Point (hour)

This indicator highlights bottlenecks at BCPs, which typically involve lengthy border-crossing procedures and serious delays. Each component activity can be further examined to pinpoint the principal cause of delays (Table A5.1).

Table A5.1: Statistical Derivation of the Trade Facilitation Indicator 1

	Formula	Remarks
Formula , per TCD calculation	$TFI1_i = \sum_{j=1}^a t_j$ t_j = time spent on each activity j $j = 1, 2, \dots, a$ = number of activities in each border crossing $i = 1, 2, \dots, n$ = number of TCDs	The sum is taken from all of the activities carried out in each border crossing. However, for comparison, activities recorded under “others” are not included.
Aggregation , average value per corridor and per mode of transport	$\sum_{i=1}^n TFI1_i$ n = number of TCDs qualifying a given filter (per mode/per corridor) $i = 1, 2, \dots, n$ = number of TCDs	The computation of the average is straightforward; no weights are necessary.

Source: Asian Development Bank.

TFI2: Costs Incurred at a BCP (\$)

This indicator highlights BCPs that have relatively expensive border-crossing procedures, including unofficial payments. Each component activity can be further examined to pinpoint the drivers of cost (Table A5.2).

Table A5.2: Statistical Derivation of the Trade Facilitation Indicator 2

	Formula	Remarks
Formula , per TCD calculation	$TFI2_i = \sum_{j=1}^a c_j$ c_j = cost incurred on each activity j $j = 1, 2, \dots, a$ = number of activities in each border crossing $i = 1, 2, \dots, n$ = number of TCDs	The sum is taken from all of the activities carried out in each border crossing. However, for comparison, activities recorded under “others” are not included.
Aggregation , average value per corridor and per mode of transport	$\sum_{i=1}^n TFI2_i$ n = number of TCDs qualifying a given filter (per mode/per corridor) $i = 1, 2, \dots, n$ = number of TCDs	The computation of the average is straightforward; no weights are necessary.

TCD = time/cost–distance.

Source: Asian Development Bank.

TFI3: Costs Incurred Traveling Along a Corridor Section (\$)

This indicator provides an insight into the cost structure of a corridor and how it compares with those of other corridors. By examining each component, measures can be developed to minimize transit cost (Table A5.3).

Table A5.3: Statistical Derivation of the Trade Facilitation Indicator 3

	Formula	Remarks
Formula , per TCD calculation	$TFI3_i = v_i + b_i + s_i$ v_i = cost incurred during transit, per 500 km b_i = cost incurred during border crossing, per 500 km s_i = cost incurred during intermediate stops, per 500 km $i = 1, 2, \dots, n$ = number of TCDs	The normalized cost incurred, per 500 km and per 20 tons of cargo (road) or one 20-foot equivalent unit (rail), in traveling a corridor section is the sum of normalized vehicle-operating or rail wagon-operating cost during transit and normalized cost during intermediate stops and border crossings.
Aggregation , average value per corridor and per mode of transport	$\sum_{i=1}^n TFI3_i$ n = number of TCDs qualifying a given filter (per mode/per corridor) $i = 1, 2, \dots, n$ = number of TCDs	The computation of the average is straightforward; no weights are necessary.

km = kilometer, TCD = time/cost–distance.
Source: Asian Development Bank.

TFI4: Speed of Travel Along a Corridor Section (km/h)

Speed indicators provide insights into the level of infrastructure development of CAREC corridors by providing information on the speeds that cargo trucks and trains can attain while traversing specific corridor sections. Under the CPMM, speed is measured by two indicators: SWOD and SWD.

Another factor to consider is the weighting of the observations in the aggregation. As the computed speed represents the transport of the truck or train, speed should be weighted by the tonnage of cargo to represent the weighted average of speed of the cargo itself.

The SWOD (in km/h) is a metric that considers travelling speed only, i.e., when the delivery truck is moving on the road, or when the train is moving on the tracks. When the vehicle or train is stationary, the time is not counted (Table A5.4).

Table A5.4: Statistical Derivation of Speed Without Delay

	Formula	Remarks
Formula , per TCD calculation	$SWOD_i = \frac{D_i}{T_i}$ D = distance traveled from previous stop T = duration of travel $i = 1, 2, \dots, n$ = number of TCDs	
Aggregation , average value per corridor and per mode of transport	$\sum_{i=1}^n (w_i)SWOD_i$ n = number of TCDs qualifying a given filter (per mode/per corridor) $w_i = \frac{c_i}{\sum_{i=1}^n c_i}$ $i = 1, 2, \dots, n$ = number of TCDs	Since computation is per TCD calculation, each TCD is normalized and treated independently. Also, speed average is not weighted by duration of travel (a mathematical computation), and equal weights are given to each record. This method does not give more importance to longer trips than to shorter ones. However, records should be weighted by tonnage to measure the average speed of a unit of cargo, and not of the trips.

km = kilometer, SWOD = speed without delay, TCD = time/cost–distance.
Source: Asian Development Bank.

The SWD (in km/h) considers the total time taken for the entire journey, including stoppage time for various reasons (Table A5.5).

Table A5.5: Statistical Derivation of the Trade Facilitation Indicator 4

	Formula	Remarks
Formula, per TCD leg	$SWD_i = \frac{D_i}{T_i + A_i}$ D = distance traveled from previous stop T = duration of travel A = duration of activities (BCP and non-BCP) $i = 1, 2, \dots, n$ = number of TCDs	
Aggregation, average value per corridor and per mode of transport	$\sum_{i=1}^n (w_i) SWD_i$ n = number of TCDs qualifying a given filter (per mode/per corridor) $w_i = \frac{c_i}{\sum_{i=1}^n c_i}$ $i = 1, 2, \dots, n$ = number of TCDs	Since computation is per TCD calculation, each TCD is normalized and treated independently. Also, speed average is not weighted by duration of travel (a mathematical computation), and equal weights are given to each record. This method does not give more importance to longer trips than to shorter ones. But records should be weighted by tonnage to measure the average speed of a unit of cargo, and not of the trips.

km = kilometer, SWD = speed with delay, TCD = time/cost–distance.
Source: Asian Development Bank.

APPENDIX 6

Border-Crossing Activities

Under the Corridor Performance Measuring and Monitoring (CPMM) mechanism, time spent and payments made (official and unofficial) at each stop are recorded by activity. The list of activities encompasses all anticipated checks and procedures, both at border-crossing points (BCPs) and at intermediate stops along the transit corridor. However, as the CPMM focuses on BCPs, the list comprises mainly customs procedures and inspections during border crossings.

