



# CAREC CORRIDOR PERFORMANCE MEASUREMENT AND MONITORING ANNUAL REPORT 2020

THE CORONAVIRUS DISEASE AND ITS IMPACT

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DECEMBER 2021



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#### Notes:

In this publication, “\$” refers to United States dollars, “€” refers to euros, and “CNY” refers to yuan. ADB recognizes “China” as the People’s Republic of China and “Russia” as the Russian Federation.

On the cover: The CAREC Corridor Performance Measurement and Monitoring (CPMM) methodology captures data on the time and cost of moving freight within the CAREC region, particularly at border crossing points (BCPs), to spur operating efficiency, reduce bottlenecks along the CAREC corridors, and thus improve international and regional trade flows. This edition contains a case study on the impact of the coronavirus disease on trade facilitation in CAREC.

Cover design by Principe Nicdao.

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# Abbreviations

ADB	- Asian Development Bank
AEO	- authorized economic operator
AFG	- Afghanistan
APTTA	- Afghanistan–Pakistan Transit Trade Agreement 2010
AZE	- Azerbaijan
BCP	- border-crossing point
CAREC	- Central Asia Regional Economic Cooperation
CIS	- Commonwealth of Independent States
CPMM	- Corridor Performance Measurement and Monitoring
EAEU	- Eurasian Economic Union
GEO	- Georgia
KAZ	- Kazakhstan
KGZ	- Kyrgyz Republic
MON	- Mongolia
PAK	- Pakistan
PRC	- People’s Republic of China
RT-PCR	- reverse transcription polymerase chain reaction
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 Transports)
TKM	- Turkmenistan
TTFS	- transport and trade facilitation strategy
UZB	- Uzbekistan

# Weights and Measures

km	- kilometer
km/h	- kilometer per hour
m	- meter
mm	- millimeter
TEU	- twenty-foot equivalent units
ton-km	- ton-kilometer

# Executive Summary

The Corridor Performance Measurement and Monitoring (CPMM) mechanism is an empirical tool designed by the Central Asia Regional Economic Cooperation (CAREC) Program to assess and track the time and cost of moving goods across borders and along the six CAREC corridors, spanning 11 participating countries—Afghanistan, Azerbaijan, the People’s Republic of China (PRC), Georgia, Kazakhstan, the Kyrgyz Republic, Mongolia, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan.

This CAREC Corridor Performance Measurement and Monitoring Annual Report 2020 evaluates time and cost indicators to assess the overall annual performance and efficiency of the CAREC corridors. The trade facilitation indicators (TFIs) include (i) time taken to clear a border-crossing point (BCP), (ii) cost incurred at a BCP, (iii) average cost incurred to travel a given corridor, and (iv) average speed to travel along CAREC corridors. These indicators provide a comparative picture that allows the assessment and validation of impacts of transport and trade initiatives in the region.

This 2020 report highlights the impact of the coronavirus disease (COVID-19) pandemic, particularly the various outcomes on road and rail transport. Time and cost estimates for road transport were adversely impacted by COVID-19 in 2020. In 2019, time and cost to cross a border increased by 23.7%, and by 22.8% in 2020. Total transport cost increased slightly to 1.8% as counteracting forces moderated the cost changes. Speed without delay (SWOD) dropped 1.6% while speed with delay (SWD) rose 3.8%. Rail transport attracted a sizable increase of freight from road and air so the evaluation of the TFIs takes this into account. Between 2019 and 2020, time to cross a border showed a 11.3% increase, while the cost to cross a border dropped 2.5%. Total transport cost inched up 1.9%. Speed without delay registered a decrease of 6.2% and 11.5% for SWD.

## Road Transport

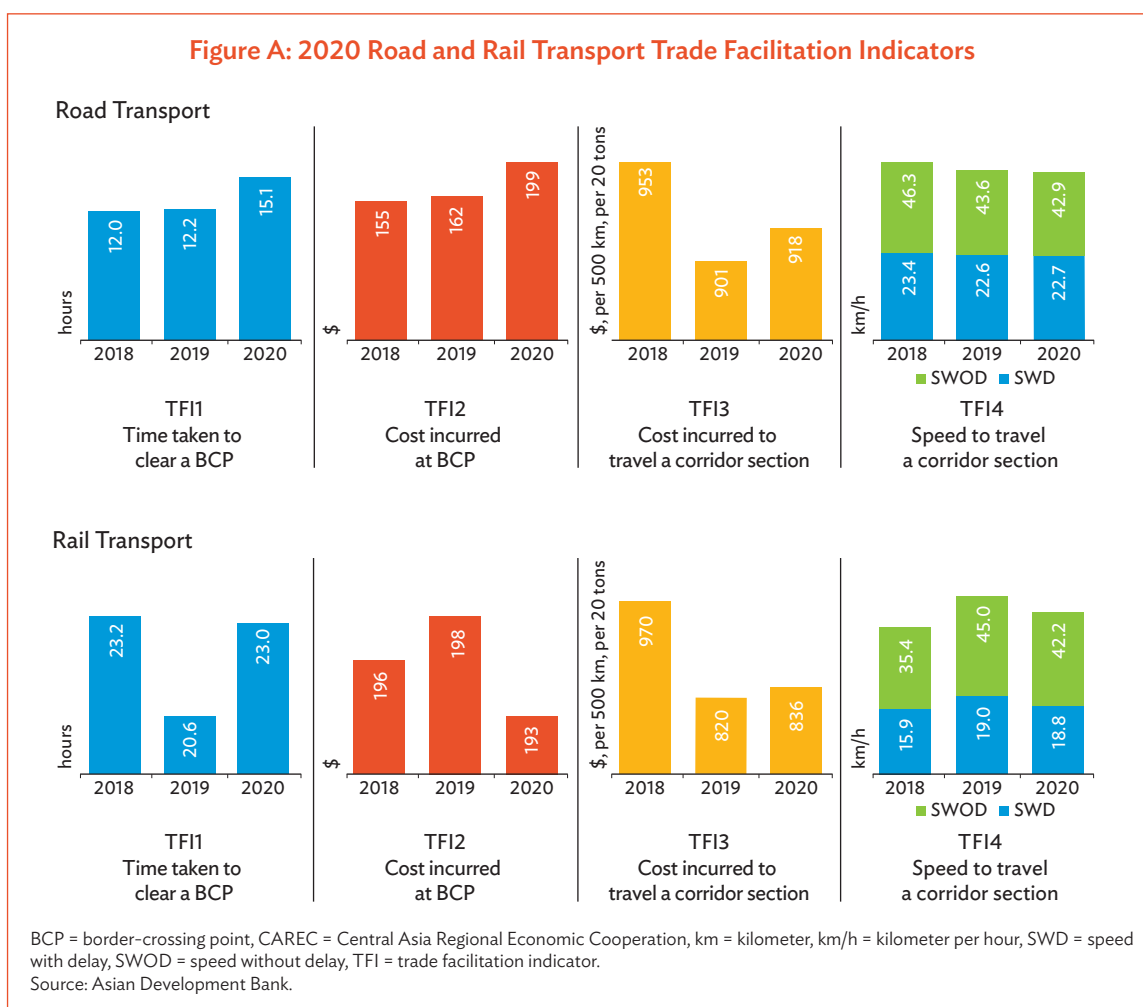
- (i) Average border-crossing time increased from 12.2 hours in 2019 to 15.1 hours in 2020.
- (ii) Border-crossing cost increased from \$161 in 2019 to \$199 in 2020.
- (iii) Total transport cost to travel a corridor section increased from \$901 in 2019 to \$918 in 2020.
- (iv) Speed with delay remained relatively unchanged from 22.6 kilometers per hour (km/h) in 2019 to 22.7 km/h in 2020; SWOD decreased slightly from 43.6 km/h in 2019 to 42.9 km/h in 2020.

## Rail Transport

- (i) Average border-crossing time increased from 20.6 hours in 2019 to 23.0 hours in 2020.
- (ii) Average border-crossing costs dropped from \$198 in 2019 to \$193 in 2020.
- (iii) Total costs increased from \$820 in 2019 to \$836 in 2020.
- (iv) Average SWOD in 2020 was 42.2 km/h, a drop from 45.0 km/h in the previous year, while speed with delay dropped to an average of 16.8 km/h in 2020 from 19.0 km/h in 2019.

## Country Updates

This 2020 report continues the yearly analysis of four CPMM trade facilitation indicators at the national level for all 11 CAREC countries, segregated by road and rail transport, and further separated



into outbound and inbound direction for border-crossing time and costs. These data are supplemented by average border-crossing time and cost estimates for BCPs along relevant CAREC corridors. Country-level developments and challenges are also identified to assist national policy makers in determining the necessary focus of national strategies to address both national and regional transport, trade, and trade facilitation problems.

- (i) **Afghanistan.** High traffic BCPs at Torkham, Spin Buldak, and Shirkhan Bandar continued to be time-consuming. Security concerns added to the time and cost for total transport, which remained comparatively high against other countries. For trucks, SWOD was estimated to be 33.7 km/h, the lowest in the region. On a positive note, neighboring countries Pakistan and Uzbekistan have discussed actively with Afghanistan on a railway linking Mazar-i-Sharif to Peshawar, creating a railway corridor along the three countries.
- (ii) **Azerbaijan.** All TFI estimates declined in 2020. Inbound traffic experienced a significant increase in border-crossing time and costs. Despite the challenges, Azerbaijan worked closely with the countries in the Caspian Sea to maintain cross-border trade. For instance, the Baku International Sea Trade Port continued to facilitate trade under strict sanitation controls with quarantine zones. The country is also intensifying efforts to diversify from its heavy reliance on energy exports by adopting a national trade and logistics master plan and modernizing the new Alat Terminal south of Baku.

- (iii) **People's Republic of China.** In 2020, both border-crossing duration and costs increased rather substantially in the PRC. Both road and rail transports were affected due to additional inspection and sanitation controls, but roads suffered to a greater degree due to shutting down of road BCPs, while rail freight continued operation and attracted freight from other modes of transport. Beginning in October 2020, Kazakhstan shippers reported long queues developing at Alashankou when the Chinese authorities imposed more stringent sanitation controls on all incoming goods that were transported in conventional wagons, which were subjected to physical examinations. Containerized shipment passed through without much problem on the other hand, which led to increasing interest from the Kazakhstan shippers to consider using a container for exporting to the PRC.
- (iv) **Georgia.** Georgia experienced some increase in border-crossing time. Both border-crossing costs and total transport costs reported improvements over 2019. Speed showed a divergent performance where traveling speed increased but the overall speed reduced due to the longer border-crossing time. For shipments coming from the Poti seaport to Central Asia, the main delay happened at the Caspian Sea-crossing. The duration to wait for the vessels and the actual crossing accounted for half of the total lead time for the whole journey.
- (v) **Kazakhstan.** In 2020, road transport experienced a slight dip in border-crossing time, but costs increased. Rail, on the other hand showed a noticeable increase in train border-crossing time. When the PRC started very strict controls on sanitation and mandated the detailed examination of goods carried on noncontainerized cargoes during the last quarter of 2020, long queues started to develop at the road and rail BCPs. The country was responsive, adjusting and launching measures such as [elicense.kz](http://elicense.kz) (Electronic licensing of the Republic of Kazakhstan) to automate the application and grant business licenses electronically. Efforts to modernize the transport modes continued for road and rail transport such as the revision of the Railways Law, while attention was also given to the development of inland waterways.
- (vi) **Kyrgyz Republic.** The country reported deterioration across all TFIs, particularly elevated road freight cost, which led to a jump in total transport cost. Kyrgyz transport operators reported the border controls were very strict at the beginning of the pandemic, even for the Kazakhstan–Kyrgyz Republic border despite both being members in the Eurasian Economic Union. During this period, the average border-crossing time took 3–6 days, and unofficial fees to expedite border-crossing could range from \$300 to \$2,500. Multiple appeals and negotiations finally led to the normalization of the situation.
- (vii) **Mongolia.** In 2020, TFIs generally fared worse compared to 2019. Mongolia was fast to institute strict measures to halt the spread of COVID-19. While general measures were announced in February, specific measures were implemented in March 2020. Both road and rail transport were affected when the PRC put in new measures to minimize physical contact between personnel at the BCPs, which required cumbersome transfer of cargoes with segregated groups of workers, vehicles, and material handling equipment. Like other countries, rail transport attracted freight from road and air, leading to the rail network operating at near full capacity.
- (viii) **Pakistan.** All TFIs exhibited noticeable deterioration compared to 2019. High-traffic BCPs such as Torkham and Chaman (at the Afghanistan border) hit new records in border-crossing times. In response to COVID-19, BCPs including Torkham and Chaman were closed completely from 16 March to 9 April 2020. As these were gradually opened in the second quarter of 2020, containerized traffic to and from Afghanistan was negatively impacted as containers were either stuck at the BCPs or along the route from Karachi to the border-crossing points.
- (ix) **Tajikistan.** Generally, TFIs worsened in 2020, although not significantly. Dusti BCP continued to be time-consuming, followed by Panji Poyon and Fotehobod. At the beginning of the pandemic, the government swiftly imposed provisional measures and regulations on international transit, recognizing the need to sustain trade while adopting appropriate controls. The implementation of an authorized economic operators program in 2020 was also timely for facilitating trade under challenging circumstances.

- (x) **Turkmenistan.** Turkmenistan showed improved border-crossing time and reduced total transport cost although border-crossing cost increased and both SWOD and SWD were slightly slower in 2020. Rail transport reported a surge in border-crossing time. The country closed its borders in March 2020, and subsequently opened some BCPs. Overall, foreign trucks must transfer the cargoes to nationally registered trucks at the border. Many had to cease operations for this reason. Rail continued to operate, and freight were diverted to trains which enjoyed a surge in demand.
- (xi) **Uzbekistan.** In 2020, Uzbekistan reported lower estimates of TFIs compared to 2019, as all time and cost estimates escalated. Yallama and Saryasia, two BCPs, topped the ranking in terms of the most time-consuming BCP in 2020. The government had adopted quick measures in March to control the spread of COVID-19, shutting its borders on 15 March when the first case of COVID-19 was detected, but they were reopened subsequently under strict regulation which substantially increased the time for health checks. The country is also modernizing its transit and customs regime with the introduction of risk-based management.

## Case Study

This 2020 edition features COVID-19 and its impact as a case study. CPMM estimated that the year-on-year impacts on border-crossing time for road transport were +38% (Corridor 1), +35% (Corridor 2), +36% (Corridor 3), +62% (Corridor 4), +44% (Corridor 5), and -4% (Corridor 6). For rail transport, the estimations were +35% (Corridor 1), +410% (Corridor 2), +216% (Corridor 3), -42% (Corridor 4), and -1% (Corridor 6). The additional and stricter controls resulted in longer health and quarantine operations.

Border-crossing cost increased as well. Truck rates surged at some CAREC border locations. Xinjiang Uygur Logistics Association, a CPMM partner in the PRC, reported that the trucking charges from Horgos to Almaty increased from \$2,000 to \$12,000 in June 2020. Overall, average border-crossing cost increased from \$162 in 2019 to \$199 in 2020, a 23% increase year-on-year.

The case study includes descriptions on the border-crossing procedures as well as the diversion of freight to railways. It concludes with recommendations on dealing with the current constraints as well as longer-term plans in a post-COVID-19 environment, promoting close and stronger regional cooperation, and motivating the drive toward more automation, as well as harmonization and optimization of policies, standards, and administration.



# 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 (Figure 1.1).<sup>1</sup> The CAREC corridors link the region's key economic hubs to each other and connect landlocked CAREC countries to Eurasian and global markets.<sup>2</sup>

The CPMM aims to (i) identify the causes of delay and unnecessary cost to cargo moving along the links and nodes of each CAREC corridor, including at border-crossing points (BCPs) and intermediate stops; (ii) help national CAREC authorities determine how to address identified bottlenecks; and (iii) assess the impact of regional cooperation initiatives implemented along the CAREC corridors by member countries.<sup>3</sup>

Launched in 2009, the CPMM methodology and data collection process capture a range of ground-level information by measuring and recording actual cargo shipments along CAREC corridors and at 37 pairs of BCPs, as identified and prioritized by CAREC member countries. The methodology comprises a four-phased approach summarized in Figure 1.2 and elaborated on in Appendix 1. An established pool of national freight forwarder and transport carrier partners collects the data along the corridors and at the BCPs.<sup>4</sup>

The CPMM evaluates a set of four trade facilitation indicators (TFIs) to illustrate the overall annual performance and efficiency of the CAREC corridors.<sup>5</sup> Measured over time and across corridors, the indicators provide a comparative picture that allows the assessment and validation of impacts of transport and trade initiatives in the region. The four aggregate TFIs are:

- (i) **Trade facilitation indicator 1: Time taken to clear a border-crossing point.** This TFI refers to the average length of time (in hours) taken to move cargo across a border from the entry to exit point 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 and loading time, time taken to change rail gauges, and other indicators. The intent is to capture both the complexity and the inefficiencies inherent in the border-crossing process.
- (ii) **Trade facilitation indicator 2: Cost incurred at a border-crossing point.** 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.
- (iii) **Trade facilitation indicator 3: Cost incurred to travel a corridor section.** This comprises average total costs, in United States dollars, incurred for one unit of cargo traveling along a corridor section within a country or across borders. One unit of cargo refers to a cargo truck or train carrying 20 tons of goods. A corridor section is defined as a stretch of road

<sup>1</sup> The CAREC Program is a partnership of 11 countries—Afghanistan (AFG), Azerbaijan (AZE), the People's Republic of China (PRC), Georgia (GEO), Kazakhstan (KAZ), the Kyrgyz Republic (KGZ), Mongolia (MON), Pakistan (PAK), Tajikistan (TAJ), Turkmenistan (TKM), and Uzbekistan (UZB)—working together to promote development through cooperation, leading to accelerated economic growth and poverty reduction. See CAREC. [www.carecprogram.org](http://www.carecprogram.org). ADB placed on hold its assistance in Afghanistan effective 15 August 2021.

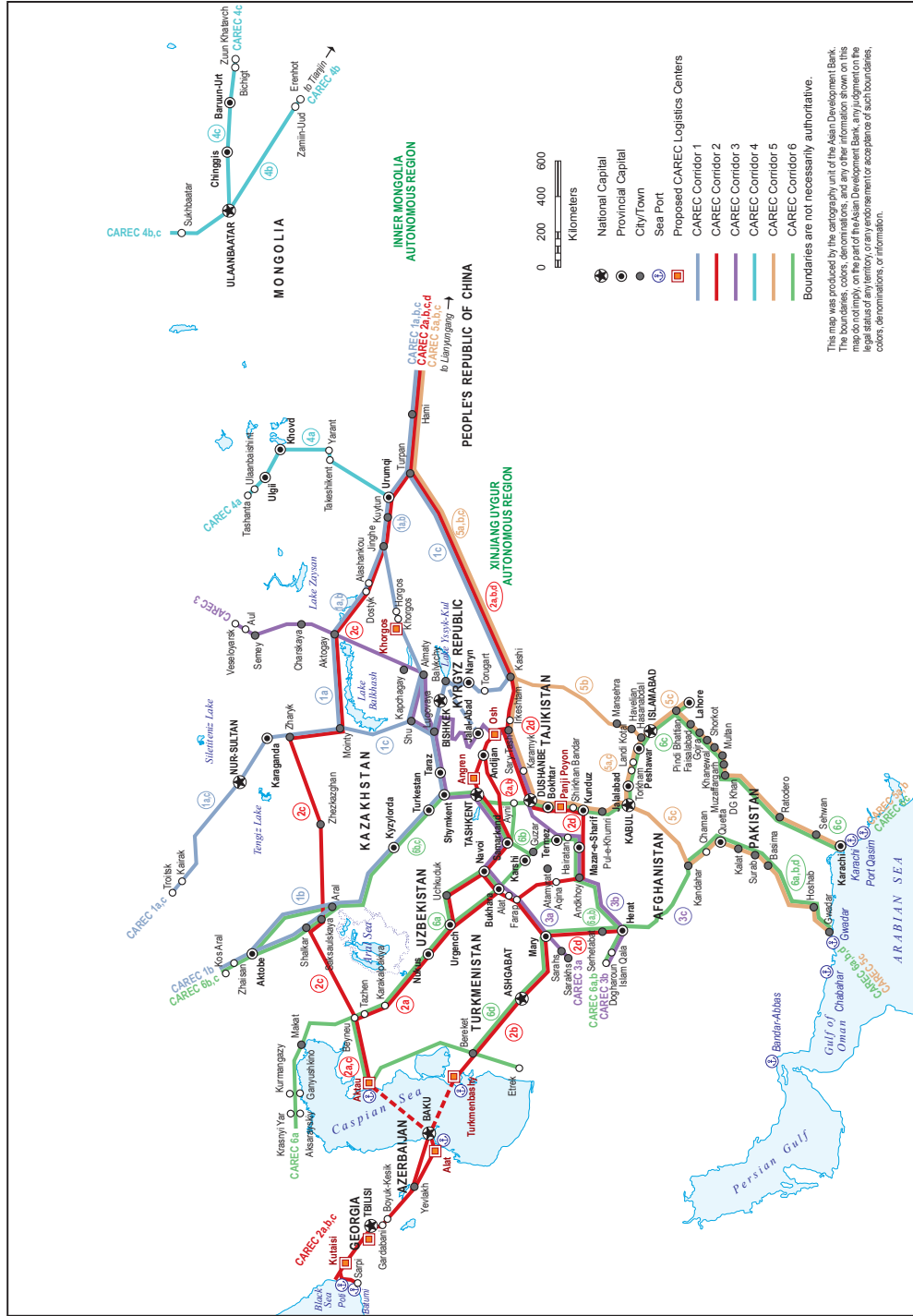
<sup>2</sup> The CPMM annual report is a technical document, and for the benefit of readers, it includes standard explanations and definitions. Parts of the Introduction contain standard and recurring descriptions of the CAREC CPMM background, methodology, names of border-crossing points, and appendices and should remain consistent with previous annual reports.

<sup>3</sup> A detailed description of each CAREC corridor is found at [www.carecprogram.org/?page\\_id=20](http://www.carecprogram.org/?page_id=20).

<sup>4</sup> The national forwarder and carrier partners are listed in Appendix 2.

<sup>5</sup> The TFIs are explained in Appendix 3, including statistical derivations.

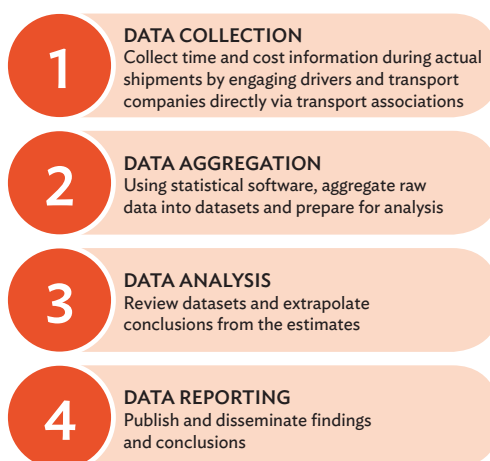
Figure 1.1: Six Central Asia Regional Economic Cooperation Transport Corridors



CAREC = Central Asia Regional Economic Cooperation.  
Source: Asian Development Bank.



**Figure 1.2: Corridor Performance Measurement and Monitoring Methodology**



Source: Asian Development Bank.

500 kilometers (km) long. Both official and unofficial payments are included. However, in practice due to data collection constraints, transport cost figures reported in CPMM refer to transport rates for trucks, or railway tariffs for trains.<sup>6</sup>

- (iv) **Trade facilitation indicator 4: Speed to travel along 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. A unit of cargo refers to a cargo truck or train carrying 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 considered as delay (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.

For TFIs 1 and 2 which measure the time and cost at a BCP, three components are considered: (i) beginning when the shipment on a truck or train begins to queue outside the gate, to the time when it enters the BCP; (ii) the activities inside a BCP which typically consist of customs, immigration, and transport inspection; and (iii) the time when the shipment is authorized to leave the BCP. An example is used to illustrate this: Assume that a truck has to cross BCP A in the country of origin to enter the adjacent BCP B in the transit country. “A” is called the exit BCP and “B” is called the entry BCP based on the sequence of travel. When CPMM reported that the TFI1 for A was 5 hours and TFI2 was \$200, this refers only to the time and cost in BCP A. This does not include any time or cost at BCP B, which will have a separate set of indicator values.

<sup>6</sup> “Transport cost” is viewed from the perspective of the shipper and/or receiver. It represents the market rate paid to move the cargo, rather than the carrier’s cost of providing the service.

Time and cost indicators are also measured by activity at CAREC BCPs and other intermediate stops, such as toll booths, security inspections, and others,<sup>7</sup> to help identify not only the location, but also the nature of delay at stops along a given corridor.

There are issues central to the success and sustainability of the CPMM:

- (i) **Private sector participation.** National transport associations are formally engaged to train selected national transport operators or freight forwarders to use the CPMM tool, and to gather and record data. Each data sample reflects a bona fide cargo movement through the CAREC transport corridors of Central Asia.
- (ii) **Fact-based and data-driven conclusions.** CPMM data are derived from actual transport movements and are submitted monthly by national transport associations in each CAREC country. The findings are aggregated and analyzed quarterly and annually. Over an extended period, the CPMM tool shows whether time and cost performances are improving or deteriorating.
- (iii) **Customized for landlocked countries.** As most CAREC member countries are landlocked, their time and cost transport performance cannot be compared on an equal footing against countries that have seaports. The CPMM methodology focuses on road and rail transport, the two dominant transport modes in Central Asia. Particular emphasis is given to border-crossing time and cost, which are frequently identified as the main cause of delay in cross-border cargo movement. In short, the CPMM is customized to meet the physical context of CAREC member countries, aligned with the CAREC corridors.