Road Transport

- (i) **Border security and control.** Security personnel (i.e., the police or military) inspecting goods and checking documents at BCPs. Also includes payment of fees that may be official or unofficial.
- (ii) **Customs controls.** Customs personnel inspecting documents and goods entering or exiting a country. Similar activities are compiling customs forms and paying fees.
- (iii) **Health or quarantine inspection.** Health authorities checking a person for the presence of malignant or contagious disease. Also includes filling out health or quarantine forms, paying fees, and others.
- (iv) **Phytosanitary inspection.** Agriculture authorities inspecting cargo for possible presence of harmful pests and plant diseases. Similar activities include filling out phytosanitary forms and paying fees.
- (v) **Veterinary inspection.** Veterinary authorities inspecting cargo for the possible presence of infectious animal diseases and regulating the flow of animals and animal products to a location. Similar activities are filling out veterinary forms and paying fees.
- (vi) **Visa or immigration.** Immigration authorities checking visas, and other required activities to apply for a visa to enter and exit the country when the driver has no valid visa. Also includes filling out immigration or visa forms and paying fees.
- (vii) **Traffic inspection.** Inspection by the Traffic Inspectorate or State Traffic Safety Inspectorate. GAI means *Gosudarstvennaya Avtomobilnaya Inspektsiya*.
- (viii) **Police checkpoint or stop.** Traffic police covering roadblocks or checkpoints along a road that also requires payment to proceed.
- (ix) **Transport inspection.** Checking the Certificate of Approval or Conformity for the Vehicles. Road passes are also checked.
- (x) **Weight and standard inspection.** Checking the dimensions and weight of the vehicle with cargo, including queueing, payment of fees, and others.
- (xi) **Vehicle registration.** Registration of vehicle, and/or payment of applicable road use taxes, and/or transit fees.
- (xii) **Emergency repair.** Ad hoc repairs on vehicles that may be due to a tire blow-out, broken axle, and other reasons, generally because of bad road conditions. This is different from planned maintenance.
- (xiii) **Escort or convoy.** A convoy is a row of vehicles that moves together. The vehicles are accompanied by escorts, who can be customs officials or traffic police to ensure that the cargoes reach their destination.

- (xiv) **Loading and/or unloading.** Loading goods at the point of origin or loading and unloading at intermediate stops to deconsolidate cargo (i.e., transfer goods to another vehicle), or unloading upon delivery at the destination.
- (xv) **Road toll.** Fees payable when drivers use a special section of roads or highways that are intended to shorten the travel time.
- (xvi) **Waiting and/or queueing.** Waiting in lines at BCPs. Note that this activity does not include other activities, such as waiting in line to fill out or submit customs documents, which is recorded as part of customs controls.

Rail Transport

- (i) **Load cargoes.** The movement of goods from storage or warehouse to the train. If the goods are moved to a temporary storage, such as the staging area or loading docks before relocating to the train, then only the time from the staging area or loading docks to the train is considered.
- (ii) **Unload cargoes.** The movement of goods from the train to storage or warehouse. If the goods are moved to a temporary storage, such as the staging area or loading docks before relocating to the warehouse, then consider only the time from the train to the staging area or loading docks.
- (iii) **Fix cargo shift.** This refers to the securing of cargoes inside the container or wagon. When items are stuffed into containers, workers may “choke” or secure the cargoes to ensure they stay in position during transit. For instance, automobiles also need additional securing. This is to ensure cargoes stay in position during transit. Normally, this is a problem related to manufactured products transported on pallets or in cartons and may not apply to bulk commodities
- (iv) **Remove excess cargo.** The movement of excess goods to comply with the weight requirement. This does not include inspection time. This activity only starts when the officer declares an “overweight” and orders a removal, and ends when the excess goods are relocated from the train.
- (v) **Transload at gauge change point.** This only happens at the People’s Republic of China (PRC) border or Polish border with a Commonwealth of Independent Nations (CIS) country. As the CIS uses 1,520-millimeter (mm) gauge, while non-CIS countries use 1,435 mm gauge, the cargoes need to be transloaded. This is done by changing the wheel sets or relocating the goods using forklifts.
- (vi) **Pickup and deliver wagons.** The movement of loaded containers and wagons between terminals to the consignee’s premises.
- (vii) **Replace or repair inoperable wagon.** This applies only if one or more train wagons is found to need service because it is significantly damaged and cannot be addressed by emergency repair. The action includes the movement from the tracks to the servicing centers, as well as the actual repair of the wagon in the servicing center.
- (viii) **Emergency repair.** Servicing of wagons on the tracks in the marshaling yard, without removing the wagon from the train. In this case the wagon is salvageable, in contrast to the more severe problem under the previous activity.
- (ix) **Trains classification.** The internal regroup of goods, platform, wagons, and containers to form a new train. This is needed as goods are bound for different destinations and leave at different schedules. Normally this happens at major rail terminals.
- (x) **Fix document errors.** This applies to a special situation when there are errors on the documents (freight bill, cargo manifest, packing list, and others). It does not include normal processing time and starts only when an error is found, and action is taken to correct the error. This activity ends when the authorities confirm the error is corrected. At borders, this correction may require substantial effort and many days to complete.

- (xi) **Reissue transit documents.** This typically applies to the PRC rail shipments to CIS countries. Not all the PRC railways stations can handle international shipments, but there are occasions when loading and/or unloading is necessary in such domestic stations. Thus, a domestic document is used for movement of cargo from this station to the international terminal (such as Urumqi in the Xinjiang Uygur Autonomous Region), where another set of international documents is used. This is when the data is manually rewritten or translated.
- (xii) **Customs inspection.** The customs officer assessing compliance with the customs code. The customs officer also checks for any dutiable goods, forbidden items, or dangerous goods.
- (xiii) **Technical inspection.** Engineers or technicians inspecting to ascertain cargo security and safety, as well as the condition of the train and its equipment.
- (xiv) **Commercial inspection.** An activity undertaken by a regulatory agency to affirm the quality of the shipment or to ensure that certain restricted material (dual use) is not exported.
- (xv) **Sanitary and phytosanitary control.** The phytosanitary team regularly checking the train's sanitation standards, as well as the acceptability of goods, such as agriculture, food, meat, and consumable products. This action also covers health issues, such as health certificates of the staff onboard the train.
- (xvi) **Waiting due to various reasons.** An activity undertaken by a regulatory agency to affirm the quality of the shipment or to ensure certain restricted material (dual use) is not exported.