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<sup>7</sup> Activities encompass all anticipated checks and procedures, both at BCPs and at intermediate stops along the transit corridor (Appendix 4). A list of CAREC BCPs covered by the CPMM is shown in Appendix 5.

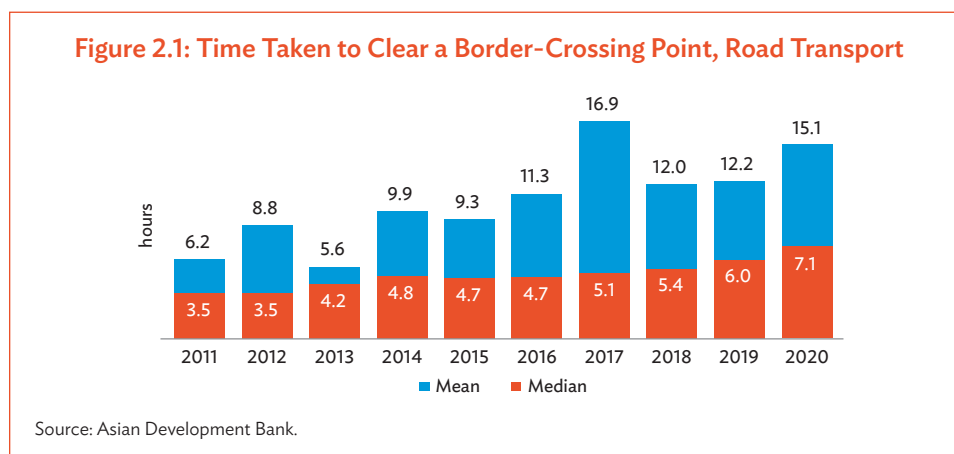
## 2 2020 Key Results

This chapter analyzes CPMM data collected throughout 2020 and reports the latest TFIs for both road and rail transport at selected BCPs<sup>8</sup> and along the CAREC corridors.<sup>9</sup> It provides an overview of the regional and local developments in the CAREC region, followed by a performance evaluation of the four TFIs and the six CAREC corridors.<sup>10</sup>

### Road Transport

Analysis of 2020 CPMM data showed that all four TFIs performed below the estimated levels in 2019. Both border-crossing time and cost increased, as well as total transport cost, while speeds were slower too. The disruptions caused by the coronavirus disease (COVID-19) pandemic resulted in temporary border closures, longer inspection times due to more stringent controls after border reopening, and difficulty in consolidating freight and locating drivers, which compounded the difficulties faced by transport operators. Detailed results are presented in Chapter 4.

**Trade Facilitation Indicator 1: Time Taken to Clear a Border-Crossing Point.** Figure 2.1 shows that border-crossing time averaged 15.1 hours in 2020, a sizable increase from 12.2 hours in 2019. The long-term median also increased steadily in recent years. For outbound traffic, Chaman and Torkham, two BCPs in Afghanistan and Pakistan, as well as Kuryk<sup>11</sup> (a seaport at the Caspian Sea), continued to report long border-crossing delays. In Uzbekistan, inbound traffic at Yallama and Saryasia reported high costs. Stringent controls at these BCPs led to significantly longer border-crossing time.



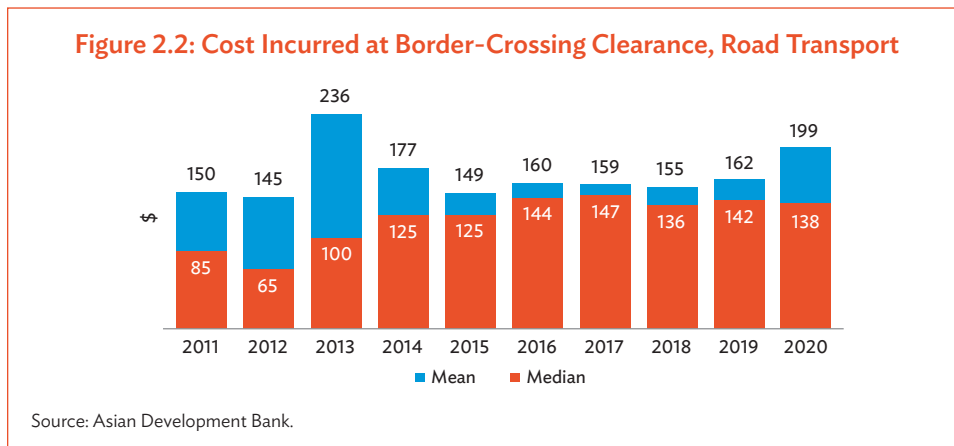
<sup>8</sup> Time and cost indicators spent at border crossing by activity and by direction of shipment at key BCPs along CAREC corridors are summarized in Appendix 7 for road transport BCPs, and in Appendix 8 for rail transport BCPs.

<sup>9</sup> Summary statistics and year-on-year comparison of 2019 and 2020 TFIs by mode of transport and by corridor are in Appendix 6.

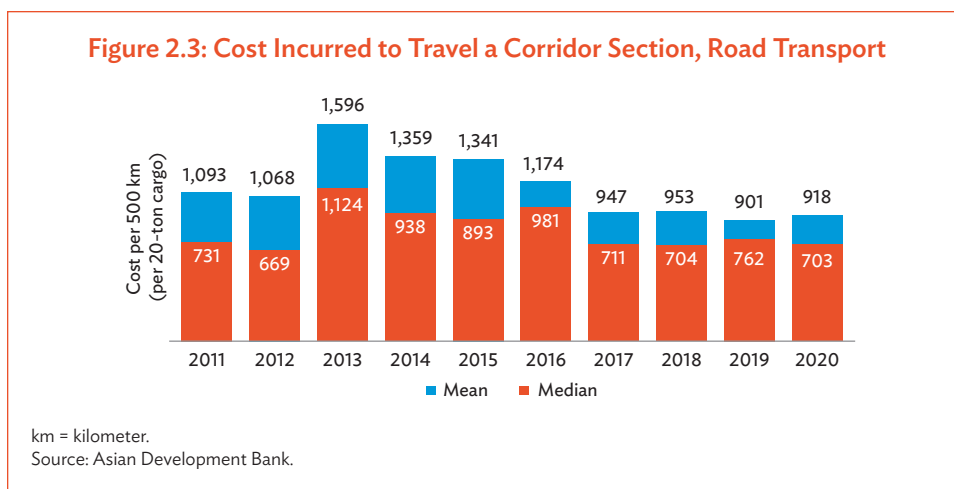
<sup>10</sup> The CPMM annual report is a technical document, and for the benefit of readers, it presents description of routes, results, and findings in a standard format across reports. For references, please see ADB. 2019. *CAREC Corridor Performance Measurement and Monitoring Annual Report 2018*. Manila; and ADB. 2020. *CAREC Corridor Performance Measurement and Monitoring Annual Report 2019*. Manila.

<sup>11</sup> The name Torkham replaces Peshawar, which was used in previous annual report. Torkham is the correct name to refer to this specific international border-crossing point between Afghanistan and Pakistan.

**Trade Facilitation Indicator 2: Cost Incurred at Border-Crossing Clearance.** The average border-crossing cost was estimated at \$199 in 2020, an increase from \$162 in 2019 (Figure 2.2). The People’s Republic of China (PRC) BCPs reported distinctly higher border-crossing costs, such as Alashankou, Horgos, and Takeshikent. Horgos–Nur Zholy (PRC–Kazakhstan [KAZ]) was particularly costly to cross. Other notable locations included Torkham and Shirkhan Bandar, both located along Corridor 5. The increase in border-crossing cost was driven by the additional health and quarantine payments after border authorities imposed stricter controls such as mandatory temperature scanning and COVID-19 testing at the border for national and foreign drivers before their entry into the country.



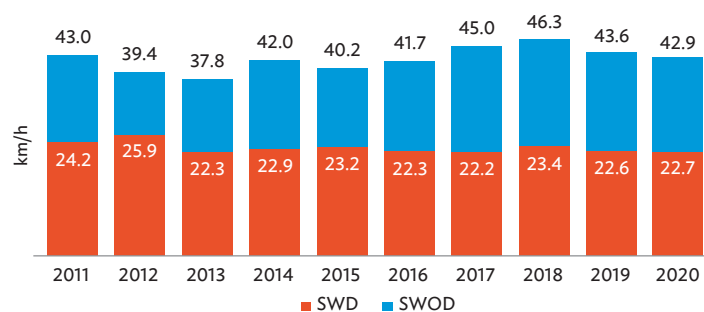
**Trade Facilitation Indicator 3: Cost Incurred to Travel a Corridor Section.** Total transport cost to travel a corridor section averaged \$917 in 2020, up from \$901 in 2019. The estimated cost on subcorridor<sup>12</sup> 1b reached \$2,251, in part driven by the elevated border-crossing cost at Horgos BCP at the PRC side. In subcorridor 5b, the estimated average cost reached \$4,755, attributed to higher road freight rate for that section (Figure 2.3).



<sup>12</sup> A subcorridor refers to a section within a CAREC corridor. This is because a CAREC corridor comprises more than one route. For instance, CAREC corridor 1 has three different routes 1a, 1b, and 1c. These are collectively named as subcorridors.

**Trade Facilitation Indicator 4: Speed to Travel Along CAREC Corridors.** Trucks registered an average SWOD of 42.9 km/h, down from 43.6 km/h in 2019; SWD remained relatively unchanged at 22.7 km/h. Corridor 1 was the fastest, while Corridor 5 was the slowest. Overall, the gap between SWOD and SWD remains large indicating considerable impediments largely attributed to border procedures (Figure 2.4).

**Figure 2.4: Speed to Travel on CAREC Corridors, Road Transport**



CAREC = Central Asia Regional Economic Cooperation, km/h = kilometer per hour, SWD = speed with delay, SWOD = speed without delay.

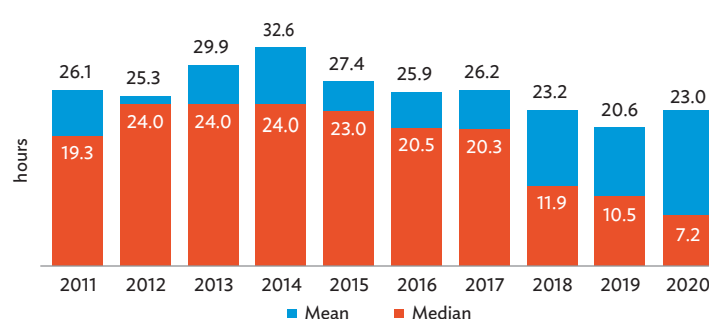
Source: Asian Development Bank.

## Rail Transport

Reversing its positive trend since 2014, the average time to clear a BCP, cost to travel a corridor section, and SWOD and SWD estimates all declined in 2020. In addition, the average cost to clear a BCP continued its downward trend since 2015. Detailed results are presented in Chapter 5.

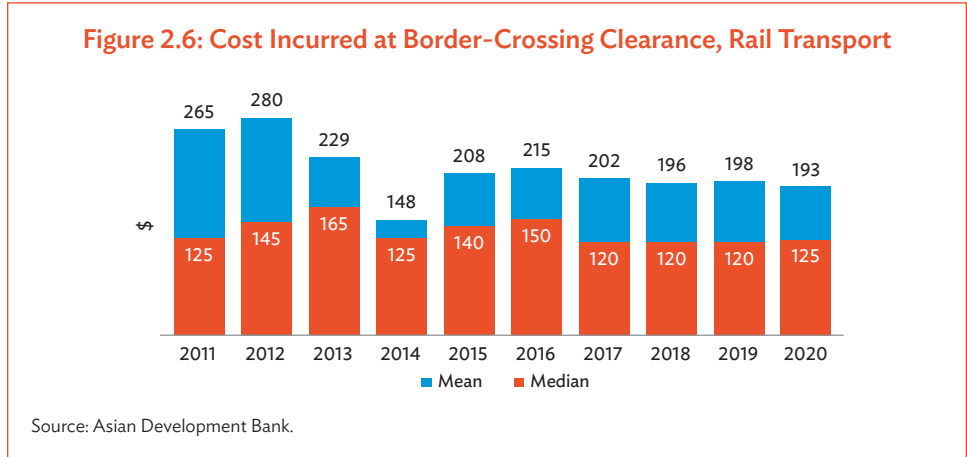
**Trade Facilitation Indicator 1: Time Taken to Clear a Border-Crossing Point.** Rail transport averaged 23 hours to complete border crossing, up from 20.6 hours in 2019. Corridors 1 and 3 reported an increase. Main reasons for delays include the surge in express container trains (which were given higher priority than conventional trains thus compelling the latter to wait longer at the borders), road to rail modal shift, and extra sanitization steps to control the spread of COVID-19. The multitude of factors created congestions at some parts of the rail network, and bottlenecks emerged at break of gauge BCPs like Alashankou–Dostyk. However, Figure 2.5 shows a divergent pattern between mean and median in 2020, which implies the presence of extraordinarily long delays in 2020.

**Figure 2.5: Time Taken to Clear a Border-Crossing Point, Rail Transport**

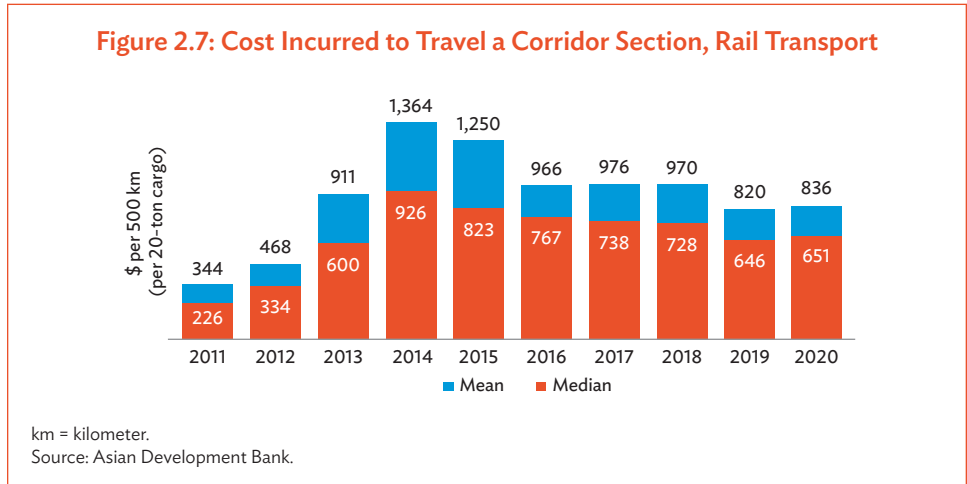


Source: Asian Development Bank.

**Trade Facilitation Indicator 2: Cost Incurred at Border-Crossing Clearance.** The average border-crossing cost dipped slightly from \$198 in 2019 to \$193 in 2020. Corridor 1 showed an increase, which was negated by decreases in Corridor 3 and 4 (Figure 2.6).



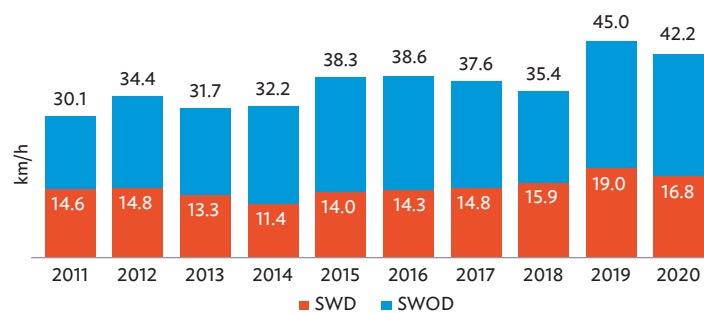
**Trade Facilitation Indicator 3: Cost Incurred to Travel a Corridor Section.** Figure 2.7 shows total average transport cost increased from \$820 in 2019 to \$836 in 2020, while the median values also increased. Rail freight rates (per 20-ton and 500 km) averaged higher in Corridors 4 and 6 compared to Corridor 1. TF13 is anticipated to increase in 2021 as most, if not all, of the express container train subsidies by the PRC government to train operators will be eliminated,<sup>13</sup> which will in turn cause the transport rates to surge. In addition, a huge spike in ocean and air rates in the last quarter of 2020 has allowed some express container train operators to raise their freight rates by almost 50%.



<sup>13</sup> The PRC's National Development and Reform Commission plans to eliminate all express container train subsidies in 2021.

**Trade Facilitation Indicator 4: Speed to Travel on Central Asia Regional Economic Cooperation Corridors.** Speed without delay dropped from 45 km/h to 42.2 km/h, and SWD from 19.0 km/h to 16.8 km/h, as shown in Figure 2.8. All corridors reported slower speeds in 2020 as rail transport attracted more freight during the pandemic, causing congestion and longer processing times. Disinfection also added to the delays at BCPs. The Alashankou–Dostyk BCP suffered from periodic bottlenecks, forcing China Railway to embargo regular cargo trains to Alashankou several times. Even though express container trains were not embargoed, the border processing time increased. To relieve the Alashankou–Dostyk congestion, Chongqing–Moscow trains were diverted to the Manzhouli–Zabaikalsk BCP<sup>14</sup> for direct connection with Russian Railways (RZD), which is a substantially longer and circuitous route. However, unlike the Chongqing–Alashankou–Dostyk–Moscow route, the Chongqing–Manzhouli/Zabaikalsk–Moscow route is not part of a CAREC corridor, hence shipments are not monitored under CPMM.

**Figure 2.8: Speed to Travel on CAREC Corridors, Rail Transport**



CAREC = Central Asia Regional Economic Cooperation, km/h = kilometer per hour, SWD = speed with delay, SWOD = speed without delay.  
Source: Asian Development Bank.

<sup>14</sup> The Chongqing–Moscow container trains returned to Alashankou–Dostyk in February 2021.

# 3 2020 Corridor Performance Measurement and Monitoring Data

Data on Corridor Performance Measurement and Monitoring (CPMM) are derived from commercial shipments that move through Central Asia. Although most of these shipments originate within CAREC member countries, some start from outside the region, for example, Iran, the Russian Federation, or Turkey. Similarly, the final destination of most monitored shipments is within Central Asia, although some continue to more distant destinations, notably Europe and the Russian Federation.

The discussion below uses 2020 CPMM data to depict cargo movement in each CAREC member country. Like previous reports, commodity descriptions and the routes do not significantly vary year-to-year because the products are mainly staple items sent over established channels. This consistency is reflected in the sample distribution and data profile presented as follows:

## Data Profile

In 2020, 13 associations (Appendix 2) in nine countries collected 2,999 samples of cross-border shipments. The goods were carried on road (61%), railways (24%), and multimodal transport (15%); perishable shipments accounted for 30% of the total and were predominantly carried on trucks (Figure 3.1). Of all samples, 24% used the Transports Internationaux Routiers (International Road Transports) or TIR Carnet as a transit mechanism.

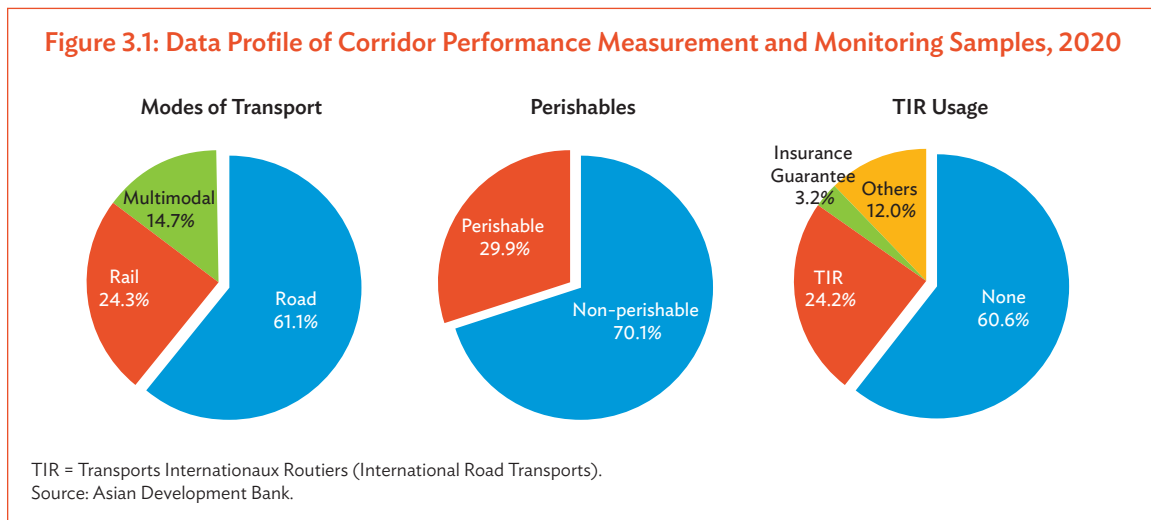
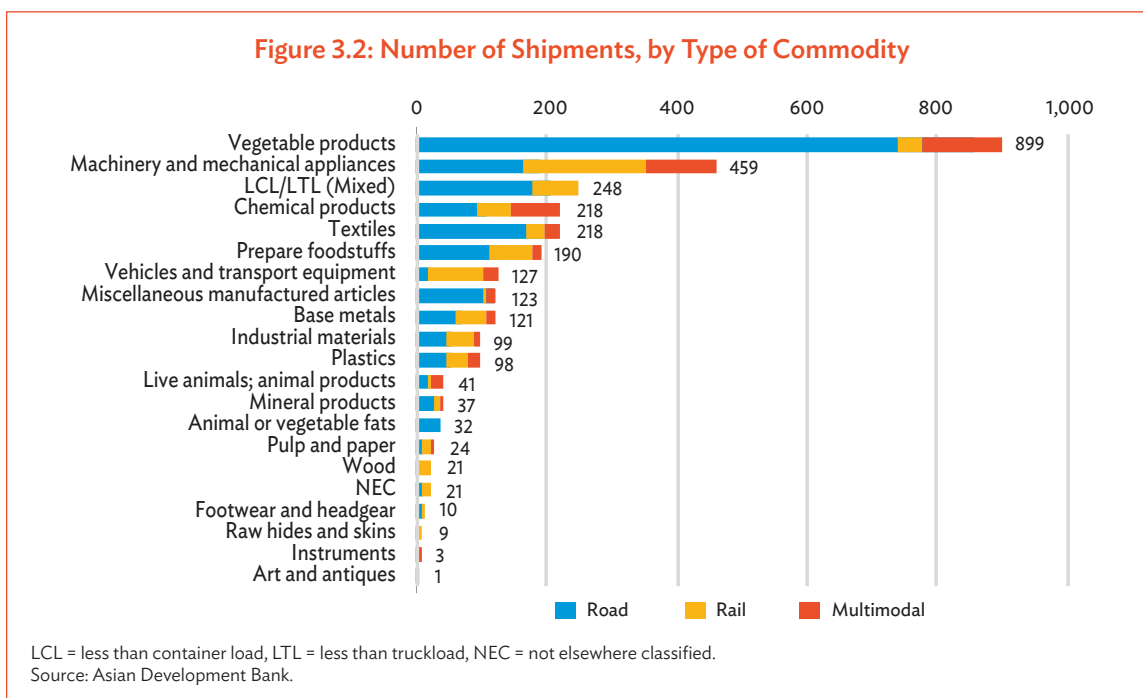


Figure 3.2 shows the top five categories of goods carried: vegetable products, 30.0%; machinery and mechanical appliances, 15.3%; less than container load or less than truckload, 8.3%; chemical products, 7.3%; and textiles, 7.3%.





## Cargo Movement

The CPMM mechanism focuses on road, railway, and multimodal transport along the six CAREC corridors and the BCPs along them. Each data sample gathered includes points of origin and destination, which are mainly within the CAREC region, although some samples originate or terminate outside the region. Table 3.1 lists commonly crossed key BCPs along the CAREC corridors. One BCP can appear in more than one CAREC corridor because of overlapping corridor sections.

**Table 3.1: Central Asia Regional Economic Cooperation Corridor Alignment and Key Border-Crossing Points**

Country	CAREC Corridors	Key BCPs in CPMM
Afghanistan	2, 3, 5, and 6	Hairatan, Shirkhan Bandar, Spin Buldak, Torghondi, and Torkham
Azerbaijan	2	Baku International Sea Trade Port, Boyuk Kesik, and Qirmizi Korpu
People's Republic of China	1, 2, 4, and 5	Alashankou, Erenhot, Irkeshtan, Horgos, Khunjerab, Kara Suu, Takeshikent, Torugart, and Zuun Khataavch
Georgia	2	Gardabani, Sarpi, and Tseli Khidi
Kazakhstan	1, 2, 3, and 6	Altynkol, Dostyk, Nur Zholy, Konysbaeva, and Tazhen
Kyrgyz Republic	1, 2, 3, and 5	Ak-Tilek, Chaldovar, Gulistan, Irkeshtam, Karamyk, and Torugart
Mongolia	4	Altanbulag, Bichigt, Sukhbaatar, Yarant, and Zamiin-Uud
Pakistan	5 and 6	Chaman and Torkham
Tajikistan	2, 3, 5, and 6	Dusti, Gulistan, Karamyk, Kulma, Pakhtaabad, and Panji Poyon
Turkmenistan	2, 3, and 6	Farap, Sarahs, and Serkhet Abad
Uzbekistan	2, 3, and 6	Alat, Dautota, Hairatan, Dustlik, Oibek, Saryasia, Termez, and Yallama

BCP = border-crossing point, CAREC = Central Asia Regional Economic Cooperation, CPMM = Corridor Performance Measurement and Monitoring.  
Source: Asian Development Bank.