APPENDIX 7

Central Asia Regional Economic Cooperation Border-Crossing Points

The endorsement and implementation of the Central Asia Regional Economic Cooperation (CAREC) Transport and Trade Facilitation Strategy in 2007 included the identification of six priority CAREC corridors where transport infrastructure investments and trade facilitation initiatives would be focused. The CAREC Corridor Performance Measuring and Monitoring (CPMM) mandate to identify causes of delays and unnecessary costs along the links and nodes of each CAREC corridor, including border-crossing points (BCPs) and intermediate stops, emphasizes monitoring BCPs where shipments undergo several transactions and procedures related to transborder trade.

Table A7 lists key BCP pairs for each side of the border.

Table A7: CAREC Corridor Border-Crossing Points

Corridor		BCP1		BCP2	
1	1a, 2c	PRC	Alashankou	KAZ	Dostyk
2	1a, 1c	KAZ	Kairak	RUS	Troitsk
3	1b	PRC	Horgos	KAZ	Khorgos
4	1b, 6b, 6c	KAZ	Zhaisan	RUS	Kos Aral/Novomarkovka (Sagarchin)
5	1c	PRC	Torugart	KGZ	Torugart
6	1c, 3b	KAZ	Merke	KGZ	Chaldovar
7	2a, 2b, 2d, 5a, 5c	PRC	Yierkeshitan	KGZ	Irkeshtam
8	2a, 2b	KGZ	Kara-Suu (Dostuk)	UZB	Kara-Suu/Savay (Dustlik)
9	2a, 2b	TAJ	Patar	UZB	Andarkhon
10	2a, 2b	TAJ	Nau	UZB	Bekabad
11	2a, 6a	KAZ	Beyneu (rail)/Tazhen (road)	UZB	Karakalpakstan (Daut-Ata)
12	2a, 2c	AZE	Baku	KAZ	Aktau
13	2a, 2b, 2c	AZE	Red Bridge (road)–Beyuk Kesik (rail)	GEO	Red Bridge (road)–Gabdabani (rail)
14	2b, 3a	UZB	Alat	TKM	Farap
15	2b	AZE	Baku	TKM	Turkmenbashi
16	2d, 3b, 5a, 5c	KGZ	Karamyk	TAJ	Karamyk
17	2d, 5a, 5c, 6c	AFG	Shirkhan Bandar	TAJ	Panji Poyon/Nizhni Pianj
18	3a, 3b	KAZ	Aul	RUS	Veselayarsk
19	3a, 6b, 6c	KAZ	Zhibek Zholy–Saryagash/ Yallama	UZB	Gisht Kuprik–Keles
20	3a	TKM	Saraks	IRN	Sarakhs
21	3b	TAJ	Pakhtaabad	UZB	Saryasia
22	3a, 6a, 6b	AFG	Hairatan	UZB	Termez/Airatom
23	3b, 6b, 6d	AFG	Islam Qala	IRN	Dogharoun
24	4a	MON	Ulaanbaishint/Tsagaanur	RUS	Tashanta
25	4a	PRC	Takeshiken	MON	Yarant
26	4b, 4c	MON	Sukhbaatar	RUS	Naushki
27	4b	PRC	Erenhot	MON	Zamiin-Uud
28	6a, 6d	KAZ	Kurmangazy (road)/Ganyushking (rail)	RUS	Krasnyi Yar (road)/Aksaraskaya (rail)
29	6c	TAJ	Istaravshan	UZB	Khavast

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Table A5 continued

Corridor		BCP1		BCP2	
30	6d	KAZ	Bolashak	TKM	Serkhetyaka
31	2d	AFG	Aqina	TKM	Imam Nazar
32	2d, 6d	AFG	Torghondi	TKM	Serkhet Abad
33	5b	PRC	Khunjerab	PAK	Sost
34	5c, 6a, 6b, 6d	AFG	Chaman	PAK	Spin Buldak
35	5a, 6c	AFG	Torkham	PAK	Peshawar
36	4c	PRC	Zuun Khataavch	MON	Bichigt
37	2a, 2b, 2c	AZE	Qirmizi Korpu	GEO	Tsiteli Khidi

AFG = Afghanistan, AZE = Azerbaijan, BCP = border-crossing point, GEO = Georgia, IRN = Iran, KAZ = Kazakhstan, KGZ = Kyrgyz Republic, MON = Mongolia, PAK = Pakistan, PRC = The People's Republic of China, RUS = Russian Federation, TAJ = Tajikistan, TKM = Turkmenistan, UZB = Uzbekistan.

Source: Asian Development Bank.

APPENDIX 8

Trade Facilitation Indicators: Summary Statistics

Table A8 provides a brief comparison of Corridor Performance Measurement and Monitoring road and rail trade facilitation indicators in 2023 and 2024. Mean, median, and margin (or the 95% confidence interval band around the mean) estimates are provided to describe the distribution of the sample collected.

Table A8: Trade Facilitation Indicators—Summary Statistics

Trade Facilitation Indicators																			
Corridor	Overall						Road						Rail						
	2023			2024			2023			2024			2023			2024			
	Mean	Median	Margin	Mean	Median	Margin	Mean	Median	Margin	Mean	Median	Margin	Mean	Median	Margin	Mean	Median	Margin	
TF11	Time taken to clear a border-crossing point, hours																		
	Overall	16.3	6.2	± 0.7	18.9	8.9	± 0.8	11.0	4.7	± 0.5	14.1	7.0	± 0.6	29.3	12.8	± 2.2	25.5	12.5	± 1.5
	1	32.5	18.0	± 2.4	33.8	20.5	± 2.0	14.7	2.9	± 2.4	23.5	14.3	± 3.1	43.0	26.0	± 3.3	37.3	24.9	± 2.4
	2	16.6	6.3	± 3.0	12.5	4.5	± 3.8	10.4	4.4	± 1.5	6.0	1.2	± 0.9	3.7	3.7	± 2.1	-	-	-
	3	2.9	2.0	± 0.3	2.7	1.7	± 0.3	2.8	2.0	± 0.2	2.7	1.7	± 0.3	6.8	2.4	± 7.7	-	-	-
	4	6.8	1.9	± 0.9	15.4	10.3	± 1.7	1.9	1.6	± 0.1	16.9	10.0	± 5.6	13.2	6.3	± 2.0	15.3	10.5	± 1.8
	5	22.9	19.0	± 0.8	23.7	23.4	± 1.1	22.9	19.0	± 0.8	23.7	23.4	± 1.1	-	-	-	-	-	-
6	9.6	4.6	± 0.5	10.2	5.5	± 0.7	8.6	4.6	± 0.5	9.4	4.8	± 0.7	4.7	4.0	± 0.2	5.0	4.0	± 0.3	
TF12	Cost incurred at border-crossing clearance, \$																		
	Overall	154	105	± 4	202	156	± 6	131	71	± 4	182	149	± 7	225	212	± 11	223	225	± 11
	1	334	310	± 17	395	425	± 15	347	310	± 32	505	500	± 36	321	300	± 13	338	425	± 11
	2	119	70	± 9	153	125	± 11	81	55	± 5	112	100	± 7	220	220	-	-	-	-
	3	75	71	± 4	88	71	± 6	75	71	± 4	88	71	± 6	-	-	-	-	-	-
	4	35	9	± 5	107	66	± 13	25	9	± 6	260	273	± 21	67	29	± 9	68	29	± 9
	5	229	232	± 3	266	242	± 13	229	232	± 3	266	242	± 13	-	-	-	-	-	-
6	104	55	± 6	117	80	± 8	89	49	± 4	103	54	± 7	147	122	± 9	133	82	± 11	

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Table A8 continued

Trade Facilitation Indicators																					
Overall										Rail											
2023										2024				2023				2024			
Corridor	Mean	Median	Margin	Mean	Median	Margin	Mean	Median	Margin	Mean	Median	Margin	Mean	Median	Margin	Mean	Median	Margin			
Cost incurred to travel a corridor, \$ per 500 km, per 20-ton cargo																					
Overall	836	715	± 29	791	657	± 35	814	673	± 30	733	531	± 39	916	755	± 75	922	744	± 72			
1	1,153	875	± 63	1,085	842	± 62	1,517	1,129	± 122	1,478	1,472	± 146	837	785	± 37	873	785	± 39			
2	726	550	± 91	724	83	± 196	731	551	± 92	724	83	± 196	274	274	± 16	-	-	-			
3	515	547	± 58	362	56	± 164	515	547	± 59	362	56	± 164	-	-	-	-	-	-			
4	1,139	957	± 127	962	167	± 187	1,250	1,291	± 44	906	1,034	± 255	963	124	± 321	976	162	± 226			
5	482	141	± 52	513	326	± 38	482	141	± 52	517	303	± 41	-	-	-	448	443	-			
6	717	655	± 33	746	668	± 44	659	604	± 34	689	601	± 48	1,138	1,135	± 75	1,153	1,168	± 67			
Speed to travel on CAREC corridors, km/h																					
Overall	21.6	20.4	± 2.1	41.2	32.5	± 2.3	24.9	24.3	± 2.4	38.4	32.3	± 2.6	12.4	10.1	± 2.9	12.7	9.6	± 3.8			
1	22.4	22.1	± 4.5	75.8	79.8	± 5.3	32.4	29.6	± 6.4	63.4	64.0	± 9.3	15.2	11.9	± 4.2	16.5	12.4	± 5.9			
2	21.9	20.6	± 3.9	41.4	49.4	± 5.3	22.3	20.8	± 3.8	41.4	49.4	± 5.3	6.1	6.1	± 1.1	-	-	-			
3	37.1	39.5	± 7.6	61.1	60.6	± 10.5	37.6	40.2	± 7.5	61.1	60.6	± 10.5	18.7	21.6	± 40.5	-	-	-			
4	21.8	19.9	± 7.4	15.6	12.2	± 3.7	36.5	36.7	± 3.1	54.9	71.0	± 8.9	7.0	7.5	± 2.6	6.1	7.2	± 2.7			
5	10.7	10.2	± 1.0	28.2	25.5	± 3.8	10.7	10.2	± 1.0	27.4	23.0	± 3.8	-	-	-	26.9	26.7	-			
6	21.2	23.2	± 3.0	34.1	31.4	± 2.9	22.3	24.3	± 3.3	35.2	31.9	± 3.3	13.1	13.1	± 0.8	13.7	14.1	± 0.9			
Speed without delay, km/h																					
Overall	44.3	41.0	± 3.5	17.2	12.8	± 4.9	43.7	41.7	± 3.0	19.6	18.5	± 3.9	45.7	30.1	± 11.5	46.6	41.0	± 13.1			
1	66.4	72.9	± 7.0	19.4	16.4	± 5.8	62.0	58.5	± 8.5	25.0	23.1	± 11.8	69.5	79.5	± 10.4	82.1	81.7	± 3.4			
2	43.1	46.9	± 5.7	23.6	23.9	± 9.1	42.0	46.8	± 5.1	23.6	23.9	± 9.1	79.7	79.7	± 0.6	-	-	-			
3	54.0	54.7	± 7.9	46.2	47.0	± 11.3	55.0	55.5	± 7.5	46.2	47.0	± 11.3	21.4	23.6	± 44.8	-	-	-			
4	34.3	46.7	± 11.7	7.6	8.3	± 12.4	57.8	57.0	± 2.9	16.5	16.3	± 30.5	10.5	11.9	± 3.8	9.2	12.0	± 4.0			
5	24.4	21.9	± 2.1	15.0	10.2	± 3.6	24.4	21.9	± 2.1	14.2	9.9	± 3.5	-	-	-	41.7	41.3	-			
6	37.0	33.3	± 3.4	18.4	19.7	± 3.5	38.7	34.7	± 3.5	19.0	21.2	± 3.8	24.8	27.8	± 6.1	26.8	29.9	± 6.2			

- = no data, CAREC = Central Asia Regional Economic Cooperation, hours = hour, km = kilometer, km/h = kilometer per hour, TFI = trade facilitation indicator.

Source: Asian Development Bank.

APPENDIX 9

Activities at Road Border-Crossing Points

Table A9.1 shows the time and cost spent on activities of outbound road shipments from the indicated country at selected border-crossing points.