## Afghanistan

The CPMM captured the following types of **road** cargo movements across Afghanistan: (i) containerized shipments from Karachi seaport, Pakistan to Jalalabad; (ii) containerized shipments from Karachi seaport to Kandahar; (iii) transit shipments from Peshawar to Dushanbe, Tajikistan; and (iv) transit shipments from Peshawar to Tashkent, Uzbekistan. **Rail** shipments included multimodal transit shipments from Quetta, Pakistan to Ashgabat, Turkmenistan, or to Tashkent, Uzbekistan. **Commodities** commonly transported by road and railway were fresh fruits and vegetables.

## Azerbaijan

The CPMM captured the following types of **road** cargo movements across Azerbaijan: (i) containerized shipments from Poti or Batumi to Baku–Kuryk and which terminated in Kazakhstan, (ii) containerized shipments from Tajikistan to Georgia, and (iii) transit shipments from Turkey to Kazakhstan. No **rail** shipment data was recorded by the CPMM in 2020. **Commodities** commonly transported by road were electrical equipment and machinery, and pharmaceuticals.

## People’s Republic of China

Both road and railway shipments were collected in 2020. **Road** shipments included (i) exports of consumer and industrial goods to Kazakhstan and the Kyrgyz Republic; (ii) exports of construction equipment and building materials to Afghanistan and Tajikistan; (iii) exports of refined petroleum, consumer items, construction material, and food commodities to Mongolia; (iv) exports of plastic pipes to Pakistan along subcorridor 5b; (v) imports of coal and minerals from Mongolia along subcorridors 4a and 4c; (vi) imports of the Russian Federation’s lumber along subcorridor 4b; (vii) transit shipments of Mongolian exports to Tianjin seaport along subcorridor 4b; and (viii) shipments of Transports Internationaux Routiers (International Road Transports) or TIR from the PRC to Europe. Sampled **rail** movements included (i) exports of consumer products to Almaty and Nur-Sultan in Kazakhstan along Corridor 1; (ii) exports of machineries and equipment to Turkmenistan, crossing Kazakhstan and Uzbekistan; (iii) exports of electronics from Chongqing to Duisburg, Germany on container express trains; and (iv) exports of glass bottles, motorcycles, and automobile spare parts from Chongqing to Ulaanbaatar, Mongolia. **Commodities** commonly transported by road were a mixed assortment of consumer products, apparel, iron or steel articles, electrical equipment, and machinery. Commodities shipped by railway included chemicals, electronics, electrical equipment, passenger vehicles, auto parts, machinery, consumer products, and plastic articles.

## Georgia

All shipments through Georgia are by **road** along subcorridor 2 and were mostly noncontainerized. These included (i) exports of machineries and equipment from Turkey to Central Asia; (ii) exports of industrial and consumer goods from Ukraine and other countries on vessels that disembark at Poti or Batumi, then are transported by trucks to Central Asia; (iii) exports of pharmaceuticals from Georgia to Central Asian republics; (iv) exports of dried fruits and nuts from Uzbekistan to Georgia (Tbilisi); and (v) exports of cotton from Tajikistan to Georgia. These movements cross the Caspian Sea at Baku–Kuryk. **Commodities** commonly transported by road were fruits and nuts, processed food, cotton, vehicles, electrical equipment and machinery, and pharmaceuticals.

## Kazakhstan

**Road** shipments included (i) imports of consumer and industrial materials from Urumqi, the PRC, to Almaty on trucks along subcorridor 1b; (ii) imports from the Kyrgyz Republic and Uzbekistan of fresh fruits and vegetables; and (iii) transit shipments of agricultural products from the Kyrgyz Republic

and Uzbekistan through Kazakhstan to the Russian Federation. CPMM data captured records of **rail** shipments including (i) imports of vehicles and industrial goods from major cities of the PRC such as Chongqing and Shenzhen on trains to Almaty; (ii) imports of vehicles and consumer goods from foreign origins using ocean containers to cities in Kazakhstan; (iii) imports of chemicals, equipment, and machineries from Urumqi to Almaty and Nur-Sultan in Kazakhstan on trains along subcorridors 1a or 1b; and (iv) transit shipments of machineries and equipment from Urumqi to Uzbekistan and Turkmenistan. **Commodities** commonly transported by road were a mixed assortment of consumer products, apparel, and electrical equipment and machinery. Those shipped by railway included consumer electronic appliances, electrical equipment and machinery, textiles, and building and construction materials.

### Kyrgyz Republic

Only **road** shipments are tracked in CPMM data samples during 2020. These included (i) import of consumer products from the PRC, (ii) import of paper from Kazakhstan, (iii) exports of fresh and dried fruits and textiles to Kazakhstan and the Russian Federation, and (iv) transit shipments of equipment and machineries from the PRC to Tajikistan. There was no **rail** shipment recorded by CPMM in 2020. **Commodities** commonly transported by road were vegetables, fruits and nuts, small appliances, apparel, and electrical equipment and machinery.

### Mongolia

The CPMM data captured both road and rail transport data in Mongolia in 2020. **Road** traffic samples included (i) imports of chemicals and diesel fuel from the PRC into Mongolia, and crude oil exports to the PRC from Mongolia, crossing Bichigt along subcorridor 4c (Bichigt BCP was closed in March 2021 due to COVID-19 and has not reopened); (ii) imports of mixed consumer goods and foodstuff from the PRC to Ulaanbaatar, crossing Zamiin-Uud along subcorridor 4b; (iii) imports of consumer goods and beverages from the Russian Federation to Ulaanbaatar, crossing Altanbulag along subcorridor 4b; (iv) exports of coal from Mongolia to the PRC, crossing Yarant along subcorridor 4a; and (v) imports of beverages, electrical equipment, and mixed cargoes crossing Borshoo. All samples were transported on noncontainerized trucks. **Rail** shipments included (i) imports of containerized cargoes from Japan, the Republic of Korea, and parts of the PRC, such as Tianjin to Ulaanbaatar; (ii) exports of meat and minerals in containers from Ulaanbaatar to Tianjin for reexport; and (iii) transit shipments of the Russian Federation's lumber to the PRC. **Commodities** commonly transported by road were a mixed assortment of consumer products, foodstuff, and diesel fuel. Those shipped by railways included chemicals, electrical equipment and machinery, and plastic articles.

### Pakistan

**Road** shipments included (i) exports of fruits and vegetables to Tajikistan and Uzbekistan via Afghanistan; (ii) exports of fruits and vegetables from Quetta to Ashgabat, Turkmenistan, via Afghanistan; and (iii) transit shipments of containerized cargoes to Jalalabad, or Kandahar from Karachi. There was no rail shipment recorded by CPMM in 2020. **Commodities** commonly transported by road were predominantly fresh fruits and vegetables, some electrical equipment and machinery, and ceramic products.

### Tajikistan

**Road** shipments included (i) imports of construction and building equipment in containers from the PRC to Dushanbe, (ii) imports of consumer and industrial products in containers from the Russian Federation to Dushanbe (crossing Kazakhstan and Uzbekistan), (iii) bilateral trade with the Kyrgyz Republic via Karamyk, and (iv) imports of fruits and vegetables from Pakistan via Afghanistan. There was no **rail** shipment recorded by CPMM in 2020 in 2020.

## Turkmenistan

**Road** shipments included transit shipments of containerized cargoes on trucks in both directions between Iran and Uzbekistan. **Rail** shipments included (i) imports of equipment and machineries from the PRC, and (ii) imports of fruits and vegetables from Pakistan. **Commodities** commonly transported by road were carpets and copper articles. Rail shipments included agricultural products, electrical equipment, and machinery.

## Uzbekistan

**Road** shipments included (i) exports of agricultural products to the Russian Federation via Kazakhstan, and imports of manufactured goods and sea-born fruits through Russian ports in the other direction; (ii) exports of fruits and vegetables to Kazakhstan; (iii) imports of fruits and vegetables from Pakistan via Afghanistan; and (iv) transit shipments of manufactured goods and equipment from the Russian Federation to Tajikistan. **Rail** shipment included transit shipment of machinery and equipment from the PRC to Turkmenistan. **Commodities** commonly transported by road were fruits and vegetables, textiles, consumer products, and auto parts. Those shipped by railways included electrical equipment and machinery.

# 4 Road Transport in 2020

## Trade Facilitation Indicators

On a year-to-year comparison, the 2020 CPMM data showed that

- (i) average border-crossing time increased from 12.2 hours in 2019 to 15.1 hours in 2020;
- (ii) border-crossing cost increased from \$161 in 2019 to \$199 in 2020;
- (iii) total transport cost to travel a corridor section increased from \$901 in 2019 to \$918 in 2020; and
- (iv) SWD remained relatively unchanged from 22.6 km/h in 2019 to 22.7 km/h in 2020, while SWOD decreased slightly from 43.6 km/h in 2019 to 42.9 km/h in 2020.

Trade facilitation indicators in 2020 for road transport are summarized in Tables 4.1 and 4.4. Results for TFIs by corridor are provided in Appendix 6.

### Trade Facilitation Indicator 1: Average Border-Crossing Time

In 2020, CPMM data identified lengthy border-crossing times for road transport at Chaman (70.7 hours), Kuryk (69.7 hours), and Torkham (50.0 hours), for outbound traffic. These three BCPs also occupied the top three ranks in the same order in 2019, but the average time in 2020 was noticeably larger. For inbound traffic, the most time-consuming BCPs were Yallama (30.0 hours), Saryasia (25.7 hours), and Torkham (4.2 hours).

All corridors showed an increase in TF11 except Corridor 6, which reported a slight decrease. Corridor 5 was the most time-consuming at 40.2 hours, up from 28.0 hours in 2019 as extended border closures, additional sanitation controls, and the already lengthy waiting time affected drivers. Corridor 6 was the next highest at 13.5 hours, followed by Corridor 2 at 10.6 hours. The shortest time was observed at Corridor 4 at 6.3 hours.

### Trade Facilitation Indicator 2: Average Border-Crossing Cost

A principal cause that drove the sizable cost increase was due to elevated fees at Corridor 1. Trucks crossing BCPs at the PRC–Kazakhstan border had to pay substantially higher fees, from \$173 in 2019 to \$638 in 2020, an increase of 3.7 times, due to COVID-19 measures resulting in materials transfer as cargoes are unloaded and then reloaded onto different vehicles to contain the spread of the virus. The materials transfer at the BCPs became more cumbersome and would be elaborated on in the subsequent Corridor 1 discussion.

Table 4.2 illustrates the dispersion of costs incurred at BCPs along CAREC corridors in 2020. The major payments were loading and unloading and customs controls. Traditionally, the loading and unloading cost at Corridor 1 would be the most expensive activity and cost \$316 on average, but for the first time it hit \$1,487 in 2020. Corridors 4, 5, and 6 all reported an increase for loading and unloading as well, suggesting that border measures such as sanitation and quarantine might lead to mandatory transfer of freight from a foreign truck to a local truck to minimize risks of cross-contamination.

**Table 4.1: Average Time and Cost to Clear a Border-Crossing Point**

Indicator	Description	2019	2020	% Change
TFI1	Time taken to clear a border-crossing point (hours)	12.2	15.1	+23.7
TFI2	Cost incurred at border-crossing clearance (\$) <sup>a</sup>	162	199	+22.8

TFI = trade facilitation indicator.

<sup>a</sup> Cost estimates are derived by summing fees and payments for each border-crossing activity at the BCP, to estimate the total sum paid. Moreover, “tea money” or “facilitation fees” outside of the official amount to be paid were included.

Source: Asian Development Bank.

**Table 4.2: Average Cost at Road Border-Crossing Points by Activity**

Road Costs	Average Cost (\$)						
	Overall	Corridors					
		1	2	3	4	5	6
i Border security and/or control	15	14	11	10	34	18	14
ii Customs controls	107	212	64	23	69	221	62
iii Commercial inspection	39	83	3	18	18	189	-
iv Health and/or quarantine	11	13	35	8	7	9	9
v Phytosanitary	17	39	8	8	-	32	11
vi Veterinary inspection	6	-	13	6	-	-	6
vii Visa and/or immigration	23	16	78	9	-	48	13
viii Transit conformity	18	10	38	15	-	-	9
ix GAI and/or traffic inspection	8	5	3	4	-	10	8
x Police checkpoint or stop	11	-	6	15	-	11	11
xi Transport inspection	12	16	10	8	-	20	13
xii Weight and/or standard inspection	20	11	26	15	46	10	14
xiii Vehicle registration	10	40	9	8	-	-	12
xiv Emergency repair	84	-	9	22	-	88	-
xv Escort or convoy	84	-	201	65	-	-	-
xvi Loading and unloading	286	1,487	38	8	161	101	112
xvii Road or bridge toll	28	25	65	200	10	10	11
xviii Waiting or queuing	12	4	6	-	9	17	30

Legend:  More than \$100

- = data not available, GAI = Gosudarstvennaya Avtomobilnaya Inspektsyya (Traffic Inspectorate or State Traffic Safety Inspectorate).

Note: Highlighted cells show values equal to or above \$100.

Source: Asian Development Bank.

The CPMM analyzed unofficial payments in CAREC region (Table 4.3).<sup>15</sup> The same rent-seeking behaviors were observed during 2018 and 2019 in the following activities, ranked by likelihood of occurrence: (i) vehicle registration (48%), (ii) phytosanitary activities (28%), (iii) customs controls (24%), (iv) transport inspection (21%), and (v) weight and standard inspection (18%). All these top five activities reported a decrease in the probability of informal payment in 2020 compared to the previous year. In terms of the magnitude of unofficial payment per truck, the largest sums were taken at (i) loading and unloading (\$212), (ii) waiting time (\$212), (iii) customs controls (\$126), escort and convoy (\$83), and (v) road toll (\$83). The estimated informal payment amount doubled in 2020 for loading and unloading, which happened after June when borders opened and merchandise production ramped up, leading to

<sup>15</sup> An unofficial payment is defined as a sum paid on top of that officially recognized by law, with the aim of gaining a favor in return. No official receipt is given, so tracking an unofficial payment is inherently difficult due to the opaque nature of the transaction. Drivers participating in the CPMM are trained to recognize unofficial payments and record them separately. Unofficial payments differ across corridors and tend to be more significant along high-traffic corridors where congestion leads to longer time waiting in line and where drivers pay “tea money” to shorten the waiting time. Unofficial payments were recorded at BCP and non-BCP locations, such as inland customs offices or when interacting with traffic police on the road.

increased cross-border trade. Increased informal payment was also seen at waiting time. This showed that transport operators increased the informal payment to complete border crossing faster. On the other hand, transport operators shared that at the beginning of the pandemic when many border officers had to return home or work from home, informal payment was actually less. This showed that reducing the number of human interventions in a process could be helpful to manage informal payment. This could be achieved when digitalization and digital tools are adopted to automate processes.

**Table 4.3: Estimated Unofficial Fees Paid per Activity for Road Transport, 2020**

Road Fees (\$)	Overall (%)	Corridors					
		1	2	3	4	5	6
i Border security and/or control	1	-	4	-	-	-	-
ii Customs controls	24	32	78	28	52	88	30
iii Commercial inspection	1	8	-	-	-	3	-
iv Health and/or quarantine	17	8	3	4	0	-	4
v Phytosanitary	28	6	5	6	-	-	5
vi Veterinary inspection	5	-	3	2	-	-	-
vii Visa and/or immigration	6	-	4	3	-	-	-
viii Transit conformity	1	-	5	5	-	-	-
ix GAI and/or traffic inspection	0	-	-	-	-	-	-
x Police checkpoint and/or stop	0	-	-	-	-	-	-
xi Transport inspection	21	6	3	5	-	-	6
xii Weight and/or standard inspection	18	10	4	5	-	2	6
xiii Vehicle registration	48	3	4	4	-	-	5
xiv Emergency repair	1	-	4	7	-	-	-
xv Escort and/or convoy	1	-	-	102	-	-	-
xvi Loading and/or unloading	0	-	-	-	-	-	3
xvii Road and/or bridge toll	1	-	3	-	-	-	-
xviii Waiting and/or queue	0	-	-	-	-	-	-

Legend:  More than \$100

- = data not available, GAI = Gosudarstvennaya Avtomobilnaya Inspektsyya (Traffic Inspectorate or State Traffic Safety Inspectorate).

Note: Highlighted cells show values equal to or above \$100. Unofficial payments are not exclusive to a single activity at border crossing and can involve multiple activities at a time. Thus, the percentages do not necessarily add up to 100.

Source: Asian Development Bank.

### Trade Facilitation Indicator 3: Total Transport Cost

The average total transport cost to travel a corridor section increased from \$901 in 2019 to \$918 in 2020. The picture for this indicator is not straightforward due to two counteracting factors. While road freight rates increased due to the difficulty of finding available capacity, particularly in the first half of the year during the pandemic outbreak, government interventions helped to reduce some of the increases in operating cost (e.g., driver shortage) due to COVID-19. For instance, the PRC government eliminated toll fees for a limited period while other countries provided various support measures. Corridor 1 had the highest cost at \$1,788 in 2020, from \$1,092 in 2019. Corridors 3 and 4 likewise increased at a smaller magnitude but the other corridors decreased.

### Trade Facilitation Indicator 4: Speed to Travel on CAREC Corridors

Corridor 1 remained the fastest corridor for trucks, reaching average speeds of 69.5 km/h, followed by Corridor 2 at 46.6 km/h. Slowest SWOD occurred at Corridor 5 at 28.4 km/h. In terms of SWD, Corridor 1 remained the fastest (41.1 km/h), followed by Corridor 2 (24.7 km/h). Corridor 5 posted as the slowest at 8.6 km/h.



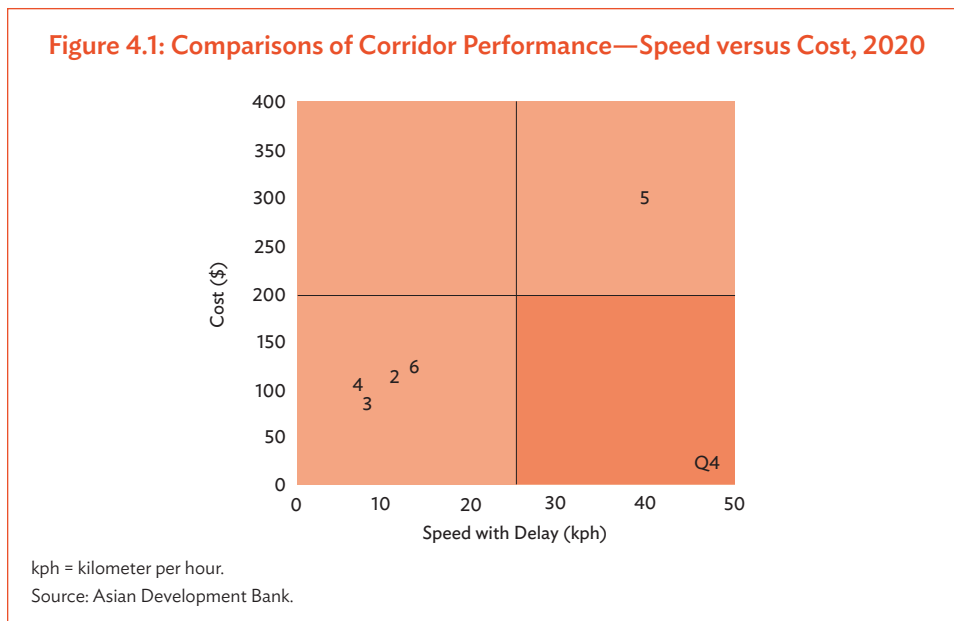
**Table 4.4: Average Cost and Speed to Travel on CAREC Corridors**

Indicator	Description	2019	2020	% Change
TFI3	Cost incurred to travel a corridor section (\$ per 500 km, per 20 tons)	901	918	+1.8
TFI4	Speed to travel on CAREC corridors (km/h)	22.6	22.7	+0.44
SWOD	Speed without delay (km/h)	43.6	42.9	-1.6

CAREC = Central Asia Regional Economic Cooperation, km = kilometer, km/h = kilometer per hour, SWOD = speed without delay, TFI = trade facilitation indicator.  
 Source: Asian Development Bank.

## Corridor Performance

Figure 4.1 shows the relative performance of the six CAREC corridors using SWOD and border-crossing cost. The numbers in the matrix represent the CAREC corridor identifier (CAREC corridor 1, 2, 3, 4, 5, or 6). Corridor 5 is seen to have the highest relative time and cost, continuing this trend for the 7th year.<sup>16</sup>



## Corridor 1—Road

As the main route for East Asia–Central Asia trade, Corridor 1 serves a substantial trade volume between the Central Asian republics and the PRC. Horgos–Nur Zholy (PRC–KAZ)<sup>17</sup> handles the dominant proportion of road freight and for this reason, the first TIR shipment from Germany to PRC in 2019 passed through this BCP.<sup>18</sup> In 2020, trucks spent more time to cross-border at Alashankou–Dostyk

<sup>16</sup> The inclusion of Pakistan into CPMM began in 2014. Introduction of the Afghanistan–Pakistan BCPs has resulted in above-average border crossing delays.

<sup>17</sup> Updates on the corridor are available at Eurasianet. <https://www.eurasianet.org>. For example, see A. Kumenov. 2020. IT System at China border increases corruption and lines. *Eurasianet*. 16 November.

<sup>18</sup> The new BCP Nur Zholy was first reported in CPMM in 2019. The Khorgos station previously used to handle freight is deactivated and now operates as a special economic zone. Nur Zholy is a few kilometers south of Khorgos, which operates daily and has a capacity to serve 2,500 freight trucks in both directions. The transport and logistics center at Nur Zholy includes a 3,500-square meter area projected to process 18 million tons of freight annually.



(PRC–KAZ) at subcorridor 1a, while trucks paid more in fees at Horgos–Nur Zholy at subcorridor 1b. The high fees particularly at Horgos–Nur Zholy were partly due to informal payments under the guise of formal border procedures. Transport operators had to pay additional fees to so-called customs brokers to facilitate border-crossing or suffer extended questionings and place last in the queue for inspection and processing. As a rule, transport inspection and Gosudarstvennaya Avtomobilnaya Inspektsiya (GAI, the Traffic Inspectorate or State Traffic Safety Inspectorate) unofficial fees were small, while customs formalities incurred higher amounts. Also, the size of the unofficial fees varies according to the nature of the cargoes. Time-sensitive items and dangerous goods are more expensive than general cargoes due to the time urgency or the higher complication of securing the permits to transport dangerous goods.

In November 2020, the PRC mandated a new rule that resulted in a sharp increase in border-crossing cost. Kazakhstan registered trailers and trucks that formerly could enter bonded warehouses at the PRC Horgos BCP are no longer permitted entry. A delivery truck from Urumqi or inland Chinese cities would terminate at Horgos and off-load the goods to a temporary bonded warehouse. The warehouse workers will disinfect the goods, palletize (if necessary), and then cover the goods with a stretch wrap to secure the pallet and the goods on it. A forklift is then used to move the pallet onto a trailer that is hauled by an authorized carrier to enter “no man’s land” between Horgos in the PRC and Nur Zholy in Kazakhstan. Over there, another fleet of forklifts and forklift drivers stand by to transfer the materials from the Chinese trucks to the Kazakhstan trucks or trailers. This measure minimizes potential COVID-19 virus contamination but adds significant costs<sup>19</sup> and delay to the transportation. The same procedure is observed at the PRC–Mongolia BCPs.

Toward the end of 2020, a revised procedure to address the high cost of this method was implemented. This involved elimination of stretch wrapping and use of special high-capacity trailers (which can carry more cargo) to deliver goods directly to KAZ bonded warehouses. Unfortunately, the freezing temperature prevented the spray of disinfectants to meet health control requirements for the return of these shuttle trailers to Horgos. By April 2020, over a thousand shuttle trailers were stranded in Khorgos.

## Corridor 2—Road

Corridor 2 links the economies of East Asia to Central Asia, the Caucasus, and the Mediterranean via the four subcorridors, all of which start in the PRC and ultimately link to Georgia (subcorridors 2a, 2b, and 2c) and Iran (subcorridor 2d).

Shipments of equipment, machinery, pharmaceuticals, and processed food were transported from Poti to Central Asia in 2020. All shipments used TIR and were rarely containerized. Table 4.5 shows time and cost indicators for a sample of shipments of noncontainerized cargo on trucks from Poti seaport to Kazakhstan, the Kyrgyz Republic, Tajikistan, and Uzbekistan, crossing the Caspian Sea via seaports in Baku and Kuryk. Shipment time is estimated to be 10 days to Tajikistan and Uzbekistan, and 13 days to Kazakhstan and the Kyrgyz Republic. Approximately half of the total shipment time was spent at Baku–Kuryk to cross the Caspian Sea, due to waiting time for vessels, obtaining entry permission, insurance, disinfection of trucks, and COVID-19 testing of the drivers. Road freight cost ranged from \$1,800 to \$2,150. Additional fees were applied through the typical customs and border processing as well as a series of road tolls. Heavy equipment and high-value items<sup>20</sup> were subject to customs escort and special permit, which add another \$200 in fees. Unofficial payments were detected at Kuryk for weight inspection (\$100) and at Tazhen under customs control (\$20–\$30).