Table A9.1: Time and Cost Spent at Road Border-Crossing Points, Outbound

BCP	Country	Corridor	Count	Duration (hours)																				
				Total		Activities																		
				Average	Median	i	ii	iii	iv	v	vi	vii	viii	ix	x	xi	xii	xiii	xiv	xv	xvi	xvii	xviii	1
Nur Zholy	KAZ	1	2	64.9	64.9		4.0		0.1	0.2		0.2	0.3			0.2	0.1					60.0		
Erenhot	PRC	4	24	53.7	36.6	1.8	2.1	0.8	2.0	2.5		0.7	0.7	1.3	0.4	1.2	0.5	2.4		8.5		51.7		
Chaman	PAK	5,6	66	52.0	51.9	0.7	43.3	0.9				0.7			0.7		0.7					5.9		
Khorgos	PRC	1	72	44.8	35.0	0.1	1.1	0.9				0.1					0.5			4.4		37.9		
Peshawar	PAK	5,6	428	35.8	28.3		30.3					1.7					0.7			4.3		4.5		
Sarp	OTH	2	18	19.9	19.2	0.2	0.3		0.1			0.1	0.1			0.1	0.1					19.1		
Alashankou	PRC	1,2	6	19.4	20.0	0.1	1.2	0.9				0.2								2.8		14.2		
Sarpi	GEO	2	24	18.4	18.7	0.0	0.1		0.0	0.0		0.0	0.0			0.0	0.0					18.1		
Tsiteli Khidi	GEO	2	115	15.6	12.1	0.0	0.0	0.0													0.1	17.2	0.2	0.1
Irkeshtan	PRC	2,5	36	15.5	9.5	0.1	1.0		0.0			0.1										21.4		
Shirkhan Bandar	AFG	2,5,6	84	14.7	14.7	0.8	1.2		0.8	0.6		0.7			0.7					4.5		5.3		
Mashtakovo	RUS	0	1	12.6	12.6	0.2			0.1			0.1				0.2	0.1					12.0		
Torghondi	AFG	2,6	72	11.8	11.8	0.7	0.8								0.7		0.7			3.8		5.2		
Takeshikent	PRC	4	26	9.4	9.7	0.1	1.3	0.8				0.1								3.5		4.1		
Termez	UZB	3,6	60	6.6	6.6	1.6	1.1					0.7					0.6			2.6				
Hairatan	AFG	3,6	138	6.4	6.7	0.7	1.2					0.7			0.7					3.3	0.7			
Kairak	KAZ	1	2	5.0	5.0	0.2			0.1			0.1				0.1	0.1					4.5		
Saryasia	UZB	3	51	4.9	4.7	0.2	2.0		0.2	0.3	0.3	0.2				0.3			1.2			8.0	10.0	
Krasnyi Yar	RUS	6	18	4.5	3.6	0.2			0.1			0.1	0.1			0.1	0.1					3.9		
Karasu	KAZ	1	17	4.5	4.7	0.2																4.3	11.3	
Konysbayeva	KAZ	3,6	5	4.2	3.9	0.2	0.3		0.1			0.1	0.1			0.1	0.1					3.4		
Kurmangazy	KAZ	6	62	4.0	3.6	0.2	0.3		0.1	0.1		0.1				0.1	0.1					3.5		
Taskala	KAZ	1,6	17	4.0	3.6	0.2			0.1	0.1		0.1	0.0			0.1	0.1					3.5		
Ozinki	RUS	1,6	1	4.0	4.0	0.2			0.1	0.3		0.1	0.3			0.1	0.1					3.0		
Novomarkovka	RUS	1,6	1	3.9	3.9	0.2						0.3	0.3			0.2	0.1					3.0		
Zhaisan	KAZ	1,6	76	3.9	3.6	0.2			0.1	0.1		0.1	0.1			0.1	0.1	0.1				3.4		
Dautota	UZB	2,6	80	3.4	2.5	0.1	0.3		0.1	0.1		0.1				0.0	0.0					5.0		
Karasu	PRC	0	30	3.3	2.1	0.3	0.4		0.3	0.1	0.3	0.2				0.3	0.5	0.2		0.4		6.8		
Tazhen	KAZ	2,6	43	3.1	0.8	0.2	0.3		0.1	0.2	0.2	0.1	0.1			0.1	0.1					3.4	11.1	
Kulma	TAJ	0	18	3.1	3.1	0.2	1.6		0.3	0.3	0.3	0.4												
Yallama	UZB	3,6	98	2.7	2.5	0.1	0.2		0.1	0.1	0.1	0.1				0.0	0.0					3.6		
Karamyk	KGZ	2,3,5	12	2.3	2.3	0.3	0.3		0.4	0.3	0.3	0.3				0.3		0.3						

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Table A9.1 continued

BCP	Country	Corridor	Count	Duration (hours)																					
				Total		Activities																			
				Average	Median	i	ii	iii	iv	v	vi	vii	viii	ix	x	xi	xii	xiii	xiv	xv	xvi	xvii	xviii	1	2
Panji Poyon	TAJ	2,5,6	60	2.1	2.3	0.2	0.3		0.2	0.2	0.2				0.2		0.3			0.5					
Merke	KAZ	1,3	2	1.6	1.6	0.2			0.1	0.1		0.1	0.1			0.1	0.1						2.0		
Kuryk	KAZ	2	4	1.0	1.0	0.2	0.2									0.1	0.1					0.2	0.3	5.0	
Torugart	PRC	1	24	0.7	0.8	0.1							0.2										0.6		
Krasnyi Most	AZE	2	1	0.3	0.3	0.1	0.1																0.2		
Baku	AZE	2	108	0.1	0.1	0.0																0.1		18.8	

BCP	Country	Corridor	Count	Cost (US\$)																					
				Total		Activities																			
				Average	Median	i	ii	iii	iv	v	vi	vii	viii	ix	x	xi	xii	xiii	xiv	xv	xvi	xvii	xviii	1	2
Nur Zholy	KAZ	1	2	410	410		135			10						15							250		
Erenhot	PRC	4	24	112	124	0	0	0	0	0				0	0	0	0	14			98	0			
Chaman	PAK	5,6	66	52	52	10	10					10			11		10								
Khorgos	PRC	1	72	712	720	0	87	45				0					2			588	2				
Peshawar	PAK	5,6	428	294	292		266					0					10			50					
Sarp	OTH	2	18	39	33		33															50			
Alashankou	PRC	1,2	6	678	831	0	174	84				0								420	0				
Sarpi	GEO	2	24	24	30								15									25			
Tsiteli Khidi	GEO	2	115	149	155	0	0	0													127	23	74	80	
Irkeshtan	PRC	2,5	36	0	0	0	0					0										0			
Shirkhan Bandar	AFG	2,5,6	84	302	301	4	17		4	20		100			4					154					
Mashtakovo	RUS	0	1																						
Torghondi	AFG	2,6	72	276	276	4	28								4		15			225					
Takeshikent	PRC	4	26	329	338	0	87	44				0								208	0				
Termez	UZB	3,6	60	147	147		12										10			125					
Hairatan	AFG	3,6	138	154	144	4	10								5					135	6				
Kairak	KAZ	1	2	15	15				5							10									
Saryasia	UZB	3	51	127	135	15	24		8	5	10	5				8		5	54			1	2		
Krasnyi Yar	RUS	6	18																						
Karasu	KAZ	1	17	0	0	0																0	2		
Konysbayeva	KAZ	3,6	5	40	35		23		5							10						8			
Kurmangazy	KAZ	6	62	19	20				5	8						10									
Taskala	KAZ	1,6	17	15	15				5	8						10									
Ozinki	RUS	1,6	1																						
Novomarkovka	RUS	1,6	1																						
Zhaisan	KAZ	1,6	76	20	20				5	8						10	10								
Dautota	UZB	2,6	80	9	10	0	38		5	5												0			
Karasu	PRC	0	30	10	16	2	1		1	1	3	1				1	0	3				0			
Tazhen	KAZ	2,6	43	44	45	0	35		5	0	40					10						0	2		
Kulma	TAJ	0	18	68	68	15	30		3	4	3	5				5		3							
Yallama	UZB	3,6	98	8	10				5	5		5													

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Table A9.1 continued

				Cost (US\$)																					
				Total		Activities																			
						i	ii	iii	iv	v	vi	vii	viii	ix	x	xi	xii	xiii	xiv	xv	xvi	xvii	xviii	1	2
BCP	Country	Corridor	Count	Average	Median																				
Karamyk	KGZ	2,3,5	12	48	48	3	25		3	3	5	3				3		3							
Panji Poyon	TAJ	2,5,6	60	20	16	2	5		2	2	2	5				3		2							
Merke	KAZ	1,3	2	20	20				5	10						10									
Kuryk	KAZ	2	4	133	130	0	40									0	63				40	0	0		
Torugart	PRC	1	24	0	0	0						0										0			
Krasnyi Most	AZE	2	1	30	30	0	30															0			
Baku	AZE	2	108	40	40	0															40			2	

AFG = Afghanistan, AZE = Azerbaijan, BCP = border-crossing point, GEO = Georgia, IRN = Iran, KAZ = Kazakhstan, KGZ = Kyrgyz Republic, MON = Mongolia, PAK = Pakistan, PRC = The People's Republic of China, RUS = Russian Federation, TAJ = Tajikistan, TKM = Turkmenistan, UZB = Uzbekistan.

Notes:

(i) Border security and control; (ii) Customs controls; (iii) Commercial inspection; (iv) Health and quarantine; (v) Phytosanitary inspection; (vi) Veterinary inspection; (vii) Visa or immigration; (viii) Transit conformity; (ix) GAI or traffic inspection; (x) Police checkpoint or stop; (xi) Transport inspection; (xii) Weight or standard inspection; (xiii) Vehicle registration; (xiv) Emergency repair; (xv) Escort or convoy; (xvi) Loading and/or unloading; (xvii) Road or bridge toll; and (xviii) Waiting or queue.

Source: Asian Development Bank.

Table A9.2 shows the time and cost spent on activities of inbound road shipments to the indicated country at selected border-crossing points.

Table A9.2: Time and Cost Spent at Road Border-Crossing Points, Inbound

				Duration (hours)																					
				Total		Activities																			
BCP	Country	Corridor	Count	Average	Median	i	ii	iii	iv	v	vi	vii	viii	ix	x	xi	xii	xiii	xiv	xv	xvi	xvii	xviii	1	2
Irkeshtam	KGZ	2,5	36	28.1	27.5	0.1	2.5					0.2										0.2	37.9		
Yarant	MON	4	26	24.4	14.2	0.1	1.3	0.9				0.1											25.0		
Torkham	AFG	5,6	428	23.9	21.5	0.7	14.7					1.0		0.8	0.7	0.6					3.0	0.7	5.2		
Nur Zholy	KAZ	1	76	22.0	16.4	0.2	3.0		0.1			0.1	1.5			0.2	0.1				2.6	0.0	18.5		
Dostyk	KAZ	1,2	6	11.9	12.2	0.2	3.5					0.2											8.1		
Zamiin-Uud	MON	4	24	10.1	10.3	1.9	1.7	1.2	2.2	1.0				1.5	0.6	1.7	0.6	1.3	3.8						
Spin Buldak	AFG	5,6	72	8.6	8.5	0.6	0.7					0.7				0.6					0.9		5.8		
Panji Poyon	TAJ	2,5,6	90	8.1	8.8	0.8	0.7		0.7	0.6		0.6			0.7				6.2						
Hairatan	AFG	3,6	60	7.4	7.4	0.7	4.1					0.7			0.6		0.6					0.7			
Dautota	UZB	2,6	91	5.1	6.5	0.2	2.9		0.2	0.4	0.3	0.2	0.3			0.5	0.0	0.5					4.4	0.3	0.3
Krasnyi Most	AZE	2	65	4.4	4.2	0.2	0.3									0.1	0.1					0.1	3.6	0.2	0.1
Kulma	TAJ	0	30	3.8	1.7	0.3	0.7		0.3	0.3	0.3	0.3											4.9	0.1	
Ak-Tilek	KGZ	1	18	2.6	2.3	0.2										0.1	0.1						2.2	11.0	
Termez	UZB	3,6	78	2.3	2.3		1.6					0.8													
Tsiteli Khidi	GEO	2	1	2.1	2.1	0.0	0.0									0.0							2.0		
Karasu	PRC	0	18	2.1	2.1	0.3	0.2		0.3	0.1	0.3	0.2				0.3		0.2		0.4					
Pakhtaabad (Dusti)	TAJ	3	51	1.9	1.7	0.3	2.0		0.3	0.3	0.3	0.4											4.3		
Torugart	KGZ	1	24	1.6	1.5	0.1	0.7					0.2				0.5							0.7		
Jalgan	TAJ	2,3,5	12	1.5	1.5											0.2		0.2		1.2					
Tazhen	KAZ	2,6	80	1.5	1.1	0.2	0.3		0.1	0.1		0.1	0.2			0.1	0.1					0.0	8.0		