<sup>19</sup> A CPMM partner reported \$6,000 per trailer additional cost.

<sup>20</sup> In Kazakhstan, customs escort is required when the cargo value exceeds the standard TIR coverage. In Azerbaijan, oversized cargo (e.g., more than 5 meters wide) would also be subject to customs escort fees. Alternatively, the shipper can apply for permission to carry oversized cargoes, which costs \$800. For this reason, shipping oversized cargoes is comparatively more expensive than shipping general cargoes.

**Table 4.5: Key Indicators of Shipments from Poti, Georgia to Central Asia**

Countries	Kazakhstan	Kyrgyz Republic	Tajikistan	Uzbekistan
Routes	Poti-Almaty	Poti-Bishkek	Poti-Dushanbe	Poti-Tashkent
Distance (km)	4,978.00	5,169.00	3,325.20	3,361.17
Transit Time (hrs)	111.25	122.58	83.75	80.5
Activities Time (hrs)	196.42	200.08	174.50	194.17
<b>Total Time (hrs)</b>	<b>307.67</b>	<b>322.67</b>	<b>258.25</b>	<b>274.67</b>
Transport Rate (\$)	2,120.00	2,150.00	1,800.00	1,860.00
Activities Cost (\$)	802.00	588.50	1,101.50	816.50
<b>Total Trip Cost (\$)</b>	<b>2,922.00</b>	<b>2,738.50</b>	<b>2,901.50</b>	<b>2,676.50</b>
SWOD (km/h)	44.75	41.46	39.40	40.91
SWD (km/h)	16.18	15.75	12.78	11.99
Transport Rate (\$/500km)	212.94	211.53	272.73	282.42
Activities Cost (\$/500km)	80.55	57.50	166.89	123.98
Total Trip Cost (\$/500km)	293.49	269.43	439.62	406.39

hrs = hours, km = kilometer, km/h = kilometer per hour, SWOD = speed without delay, SWD = speed with delay.  
Source: Asian Development Bank.

### Corridor 3—Road

This north–south corridor links the eastern part of the Russian Federation to the Middle East through Central Asia. The northern section in Kazakhstan splits into two at Merke: section 3a moves into Uzbekistan and Turkmenistan, ending in Iran; and section 3b heads south to the Kyrgyz Republic, Tajikistan, and Afghanistan, also ending in Iran.

In 2020, border-crossing at subcorridor 3a took a longer time and higher fees (Table 4.6). Although trucks could travel at 53 km/h on subcorridor 3a compared to 38 km/h on subcorridor 3b, the SWDs were relatively similar as longer border-crossing time impacted the values, leading to similar SWDs. The average border-crossing in subcorridor 3a such as Yallama–Konysbaeva (Uzbekistan [UZB]–KAZ), Alat–Farap (UZB–Turkmenistan [TKM]), and Sarahs–Sarakh (TKM–Iran [IRN]) had higher average values compared to the BCPs in subcorridor 3b such as Karamyk (Kyrgyz Republic [KGZ]–Tajikistan [TAJ]) and Dusti/Pakhtaabad–Saryasia (TAJ–UZB).

**Table 4.6: Comparisons of Trade Facilitation Indicators Between Subcorridors 3a and 3b, 2020**

Trade Facilitation Indicator	Subcorridor 3a	Subcorridor 3b
TFI1	12.2 hours	5.6 hours
TFI2	\$116	\$88
TFI3	\$776	\$712
TFI4	53.0 km/h	38.0 km/h
SWOD	21.3 km/h	21.5 km/h

km/h = kilometer per hour, SWOD = speed without delay, TFI = trade facilitation indicator.  
Source: Asian Development Bank.

The COVID-19 pandemic led to more stringent controls in cross-border trade, and this was also evident in Corridor 3. Generally, inbound traffic tends to require more time due to disinfection, testing, and quarantine compared to outbound traffic. Health and quarantine checks that took 10–20 minutes in the past now increased substantially. For instance, this activity took 26 hours at Yallama and 16 hours at Saryasia.

## Corridor 4—Road

This trilateral corridor connects Mongolia to the Russian Federation in the north, and to the PRC in the south, and is both a trade and transit corridor vital to the economy of Mongolia. Among the three routes, subcorridor 4b is most important as it serves both road and rail transport. The Erenhot–Zamiin-Uud (PRC–Mongolia [MON]) BCP is a key gateway for cross-border trade, allowing Mongolia to access the Tianjin seaport in the PRC.

Subcorridor 4a is a passageway for export of coal from Kexuete to the PRC, passing through Takeshikent–Yarant (PRC–MON) BCP. For part of 2020, Mongolia closed the BCPs to trucks delivering goods from the PRC to interior Mongolian destinations. A new development in 2020 was the noticeable increase of border-crossings at Takeshikent (31.8 hours). Since October 2020, a new transfer of trailers to minimize human contact was instituted at the PRC BCPs including Takeshikent. First, Mongolian transport operators sent a Mongolian registered empty trailer to a designated section in the “no man’s land,” which is a buffer zone between the borders of the two countries. The Chinese transport operator retrieved the empty trailer back to a bonded warehouse for the loading of goods under customs supervision. The loaded trailer was then positioned at the “no man’s land” for the Mongolian transport operator to pick up and return to Mongolia. This additional step took 30–40 hours and added \$634<sup>21</sup> to the overall border-crossing cost.

Subcorridor 4b is a multimodal corridor. Shippers have two means to send freight from Erenhot to Ulaanbaatar. A shipment by truck was faster and costs less in absolute terms, which also offers flexibility as some cargoes such as certain categories of dangerous goods are prohibited to be transported on railways. For road–rail shipment, the main delay at Erenhot is the transfer of cargo from truck to wagons, which took 4–5 hours (Table 4.7). Customs, commercial inspection, and health or quarantine measures took 1–2 hours each. Despite the apparent longer time and higher cost, the road–rail option is still used because this method offers better protection and security to the cargo and less likelihood of damage in transit. This is an important consideration especially for high-value equipment and machinery for instance.

**Table 4.7: Comparisons of Road and Road–Rail Shipments Along Subcorridor 4b**

Attributes	Erenhot–Ulaanbaatar (Road)	Erenhot–Ulaanbaatar (Road–Rail)
Distance	669 km	764 km
Transit time	17.94 hrs	48.73 hrs
Activities time	3.73 hrs	23.38 hrs
Total time	21.68 hrs (less than 1 day)	72.11 hrs (approximately 3 days)
Transport rate	\$963	\$1,899
Activities cost	\$32	\$662
Total cost	\$995	\$2,561

hrs = hours, km = kilometer.

Source: Asian Development Bank.

Subcorridor 4c also catered to bilateral trade through Zuun Khatavch–Bichigt (PRC–MON) where traffic is much lighter compared to Erenhot–Zamiin-Uud. However, this BCP pair was closed to freight transport beginning March 2020.

<sup>21</sup> This cost included CNY60 per truck as parking fee, and CNY40 per ton per night for the loading process under customs supervision.

## Corridor 5—Road

Corridor 5 connects Central and East Asia to South Asia, providing potential routes to access all-weather seaports at Karachi, Pakistan for the landlocked countries. Three subcorridors traverse from the PRC and the Central Asian republics in the north toward Afghanistan and Pakistan, terminating at Karachi, and the new seaport Gwadar.

As with previous years, Corridor 5 was the most time-consuming to cross borders, as well as the slowest corridor for trucks to move. When news of COVID-19 spread across the world, BCPs were closed abruptly; Afghanistan and Pakistan restricted border operations in April; and BCPs opened only for 3 days a week. Restrictions were subsequently loosened, and borders operated 5 days in May to June. By end of June, all BCPs operated 6 days a week, closed only on Saturday but remaining open to allow passenger movements only.

The impact of the border closures resulted in a sharp increase in delays at Torkham. A backlog of containerized goods from Karachi queued at Torkham. The situation worsened in the second quarter (Q) of 2020 as local civil unrest near Chaman led to the closure of Chaman BCP. Thus, trucks carrying containers bound for Afghanistan had to divert to Torkham, adding to the already long queue there. Border-crossing time only normalized in Q4 2020.

## Corridor 6—Road

Like Corridor 5, Corridor 6 serves interregional transit trade between Central and South Asian economies with the Caucasus, Middle East, and the Russian Federation. Uzbekistan operators actively use Corridor 6 to move goods to the Russian Federation, and Pakistan agricultural producers ship their products to Uzbekistan and Turkmenistan.

Subcorridors 6a and 6b were used actively by Uzbek transport operators to move agricultural products to the Russian Federation, where Kazakhstan serves as a transit country. In return, consumer and industrial products were exported. Subcorridor 6a had an average border-crossing time of 8.7 hours, border-crossing cost of \$67.90, total cost of \$585, and SWOD of 47 km/h. Dautota–Tazhen (UZB–KAZ) is the BCP for this route, and the times to cross border were estimated to be 8.1 hours for Dautota and 7.3 hours for Tazhen. Kurmangazy–Krasny Yar (KAZ–Russian Federation [RUS]) required shorter time since both the Russian Federation and Kazakhstan are founding members of the Eurasian Economic Union (EAEU); hence, only border and sanitary and phytosanitary inspections apply. The estimated time to cross the border was 3.3 hours to Kurmangazy, and 1.4 hours to Krasny Yar.

At subcorridor 6b, average border-crossing time was estimated at 6.1 hours, border-crossing cost at \$116.50, total cost at \$601, and SWOD at 38 km/h. Pakistan exports tropical fruits to Tajikistan, with Afghanistan serving as a transit country. Due to security conditions within Afghanistan, and the ongoing negotiation to conclude the stalled Afghanistan–Pakistan Transit Trade Agreement (APTTA) 2010, multiple changes of trucks are required.

At subcorridor 6c, average border-crossing time was estimated at 18.4 hours, border-crossing cost at \$200.90, total cost at \$757, and SWOD of 35 km/h. Like subcorridor 6b, this route was an export passageway for Pakistan to export to Uzbekistan. At subcorridor 6d, average border-crossing time was estimated at 32.7 hours, border-crossing cost at \$137.70, total cost at \$1,585, and SWOD at 42 km/h. Gwadar is a seaport in Pakistan located in subcorridor 6d. This seaport was permitted to handle Afghan transit trade in October 2019. It was temporarily closed due to COVID-19 but was reopened in April 2020 for Afghan transit trade. Currently, the CPMM does not capture samples from Gwadar to Afghanistan due to the small volume of freight flowing through that route.

# 5 Rail Transport in 2020

## Trade Facilitation Indicators

Overall, the 2020 CPMM data indicated the following:

- (i) Average border-crossing time increased from 20.6 hours in 2019 to 23.0 hours in 2020.
- (ii) Average border-crossing costs dropped from \$198 in 2019 to \$193 in 2020.
- (iii) Total costs increased from \$820 in 2019 to \$836 in 2020.
- (iv) Average SWOD in 2020 was 42.2 km/h, a drop from 45.0 km/h in the previous year, while SWD dropped to an average of 16.8 km/h in 2020 from 19.0 km/h in 2019.

Trade facilitation indicators in 2020 for rail transport are summarized in Tables 5.1 and 5.2. Results for trade facilitation indicators by corridor are provided in Appendix 6.

### Trade Facilitation Indicator 1: Average Border-Crossing Time

The average border-crossing time dropped to the lowest in 2019, but the uptick in 2020 reached the duration estimated in 2018. Corridor 1 suffered from lengthened duration, rising from 27.6 hours to 37.3 hours over the 1-year period. Corridor 2 only had two samples, and one shipment experienced a major delay when a container on a train waited 120 hours (5 days) at Farap BCP in August 2020. Interestingly, Corridor 4 showed an improvement from 15.7 hours in 2019 to 9.1 hours in 2020. Both Erenhot and Zamiin-Uud showed shorter waiting times for wagons. One unique development was the longer time to complete sanitation controls, which used to take 10–15 minutes in 2019, but now required 1–2 hours at the major railway terminals.

### Trade Facilitation Indicator 2: Average Border-Crossing Cost

Continuing the past trend, TFI2 for rail transport was steady. There was no major increase in costs despite the pandemic in 2020. Corridor 1 was the costliest section. This was due to the relatively more expensive gauge change operation and customs controls at Alashankou–Dostyk (PRC–KAZ) and Horgos–Altynkol (PRC–KAZ). Gauge change operation at Dostyk averaged \$329. Corridor 4 reported that gauge change operation at Erenhot increased to \$120. At Corridor 6, Torghondi (Afghanistan [AFG]–TKM) continued to report high fees for the materials transfer (loading and unloading). This is the location where goods are transloaded from Afghanistan trucks to trains bound for Turkmenistan.

**Table 5.1: Average Time and Cost to Clear a Border-Crossing Point**

Indicator	Description	2019	2020	% Change
TFI1	Time taken to clear a border-crossing point (hours)	20.6	23.0	+11.6
TFI2	Cost incurred at border-crossing clearance (\$)	198	193	-2.5

TFI = trade facilitation indicator.  
Source: Asian Development Bank.

### Trade Facilitation Indicator 3: Total Transport Cost

The rail freight cost increased slightly due to increases across Corridors 1, 3, and 4. Corridor 6 showed a slight decrease. This reflected the strong demand for railways as a mode of transportation, which continued to operate despite the severe curtailment of road and air during the beginning of the pandemic as countries closed cross-border traffic.

### Trade Facilitation Indicator 4: Speed to Travel on CAREC Corridors

Both SWOD and SWD decreased in 2020. A more severe decrease was seen at SWOD, due to the 11% increase in the average border-crossing time. It is noteworthy to highlight that despite the deterioration of speeds in 2020 on a year-to-year basis, the speeds were still above the average train speeds over a 10-year period. Better infrastructure and technologies deployed in train systems enabled a higher speed. For instance, the trains moving on the domestic network inside the PRC attained a SWOD of 120 km/h, although the SWODs estimated over all the CAREC corridors were much lower when extended to other CAREC countries.

**Table 5.2: Average Cost and Speed to Travel on CAREC Corridors**

Indicator	Description	2019	2020	% Change
TFI3	Cost incurred to travel a corridor section (\$ per 500 km, per 20 tons)	820	836	+1.95
TFI4	Speed to travel on CAREC corridors (km/h)	19.0	16.8	-11.5
SWOD	Speed without delay (km/h)	45.0	42.2	-6.2

CAREC = Central Asia Regional Economic Cooperation, km/h = kilometer per hour, SWOD = speed without delay, TFI = trade facilitation indicator.  
Source: Asian Development Bank.

## Corridor Performance

### Corridor 1—Rail

Corridors 1a and 1b serve rail freight, both regular and container express train service. Both subcorridors had an estimated average border-crossing time of 27 hours in 2019 but increased to 40.6 hours for subcorridor 1a and 31.9 hours for subcorridor 1b in 2020. Additional sanitation controls were implemented in 2020 that increased the border-crossing time. Since CPMM collection focused on rail freight from the PRC to Kazakhstan, this shall be the instance used in the following discussion on the controls adopted for rail shipments. As a general rule, the wagons and containers were disinfected at the sending rail station. A disinfection certificate was then issued, which must be presented to the sanitation and/or phytosanitary authorities at the destination. Upon satisfactory outcome, the shipment was released. If there were omissions or erroneous data, the authorities requested the consignee to furnish the necessary information or document within a specific time. Kazakhstan did not impose detention fees within the specific time. If the consignee failed to meet the dateline, the rail car or the container was dispatched to a special parking space where charges applied.

A serious delay occurred in November 2020, where more than 7,000 wagons were reported to be waiting, some more than 42 days. Chinese authorities began mandatory sanitation inspections on all containers and wagons at Chinese BCPs such as Alashankou and Horgos. Goods were unloaded and inspected and disinfected package by package. This process reduced the throughput to 11 trains per day—sometimes as low as 5 trains—below the 18 trains typical daily throughput. The freight backlog was so serious that the Government of Kazakhstan, coordinated by the Ministry of Industry and Infrastructure Development (Transport Committee), led a team of shippers and freight forwarders to Dostyk and Alashankou to negotiate a solution with the Chinese authorities. In December 2020, the throughput increased to



15 trains per day. Conventional wagons that carry agricultural produce were the most affected as most of the products have limited shelf life. Prolonged delay would affect items such as grains and oilseeds, leading to penalties imposed by the Chinese buyers on the Kazakhstan sellers if not delivered on-time, or if the quality was compromised due to excessive transit time.

### Corridor 2—Rail

This corridor connects the PRC and Turkey and Southern Europe via Central Asia. Transport operators from Azerbaijan, Georgia, and Kazakhstan are promoting Corridor 2 development as a multimodal route that connects East and South Asia to the Caucasus and Europe. Currently, CPMM does not collect railways samples along Corridor 2, so no estimates could be given. One notable development was the first export train from Turkey that left on 4 December 2020 for the PRC.<sup>22</sup> The train departed from Istanbul; moved on the Baku–Tbilisi–Kars railway; and completed the 8,693 km journey in 12 days. This achievement was an extension of the train route from the PRC to Turkey to Europe in November 2019. Railway freight service has good potential as the railway tracks extend into the key seaports in Kuryk, Baku, as well as Poti. While increased transit train activity along Corridor 2 is expected, the impediments highlighted in the CPMM Annual Report 2019 remains, such as adverse weather in the Caspian Sea that could delay vessels, high sea tariffs, high port fees, and informal payment.

### Corridor 4—Rail

Corridor 4 is the Trans-Mongolian section of the Trans-Siberian Railway and in recent years has grown substantially in importance as a transit route between Europe, the Russian Federation, Central Asia, and the PRC. Subcorridor 4b is the main railway line 1,100 km long connecting the Russian Federation to the north and the PRC to the south. This single-track infrastructure has a capacity of 25 million tons per year, and trains move at a maximum speed of 80 km/h. Since Mongolia adopts a 1,520-millimeter (mm) track gauge, there is a breakage at the PRC–MON border where the receiving station performs the change of gauge operation.

In 2020, road and railways moved a similar tonnage of freight. Rail transport moved 29.84 million tons (46.88%) while road transport moved 30.45 million tons (50.51%). However, the role of rail transport was demonstrated in the major share of freight turnover, wherein rail transport moved 19.16 billion ton-km (80.33%) compared to 4.68 billion ton-km (19.64%) for road transport. Air transport moved a negligible amount of freight.<sup>23</sup>

Analysis of the Erenhot–Zamiin-Uud BCP (PRC–MON) showed different border-crossing impediments. At the PRC side, inbound traffic at Erenhot took 7.4 hours, and outbound traffic 15 hours. Waiting for priority trains to pass, restriction upon entry, and marshalling were the major delay reasons. At the Mongolian side, traffic at Zamiin-Uud took 11.5 hours (inbound) and 2.1 hours (outbound). Another observation was that while change of gauge operation did not take considerable time (2.7 hours at Erenhot and 3.0 hours at Zamiin-Uud), the delay due to shortage of wagons was more serious (7–8 hours at each of the two BCPs) but still much shorter than the delays at the PRC–KAZ border.

<sup>22</sup> Government of the Republic of Turkey, Ministry of Foreign Affairs. 2020. Press Release Regarding the Departure of the First Export Train from Turkey to China. 4 December. [https://www.mfa.gov.tr/no\\_-314\\_-turkiye-den-cin-e-gidecek-ilk-ihracat-treninin-yola-cikmasi-hk.en.mfa](https://www.mfa.gov.tr/no_-314_-turkiye-den-cin-e-gidecek-ilk-ihracat-treninin-yola-cikmasi-hk.en.mfa).

<sup>23</sup> Government of Mongolia, Mongolian Statistical Information Service. <https://www.1212.mn/default.aspx>.

# 6 Country Updates

The CPMM analysis relies on consistent and comparable data across CAREC countries, despite their inherent differences. This chapter provides an update of the main developments and CPMM data at a national level for each CAREC member country to help explain the trends or resulting outcomes at the regional or corridor level. This country-level analysis examines the policies, regulations, infrastructure, and institutional factors that can affect corridor performance. Pertinent barriers and issues are highlighted, key developments and progress are noted, and high-level recommendations are included.

The 2020 CPMM report introduces the four TFIs at the country level, segregated by road and rail transport, and further separated into outbound and inbound direction for border-crossing time and costs (Tables 6.1–6.22). These data are supplemented by average border-crossing time and cost for BCPs along relevant CAREC corridors. Key CPMM findings, updated trends and developments, and country-specific recommendations are also provided in this chapter.

## Afghanistan

### Key Findings

- (i) Despite the COVID-19 pandemic, border-crossing performance for road transport was comparatively unchanged compared to 2019. Border-crossing time was recorded at 19.9 hours in 2019, and 19.5 hours in 2020.
- (ii) For 2019 and 2020, border-crossing cost was \$240. Total transport cost was \$1,106 in 2019, and \$1,002 in 2020.
- (iii) SWOD was 33.7 km/h, while SWD was 12.4 km/h—which remained lowest in the region.
- (iv) **Torkham** reported the most significant delay averaging 24.2 hours in 2020, followed by **Spin Buldak** at 20.2 hours, and **Shirkhan Bandar** at 17.3 hours.
- (v) The magnitude of the border-crossing time and cost, as well as the total transport cost, continued to remain at elevated levels compared to other BCPs in the region. Security remained a prime concern, which increased the cost of shipment, as well as unofficial fees imposed on shippers and transport operators.

### Trends and Developments

Afghanistan was actively developing transit corridors and has engaged neighbour countries to conclude bilateral or multilateral agreements. The involvement and signing of some key agreements have hinted at the growing confidence of neighboring countries in the development and prospects of Afghanistan. The developments in railways have been particularly encouraging. For instance, Afghanistan, Pakistan, and Uzbekistan have discussed the feasibility of a 573-km line connecting Mazar-i-Sharif–Kabul–Peshawar. The route passes through the Hindu–Kush mountainous terrain with an altitude of 3,500 m. Afghanistan has confirmed the adoption of 1,435 mm standard gauge, which implies double gauge change operations since Uzbekistan uses 1,520 mm and Pakistan uses 1,676 mm gauge.

The Turkmenistan–Afghanistan–Tajikistan 400-km railway project which began in 2013, shows steady progress. Turkmenistan has completed the sections at Atamyrat (now called Kerki), Ymamazar, and Aqina (that lies at the Afghan border). In addition, Turkmenistan has provided technical and financial assistance



Table 6.1: Trade Facilitation Indicators for Afghanistan

Trade Facilitation Indicators		Road Transport			Rail Transport		
		2018	2019	2020	2018	2019	2020
TFI1	Time taken to clear a border-crossing point (hour)	21.5	19.9	19.5	4.1	3.8	3.8
	<i>Outbound</i>	13.6	13.4	12.9	4.1	3.8	3.8
	<i>Inbound</i>	25.8	23.8	23.7	1.0	-	-
TFI2	Cost incurred at border-crossing clearance (\$)	233	240	240	222	225	225
	<i>Outbound</i>	231	246	256	220	225	225
	<i>Inbound</i>	233	237	230	370	-	-
TFI3	Cost incurred to travel a corridor section (\$, per 500 km, per 20-ton cargo)	1,107	1,106	1,002	-	-	-
TFI4	Speed to travel on CAREC corridors (km/h)	12.4	12.3	12.4	-	-	-
SWOD	Speed without delay (km/h)	33.1	32.5	33.7	-	-	-

Legend: ● Improved by at least 3% ● Deteriorated by at least 3% ● Insignificant change [-3% to 3%]

- = no data, CAREC = Central Asia Regional Economic Cooperation, km = kilometer, km/h = kilometer per hour, SWOD = speed without delay, TFI = trade facilitation indicator.

Source: Asian Development Bank.

Table 6.2: Border-Crossing Performance in Afghanistan

BCP, Corridor, and Direction of Trade			Duration (hours)			Cost (\$)		
			2018	2019	2020	2018	2019	2020
<b>Road Transport</b>								
Hairatan	(3, 6)	<i>Outbound</i>	4.6	4.9	5.6	136	145	159
Torkham	(5, 6)	<i>Inbound</i>	27.6	23.5	24.2	243	258	259
Shirkhan Bandar	(2, 5, 6)	<i>Outbound</i>	11.9	14.2	17.3	295	331	340
		<i>Inbound</i>	12.0	20.0	-	418	392	-
Spin Buldak	(5, 6)	<i>Inbound</i>	25.7	25.3	20.5	99	143	98
Torghondi	(2, 6)	<i>Outbound</i>	31.5	28.2	20.2	304	311	317
<b>Rail Transport</b>								
Hairatan	(3, 6)	<i>Inbound</i>	1.0	-	-	370	-	-
Torghondi	(2, 6)	<i>Outbound</i>	4.1	3.8	3.8	220	225	225

- = no data, BCP = border-crossing point.

Source: Asian Development Bank.

to Afghanistan for the railway construction within Afghanistan territory. Afghanistan and Turkmenistan have jointly launched the 30-km railway link between Aqina and Andkhoy, extending railway connectivity to inland cities.