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Table A9.2 continued

				Duration (hours)																					
				Total		Activities																			
BCP	Country	Corridor	Count	Average	Median	i	ii	iii	iv	v	vi	vii	viii	ix	x	xi	xii	xiii	xiv	xv	xvi	xvii	xviii	1	2
Konysbayeva	KAZ	3,6	98	1.2	1.1	0.2	0.2		0.1	0.1		0.1	0.3			0.1	0.1					0.0			
Sarp	OTH	2	24	1.1	1.1	0.1	0.3		0.1	0.1		0.1	0.3			0.2	0.1								
Krasnyi Yar	RUS	6	62	0.9	0.8	0.2			0.1	0.2		0.1	0.1			0.2	0.1					0.0	10.0		
Yallama	UZB	3,6	5	0.9	0.9	0.2	0.2		0.1			0.1	0.3				0.0								
Kuryk	KAZ	2	116	0.9	0.8	0.1	0.5									0.1	0.1			0.5		0.2	0.3	0.2	0.3
Shirkhan Bandar	AFG	2,5,6	23	0.8	0.8	0.3						0.3				0.2									
Troitsk	RUS	1	14	0.8	0.8	0.2			0.1	0.2		0.2	0.1			0.1	0.1					0.0			
Novomarkovka	RUS	1,6	76	0.8	0.8	0.2			0.1	0.2		0.1	0.2			0.1	0.1	0.1				0.0			
Mashtakovo	RUS	0	15	0.8	0.8	0.2			0.1	0.2		0.2	0.2			0.2	0.1					0.0			
Ozinki	RUS	1,6	17	0.8	0.8	0.2			0.1	0.3		0.2	0.1			0.2	0.1					0.0			
Taskala	KAZ	1,6	1	0.7	0.7	0.2			0.1	0.1		0.1				0.2	0.1					0.0			
Zhaisan	KAZ	1,6	1	0.7	0.7	0.2			0.1			0.2				0.2	0.1					0.0			
Kurmangazy	KAZ	6	18	0.6	0.6	0.2			0.1			0.1				0.1	0.1					0.0			
Chaldovar	KGZ	1,3	2	0.5	0.5	0.1			0.1	0.1		0.1	0.1			0.1	0.1								
Sarpi	GEO	2	18	0.2	0.2	0.0	0.0		0.0			0.0	0.0			0.0	0.0					0.0			
Baku	AZE	2	4	0.1	0.1																	0.1		0.2	0.3

				Cost (US\$)																					
				Total		Activities																			
BCP	Country	Corridor	Count	Average	Median	i	ii	iii	iv	v	vi	vii	viii	ix	x	xi	xii	xiii	xiv	xv	xvi	xvii	xviii	1	2
Irkeshtam	KGZ	2,5	36	624	950	0	149					0										950	0		
Yarant	MON	4	26	190	200	0	133	74				0											0		
Torkham	AFG	5,6	428	204	220	30	145					9		2	3	16					43	6	30		
Nur Zholy	KAZ	1	76	411	330	0	375		5				275			10						50	18		
Dostyk	KAZ	1,2	6	633	650	0	633					0											0		
Zamiin-Uud	MON	4	24	0	0	0	0		0	0				0	0	0	0	0	0						
Spin Buldak	AFG	5,6	72	15	9	4	4					4				4									
Panji Poyon	TAJ	2,5,6	90	204	238	11	50		10	50		10			10				95						
Hairatan	AFG	3,6	60	49	48	7	16								6		14								
Dautota	UZB	2,6	91	86	96	18	32	0	7	5	10	5	78			8		5					0	66	15
Krasnyi Most	AZE	2	65	79	76	1	49									11	0						0	70	20
Kulma	TAJ	0	30	43	71	6	18		3	4	3	3				5		3			8	0	200		
Ak-Tilek	KGZ	1	18	0	0	0										0	0						0	2	
Termez	UZB	3,6	78	11	11		11																		
Tsiteli Khidi	GEO	2	1	0	0	0	0									0							0		
Karasu	PRC	0	18	16	16	3	2		1	1	3	2				1		3							
Pakhtaabad (Dusti)	TAJ	3	51	71	71	10	34		3	4	3	5				5		3			8		0		
Torugart	KGZ	1	24	37	37	0	0					16				21							0		
Jalghan	TAJ	2,3,5	12	69	69	3	20		2	3	2	4				3		5		27					
Tazhen	KAZ	2,6	80	117	117	5	30		5	9			66			10	5					6	0		

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Table A9.2 continued

				Cost (US\$)																					
				Total		Activities																			
BCP	Country	Corridor	Count	Average	Median	i	ii	iii	iv	v	vi	vii	viii	ix	x	xi	xii	xiii	xiv	xv	xvi	xvii	xviii	1	2
Konysbayeva	KAZ	3,6	98	145	143		22		5	7			66			10	5								
Sarp	OTH	2	24	202	200		33			7			150			17									
Krasnyi Yar	RUS	6	62	36	30								94									30			
Yallama	UZB	3,6	5	103	130				5				99												
Kuryk	KAZ	2	116	181	150	5	63									4	106		250				0	45	92
Shirkhan Bandar	AFG	2,5,6	23	710	710	460						200				50									
Troitsk	RUS	1	14	19	11								55									12			
Novomarkovka	RUS	1,6	76	48	50								131									39			
Mashtakovo	RUS	0	15	36	40																	36			
Ozinki	RUS	1, 6	17	48	45								68									39			
Taskala	KAZ	1, 6	1	68	68				5	10						10						43			
Zhaisan	KAZ	1,6	1	50	50				5							10						35			
Kurmangazy	KAZ	6	18	19	20				5							10						5			
Chaldovar	KGZ	1,3	2	25	25				5				15			5									
Sarpi	GEO	2	18	160	160								30									130			
Baku	AZE	2	4	40	40																	40		63	55

AFG = Afghanistan, AZE = Azerbaijan, BCP = border-crossing point, GAI = Gosudarstvennaya Avtomobilnaya Inspektsiya, GEO = Georgia, IRN = Iran, KAZ = Kazakhstan, KGZ = Kyrgyz Republic, MON = Mongolia, PAK = Pakistan, PRC = The People's Republic of China, RUS = Russian Federation, TAJ = Tajikistan, TKM = Turkmenistan, UZB = Uzbekistan.

Notes:

(i) Border security and control; (ii) Customs controls; (iii) Commercial inspection; (iv) Health and quarantine; (v) Phytosanitary inspection; (vi) Veterinary inspection; (vii) Visa or immigration; (viii) Transit conformity; (ix) GAI or traffic inspection; (x) Police checkpoint or stop; (xi) Transport inspection; (xii) Weight or standard inspection; (xiii) Vehicle registration; (xiv) Emergency repair; (xv) Escort or convoy; (xvi) Loading and/or unloading; (xvii) Road or bridge toll; and (xviii) Waiting or queue.

Source: Asian Development Bank.

APPENDIX 10

Activities at Rail Border-Crossing Points

Table A10 shows the time and cost spent on activities of inbound and outbound rail shipments to and from the indicated country at selected border-crossing points.