Besides land transport, the country is also actively pushing for other modes of connectivity. The Turkmenistan–Afghanistan–Pakistan–India pipeline was progressing, although it was hampered by security concerns over Taliban-held areas in the northwestern region of the country. This project would balance the supply of energy from surplus in Turkmenistan to deficit areas in India and Pakistan. The seaport project at Chabahar is a trilateral cooperation between Afghanistan, India, and Iran to add an option on top of Pakistan seaports. On the aviation front, Afghanistan launched the National Air Corridor Program that flew Afghan exports such as agricultural products and carpets to international markets such as Mumbai, New Delhi, and Istanbul.<sup>24</sup> The new CAREC aviation strategy will be useful for the country

<sup>24</sup> The program was administered by Afghanistan Chamber of Commerce and Investment. Afghanistan Chamber of Commerce and Investment. Afghanistan Opens Air Cargo Corridors with Europe, Russia, China, and UAE. <https://acci.org.af/en/538-afghanistan-opens-air-cargo-corridors-with-europe-russia-china-and-uae.html>.

to modernize airport infrastructure, strengthen regulatory and procedural controls, and build greater connectivity to international air hubs.

The country participates in the continuous dialogue on the Afghanistan–Pakistan Transit Trade Agreement (APTTA) 2010, a bilateral agreement between Afghanistan and Pakistan which resumed negotiations in 2019. Latest discussions also included the exploration of setting up border markets, an invitation to Afghanistan to participate in the China–Pakistan Economic Corridor (CPEC), as well anticorruption measures along the transit routes.

## Recommendations

- (i) **Conclude Afghanistan–Pakistan Transit Trade Agreement negotiation with Pakistan authorities.** This is to resolve the remaining issues on transit trade—a cornerstone for other transit trade that could attract other CAREC members.
- (ii) **Begin development of an authorized economic operators system.** As reported in the 2019 annual report, an effective authorized economic operators (AEO) system would increase confidence in the trade community. Currently, there is a high distrust of traders due to smuggling concerns which has led to multiple and repeated physical examinations at land BCPs and airports. The legal framework, operational procedure, and use of digital tools would be instrumental to kick-start an AEO system that would improve border-crossing efficiency at least for a selected group of exporters and transport operators. Considering that Pakistan has started an AEO system, it would be positive for both Afghanistan and Pakistan to include this in the APTTA and explore the interoperability of the AEO standards.
- (iii) **Implement the Transports Internationaux Routiers (International Road Transports).** The TIR was reactivated in September 2013. While there were efforts to promote the TIR, its level of usage has remained low—as there were only 100 TIR Carnets purchased from the International Road Transport Union (IRU) in 2018, and 200 in 2019.<sup>25</sup> The difficulty of obtaining road passes and visas, even for TIR Carnet holders, discouraged the extensive use of TIR. The Ministry of Foreign Affairs would need to coordinate these with the foreign counterparts and consider simplified schemes for AEOs, for example, to operationalize greater use of TIR.
- (iv) **Accede to the Convention on the Contract for the International Carriage of Goods by Road.** Private shippers and transport operators in Afghanistan typically have low proficiency and access to risk mitigation tools such as transport insurance. Thus, when there are losses or damages, the shipper, consignee, and transport operator could be drawn into an excessively long dispute. The Convention on the Contract for the International Carriage of Goods by Road (CMR) complements the TIR Convention and provides insurance coverage for road transport operators. All CAREC member countries except for Afghanistan and the PRC are signatories of this agreement. Accession to the CMR would help transport operators to utilize insurance.
- (v) **Roll out 24/7 at other high-traffic border-crossing points.** At Torkham, 24/7 operation was officially launched in September 2019. It was proven that this action had immediately and significantly shortened border-crossing time. This scheme could roll out to other high-traffic BCPs that had long border-crossing time, such as Spin Buldak and Shirkhan Bandar.
- (vi) **Strengthen Afghanistan Railways Authority.** The participation of Afghanistan in various railway projects requires a skilled workforce and policy makers in railway transport. World Bank strengthened the capacity of Afghanistan Railways Authority (AfRA). Technical personnel from Uzbekistan have also provided assistance in the past, and more recently, technical personnel from Turkmenistan. AfRA would need institutional capacity to handle the policies and the operations such as infrastructure, project financing, and management of rolling stocks.

<sup>25</sup> United Nations Economic Commission for Europe. TIR Carnets. <https://unece.org/tir-Carnets-0>.

- (vii) **Strengthen Afghanistan Civil Aviation Authority.** The air corridors remain an important outlet for shipping time-sensitive products. This is especially important from April to November when fresh fruits such as cherries, grapes, and pomegranates are harvested and need to be exported quickly. The ability of policy makers and technical personnel to handle air shipments of vaccines is also essential in 2021.

## Azerbaijan

### Key Findings

- (i) Border-crossing performance showed a sharp rise in terms of duration and fees, as well as total transport cost. Border-crossing time in 2020 for trucks shot up from 2.7 hours in 2019 to 6.3 hours in 2020, due to longer inbound examinations.
- (ii) Border-crossing cost also increased from \$50 in 2019 to \$85 in 2020. Total transport cost increased from \$23 in 2019 to \$45 in 2020.
- (iii) SWOD slowed slightly to 52.7 km/h, while SWD remained relatively unchanged at 34.2 km/h compared to 2019.
- (iv) **Qirmizi Korpu** (Red Bridge) reported the most significant delays averaging 11.9 hours in 2020 (inbound traffic).

### Recommendations

- (i) **Develop a logistics park.** A logistics park is a zone where the facilities and services are provided to improve supply chain efficiency. A manufacturer could outsource the storage, transportation, and packaging operations to a logistics service provider. For this reason, a logistics park is commonly located adjacent or within a special economic zone.
- (ii) **Develop a container freight station.** The country lacks a network of modern container freight stations (CFS). A CFS is a facility that consolidates loose cargoes into a container or deconsolidates the cargo for collection. This is normally done under customs supervision and is a cost-effective way for shippers to use containerization and to send goods to their final destination. Kazakhstan has expressed interest and optimism in the growth of container traffic especially in the transit business in the Caspian region, so demand for CFS could be substantial.

**Table 6.3: Trade Facilitation Indicators for Azerbaijan**

Trade Facilitation Indicators		Road Transport			Rail Transport			
		2018	2019	2020	2018	2019	2020	
TFI1	Time taken to clear a border-crossing point (hour)	3.6	2.7	6.3	●	1.7	-	-
	<i>Outbound</i>	4.4	1.9	2.8	-	-	-	
	<i>Inbound</i>	3.3	3.6	10.2	1.7	-	-	
TFI2	Cost incurred at border-crossing clearance (\$)	91	50	85	●	-	-	-
	<i>Outbound</i>	79	34	71	-	-	-	
	<i>Inbound</i>	94	57	97	-	-	-	
TFI3	Cost incurred to travel a corridor section (\$, per 500 km, per 20-ton cargo)	369	23	45	●	-	-	-
TFI4	Speed to travel on CAREC corridors (km/h)	30.2	34.0	34.2	○	-	-	-
SWOD	Speed without delay (km/h)	53.1	55.7	52.7	●	-	-	-

Legend: ● Improved by at least 3% ● Deteriorated by at least 3% ○ Insignificant change [-3% to 3%]

- = no data, CAREC = Central Asia Regional Economic Cooperation, km = kilometer, km/h = kilometer per hour, SWOD = speed without delay, TFI = trade facilitation indicator.  
Source: Asian Development Bank.

Table 6.4: Border-Crossing Performance in Azerbaijan

BCP, Corridor, and Direction of Trade			Duration (hours)			Cost (\$)		
			2018	2019	2020	2018	2019	2020
<b>Road Transport</b>								
Baku	(2)	Outbound	1.6	0.9	1.7	111	23	64
		Inbound	1.2	0.4	1.6	61	34	51
Qirmizi Korpu	(2)	Outbound	10.0	7.4	4.5	19	23	20
		Inbound	3.2	4.6	11.9	92	63	105
<b>Rail Transport</b>								
Baku	(2)	Inbound	1.7	-	-	-	-	-

- = no data, BCP = border-crossing point.

Note: Estimates for Baku reports land-side operations only, resulting in minor delays. However, water-side delays are more significant.

Source: Asian Development Bank.

- (iii) **Encourage the formation of a freight forwarding association.** While Azerbaijan has a national road carrier association that serves as the national TIR association, there is no national freight forwarders association. As such, the country does not have representation in the International Federation of Freight Forwarders Association (FIATA). Having a national freight forwarding association would help develop a service subsector that offers specialized planning and execution for exporters and importers.
- (iv) **Participate in Corridor Performance Measurement and Monitoring studies.** Previously, the Azerbaijan national TIR association Azerbaijan International Road Carriers Association (ABADA) participated in CPMM studies. However, it did not continue after the early years, citing the low traffic to Central Asia. With the developments in CAREC and the Caspian Sea, this could change. The national railways operator Azerbaijan Demir Yollari is also welcomed to participate in the CPMM studies so that rail samples could be collected.

## People's Republic of China

### Key Findings

- (i) In 2020, both border-crossing duration and costs increased rather substantially in the PRC. Both road and rail transports were affected due to additional inspection and sanitation controls, but roads suffered to a greater degree due to shutting down of road BCPs, while rail freight continued.
- (ii) For road transport, border-crossing time averaged 7.1 hours in 2020, up from 4.3 hours in 2019. Border-crossing cost surged from \$166 in 2019 to \$424 in 2020. Total transport cost increased from \$1,257 to \$1,710.
- (iii) SWOD increased from 69.8 km/h to 82.0 km/h, and SWD increased from 25.9 km/h to 47.2 km/h.
- (iv) Outbound shipments at **Takeshikent** reported the longest duration (31.8 hours), followed by **Horgos** (16.4 hours). Fees at **Horgos** surged four times to \$1,658 in 2020 due to the need to segregate driver, cargo, and material handling equipment, which drove up the total transport cost. Interestingly, trucks moved at 82 km/h in 2020, much higher than the 69.8 km/h in 2019 as there were less queues at BCPs and vehicles on road due to the pandemic. It remains to be seen if this could extend into 2021 as trade volume normalizes.
- (v) For rail transport, border-crossing time increased from 13.4 hours in 2019 to 18.3 hours in 2020. Border-crossing cost increased from \$104 in 2019 to \$115 in 2020. Total transport cost dipped from \$789 in 2019 to \$678 in 2020. Comparing 2019 and 2020, SWOD changed from 65.1 km/h to 62.5 km/h, and SWD decreased from 20.9 km/h to 16.8 km/h.

- (vi) Rail BCPs such as **Alashankou**, **Erenhot**, and **Horgos** all reported increased border-crossing times. The situation is more serious at **Alashankou** where average delay was estimated at 26.9 hours in 2020. In October 2020, Kazakhstan shippers reported long queues developing at **Alashankou** when the Chinese authorities imposed more stringent sanitation controls on all incoming goods that were transported in conventional wagons, which were subjected to physical examinations. Containerized shipment passed through without much problem on the other hand, which led to increasing interest from the Kazakhstan shippers to consider using a container for exporting to the PRC.

## Trends and Developments

When news of COVID-19 circulated in early 2020, many countries promptly closed their borders with the PRC. Subsequently, trailer or cargo transfer at “neutral zones” was implemented as the PRC trucks could not enter the neighboring country and vice versa. This new arrangement caused border delays. A consequence of COVID-19 was the increased time to consolidate cargoes. Compounded by the closure of many companies and logistics centers, moving freight out in the first half of 2020 was extremely challenging.

Nevertheless, the PRC made notable strides in TIR implementation. The estimated freight rate of a TIR shipment was \$1,300 per 500 km, compared to \$500 per 500 km on a container express train from the PRC to Europe—although the higher charge is justified as operators provide a faster, more reliable service, with drivers guarding high-value cargo, and trucks have higher cubic capacity compared to 40-foot containers in express container trains.

Rail transport was a vital link that enabled trade in 2020 even when road and air transports were closed. Toward the end of 2020, the average outbound border-crossing time at **Alashankou** increased sharply from 25.0 hours in October, to 38.5 hours in November, and 48.2 hours in December, nearly doubling in 2 months. This long time was due to heavy congestion at the BCPs due to (i) diversion from ocean to rail, caused by surge in ocean rates and scarcity in vessel space; and (ii) the adoption of stricter control of COVID-19 in the PRC as winter approached and a resurgence of infection was anticipated. Inspection and quarantine of materials led to a reduced throughput at **Alashankou** and **Horgos**. Consequently, freight started to accumulate at stations such as Lanzhou and Xi’an as China Railways instituted periodic embargos. Container express trains, being accorded higher priority, were relatively unaffected by this measure. Conventional freight trains, on the other hand, suffered as the queue lengthened.

**Table 6.5: Trade Facilitation Indicators for the People’s Republic of China**

Trade Facilitation Indicators		Road Transport			Rail Transport				
		2018	2019	2020	2018	2019	2020		
TFI1	Time taken to clear a border-crossing point (hour)	3.1	4.3	7.1	●	22.9	13.4	18.3	●
	<i>Outbound</i>	3.5	5.5	9.5		14.8	11.9	18.7	
	<i>Inbound</i>	2.0	1.2	1.5		45.8	17.7	17.5	
TFI2	Cost incurred at border-crossing clearance (\$)	211	166	424	●	129	104	115	●
	<i>Outbound</i>	241	181	544		68	33	24	
	<i>Inbound</i>	141	133	157		202	128	150	
TFI3	Cost incurred to travel a corridor section (\$, per 500 km, per 20-ton cargo)	1,357	1,257	1,710	●	976	789	678	●
TFI4	Speed to travel on CAREC corridors (km/h)	22.0	25.9	47.2	●	15.9	20.9	16.8	●
SWOD	Speed without delay (km/h)	53.7	69.8	82.0	●	50.2	65.1	62.5	●

Legend: ● Improved by at least 3% ● Deteriorated by at least 3% ● Insignificant change [-3% to 3%]

CAREC = Central Asia Regional Economic Cooperation, km = kilometer, km/h = kilometer per hour, SWOD = speed without delay, TFI = trade facilitation indicator.

Source: Asian Development Bank.

Table 6.6: Border-Crossing Performance in the People's Republic of China

BCP, Corridor and Direction of Trade			Duration (hours)			Cost (\$)		
			2018	2019	2020	2018	2019	2020
<b>Road Transport</b>								
Alashankou	(1, 2)	Outbound	-	-	18.6	-	-	590
Takeshikent	(4)	Outbound	6.6	6.3	31.8	256	309	671
		Inbound	4.5	4.4	4.9	298	246	221
Erenhot	(4)	Outbound	3.0	6.7	6.4	164	144	117
		Inbound	-	-	-	-	-	-
Horgos	(1)	Outbound	10.2	11.0	16.4	588	450	1,658
		Inbound	20.4	15.7	4.3	113	80	174
Torugart	(1)	Outbound	1.8	1.6	2.1	-	-	-
		Inbound	0.1	-	-	-	-	-
Irkeshtan	(2, 5)	Outbound	0.3	0.2	1.4	-	-	-
		Inbound	-	1.6	0.8	-	4	-
Karasu	(0)	Outbound	4.2	4.1	2.8	380	207	51
Zuun Khatavch	(4)	Outbound	1.3	1.3	1.4	16	16	16
Khunjerab	(5)	Outbound	1.9	1.7	2.8	-	-	-
<b>Rail Transport</b>								
Alashankou	(1, 2)	Outbound	21.9	17.3	26.9	49	2	6
Erenhot	(4)	Outbound	11.9	11.2	15.0	113	16	-
		Inbound	55.7	9.2	7.4	227	69	125
Horgos	(1)	Outbound	10.9	7.6	12.7	61	14	13

- = no data, BCP = border-crossing point.  
Source: Asian Development Bank.

## Recommendations

- (i) **Relieve the border delays and high cost at road border-crossing points.** In 2020, border-crossing through road BCPs such as Horgos–Nur Zholy became very cumbersome due to procedural constraints in light of the COVID-19 outbreak. To minimize spread of the COVID-19 virus, Kazakhstan trucks were no longer permitted to enter Chinese bonded warehouses to pick up goods. Transfer of materials was done at a “no man’s land” between the border, with the forklifts and shuttle vehicles deployed between the bonded warehouses and the “no man’s land.” This added significantly to the border-crossing cost, where samples showed numerous shipments incurred more than \$6,000 in one trip due to these additional loading and unloading, temporary warehouse storage and materials transfer. While necessary to control possible infection, this action is not sustainable. Border authorities from the PRC and the adjacent countries should hold bilateral talks and explore initiatives that ease the situation, such as the use of special COVID-19 green lanes to expedite border-crossings.
- (ii) **Streamline COVID-19 border inspection at rail border-crossing points.** Long queues of wagons and trains were held up at Alashankou–Dostyk and Horgos–Altyntkol due to capacity constraints. The additional package-by-package inspection mandated by the Xinjiang Uygur Autonomous Region border agencies affected the throughput at the rail BCPs. With the increased traffic diverted from sea to rail, this problem would be aggravated and if unresolved, would lead to spoilage of perishables such as grains and oilseeds. Border authorities from the PRC and the adjacent countries may hold bilateral talks and explore initiatives that ease the situation. Measures used to expedite express container trains should be considered for regular trains.



- (iii) **Expand the transload capacity at Alashankou and Horgos.** A key reason for rail interchange delays at the PRC–KAZ border is the necessity to transfer cargo between rail systems using different gauges. To do so requires side-by-side transloading tracks at both Dostyk (for incoming trains from the PRC) and Alashankou (for incoming trains from KAZ). Due to robust growth of cross-border traffic, congestions emerged at both rail stations, which were built decades ago when the traffic flow was much lower. The PRC and KAZ governments should examine means to expand the transloading capacity at both Alashankou and Dostyk by expanding yard space; adding more transloading tracks; replacing outdated container handling cranes with high-speed cranes guided by global positioning systems (GPS); and streamlining operating procedures.
- (iv) **Shift some cargo transloading from Dostyk to Alashankou.** Due to its location bounded by mountains, Dostyk station has limited options for expansion. On the other hand, Alashankou is much better situated for yard expansion and China Railways have resources to do so. China Railways and Kazakhstan Temir Zholy could consider modifying the Organization for Cooperation of Railways (OSJD) protocol so Alashankou can handle cargo transloading into Russian gauge wagons when Dostyk is swamped with work.

## Georgia

### Key Findings

- (i) Georgia experienced some increase in border-crossing time. On average, outbound traffic was 14.2 hours, and inbound traffic was 4.8 hours, both higher than 2019 values. Both border-crossing costs and total transport costs reported improvements over 2019. Speed showed a divergent performance where SWOD (46.3 km/h) was reduced compared to 2019, but SWD increased to 27.1 km/h.
- (ii) The TFI estimates revealed the relative efficiency of transport and logistics in Georgia. For Caucasus to Central Asia shipments, the problems that mainly occurred at the Caspian Sea crossing could account for half of the total journey time; as well as the need to apply for various transit and insurance permits to traverse the different countries. These happened outside of Georgia, so the statistics here do not reflect the challenges of such transit shipment in the CAREC region but are reflected in the Corridor 2 performance.

**Table 6.7: Trade Facilitation Indicators for Georgia**

Trade Facilitation Indicators	Road Transport			Rail Transport		
	2018	2019	2020	2018	2019	2020
TFI1	Time taken to clear a border-crossing point (hour)					
	13.4	10.6	13.0	●	–	–
	<i>Outbound</i>					
	17.9	12.9	14.2	–	–	–
	<i>Inbound</i>					
	8.1	2.6	4.8	–	–	–
TFI2	Cost incurred at border-crossing clearance (\$)					
	66	68	48	●	–	–
	<i>Outbound</i>					
	67	69	45	–	–	–
	<i>Inbound</i>					
	64	49	78	–	–	–
TFI3	Cost incurred to travel a corridor section (\$, per 500 km, per 20-ton cargo)					
	244	185	87	●	–	–
TFI4	Speed to travel on CAREC corridors (km/h)					
	18.8	21.5	27.1	●	–	–
SWOD	Speed without delay (km/h)					
	49.3	56.8	46.3	●	–	–

Legend: ● Improved by at least 3% ● Deteriorated by at least 3% ● Insignificant change [–3% to 3%]

– = no data, CAREC = Central Asia Regional Economic Cooperation, km = kilometer, km/h = kilometer per hour, SWOD = speed without delay, TFI = trade facilitation indicator.

Source: Asian Development Bank.

Table 6.8: Border-Crossing Performance in Georgia

BCP, Corridor, and Direction of Trade			Duration (hours)			Cost (\$)		
			2018	2019	2020	2018	2019	2020
<b>Road Transport</b>								
Tsiteli Khidi	(2)	Outbound	17.9	13.4	5.1	–	–	–
		Inbound	1.2	2.1	3.1	67	52	43

– = no data, BCP = border-crossing point.  
Source: Asian Development Bank.

## Trends and Developments

The innovation and digitalization journey continues in Georgia as the country simplifies business processes and improves the efficiency of trade and transit. Recognizing that customs escort is an inefficient transit mechanism, Georgia introduced smart electronic seal with real-time GPS tracking, which differs from conventional nonelectronic seal. The smart seal monitors the movement and location of vehicles carrying sensitive cargoes such as flammable products. A total of 132 GPS smart seals have been purchased from Europe for transit use.

Georgia is cementing close economic and trade ties with Europe. Work on the Deep and Comprehensive Free Trade Agreement and the implementation of the new computerized transit system has begun.<sup>26</sup> In 2020, Georgia also introduced authorized economic operators (AEO) modelled after the European Union (EU) standard, so that qualified Georgian companies could enjoy simplified customs controls and clearance. Besides shorter processing time, AEOs could be exempted from guarantees and similarly enjoy preferential treatment in countries where the AEO system is mutually recognized with Georgia.

Despite its attention on the EU, Georgia also has active trade ties with the CAREC region. Poti and Batumi are two Black Sea ports that serve as transit gateway for goods bound for Central Asia. Trucks carrying consumer and industrial goods move eastward and enter Azerbaijan at Tsiteli Khidi–Qirmizi Korpu (Georgia [GEO]–Azerbaijan [AZE]), crossing the Caspian Sea. The ferry crossing could take 5 days, inclusive of port dwell time, but samples showed waiting time in Baku International Sea Trade Port could take 10 days due to weather conditions. A one-way ferry crossing costs between \$1,200 to \$1,600. In Kazakhstan, customs escort (service) is rendered when the final destination of the cargo is within Kazakhstan, or when the destination of the cargo is to the exit point for transit shipment. The fee for customs escort costs \$200.

## Recommendations

- (i) **Joint customs controls.** Azerbaijan and Georgia have proposed to institute joint customs control at Abreshumis Gza–Ipek Yolu friendship BCP.<sup>27</sup> This could be a strategic initiative, and once operationalized, CPMM could monitor this location and study the issues, critical success factors, and learning points for other CAREC countries to consider on joint customs controls.
- (ii) **Pilot of CAREC Advanced Transit System.** The CAREC Advanced Transit System (CATS) is a CAREC initiative supported by Asian Development Bank (ADB) technical assistance (TA). It was designed as a harmonized electronic system—with the use of information customs exchange (ICE)—to facilitate movement of goods in transit through CAREC member countries. CATS aims to (a) streamline and harmonize existing transit documentation; (b) create a single electronic messaging system; and (c) provide a modern, risk-based affordable guarantee

<sup>26</sup> A consortium consisting of Finland, Latvia, and Poland was awarded the work to implement the integration efforts with the EU at a budget of €1.5 million over a period of 24 months.

<sup>27</sup> CAREC Integrated Trade Agenda, Strategic Action Plan 2018–2020, Appendix 3. This recommendation was also proposed in the 2019 annual report.



mechanism that rewards compliant traders. Azerbaijan, Georgia, and Kazakhstan agreed to participate in the CATS/ICE pilot test. CATS could also provide an alternative to the existing TIR system and could be suited to short hauls within the region at a more cost-effective rate.

- (iii) **Rail transport for heavy machinery and equipment.** CPMM observed that Georgian operators are transporting heavy items to Central Asia by trucks. The total trip could take 1–2 months, require the application of special permits, and are subject to customs escort fees. Transporting such items could possibly be more efficient using freight trains.

## Kazakhstan

### Key Findings

- (i) In 2020, a stark contrast between the performance of road and rail transport was observed, caused by the COVID-19 pandemic. Freight was diverted from road to rail as BCPs at the beginning of the outbreak in an effort to contain the spread of the disease.
- (ii) For road transport, the average border-crossing time shortened slightly from 9.2 hours in 2019 to 8.7 hours in 2020. While border-crossing cost increased from \$115 to \$123 in the same period, total transport cost surged nearly 2.5 times from \$715 in 2019 to \$1,850 in 2020, reflecting the capacity constraints of trucking and drivers. SWOD averaged 52.9 km/h and SWD was estimated to be 29.2 km/h, in line with the 2019 results.
- (iii) For rail transport, the negative impact on time was more pronounced unlike road transport. Border-crossing time jumped from 39.9 hours in 2019 to 48.6 hours in 2020, a 21% increase. Border-crossing cost increased slightly from \$327 in 2019 to \$341 in 2020, while total transport cost increased from \$687 to \$724. SWOD was 65.2 km/h, in line with 2019 estimates, while SWD dropped considerably from 18.1 km/h to 15.3 km/h due to the lengthened border-crossing time delay. The border delay was a confluence of different reasons, due to increased freight volume diverted from roads, existing capacity constraints, and additional sanitation controls imposed by the Chinese authorities in Q4 2020, creating a spike in the border-crossing duration as queues developed at the border.

**Table 6.9: Trade Facilitation Indicators for Kazakhstan**

Trade Facilitation Indicators		Road Transport			Rail Transport		
		2018	2019	2020	2018	2019	2020
TFI1	Time taken to clear a border-crossing point (hour)	7.1	9.2	8.7	40.5	39.9	48.6
	<i>Outbound</i>	7.3	7.9	8.0	7.8	9.0	8.4
	<i>Inbound</i>	7.1	10.0	9.2	49.2	46.7	56.2
TFI2	Cost incurred at border-crossing clearance (\$)	96	115	123	332	327	341
	<i>Outbound</i>	73	67	58	122	122	124
	<i>Inbound</i>	108	139	157	358	351	356
TFI3	Cost incurred to travel a corridor section (\$, per 500 km, per 20-ton cargo)	791	715	1,850	768	687	724
TFI4	Speed to travel on CAREC corridors (km/h)	30.5	30.7	29.2	19.9	18.1	15.3
SWOD	Speed without delay (km/h)	56.3	53.2	52.9	56.4	67.8	65.2

Legend: ● Improved by at least 3% ● Deteriorated by at least 3% ● Insignificant change [-3% to 3%]

CAREC = Central Asia Regional Economic Cooperation, km = kilometer, km/h = kilometer per hour, SWOD = speed without delay, TFI = trade facilitation indicator.

Source: Asian Development Bank.

Table 6.10: Border-Crossing Performance in Kazakhstan

BCP, Corridor, and Direction of Trade			Duration (hours)			Cost (\$)		
			2018	2019	2020	2018	2019	2020
<b>Road Transport</b>								
Aul	(3)	Outbound	0.2	0.4	2.4	-	14	26
		Inbound	0.2	0.4	-	-	12	-
Kairak	(1)	Outbound	0.2	5.7	-	2	8	-
		Inbound	0.3	2.0	4.0	16	25	30
Zhaisan	(1, 6)	Outbound	0.2	1.4	3.3	9	14	11
		Inbound	0.2	0.6	2.0	8	10	23
Tazhen	(2, 6)	Outbound	12.6	11.8	10.7	104	100	94
		Inbound	11.4	8.7	7.3	116	107	85
Kurmangazy	(6)	Outbound	2.2	2.5	3.3	11	10	7
		Inbound	2.2	2.1	2.2	10	9	9
Konysbayeva	(3, 6)	Outbound	-	4.4	12.0	-	45	79
		Inbound	12.0	11.6	12.8	130	128	123
Aisha Bibi	(1, 3)	Inbound	0.7	9.5	-	12	15	-
Taskala	(1, 6)	Outbound	1.9	1.9	2.8	11	10	9
		Inbound	-	1.5	2.4	-	12	18
Pogodaevo	(0)	Outbound	0.1	-	3.1	-	-	10
		Inbound	1.8	1.9	2.0	10	10	10
Aktau	(2)	Outbound	1.6	0.6	-	108	57	-
		Inbound	3.0	1.0	-	132	130	-
Dostyk	(1, 2)	Inbound	-	-	17.0	-	-	602
Khorgos	(1)	Outbound	4.5	1.1	-	220	-	-
		Inbound	6.8	5.7	-	341	339	-
Merke	(1, 3)	Outbound	1.5	2.7	2.5	10	12	8
		Inbound	0.3	0.1	-	16	6	-
Kordai	(1)	Inbound	-	-	-	11	-	-
Karasu	(1)	Outbound	0.2	1.7	4.0	7	15	32
		Inbound	0.3	34.4	15.5	16	101	29
Kuryk	(2)	Outbound	-	44.7	69.7	-	204	177
		Inbound	-	14.8	23.5	-	321	308
<b>Rail Transport</b>								
Saryagash	(3, 6)	Outbound	9.1	9.6	8.9	122	122	124
		Inbound	-	-	1.7	-	-	14
Dostyk	(1, 2)	Outbound	61.0	48.2	72.7	549	534	524
Merke	(1, 3)	Outbound	1.6	2.5	6.0	-	-	-
Altynkol	(1)	Outbound	-	-	9.4	-	-	-
		Inbound	39.6	44.7	51.4	251	252	271
Saryagash	(3, 6)	Outbound	9.1	9.6	8.9	122	122	124
		Inbound	-	-	1.7	-	-	14
Kuryk	(2)	Outbound	0.6	-	-	-	-	-

- = no data, BCP = border-crossing point.

Source: Asian Development Bank.

- (iv) Road BCPs such as **Konysbaeva** and **Tazhen** were identified to be significantly more time-consuming. A notable concern was detected at **Kuryk**, where estimates of outbound traffic averaged 69.7 hours to clear formalities and inbound traffic required 23.5 hours.
- (v) Rail BCPs at **Dostyk** reported 72.7 hours for border-crossing, followed by **Altynkol** at 51.4 hours, both showing a considerable increase from 2019 estimates.

## Trends and Developments

The year 2020 was challenging for many countries, and without exception Kazakhstan was also affected. While Kazakhstan's gross domestic product dropped 2.6%, the transport sector plunged 17.2%. Freight tonnage for all transport modes decreased 6.6% and freight turnover decreased by 4% year-on-year. Air transport was particularly affected as international and domestic flights were canceled during the pandemic and were slow to recover. Trucks at Nur Zholy suffered from long queues when the PRC authorities imposed stringent sanitation inspection. The parking area in Khorgos Dry Port now serves as a waiting point for the trucks crossing the border to relieve the traffic congestion that plagued Kazakhstan transport operators at the end of 2020.

Rail transport was a rare bright spot in the challenging times, keeping the cross-border trade bustling when road BCPs and airports were closed. In 2020, 876,000 twenty-foot equivalent units (TEU) from the PRC to Europe passed through Kazakhstan, a 36% increase from 2019. Like road transport, trains faced a surge in border-crossing time at the end of 2020. While the PRC and Kazakhstan held dialogues in December 2020 and January 2021 to resolve the congestion, long-term plans are being initiated to modernize the rail transport sector. The Dostyk–Aktogai–Mointy rail infrastructure is being modernized with a capacity to serve 1 million TEUs. Another positive development was the increase of container traffic across the Caspian Sea. In 2020, 12,434 TEUs were transported from Kuryk to Baku, a 32.6% increase from 2019.

Kazakhstan's efforts to combat COVID-19 also involved innovative solutions. The government rapidly implemented online access to essential services such as banking to minimize human contact points. In particular, the processing of shipping documents necessary for international trade and transport was automated. An important achievement is the broadening awareness and adoption of [www.elicense.kz](http://www.elicense.kz)<sup>28</sup> to allow online transmission and approval of permits for international road freight. The payment of customs duties and taxes for transit shipment was also automated, and a transport operator now receives an electronic notification to confirm that payment has been received by the authorities.

As the largest landlocked country in the CAREC region, Kazakhstan's inland waterways have strategic potential which could be developed for transit. Kazakhstan President Kassym-Jomart Tokayev signed the "On Ratification of the Shipping Treaty" on 17 November 2020. This treaty aims to encourage the development of water transport within the Eurasian Economic Union (EAEU) and simplifies the licensing procedure for the transit of vessels along the inland waterways within the EAEU territory. Once in force, Kazakhstan transport operators will have access to a simplified transit regime to use inland waterways for freight transportation in the Russian Federation, an advantage that other Caspian Sea countries (Azerbaijan, Iran, and Turkmenistan) do not possess. This would attract overseas operators to work with Kazakhstan companies for transit through the Russian Federation using inland waterways, which would be very cost-effective compared to road transport, and even rail transport. Two corridors are of interest here. First, freight from the Black Sea is transported to Kazakhstan seaports via the Volga–Don canal. The treaty can increase the transit volume through Kuryk. The second corridor is the Irtysh River that courses through the PRC, Kazakhstan, and the Russian Federation leading to the Kara Sea. The projected freight volume is expected to increase from 879,000 tons in 2020 to 1.5 million tons in 2025.

<sup>28</sup> [www.elicense.kz](http://www.elicense.kz) is an online portal to offer e-government services to automate the application, review, approval, and transmission of licenses electronically.

## Recommendations

- (i) **Revision of the Law for Transportation of Shipments by Railways.** Amendments on the railway laws are ongoing. This is instrumental to resolving the existing issues and problems between the consignee, consignor, carrier, and asset owner (locomotive or wagon), who are responsible in terms of deploying the wagon to the specific station or collecting wagons for the next shipment. As shown in CPMM, wagon availability is still an ongoing concern for the rail transport.
- (ii) **Pilot of CAREC Advanced Transit System.** Similar to the previous recommendation, countries participating in CATS/ICE pilot test are expected to benefit from the project. The participation of Kazakhstan also allows the possibility of extension to other major trading partners for the CAREC countries.
- (iii) **Encourage containerization.** As described below, the growth of container traffic despite the pandemic has been impressive. Those use-cases where container traffic has been more pronounced lie in multimodal transport, such as rail–water across the Caspian Sea. A comprehensive “containerization” master plan developed by international and national experts could be crafted to address the legislation, regulatory, and operational issues. In many reports, experts note that this plan might face two fundamental issues in Kazakhstan, as well as in other Central Asian republics. Firstly, the transport economics may not favor containerization. If a shipment is domestic and unimodal, use of containers may not be cost-effective. A 20-foot container holds 15 tons, and a 40-foot container holds 25 tons, compared to a standard wagon that holds 60 tons.<sup>29</sup> The cost per ton to use a container is high. Secondly, border officers such as customs would need to be conversant with the international maritime conventions and the documents related to the use of sea containers. Thirdly, containers from major shipping lines would demand a quick return of the containers and are usually reluctant for a container to travel far inland. These factors must be considered in the plan to encourage containerization.
- (iv) **Analyze the feasibility and implementation of e-CMR.** The International Road Transport Union (IRU) is leading and coordinating the acceptance and implementation of digitalization of TIR and CMR, and many countries in CAREC region have embarked on these. It is recommended that Kazakhstan policy makers and the national TIR association KazA to analyze the viability and ramifications of the Additional Protocol to CMR 2008 (e-CMR) and design an implementation road map. This is expected to involve intensive legislation, regulatory, standardization, digitalization, and harmonization, for instance, in terms of aligning this convention with the transit regime and liability guarantees mechanism in the EAEU.
- (v) **Develop inland waterways.** The shipping treaty opens new opportunities for the Kuryk terminal in terms of serving transit, and offers a cost-effective mode to send freight using Kazakhstan-registered vessels to Volga–Don canal and Irtysh River. On the other hand, planning and development of the resources such as the infrastructure, rolling stocks, and technical and operational personnel are necessary to fully capitalize on the opportunities. Developing a master plan for inland waterways transport can be useful to guide policy makers and attract private investment.

<sup>29</sup> Actual tonnage varies, depending on the type of the goods.

## Kyrgyz Republic

### Key Findings

- (i) Average border-crossing time stepped up from 1.6 hours in 2019 to 2.1 hours in 2020, a 31% increase. The estimate for outbound traffic doubled from 0.9 hours in 2019 to 1.8 hours in 2020.
- (ii) Average border-crossing cost increased slightly from \$23 in 2019 to \$27 in 2020. Total transport cost increased from \$1,122 in 2019 to \$1,346 in 2020, reflecting a noticeable increase in road freight rate observed in Kazakhstan as well.
- (iii) SWOD was 49.4 km/h and SWD was 26.9 km/h in 2020.
- (iv) Notable border delays were observed at **Chaldovar**, where outbound trucks took 6.8 hours on average, and **Irkeshdam** saw a sizable jump from 0.8 hours to 1.8 hours for inbound trucks.

### Trends and Developments

On 24 March 2020, the President of the Kyrgyz Republic declared a state of emergency in Bishkek, Jalalabad, Kara Suu, Nookat, and Osh. From 25 March to 15 April 2020, restrictions on border crossings were imposed, disrupting transit business. For instance, the abrupt closures of land borders were not communicated to many road carriers in the region. Many transport operators, unaware of the latest status at the BCPs, were stopped upon entry at the Kyrgyz borders. To make matters worse, many trucks carried agricultural produce but could not cross or enter the Kyrgyz Republic. To alleviate the worsening food shortage in major cities such as Almaty that rely on food imports, Kazakhstan allowed only two BCPs at the border to facilitate freight movement, Ak Tilek and Chon Kapka. Nonetheless, from the middle of May, strict border controls continued due to growing cases of infections, so border-crossing time became very cumbersome. This pushed up average border-crossing time from 3 to 6 days and the Kyrgyz operators at times resorted to paying unofficial fees ranging from \$300 to \$2,500 per truck. After multiple appeals from the Kyrgyz Republic, the Kazakh border agencies finally relaxed controls and the situation resumed to normal levels. Chaldybar BCP was closed from 22 March to 15 June 2020. Other BCPs with Tajikistan and Uzbekistan such as Dostuk, Karamyk, and Kyzyl-Bel continued operation, with only the driver and shipment subject to sanitation and quarantine measures.

**Table 6.11: Trade Facilitation Indicators for the Kyrgyz Republic**

Trade Facilitation Indicators		Road Transport			Rail Transport		
		2018	2019	2020	2018	2019	2020
TFI1	Time taken to clear a border-crossing point (hour)	1.6	1.6	2.1 ●	1.2	1.2	1.7 ●
	Outbound	1.1	0.9	1.8	–	–	–
	Inbound	2.0	2.0	2.4	1.2	1.2	1.7
TFI2	Cost incurred at border-crossing clearance (\$)	24	23	27 ●	–	–	–
	Outbound	23	21	24	–	–	–
	Inbound	25	25	30	–	–	–
TFI3	Cost incurred to travel a corridor section (\$, per 500 km, per 20-ton cargo)	1,219	1,122	1,346 ●	434	338	–
TFI4	Speed to travel on CAREC corridors (km/h)	29.8	30.8	26.9 ●	21.6	23.5	16.2 ●
SWOD	Speed without delay (km/h)	50.9	50.6	49.4 ●	28.7	33.2	20.0 ●

Legend: ● Improved by at least 3%   ● Deteriorated by at least 3%   ● Insignificant change [–3% to 3%]

– = no data, CAREC = Central Asia Regional Economic Cooperation, km = kilometer, km/h = kilometer per hour, SWOD = speed without delay, TFI = trade facilitation indicator.

Source: Asian Development Bank.

Table 6.12: Border-Crossing Performance in the Kyrgyz Republic

BCP, Corridor, and Direction of Trade			Duration (hours)			Cost (\$)		
			2018	2019	2020	2018	2019	2020
<b>Road Transport</b>								
Dostuk	(2)	<i>Outbound</i>	0.9	0.6	2.2	21	16	25
		<i>Inbound</i>	0.6	1.0	1.9	17	22	18
Chaldovar	(1, 3)	<i>Outbound</i>	0.2	0.2	-	7	9	-
		<i>Inbound</i>	1.2	1.7	6.8	8	8	8
Karamyk	(2, 3, 5)	<i>Outbound</i>	2.1	2.1	2.2	42	45	42
		<i>Inbound</i>	0.8	0.6	2.1	21	19	25
Ak Zhol	(1)	<i>Outbound</i>	0.3	0.2	-	8	4	-
Kensay	(0)	<i>Inbound</i>	-	1.4	1.6	-	18	22
Kyzyl-Bel	(0)	<i>Outbound</i>	1.1	0.5	1.7	19	13	22
		<i>Inbound</i>	3.3	0.9	1.7	36	23	24
Torugart	(1)	<i>Outbound</i>	1.9	-	2.4	33	-	-
		<i>Inbound</i>	2.3	2.2	2.3	32	28	30
Irkeshtam	(2, 5)	<i>Outbound</i>	-	1.2	3.7	-	43	6
		<i>Inbound</i>	0.9	0.8	1.8	24	15	106
Chon Kapka	(1, 3)	<i>Outbound</i>	0.3	0.3	-	10	6	-
Ak-Tilek	(1)	<i>Outbound</i>	0.2	0.1	1.1	9	4	6
		<i>Inbound</i>	0.2	0.1	1.6	7	2	7
<b>Rail Transport</b>								
Chaldovar	(1, 3)	<i>Inbound</i>	1.2	1.2	1.7	-	-	-

- = no data, BCP = border-crossing point.  
Source: Asian Development Bank.

The end of summer brought some relief and there was some perception that the pandemic was under control, so the situation improved slightly. Unfortunately, the resurgence of infections in the fall again resulted in restrictions on cross-border trade. This time, neighboring countries mandated the reverse transcription polymerase chain reaction (RT-PCR) test on drivers. The waiting time for the test results averaged 3 days, and the price ranged between \$35 to \$50 per driver. Transport operators in the Kyrgyz Republic faced significant impediments at the BCPs located along the border with the PRC. The PRC only allowed 10–15 vehicles to pass through Irkeshtam per day, and 5–8 vehicles at Torugart.

In 2020, work continued to integrate the country deeper into the EAEU, particularly in customs and transportation. The customs code was substituted with the EAEU customs code, which is a supranational law. The government passed a new law to relocate customs controls to the external border with non-EAEU members such as the PRC, Tajikistan, and Uzbekistan. Implementation of 16 of the EAEU international agreements, which are aligned with international conventions and WTO, were in progress. This included recognition of digital documents, automating procedures for filing, and eliminating unnecessary documentary requirements. On transportation, the government drafted and enacted an updated Railways Law. Kazakhstan agreed to increase the list of permissible items for transit to the Russian Federation by 86 commodity groups.

## Recommendations

- (i) **Financial support for the reverse transcription-polymerase chain reaction test.** Many countries have offered support measures to individuals and businesses. The package in the Kyrgyz Republic could consider financial assistance for international transport operators in partial or full subsidies for the laboratory fees incurred to complete the RT-PCR testing.
- (ii) **Vaccination for frontline workers.** Frontline workers refer to individuals who face increased risk of infection due to the nature or location of their work. For instance, drivers moving international freight as well as staff working at the BCPs would fall under this category. A possible next step is for members within the CAREC region to explore mutual acceptance of vaccination, which could begin within the Central Asian republics first before expanding to cover other neighboring countries. Vaccinated workers can then be exempted from the mandatory RT-PCR test at BCPs, thus avoiding the need to wait for 3 days at the border.
- (iii) **Negotiations with the PRC authorities.** CAREC members countries, particularly Kazakhstan, the Kyrgyz Republic, and Tajikistan, generally face more stringent border restrictions with the PRC. Kazakhstan has already started such discussion at the end of December 2020 as the problem worsened at Nur Zholy and Dostyk.
- (iv) **Develop cold chain infrastructure.** Agricultural products such as those under HS07 (vegetables) and HS08 (edible fruits and nuts) are major export items in the CAREC region, including the Kyrgyz Republic. A compelling motivation is that net exporters such as the Kyrgyz Republic, Tajikistan, and Uzbekistan tend to harvest similar products at the same time; thus, the market is flooded with a large supply of the same item, leading to price decrease. At off-peak season, the price increases significantly, but the Kyrgyz Republic could not produce enough to meet domestic and export demand. For instance, Kazakhstan has to import apples from Belarus and Poland in the off-peak season, during which the price differential with the regional supply is substantial. Operating a network of cold chain facilities would enable the Kyrgyz Republic to stabilize supply so that consistent exports all year round would be possible.

## Mongolia

### Key Findings

- (i) In 2020, average border-crossing time at road transport suffered an increase from 3.7 hours in 2019 to 4.8 hours in 2020. This was due to prolonged delays for inbound traffic to comply with health and sanitation controls.
- (ii) Average border-crossing cost declined slightly from \$97 to \$87 but total transport cost increased from \$1,373 in 2019 to \$1,463 in 2020. This increase in road freight rate echoed the patterns observed in other countries as shippers grappled with the problem of finding transport operators, who had to work under reduced capacity and additional fees associated with health and sanitation.
- (iii) Both SWOD and SWD dropped. From 2019 to 2020, SWOD changed from 40.8 km/h to 33.5 km/h, while SWD slid from 26.2 km/h to 24.4 km/h.
- (iv) For rail BCP, the average border-crossing time reported a sizable drop from 18 hours in 2019 to 8.9 hours in 2020. In contrast to road transport, the inbound traffic declined from 21.4 hours in 2019 to 10.6 hours in 2020.
- (v) Average border-crossing cost dropped from \$52 in 2019 to \$39 in 2020. However, total transport cost increased from \$720 in 2019 to \$852 in 2020.
- (vi) Both SWOD and SWD declined. SWOD dropped from 19.1 km/h in 2019 to 17.1 km/h in 2020, and SWD decreased from 24.1 km/h in 2019 to 21.5 km/h in 2020.



Table 6.13: Trade Facilitation Indicators for Mongolia

Trade Facilitation Indicators		Road Transport			Rail Transport		
		2018	2019	2020	2018	2019	2020
TFI1	Time taken to clear a border-crossing point (hour)	3.5	3.7	4.8	18.1	19.0	8.9
	<i>Outbound</i>	2.9	2.9	1.5	11.7	8.7	2.1
	<i>Inbound</i>	3.5	3.7	5.0	20.4	21.4	10.6
TFI2	Cost incurred at border-crossing clearance (\$)	93	97	87	49	52	39
	<i>Outbound</i>	13	12	27	27	11	6
	<i>Inbound</i>	104	109	90	49	54	51
TFI3	Cost incurred to travel a corridor section (\$, per 500 km, per 20-ton cargo)	1,512	1,373	1,463	1,030	720	852
TFI4	Speed to travel on CAREC corridors (km/h)	33.5	26.2	24.4	14.1	19.1	17.1
SWOD	Speed without delay (km/h)	50.2	40.8	33.5	20.9	24.1	21.5

Legend: ● Improved by at least 3% ● Deteriorated by at least 3% ● Insignificant change [-3% to 3%]

CAREC = Central Asia Regional Economic Cooperation, km = kilometer, km/h = kilometer per hour, SWOD = speed without delay, TFI = trade facilitation indicator.

Source: Asian Development Bank.

Table 6.14: Border-Crossing Performance in Mongolia

BCP, Corridor, and Direction of Trade			Duration (hours)			Cost (\$)		
			2018	2019	2020	2018	2019	2020
<b>Road Transport</b>								
Yarant	(4)	<i>Outbound</i>	3.1	2.9	1.8	55	55	24
		<i>Inbound</i>	3.9	3.3	2.7	201	198	202
Zamiin-Uud	(4)	<i>Inbound</i>	4.0	4.5	5.2	121	133	110
Altanbulag	(4)	<i>Inbound</i>	2.2	1.9	4.7	10	12	7
Bichigt	(4)	<i>Inbound</i>	1.4	1.4	1.6	6	7	7
<b>Rail Transport</b>								
Sukhbaatar	(4)	<i>Inbound</i>	7.4	6.2	4.8	8	5	5
Zamiin-Uud	(4)	<i>Outbound</i>	11.8	8.7	2.1	27	4	4
		<i>Inbound</i>	22.9	24.2	11.5	34	36	32

BCP = border-crossing point.

Source: Asian Development Bank.

## Trends and Developments

Since Mongolia borders the PRC, the government adopted measures early. The State Special Commission announced general measures to stall the spread of COVID-19 on 10 February 2020, and the General State Inspection Agency ordered disinfection and other measures on 13 March 2020. There was no restriction enforced on domestic movement of people and freight. The Mongolia Customs General Authority determined that selected items would need to be handled and cleared at inland customs offices, such as raw and processed meat. As such, bonded carriers would be activated to escort the truck to the inland customs offices. Since all commercial airlines were canceled during the pandemic, this severely reduced air carriage capacity for flying goods in and out of Mongolia, and diverted freight to land-based transportation.

High-traffic BCPs at **Zamiin-Uud** and **Sukhbaatar** remained fully open throughout the first half of 2020. Road BCPs at **Altanbulag**, **Borshoo**, and **Zamiin-Uud** continued operations. However, **Bichigt** was not operational as the PRC closed the adjacent border. During the epidemic, freight flow remained open, but



the borders were closed to the passage of passengers. The PRC trucks could not enter Mongolia, so goods must be transloaded at the “no man’s land” on Mongolian trucks.

## Recommendations

- (i) **Develop a national railways master plan.** There is an urgent need to increase the capacity for rail freight. This plan driven by policy makers will aim at practical measures and incentives to lift carriage capacity, and covers areas such as infrastructure, operations, capacity building, quality management system, economic study, and financial projects. Technical assistance by ADB for instance will be extremely useful. A review of the organizational and operational performance of UBTZ is also essential since it is the national rail carrier.
- (ii) **Increase number of freight wagons.** The increased demand for freight is already affecting rail performance. The estimated SWODs from 2017 to 2020 showed that this speed hit the lowest at 18.4 km/h in 2020. SWD was even lower at 13.5 km/h due to border-crossing delays and wagon shortages. There is an urgent need to increase availability of freight wagons by procuring new wagons and strengthening the working condition of existing wagons through an effective maintenance program.
- (iii) **Promote transit Mongolia.** This is a national program that was launched in the early 2000s and succeeded in promoting attention and awareness on the transit potential of Mongolia. Then, transit was only possible using rail, but now it is also possible to use highways, though the former is still dominant. There is little detail and promotion on this program now, and not even a functional website is available to announce updates. Such an initiative, much like the Nurly Zhol program in Kazakhstan, is instrumental to provide a development road map for the country and attracts much needed investment.
- (iv) **Intensify development of Zamiin-Uud Free Zone.** The work on Zamiin-Uud Free Zone, which commenced in 1995, has not proceeded as planned. Infrastructural gaps, legislation reforms, and procedures modernization are needed. This is especially true as CPMM estimated that the total transport cost (road) along subcorridor 4b amounted to \$1,576 (ranked third most costly among 17 CAREC subcorridors) and rail amounted to \$1,017 (ranked second among six subcorridors). ADB has approved a \$30 million loan to develop this free zone and hopefully reduce cost of trade. However, there is still much planning required for transport and logistics zones, and how multimodal transport and warehousing can operate at this location.<sup>30</sup>

## Pakistan

### Key Findings

- (i) In 2020, the most significant impact of COVID-19 for road and rail transport was on border-crossing time. TFI1 averaged 55.7 hours, far above the 28.3 hours in 2019.
- (ii) Border-crossing fees and total transport costs were little changed. From 2019 to 2020, the former changed from \$283 to \$280, while the latter stayed at \$704.
- (iii) SWOD changed from 10.6 km/h in 2019 to 8.0 km/h in 2020 and SWD changed from 28.2 km/h to 28.1 km/h.
- (iv) **Torkham** and **Chaman** continued to remain time-consuming BCPs, worsened by the pandemic. The average time to cross border at Torkham increased from 60.1 hours in 2019 to 70.7 hours in 2020, whereas Chaman increased from 35.7 hours in 2019 to 50.0 hours in 2020.