Table A10: Time and Cost Spent at Rail Border-Crossing Points, Outbound and Inbound

Rail (Outbound Traffic)

				Duration (hours)																									
				Total		Activities																							
BCP	Country	Corridor	Count	Average	Median	i	ii	iii	iv	v	vi	vii	viii	ix	x	xi	xii	xiii	xiv	xv	xvi	xvii	xviii	xix	xx	xxi	xxii	1	2
Khorgos	PRC	1	150	22.6	13.7												2.1							20.5					
Alashankou	PRC	1,2	210	19.2	7.7												1.9							17.3					
Saryagash	KAZ	3,6	40	13.0	14.2												2.5							10.5					
Erenhot	PRC	4	90	10.3	3.0							18.1	5.7	10.4			1.5	5.8	1.8	2.0				28.5		21.7			
Naushki	RUS	4	60	8.6	3.0							26.1	24.7	12.4	29.1	10.3	1.2	5.3	5.5	1.6					10.8	11.2			
Zamiin-Uud	MON	4	114	5.8	2.7							11.3	10.0	7.4			1.1	3.4	6.7	1.4					16.7	19.9			
Torghondi	AFG	2,6	72	3.9	3.9	1.6	1.6										0.7												

BCP	Country	Corridor	Count	Cost (US\$)																								
				Total		Activities																						
				Average	Median	i	ii	iii	iv	v	vi	vii	viii	ix	x	xi	xii	xiii	xiv	xv	xvi	xvii	xviii	xix	xx	xxi	xxii	1
Khorgos	PRC	1	150	0	0											0							0					
Alashankou	PRC	1,2	210	0	0											0							0					
Saryagash	KAZ	3,6	40	113	113											113							0					
Erenhot	PRC	4	90	0	0						0	0	0			0	0	0	0			0		0				
Naushki	RUS	4	60	5	0						0	0	0	125	50	0	0	0	0					0	0			
Zamiin-Uud	MON	4	114	0	0						0	0	0			0	0	0	0					0	0			
Torghondi	AFG	2,6	72	231	237	115	106										11											

Rail (Inbound Traffic)

BCP	Country	Corridor	Count	Duration (hours)																								
				Total		Activities																						
				Average	Median	i	ii	iii	iv	v	vi	vii	viii	ix	x	xi	xii	xiii	xiv	xv	xvi	xvii	xviii	xix	xx	xxi	xxii	1
Dostyk	KAZ	1,2	210	61.0	60.6					3.4				3.0			2.2				1.5	52.4	6.8					
Altynkol	KAZ	1	150	59.9	63.7					3.3							2.1				1.8	60.9	7.5					
Zamiin-Uud	MON	4	90	31.6	20.7					17.9			9.3	12.3			1.2	4.5	4.5	1.8		25.2	59.2	19.0	11.0			
Erenhot	PRC	4	114	26.6	19.6					16.9				15.5			2.6	6.1	4.3	4.0					18.9	20.0	40.3	32.5
Termez	UZB	3,6	48	8.1	8.2	7.4											0.7											
Serkhet Abad	TKM	2,6	72	3.9	4.0			0.7									2.5	0.7										
Keles	UZB	3,6	40	3.3	3.0												3.3											
Sukhbaatar	MON	4	60	2.4	1.7									5.9			1.2	4.0		1.5								
Kuryk	KAZ	2	4																									

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Table A10 continued

BCP	Country	Corridor	Count	Cost (US\$)																									
				Total		Activities																							
				Average	Median	i	ii	iii	iv	v	vi	vii	viii	ix	x	xi	xii	xiii	xiv	xv	xvi	xvii	xviii	xix	xx	xxi	xxii	1	2
Dostyk	KAZ	1,2	210	357	300					300				0			133				0		0		0				
Altynkol	KAZ	1	150	393	425					268							125				0		0		0				
Zamiin-Uud	MON	4	90	31	24					31			0	0			0	0	0	0		0	0		0	0			
Erenhot	PRC	4	114	93	130					89				0			1	22	0	3					0	0	0	0	
Termez	UZB	3,6	48	66	32												11												
Serkhet Abad	TKM	2,6	72	81	81			20									50	11											
Keles	UZB	3,6	40	85	75												85												
Sukhbaatar	MON	4	60	0	0									0			0	0		0									
Kuryk	KAZ	2	4																										

AFG = Afghanistan, AZE = Azerbaijan, BCP = border-crossing point, GAI = Gosudarstvennaya Avtomobilnaya Inspektsyya, GEO = Georgia, IRN = Iran, KAZ = Kazakhstan, KGZ = Kyrgyz Republic, MON = Mongolia, PAK = Pakistan, PRC = The People's Republic of China, RUS = Russian Federation, TAJ = Tajikistan, TKM = Turkmenistan, UZB = Uzbekistan.

Notes:

(i) Load cargoes, (ii) Unload cargoes, (iii) Fix cargo shift, (iv) Remove excess cargo, (v) Transload at gauge change point, (vi) Pickup and delivery, (vii) Replace or repair inoperable wagon, (viii) Emergency repair, (ix) Train classification, (x) Document errors, (xi) Reissue transit documents, (xii) Customs inspection, (xiii) Technical inspection, (xiv) Commercial inspection, (xv) Sanitary and phytosanitary control, (xvi) Materials transfer, (xvii) Faulty handling equipment, (xviii) No wagons available, (xix) Restriction on entry, (xx) Marshaling, (xxi) Waiting for priority trains to pass, (xxii) For other reasons.

Source: Asian Development Bank.

CAREC Corridor Performance Measurement and Monitoring Annual Report 2024

The 2024 annual report uses the Corridor Performance Measurement and Monitoring (CPMM) mechanism, an empirical tool developed by the Central Asia Regional Economic Cooperation (CAREC) Program, to evaluate the efficiency of its six priority transport corridors. The report highlights both progress and ongoing challenges in regional trade and transport. Although average border-crossing times have improved slightly, significant disparities and delays remain at specific points due to procedural inefficiencies and limited digitalization. This edition introduces new chapters that provide updates on route developments, policy changes, and border performance. The report calls for renewed trade facilitation reforms, greater investment in smart logistics, and stronger regional cooperation to build a more efficient and resilient CAREC transport network.

About the CAREC Institute

The CAREC Institute is an intergovernmental organization of 11 member countries, dedicated to promoting economic cooperation in the CAREC region through research, capacity building, and knowledge sharing. As the CAREC Program's knowledge hub, it supports sustainable development and a shared future for the region and beyond.

About the Central Asia Regional Economic Cooperation Program

The Central Asia Regional Economic Cooperation (CAREC) Program is a partnership of 11 member countries and development partners working together to promote development through cooperation, leading to accelerated economic growth and poverty reduction. It is guided by the overarching vision of "Good Neighbors, Good Partners, and Good Prospects." The CAREC countries are Afghanistan, Azerbaijan, the People's Republic of China, Georgia, Kazakhstan, the Kyrgyz Republic, Mongolia, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan.



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