<sup>30</sup> Zamiin-Uud Free Zone has an official site <https://zfz.gov.mn/w/en/> but the details on the trade facilitation and the logistical infrastructure and operations are missing. The project is expected to complete by 2025 and so work should intensify.

Table 6.15 Trade Facilitation Indicators for Pakistan

Trade Facilitation Indicators		Road Transport			Rail Transport		
		2018	2019	2020	2018	2019	2020
TFI1	Time taken to clear a border-crossing point (hour)	36.3	38.2	55.7	●	-	-
	<i>Outbound</i>	37.8	39.6	53.3	-	-	-
	<i>Inbound</i>	2.1	1.8	85.8	-	-	-
TFI2	Cost incurred at border-crossing clearance (\$)	282	283	280	●	-	-
	<i>Outbound</i>	286	287	275	-	-	-
	<i>Inbound</i>	16	16	340	-	-	-
TFI3	Cost incurred to travel a corridor section (\$, per 500 km, per 20-ton cargo)	727	704	704	●	-	-
TFI4	Speed to travel on CAREC corridors (km/h)	13.7	10.6	8.0	●	-	-
SWOD	Speed without delay (km/h)	39.5	28.2	28.1	●	-	-

Legend: ● Improved by at least 3% ● Deteriorated by at least 3% ● Insignificant change [-3% to 3%]

- = no data, CAREC = Central Asia Regional Economic Cooperation, km = kilometer, km/h = kilometer per hour, SWOD = speed without delay, TFI = trade facilitation indicator.

Source: Asian Development Bank.

Table 6.16: Border-Crossing Performance in Pakistan

BCP, Corridor, and Direction of Trade				Duration (hours)			Cost (\$)		
				2018	2019	2020	2018	2019	2020
<b>Road Transport</b>									
Chaman	(5, 6)	<i>Outbound</i>	65.2	60.1	70.7	117	156	109	
Peshawar	(5, 6)	<i>Outbound</i>	33.5	35.7	50.0	320	319	311	
Khunjerab	(5)	<i>Inbound</i>	2.1	1.8	2.3	5	5	-	

- = no data, BCP = border-crossing point.

Source: Asian Development Bank.

## Trends and Developments

Pakistan continued intensive efforts to increase transit and trade efficiency, adopting modern trade facilitation measures. Work on national single window and authorized economic operators continued. The customs management system called WeBoc<sup>31</sup> was upgraded to perform multimodal transit to effect TIR operations.<sup>32</sup> The National Logistics Policy was sent to the Federal Cabinet for review at the beginning of 2021.

When COVID-19 began to raise alarms worldwide, the government ordered a moratorium on all cross-border activities beginning early March 2020, resulting in stoppage of all border activities at **Torkham** and **Chaman** BCPs. This resulted in a large number of containers bound for Afghanistan being stuck at the seaport, inland customs offices, and at the two BCPs. By 14 March 2020, Pakistan Customs reported that 1,587 containers and 526 containers remained in Quetta and Peshawar, respectively, after they were released from Karachi seaport. In the meantime, the containers' seals were intact and stayed in the customs bonded zone. By 22 April 2020, it was estimated that in Karachi at least 6,000 TEUs got stranded in the seaport bound for Afghanistan.<sup>33</sup>

<sup>31</sup> WeBOC is Web Based One Customs which is the customs information system used by Federal Board of Revenue (FBR) for customs administration. For more information, see [https://weboc.gov.pk/\(S\(s0qp5fvv4gx3p0mkz53mggtj\)\)/Login.aspx](https://weboc.gov.pk/(S(s0qp5fvv4gx3p0mkz53mggtj))/Login.aspx).

<sup>32</sup> This effort was supported by USAID PREIA (Pakistan Regional Economic Integration Activity) project. See <https://www.dai.com/our-work/projects/pakistan-regional-economic-integration-activity-preia>.

<sup>33</sup> The estimates were provided by Pakistan International Freight Forwarders Association, a CPMM partner.

The strict measures to contain the outbreak led to economic hardships, which resulted in the government reviewing and adopting some countermeasures. The Ministry of Interior ordered partial reopening in April and resumed 6 days operations in May 2020 for Torkham and Chaman. The Directorate General of Transit Trade agreed to the waive demurrage and detention charges on containers held up in Pakistan to provide temporary relief for the shippers and transport operators.

The impact of the stricter measures to counteract COVID-19 led to severe lengthening of border-crossing time. The average border-crossing time in Q2 2020 for Pakistan surged to 81 hours on average, which was double that of Q2 2019 and Q1 2020. This was driven by the increased border-crossing time at both **Torkham** and **Chaman** in Q2 2020. Throughout 2020, the border-crossings remained challenging due to the additional sanitary controls and health checks, on top of the existing time-consuming procedures.

## Recommendations

- (i) **Approve the National Freight Logistics Policy.** The National Freight Logistics Policy (NFLP) consists of 10 objectives, 13 policy actions, and 125 specific recommendations. The endorsement of the policy by the Cabinet will resolve many long-standing issues that constrain the freight and logistics sector, such as port congestion, underdeveloped multimodal transport, and high cost of transportation. Yet as of Q1 2021, the Cabinet has not formally endorsed the policy since it was completed in March 2020.
- (ii) **Enhance traffic control via “smart parks and tags.”** Pakistan authorities have taken action to terminate illegal private parking lots near the border and implemented radio frequency identification (RFID)-enabled tags to coordinate movements of vehicles, so that border-crossing at major BCPs such as Torkham could be more efficient. Nevertheless, strong actions are needed as the shortage of tags during COVID-19 resulted in additional delays. Private operators of parking space could be encouraged under public-private partnership so that the vehicles do indeed move in a coordinated and organized manner, using smart technologies such as RFID. (References could be made to Georgia’s Sarpi BCP at the Turkish border described in CPMM Annual Report 2017).
- (iii) **Promote Ghulam Khan as an international border-crossing point.** Torkham is consistently one of the most time-consuming BCP due to high traffic, and presently the situation is aggravated by the ongoing construction works under CAREC Regional Improvement of Border Services (RIBS) project. Pakistan has already designated Ghulam Khan as the third international BCP, a laudable move that needs to be supported with infrastructure upgrades and installment of equipment and trained personnel. This would attract traffic and relieve the congestion at Torkham.
- (iv) **Incentivize freight trains from Karachi to Peshawar.** Currently, all Afghan transit trade are transported on trucks. New freight train services were launched in 2019, from Karachi to Lahore. If the freight train service could extend to Peshawar as the terminus, this would allow a cost-effective solution to facilitate transit trade and reduce shipment costs, which are now high due to the sole reliance on trucking.

## Tajikistan

### Key Findings

- (i) Average border-crossing time was unchanged, estimated to be 4.3 hours in 2019 and 4.4 hours in 2020. However, the inbound and outbound traffic exhibited a divergent outcome. Outbound traffic had a minor increase to 4.1 hours in 2020, while inbound traffic averaged 4.6 hours in 2020, an increase due to more stringent sanitation and health checks.
- (ii) Border-crossing costs declined from \$105 in 2019 to \$90 in 2020. Total cost increased from \$629 in 2019 to \$660 in 2020.
- (iii) SWOD dropped from 39.6 km/h in 2019 to 37.8 km/h, while SWD dropped from 22.5 km/h to 21.0 km/h.
- (iv) Border-crossing time at **Dusti** was the most time-consuming, taking 13.8 hours for outbound traffic and 4.0 hours in inbound traffic in 2020. Inbound traffic at **Panji Poyon** was also time-consuming at 4.8 hours.

### Trends and Developments

Tajikistan was a prime beneficiary when the new administration in Uzbekistan liberalized trade and transit regimes. Cooperation with neighboring countries did not stop despite COVID-19, although border agencies adopted stricter measures. The government imposed the provisional procedure for regulating international transit as ordered by the President on 16 March 2020 (No. 1k/25-2) and the Prime Minister (No. 2k/20-25) under the framework of prevention of COVID-19 in Tajikistan. The Ministry of Transport approved the “Temporary Regulation of International Freight Road Transport in Tajikistan” on 2 April 2020. This regulation applies to import, export, and transit of goods. The regulation stipulated these conditions:

- (i) Entry of foreign drivers and vehicles is only allowed at border terminals or customs control zones.
- (ii) The goods must be shipped by domestic carriers from the border to the inland destination.
- (iii) The State Unitary Enterprise of Automobile Transport and Logistics Services as well as the State Transport Control and Regulation Service are designated to ensure adequate supply domestic vehicles to move goods from border to inland destinations.
- (iv) Trailers and semitrailers are permitted to move beyond the border terminals or customs control zones.
- (v) Shipment of strategic items such as humanitarian aid could be granted exception to be sent in foreign vehicles but would need to be escorted to the final destination.
- (vi) Customs clearance is conducted at the border terminals.
- (vii) Sanitation is required for all amenities at the border, including hotels, restaurants and cafes, toilets, and shower rooms.

High-traffic BCPs at **Bratsvo**, **Fotehobod**, and **Guliston** were operational throughout the crisis. Kulma Pass was closed from 20 March and reopened on 30 May 2020. The Kulma BCP is located at the Tajikistan–PRC border and was halted partly due to winter and high altitude, and partly to halt the spread of COVID-19 from the PRC. There was no abrupt or severe impact to the trade facilitation indicators.

In 2020, Tajikistan launched an AEO program. This initiative was supported by the International Trade Center (ITC) which allows shippers and transport operators to utilize a simplified process for cross-border trade. Qualified companies would enjoy shorter processing time under customs controls, as well as customs clearance at specific premises preapproved by Customs.

Table 6.17: Trade Facilitation Indicators for Tajikistan

Trade Facilitation Indicators		Road Transport			Rail Transport			
		2018	2019	2020	2018	2019	2020	
TFI1	Time taken to clear a border-crossing point (hour)	3.8	4.3	4.4	●	2.3	-	-
	<i>Outbound</i>	4.0	4.4	4.1		-	-	-
	<i>Inbound</i>	3.7	4.2	4.6		2.3	-	-
TFI2	Cost incurred at border-crossing clearance (\$)	118	105	90	●	65	-	-
	<i>Outbound</i>	162	65	36		-	-	-
	<i>Inbound</i>	98	122	124		65	-	-
TFI3	Cost incurred to travel a corridor section (\$, per 500 km, per 20-ton cargo)	589	629	660	●	-	-	-
TFI4	Speed to travel on CAREC corridors (km/h)	23.3	22.5	21.0	●	-	-	-
SWOD	Speed without delay (km/h)	39.5	39.6	37.8	●	-	-	-

Legend: ● Improved by at least 3% ● Deteriorated by at least 3% ● Insignificant change [-3% to 3%]

- = no data, CAREC = Central Asia Regional Economic Cooperation, km = kilometer, km/h = kilometer per hour, SWOD = speed without delay, TFI = trade facilitation indicator.

Source: Asian Development Bank.

Table 6.18: Border-Crossing Performance in Tajikistan

BCP, Corridor, and Direction of Trade			Duration (hours)			Cost (\$)		
			2018	2019	2020	2018	2019	2020
<b>Road Transport</b>								
Dusti	(3)	<i>Outbound</i>	11.0	11.0	13.8	109	108	102
		<i>Inbound</i>	3.8	3.2	4.0	105	96	91
Fotehobod	(2, 3, 6)	<i>Outbound</i>	1.4	-	4.8	27	-	60
		<i>Inbound</i>	7.0	1.9	2.5	300	476	200
Panji Poyon	(2, 5, 6)	<i>Outbound</i>	3.3	3.8	2.1	175	61	20
		<i>Inbound</i>	5.6	7.2	7.4	125	183	188
Karamyk	(2, 3, 5)	<i>Outbound</i>	1.2	1.2	2.4	28	37	32
		<i>Inbound</i>	1.0	0.6	2.7	1.4	0.9	3.0
Guliston	(0)	<i>Outbound</i>	1.4	0.9	3.0	34	29	43
		<i>Inbound</i>	1.2	0.6	2.5	27	21	33
Kulma	(0)	<i>Inbound</i>	2.8	3.0	2.3	84	91	32
Jalgan	(2, 3, 5)	<i>Inbound</i>	0.3	0.6	0.8	42	99	153
<b>Rail Transport</b>								
Nau	(2)	<i>Inbound</i>	2.6	-	-	-	-	-

- = no data, BCP = border-crossing point.

Source: Asian Development Bank.

## Recommendations

- (i) **Intensify the development of the Shymkent–Tashkent–Khujand corridor.** ADB has supported the study of the Shymkent–Tashkent–Khujand corridor in recent years, which is an important transit corridor linking Kazakhstan, Tajikistan, and Uzbekistan. The trade potential is limited by existing poor secondary roads (e.g., Khujand to Asht), lack of test laboratories and regulations on entry quotas, and fees that inhibit cross-border movement of vehicles. A joint master plan could be developed between the three countries that identifies the gaps and proposes actions to remove or lower the barriers to cross-border trade.

- (ii) **Replace customs escort with smart tracking technologies.** Tajikistan customs imposes mandatory customs escort fees for transit shipments, even for TIR operations. This costs \$2 for every 10 km. This fee is translated to approximately \$54 for Dusti to Panji Poyon, or \$113.80 for Jalgan to Panji Poyon. Many CAREC countries have already eliminated mandatory customs escort (except for a small list of commodities such as dangerous goods or oversized cargoes). Smart tags on customs seals which use GPS that report real-time location status could be adopted, potentially alleviating the need for customs officers to escort the shipments.
- (iii) **Provision of X-ray scanners for Tajikistan customs.** There is a shortage of X-ray machines to carry out item inspections at the BCPs. The use of X-ray scanners and equipment would expedite the inspection process and thus shorten average border-crossing time. It is further recommended that Panji Poyon BCP be prioritized to operate such equipment due to smuggling and security concerns on freight that originates or transits from Afghanistan. It is also suggested that Dusti BCP be assigned importance to this, as the average customs controls took 4 hours, relatively higher than other BCPs in the Central Asian republics.
- (iv) **Set-up green lanes at border-crossing points to facilitate transit trade.** Tajikistan can attract transit trade between Central Asia and South Asia. To move freight between Afghanistan and Kazakhstan or the Kyrgyz Republic, a shipper can either route through Tajikistan or the Kyrgyz Republic. When the International Security Assistance Forces were based in Manas, Kyrgyz Republic was a very vibrant transit trade route for commercial and military goods flowing from the Kyrgyz Republic to Tajikistan to Afghanistan. Things have changed significantly since 2016, and Uzbekistan has liberalized many rules and regulations. Tajikistan, a beneficiary of this liberalization, also would face competition in the transit trade, particularly given the planned Uzbekistan–Afghanistan–Pakistan railway project. To simplify border-crossing, Tajikistan could designate green lanes at Gulistan and Panji Poyon so that freight from Central Asia and South Asia could move more rapidly. This is particularly important given that Afghanistan targets Kazakhstan as a potential attractive market for its agricultural produce.
- (v) **Mutual recognition of authorized economic operators.** Tajikistan launched AEO in 2020. The next step is to harmonize AEO criteria and agree to mutual standards so that Tajikistan companies also enjoy a simplified process in neighboring countries. For instance, qualified Tajikistan transport operators could access green lanes at designated BCPs in another country, without the need to queue with other vehicles.

## Turkmenistan

### Key Findings

- (i) For road transport, average border-crossing time decreased from 9.0 hours in 2019 to 7.3 hours in 2020. This seeming improvement was in part due to the closure of borders to foreign trucks, which reduced the waiting time.
- (ii) The average border-crossing cost for road transport in 2020 increased slightly from \$211 in 2019 to \$229, while total transport cost dipped from \$1,094 to \$1,029 in the same period.
- (iii) SWOD reached 53.8 km/h in 2020, and SWD attained 19.0 km/h. Both speeds for road transport were relatively unchanged year-on-year.
- (iv) Rail transport continued operations despite the shutdown of road transport. The increased freight diverted to trains caused a noticeable jump in average border-crossing time from 3.5 hours in 2019 to 5.7 hours in 2020.
- (v) Border-crossing cost changed from \$97 in 2019 to \$87 in 2020, and total transport cost changed from \$1,462 to \$1,319.

Table 6.19: Trade Facilitation Indicators for Turkmenistan

Trade Facilitation Indicators		Road Transport			Rail Transport		
		2018	2019	2020	2018	2019	2020
TFI1	Time taken to clear a border-crossing point (hour)	8.5	9.0	7.3	3.3	3.5	5.7
	<i>Outbound</i>	7.4	7.5	8.9	3.6	3.6	3.6
	<i>Inbound</i>	9.1	10.0	6.9	3.2	3.5	5.9
TFI2	Cost incurred at border-crossing clearance (\$)	204	211	229	94	97	87
	<i>Outbound</i>	62	63	65	108	108	108
	<i>Inbound</i>	284	302	311	90	93	86
TFI3	Cost incurred to travel a corridor section (\$, per 500 km, per 20-ton cargo)	1,017	1,094	1,029	1,499	1,462	1,319
TFI4	Speed to travel on CAREC corridors (km/h)	19.5	19.5	19.0	14.1	14.0	13.7
SWOD	Speed without delay (km/h)	53.9	54.3	53.8	27.8	28.5	28.2

Legend: ● Improved by at least 3% ● Deteriorated by at least 3% ● Insignificant change [-3% to 3%]

CAREC = Central Asia Regional Economic Cooperation, km = kilometer, km/h = kilometer per hour, SWOD = speed without delay, TFI = trade facilitation indicator.

Source: Asian Development Bank.

Table 6.20: Border-Crossing Performance in Turkmenistan

BCP, Corridor, and Direction of Trade			Duration (hours)			Cost (\$)		
			2018	2019	2020	2018	2019	2020
<b>Road Transport</b>								
Sarahs	(3)	<i>Outbound</i>	7.4	7.6	7.3	64	62	60
		<i>Inbound</i>	9.0	9.4	-	311	317	-
Farap	(2, 3)	<i>Outbound</i>	7.4	7.5	9.4	62	63	67
		<i>Inbound</i>	9.8	10.2	10.9	296	298	311
Turkmenbashi	(2)	<i>Inbound</i>	-	6.0	-	-	-	-
Serkhet Abad	(2, 6)	<i>Inbound</i>	2.3	-	0.9	50	-	-
<b>Rail Transport</b>								
Farap	(2, 3)	<i>Inbound</i>	2.6	2.7	21.4	119	120	120
Serkhet Abad	(2, 6)	<i>Inbound</i>	3.5	3.7	3.7	77	82	82
Serkhetyaka	(5)	<i>Inbound</i>	-	12.0	-	-	-	-

- = no data, BCP = border-crossing point.

Source: Asian Development Bank.

- (vi) Both SWOD and SWD were comparatively unchanged for rail transport, reaching 28.2 km/h and 13.0 km/h, respectively.
- (vii) Trucks crossing **Farap** took 9.4 hours (outbound) and 10.9 hours (inbound) for 2020. Trains took 21.4 hours in 2020, a huge increase from 2.7 hours in 2020. This was partly caused by the station handling increased rail freight, as well as an isolated sample that experienced a 120-hour delay attributed to documentary errors.

## Trends and Developments

The Government of Turkmenistan closed its border to foreign trucks on 23 March 2020. Garabogaz BCP (at the Kazakhstan border) and Farap BCP (at the Uzbekistan border) were subsequently reopened. However, shipments entering Turkmenistan must be transloaded from foreign trucks into Turkmen trucks without contact at designated areas on the border.



Foreign trucks arriving in Turkmenbashi International Seaport on 23 March 2020 or earlier could leave their trailers or semitrailers in the designated areas of the port for pick-up by Turkmen carriers for in-country delivery or transit through its territory. Afterward, foreign tractors must return, with the driver, by sea to the originating port. However, after 23 March 2020, all cargo to Turkmenbashi Port must be sent in trailers or semitrailers without tractors and drivers.

Turkmenistan essentially shut its border to foreign trucks, as foreign carriers cannot forge interline agreements with Turkmen carriers (to which they can entrust both the cargo and equipment) during such a short adjustment period. Central Asian road carriers that previously transited through Turkmenistan to reach Iran (e.g., Bandar Abbas port) had to cease operations. Currently, rail is the only available transportation option through Turkmenistan to Iran. This has caused an increase in rail traffic, with 30–80 wagons transported daily.

## Recommendations

- (i) **Participate in regional and international bodies.** To assert influence and integrate into international trade and transport, Turkmenistan could do more by participating in established bodies. Currently, Turkmenistan is not represented in the Trans-Caspian International Transport Route, where Azerbaijan, the PRC, Georgia, and Kazakhstan are active members.
- (ii) **Modernization of Farap border-crossing point.** Farap is an important gateway for transit, connecting cargo flow between seaports such as Bandar Abbas with Uzbekistan. In addition, this BCP serves both road and rail traffic. CPMM observed that Farap is consistently one of the more time-consuming road BCPs, and this is attributed to limitations in infrastructure, procedure, and equipment. The authorities could review the current situation and determine the appropriate solutions.
- (iii) **Limited and gradual relaxation of visa restrictions.** CPMM samples show that Caucasus and Central Asia shipment are done through Azerbaijan (Baku) to Kazakhstan (Kuryk). Transport operators often avoid Turkmenistan due to restrictive visa procedures and transit regime. Naturally it is not wise to ease visa requirements during these COVID-19 times, but the country could consider selective relaxation and adoption of risk-based programs such as mutually recognized AEO programs with neighboring countries.
- (iv) **Enhance logistics capacity through training programs.** Modern logistics is a relatively new concept. To realize the ambition of multimodal transport and increased efficiency to support international trade, it is imperative to raise the professional capacity of the personnel working in this industry. The government could support accredited programs run by reputable firms in the form of skills development funds. For instance, the Turkmenistan Logistics Association is a member of the International Federation of Freight Forwarders Associations (FIATA),<sup>34</sup> and could offer national certification programs on international freight forwarding, particularly on the use of FIATA documents such as the multimodal transport waybill.

<sup>34</sup> FIATA is a nongovernment organization headquartered in Geneva, Switzerland. International Federation of Freight Forwarders Associations. <https://fiata.org/>.



## Uzbekistan

### Key Findings

- (i) In 2020, border-crossing time for road transport jumped from 7.7 hours in 2019 to 10.1 hours in 2020. Inbound vehicles had to undergo prolonged inspection time due to strict sanitation and health controls.
- (ii) Border-crossing cost increased from \$87 in 2019 to \$102 in 2020. Total transport cost also increased from \$600 in 2019 to \$648 in 2020.
- (iii) Both SWOD and SWD for road transport showed a dip, reaching 46.9 km/h and 26.6 km/h, respectively in 2020.
- (iv) For rail transport, border-crossing time was little changed from 6.2 hours in 2019 to 6.4 hours in 2020.
- (v) Border-crossing cost increased from \$113 in 2019 to \$125 in 2020. Total transport cost decreased from \$778 in 2019 to \$671 in 2020. Since border-crossing cost increased yet the total transport cost decreased, it could be inferred that rail freight rate in Uzbekistan decreased.
- (vi) Both SWOD and SWD for rail transport showed a dip, reaching 21.9 km/h and 9.7 km/h, respectively, in 2020.
- (vii) Road BCPs such as **Yallama** (30 hours), **Saryasia** (25.7 hours), and **Dautota** (14.3 hours) topped the list of most time-consuming BCP in Uzbekistan. For rail transport, **Keles** reported 72 hours of border delays.

### Trends and Developments

Notable progress was made in rail connectivity. On 5 June 2020, Lanzhou, the provincial capital of Gansu Province in the PRC, inaugurated a multimodal express container rail service to Tashkent. This route passes through Kashgar (Xinjiang Uygur Autonomous Region in the PRC), Osh (Kyrgyz Republic), and Andijan (Uzbekistan). The Uzbek-Chinese joint venture company Silk Road International Ltd. transports containers over the road from Kashgar to Osh rail station in the Kyrgyz Republic. At Osh, the containers are loaded by KTJ (Kyrgyz Railway) into platform wagons to form a block train connecting to UTY (Uzbekistan Railway). Moreover, Afghanistan, Pakistan, and Uzbekistan conducted a series of negotiations to put in a trilateral agreement a railway link from Uzbekistan to Pakistan across Afghanistan, terminating in Peshawar, Pakistan near the Torkham BCP.<sup>35</sup>

COVID-19 has impacted the Uzbek road transport sector negatively, causing some carriers to suffer financial difficulties. When the pandemic struck, Uzbekistan closed its border on 15 March 2020 after the first COVID-19 case was detected. It has subsequently reopened its border to freight traffic under strict health and quarantine controls. All drivers (national or foreign) must pass a COVID-19 testing procedure, which takes about 14–16 hours for the results. There is no charge for such test. Drivers stay at special Uzbek parking areas near BCPs while awaiting test results. Basic services are provided to drivers and special personnel with access to such areas. If the test result is positive, the driver will be quarantined until the actual infection status is confirmed or after full recovery. Only healthy drivers are allowed to enter the country. Additional time and cost associated with enhanced health screening, quarantine, and sanitization have increased the operating costs of Uzbek carriers, while the demand and supply imbalance prevent them from passing the cost increases to shippers, squeezing their already thin profit margins.

<sup>35</sup> Revisions in the agreement implementation are anticipated due to government change at the time of writing of this report.

Table 6.21: Trade Facilitation Indicators for Uzbekistan

Trade Facilitation Indicators		Road Transport			Rail Transport				
		2018	2019	2020	2018	2019	2020		
TFI1	Time taken to clear a border-crossing point (hour)	8.5	7.7	10.1	●	5.6	6.2	6.4	●
	<i>Outbound</i>	8.5	7.8	7.6		11.1	14.0	14.0	
	<i>Inbound</i>	8.5	7.7	14.0		3.6	4.0	5.2	
TFI2	Cost incurred at border-crossing clearance (\$)	73	87	102	●	112	113	125	●
	<i>Outbound</i>	66	92	124		99	99	100	
	<i>Inbound</i>	80	83	83		118	119	129	
TFI3	Cost incurred to travel a corridor section (\$, per 500 km, per 20-ton cargo)	477	600	648	●	971	778	671	●
TFI4	Speed to travel on CAREC corridors (km/h)	28.5	28.6	26.6	●	14.0	10.5	9.7	●
SWOD	Speed without delay (km/h)	50.8	49.6	46.9	●	27.9	38.2	21.9	●

Legend: ● Improved by at least 3% ● Deteriorated by at least 3% ● Insignificant change [-3% to 3%]

CAREC = Central Asia Regional Economic Cooperation, km = kilometer, km/h = kilometer per hour, SWOD = speed without delay, TFI = trade facilitation indicator.

Source: Asian Development Bank.

Table 6.22: Border-Crossing Performance in Uzbekistan

BCP, Corridor, and Direction of Trade			Duration (hours)			Cost (\$)		
			2017	2018	2019	2017	2018	2019
<b>Road Transport</b>								
Alat	(2, 3)	<i>Outbound</i>	9.1	9.5	9.6	-	-	-
		<i>Inbound</i>	9.8	9.8	6.8	-	-	-
Termez	(3, 6)	<i>Outbound</i>	-	2.3	-	-	-	-
Dustlik	(2)	<i>Outbound</i>	1.0	0.9	2.1	22	23	25
		<i>Inbound</i>	1.1	0.6	2.4	27	20	33
Dautota	(2, 6)	<i>Outbound</i>	6.9	6.9	8.1	-	-	5
		<i>Inbound</i>	6.1	6.2	14.3	108	96	73
Saryasia	(3)	<i>Outbound</i>	5.1	4.6	5.3	76	101	127
		<i>Inbound</i>	10.0	10.1	25.7	-	-	10
Yallama	3, 6	<i>Outbound</i>	10.2	10.0	9.6	-	54	-
		<i>Inbound</i>	-	1.3	30.0	-	10	-
Uchkurgan	(0)	<i>Outbound</i>	-	3.0	4.3	-	-	-
Oibek	(2, 3, 6)	<i>Outbound</i>	5.0	1.3	2.8	15	-	-
		<i>Inbound</i>	2.8	-	1.4	32	-	50
Saryasia	(3)	<i>Outbound</i>	5.1	4.6	5.3	76	101	127
		<i>Inbound</i>	10.0	10.1	25.7	-	-	10
Yallama	(3, 6)	<i>Outbound</i>	10.2	10.0	9.6	-	54	-
		<i>Inbound</i>	-	1.3	30.0	-	10	-
<b>Rail Transport</b>								
Termez	(3, 6)	<i>Outbound</i>	0.6	-	-	-	-	-
		<i>Inbound</i>	8.3	8.9	9.1	117	119	120
Keles	(3, 6)	<i>Outbound</i>	-	-	72.0	-	-	-
		<i>Inbound</i>	2.4	2.4	3.5	119	119	139
Bekabad	(2)	<i>Outbound</i>	4.3	-	3.5	-	-	-
Khodzhadavlet	(2, 3)	<i>Outbound</i>	15.1	15.0	12.7	100	100	100

- = no data, BCP = border-crossing point.

Source: Asian Development Bank.

On a positive note, Uzbekistan has continued its customs reform by adopting international customs standards and implementing good practices. The registration of the cargo declaration is being simplified and risk management system has been introduced at road BCPs. The State Customs Committee reported the following progress:

- (i) Average time for customs export clearance reduced from 2 hours 16 minutes to 44 minutes.
- (ii) Average time for customs import clearance decreased from 6 hours and 44 minutes to 2 hours 34 minutes.
- (iii) 22.7% of goods moved through the green corridor and 39% of goods through the yellow corridor.

## Recommendations

- (i) **Install modern scanners to expedite inspection of vehicles and cargoes.** Current border delays were attributed to a shortage of equipment and many “human touchpoints.” For instance, by using automated weight machines, high speed scanners, and online video surveillance systems to improve border operations, the throughput of the vehicles could be increased.
- (ii) **Increase the number of access roads to border-crossing points.** Currently, the traffic flow of vehicles into and out of the BCPs is hampered by limited access roads and causes difficulty in separating the flow of traffic or segregating human and vehicular traffic. It is recommended to have at least three lanes in one direction to improve the accessibility of the BCPs.
- (iii) **Mandate a time limit for border clearance.** Using risk-based management, any shipment that is determined to be in the green channel (no signals of violations) should be crossing a BCP within 30 minutes from the time of arrival at the gate.
- (iv) **Develop roadside facilities and services for drivers.** Since adopting a liberalization drive, Uzbekistan has attracted transit traffic. This is evident in the rapidly increasing number of TIR Carnets issued from International Road Transport Union (IRU) to AIRCUZ, the national TIR association in the country.<sup>36</sup> These should include facilities such as cafe, motel, hostel, secure parking areas, and maintenance and repair services for international drivers at the main international routes or corridors with compliant sanitary procedures. The locations of such facilities and services could also be published on maps and on the internet.
- (v) **Negotiate with Turkmenistan and Iran on controls.** Uzbek operators requested for clear and coordinated communications between countries on the implementation of sanitation and health measures to avoid incidents of trucks being detained unnecessarily due to unclear policies and procedures, which happened when they traversed Turkmenistan and Iran. Closures of certain BCPs and road sections could result in the collapse of an important trade corridor, which would be particularly detrimental to double landlocked Uzbekistan that relies on these neighbor countries to access seaports and overseas markets.
- (vi) **Provide higher priority to freight trains.** To promote tourism, passenger traffic currently enjoys higher priority over rail traffic when train paths are assigned. As rail cargo is far more profitable to UTY than passengers, the government should allow UTY to gradually assign parity to rail freight traffic to drive higher income.

<sup>36</sup> The number of issues from International Road Transport Union to AIRCUZ increased from 14,000 in 2017; 32,400 in 2018; 43,000 in 2019; to 89,000 in 2020. United Nations Economic Commission for Europe. *Total Amount of TIR Carnets Issued by IRU to National Associations 2001–2020*. <https://unece.org/sites/default/files/2021-02/TIRCarnets2001-2020.pdf>.

# 7 Case Study: The Coronavirus Disease and Its Impact

## General Impact on Trade and Transport

The ramifications of the COVID-19 pandemic are widespread and consequential. While the short-term disruption has adversely affected CPMM performance, the longer-term impact could be a reshaping of global supply chains and a rethinking of business practices. For instance, the idea of near-sourcing is gaining popularity. Likewise, supplier diversification has attracted some attention in contrast to reliance on single or dual supply, which could compromise supply during these trying times.

While there have been abrupt border closures especially at the beginning of the crisis, countries in general maintained the flow of essential goods such as food and medical supplies. Production and commercial activities were halted from March to May 2020 as various modes of transport came to a standstill and individuals were restricted in physical movements. To protect the health and safety of their residents, CAREC member countries instituted various measures to manage the admission of foreign trucks into their territory. The level of control ranges from limited access for foreign drivers who passed health screening at BCPs to total denial of access. When the economic activities started to resume, the border-crossing performance tested the efficiency of the key nodes in the CAREC corridors. In the second half of 2020, border controls were generally relaxed, but the restrictions were tightened again toward the end of 2020 as the threat of the COVID-19 resurgence surfaced. This section describes two pertinent developments throughout 2020, focusing on the impact of border-crossing, and diversion of freight from air or road to rail.

## Impact on Border-Crossing

Border crossings were either restricted or closed completely in the CAREC region, depending on the country and the timing. When COVID-19 struck, many countries first closed the BCPs at the common border with the PRC, and then subsequently to other CAREC member countries. This lasted for a limited time for road transport, even as rail transport continued to carry food and medical supplies. Air traffic, both freight and passenger, were initially shut down, and remained severely restricted throughout 2020. For countries that grant limited access to foreign trucks, their drivers were subjected to mandatory and additional health and quarantine checks at selected interior locations (e.g., primary entry points to major city centers). These measures included taking the temperature of drivers and RT-PCR testing. For countries that deny entrance of foreign trucks, freight must be transloaded from foreign trucks to domestic trucks at the border zone. Two general approaches for cargo transloading were adopted: Method 1 was the swapping of containers, trailers, or semitrailers between foreign trucks and domestic trucks; and Method 2 was piece-by-piece unloading of cargo from the inbound foreign truck onto domestic trucks.

Method 1 was the most efficient and fastest way to interchange cargo and minimize human contact. However, this required a trusted relationship between the foreign trucking company and the domestic company, as well as close coordination to assure an empty (or loaded) equipment is available for hook-up when the inbound loaded equipment is dropped off. Method 2 was labor-intensive and consumed more time and cost. Moreover, the unloading and reloading can cause loss and damage to the freight.

### Box 7.1: Cross-Border Cargo Movements at Border-Crossing Points in the People's Republic of China

The People's Republic of China (PRC) has instituted effective solutions with its Central Asian republic neighbors to facilitate freight flow during the coronavirus disease (COVID-19) pandemic. These include encouraging the use of containers and semitrailers that enable cargo crossing with minimal human interaction.

To illustrate, a truck from the PRC carrying a container is disinfected prior to entering Tajikistan (through a special lane where disinfectant is applied). At the interchange point, the loaded container is lifted from the Chinese truck onto the Tajik truck, and then replaced by an empty container brought to the border by the Tajik truck. When the Chinese truck returns to the PRC border, both the exterior and the interior of the empty container are disinfected along with the truck. Regardless of their nationality, the drivers are not permitted to leave their trucks until they return to their respective resident countries.

Another example is the Horgos international border where the PRC has a sealed cargo transloading facility to handle goods that must be emptied from one truck (the PRC's) and reloaded into a truck registered in Kazakhstan. All trucks approaching this transloading facility must go through a disinfecting lane, where the drivers have their temperatures taken. They will be turned back if their body temperature exceeds 37°C. They must also pass the COVID-19 double-antibody test<sup>a</sup> to gain entry. The freight handlers who unload and reload cargo at the transloading facility must eat, rest, and sleep within the quarantined zone. Both the Chinese and the Kazakh drivers are not allowed to leave their trucks until they test negative.

Both examples demonstrate effective approaches to speed up transloading and to minimize the spread of COVID-19.

<sup>a</sup> The COVID-19 double-antibody test utilizes the Double-Sandwich Elisa technology, with results available within 30 minutes. Source: U.S. Food and Drug Administration. WANTAI SARS-COV-2 Ab ELISA Instructions for Use. <https://www.fda.gov/media/140929/download>.

However, a substantial percentage of CAREC cross-border cargo is moved in rigid straight-trucks (mostly small or midsized) and Method 2 was the only way. Some CAREC member countries are already promoting the use of semitrailers.<sup>37</sup> COVID-19 will spur faster adoption, as Method 1 is clearly faster and more efficient for handling cross-border cargo (even after COVID-19).

### Impact on Transport Modes: Diversion of Freight from Air and Road to Rail

Land transportation serves as the dominant way to move freight across borders since most of the CAREC member countries are landlocked. Thus, road and rail transports play an instrumental role for the foreign trade. Road transport offers greater flexibility, while rail transport is more cost-effective. In 2020, more freight was attracted to rail transport because it continued to function during the period when road and air transports came to a standstill. The statistics drawn from Kazakhstan, Mongolia, and the PRC (Table 7.1) supported this claim which showed that freight tonnage transported by rail increased year-on-year (comparing 2019 and 2020) while road and air transports displayed different levels of reduction.

The benefits of rail transport have become even more pronounced during the COVID-19 pandemic. In addition to higher energy efficiency and lower greenhouse gas emission, train operations require far fewer people, which is important during a pandemic period when human contacts must be minimized.

<sup>37</sup> The PRC has been promoting the usage of semitrailers with "drop and pull" protocol since 2016. This is the dominant mode for long-haul road transport in the Western Europe and North America.

Table 7.1: Freight Tonnage by Various Modes, 2016 to 2020

	Unit	2016	2017	2018	2019	2020	2019–2020 Change (%)
<b>People's Republic of China</b>							
Railway	million tons	69.01	97.00	125.00	151.88	174.76	15.1
Road	million tons	651.40	748.00	850.00	692.90	403.05	-41.8
Air	thousand tons	18.22	18.74	19.19	21.69	16.06	-26.0
<b>Kazakhstan</b>							
Railway	million tons	338.90	387.20	397.90	397.00	413.30	4.11
Road	million tons	3,180.70	3,322.30	3,300.80	3,550.50	3,288.70	-7.4
Air	thousand tons	18.00	22.50	44.10	26.70	24.20	-9.6
<b>Mongolia</b>							
Railway	million tons	19.99	22.77	25.76	28.14	29.84	6.0
Road	million tons	20.41	31.21	42.03	40.85	30.45	-25.4
Air	thousand tons	4.90	5.40	5.80	5.80	2.50	-56.1

Source: Kazakhstan Bureau of Statistics. <https://stat.gov.kz/>; Kazakhstan Freight Forwarders Association; Mongolian Statistical Information Service. <https://www.1212.mn/default.aspx>; Xinjiang Uyghur Autonomous Region Logistics Association.

To illustrate, it takes just one locomotive engineer<sup>38</sup> to drive a container block train with 50 containers across the border, compared to 50 truck drivers each moving just one container. This greatly reduces the time and cost for COVID-19 testing and quarantine at BCP and enables higher cargo throughput. In addition, the border station train crew is part of a small, vetted group, making it easier for authorities to monitor their health and control their contacts. Border closures and movement restrictions<sup>39</sup> forced many truck drivers to stay home, especially in March and part of April 2020. Operating cost increased and business disruptions also forced some truck carriers to exit the industry. This led to a substantial drop in road transport capacity for both international and domestic shipments. Unsurprisingly, a significant percentage of cargo shipments was converted from road to rail. This is reflected in the traffic growth among most CAREC railways (including Azerbaijan,<sup>40</sup> the PRC, Kazakhstan,<sup>41</sup> the Kyrgyz Republic, Mongolia, and Uzbekistan)<sup>42</sup> during the first half of 2020.

Massive cancellation of passenger flights have led to severe reduction in air-lift capacity (e.g., between the PRC and Europe), which quickly caused air freight rates to skyrocket. In addition, ocean carriers have been cutting shipping schedule and routes. Disruption of both air and sea transport are forcing shippers to use expedited TIR trucks and fast container express trains to move long distance international cargo between Asia and Europe, even from the PRC's coastal cities like Shenzhen, which had enjoyed excellent air and ocean connectivity before the pandemic. As a result, the number of PRC–Europe container express trains reached a record monthly high of 1,169 in June 2020. According to China Railways, the number of such container express trains increased 36% year-on-year to 5,122 during the first half of 2020. The Horgos BCP alone saw its trade volume up 48% year-on-year, propelled by 2,000 PRC–Europe trains. However, the growth of PRC–Europe express container trains is beginning to stress the throughput capacity at the PRC's interchange gateways with the Kazakhstan rail network. Periodic bottlenecks are emerging in Alashankou–Dostyk and Horgos–Altynkol. China Railways embargoed regular freight trains to Alashankou and Horgos on 17–24 June 2020 to relieve severe

<sup>38</sup> Depending on local rules, the locomotive driver may be assisted by a conductor in operating cross-border trains.

<sup>39</sup> For example, Turkmenistan and Tajikistan closed their border to foreign trucks, while Kazakhstan and Uzbekistan required foreign truck drivers to present negative test certificates or to pass COVID-19 tests at BCP.

<sup>40</sup> In Q1 2020, transit cargo via Azerbaijan increased by 32% year-on-year. Ministry of Transport, Communications and High Technologies of Azerbaijan. <https://www.mincom.gov.az>. Between March and May 2020, about 140,000 tons of goods were transported via the Baku–Tbilisi–Kars Railroad, setting a new record. Azeri Press Agency, <https://www.apa.az>.

<sup>41</sup> Kazakhstan Railways reported 143 million tons of freight transported during the first 7 months of 2020, and a freight turnover of 131.6 billion ton-km, which is 4% higher than the same period in 2019.

<sup>42</sup> During the first 5 months of 2020, rail transit cargo volume increased by 21%, export cargo volume by 14.3%, and import cargo volume by 0.4%, compared to the same period in 2019.

congestion. To support further growth, both the PRC and Kazakhstan should develop a plan to expand cross-border rail traffic throughput at those two important interchange gateways. In June, Lanzhou launched a PRC–KGZ–UZB multimodal rail and road service that represents a new route bypassing the busy Alashankou–Dostyk and Horgos–Altyntkol gateways. Containers will travel on China Railways to Kashgar (Xinjiang Uygur Autonomous Region in the PRC), then over the road to Kyrgyz Railway’s Osh Station via Irkeshtam BCP. These containers are then loaded onto platform wagons to form a train to connect with Uzbekistan Railway.

## Impact of Health and Quarantine Measures

The CAREC countries have adopted varying measures to counter the spread of COVID-19. In general, the common measures include

- (i) temperature screening of drivers;
- (ii) COVID-19 testing using both RT-PCR test and antibody test;
- (iii) quarantine of drivers at a designated area until test results show negative results for COVID-19 infection;
- (iv) segregation and repatriation of drivers who yielded positive tests;
- (v) disinfection of vehicles, freight, and containers; and
- (vi) transfer of goods from a foreign truck to a local truck for domestic transit.

Such measures have been logged as “Health and Quarantine” in this report to distinguish them from other border-crossing activities. CPMM was able to segregate outbound (Table 7.2) and inbound (Table 7.3) traffic to estimate the time taken for these activities at major BCPs.

**Table 7.2: Impact of Additional Health and Quarantine Controls at Road Border-Crossing Points (Outbound), 2019–2020**

BCP	Country	Corridor	Count	2019 (hour)	2020 (hour)
Shirkhan Bandar	AFG	2, 5, 6	120	0.5	1.0
Baku	AZE	2	69	0.3	1.5
Karasu	KAZ	1	20	0.2	2.4
Konysbayeva	KAZ	3, 6	4	0.1	0.6
Kurmangazy	KAZ	6	131	0.1	0.4
Nur Zholy	KAZ	1	12	0.1	0.3
Taskala	KAZ	1, 6	33	0.1	0.4
Tazhen	KAZ	2, 6	136	0.5	0.8
Zhaisan	KAZ	1, 6	62	0.1	0.6
Dostuk	KGZ	2	12	0.2	1.5
Irkeshtam	KGZ	2, 5	5	0.1	1.5
Karamyk	KGZ	2, 3, 5	30	0.4	0.6
Chaman	PAK	5, 6	105	0.0	0.9
Torkham	PAK	5, 6	464	0.0	1.8
Alashankou	PRC	1, 2	26		0.5
Erenhot	PRC	4	310	0.0	1.9
Irkeshtan	PRC	2, 5	2	0.0	1.3
Karasu	PRC	0	26	0.2	0.5

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Table 7.2 continued

BCP	Country	Corridor	Count	2019 (hour)	2020 (hour)
Khorgos	PRC	1	133	0.0	0.6
Khunjerab	PRC	5	6	0.0	0.5
Takeshikent	PRC	4	9	0.0	0.5
Torugart	PRC	1	15	0.0	0.6
Guliston	TAJ	0	2	0.0	4.0
Karamyk	TAJ	2, 3, 5	10	0.4	1.9
Pakhtaabad (Dusti)	TAJ	3	27	0.6	3.7
Panji Poyon	TAJ	2, 5, 6	119	0.2	0.2
Alat	UZB	2, 3	9	0.5	0.6
Dautota	UZB	2, 6	221	0.4	0.6
Dustlik	UZB	2	12	0.1	1.5
Saryasia	UZB	3	129	0.2	0.3
Uchkurgan	UZB	0	2	0.1	0.4
Yallama	UZB	3, 6	122	0.6	0.5

AFG = Afghanistan, AZE = Azerbaijan, BCP = border-crossing point, hrs = hours, KAZ = Kazakhstan, KGZ = Kyrgyz Republic, PAK = Pakistan, PRC = People's Republic of China, TAJ = Tajikistan, UZB = Uzbekistan.

Note: "Count" refers to the sample size. For some BCPs, there were no health and quarantine controls, or no such data was collected in 2019, thus the empty fields.

Source: Asian Development Bank.

Table 7.3: Impact of Additional Health and Quarantine Controls at Road Border-Crossing Points (Inbound), 2019–2020

BCP	Country	Corridor	Count	2019 (hour)	2020 (hour)
Spin Buldak	AFG	5, 6	105	0.0	0.8
Torkham	AFG	5, 6	444	0.0	0.9
Qirmizi Korpu	AZE	2	65	0.1	6.6
Sarpi	GEO	2	5	0.1	0.3
Konysbayeva	KAZ	3, 6	101	0.5	0.6
Kurmangazy	KAZ	6	71	0.1	0.3
Nur Zholy	KAZ	1	133	0.1	0.7
Taskala	KAZ	1, 6	2	0.1	0.1
Tazhen	KAZ	2, 6	221	0.4	0.6
Zhaisan	KAZ	1, 6	17	0.1	1.2
Dostuk	KGZ	2	14	0.2	1.5
Kensay	KGZ	0	2	0.2	0.4
Altanbulag	MON	4	79	0.2	0.3
Bichigt	MON	4	10	0.0	0.2
Yarant	MON	4	9	0.0	1.0
Zamiin-Uud	MON	4	310	0.1	1.3
Khunjerab	PAK	5	6	0.0	0.5
Irkeshtan	PRC	2, 5	1	0.2	0.2
Khorgos	PRC	1	11	0.0	0.2
Takeshikent	PRC	4	18	0.0	0.3
Guliston	TAJ	0	7	0.0	2.5
Kulma	TAJ	0	26	0.5	0.6
Pakhtaabad (Dusti)	TAJ	3	128	0.3	0.3
Panji Poyon	TAJ	2, 5, 6	80	0.4	0.8

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**Table 7.3** *continued*

BCP	Country	Corridor	Count	2019 (hour)	2020 (hour)
Farap	TKM	2, 3	9	0.5	0.8
Alat	UZB	2, 3	6	0.6	0.5
Dautota	UZB	2, 6	238	0.4	7.1
Saryasia	UZB	3	27	0.5	16.0
Yallama	UZB	3, 6	4	0.1	26.0

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

Note: "Count" refers to the sample size. For some BCPs, there were no health and quarantine controls, or no such data was collected in 2019, thus the empty fields.

Source: Asian Development Bank.

The additional health and quarantine measures taken by the countries resulted in a noticeable increase in TFIs between 2019 and 2020. In 2019, the samples showed that this activity could be completed in approximately 10 minutes at many BCPs. Yet, this duration increased to 1 hour or more in 2020 at many BCPs. Those that took more than 1 hour included Qirmizi Korpu (AZE), Zhaisan (KAZ), Dostuk (KGZ), Zamiin-Uud (MON), Guliston (TAJ), Dautota (UZB), Saryasia (UZB), and Yallama (UZB). The long duration recorded at Saryasia and Yallama is largely attributed to COVID-19 testing procedure, required from all drivers, which takes about 14–16 hours for the results.

## Adaptation to a Post-COVID-19 Environment

Despite the disruptions as a result of COVID-19, this episode inspires some thoughts on how to deal with a post-COVID-19 future, while mindful that until an effective vaccine is available widely, the current safeguards are probably necessary. The following offer some learning points and insights into how cross-border trade would happen.

- (i) **Digitalization of procedures and paperwork.** Telecommuting or work-from-home has become a catchphrase. Workers are encouraged not to come to the office unless it is mission-critical. With a sound telecommunications infrastructure, it is possible to implement e-application, cashless payments, and video conferencing to replace the need to physically visit different government agencies to secure permits and licenses for imports and exports. Some countries in CAREC, notably in South Asia, still require many manual signatures to complete documentation. Governments will reap benefits if they invest in modernizing the telecommunications infrastructure to support telecommuting in the new digital age.
- (ii) **Green lanes.** Not all high-traffic BCPs have green lanes. The creation of green lanes will help countries withstand the next shock better, when essential supplies and humanitarian aid can flow faster. One solution is to adopt Electronic Pre-Declaration (TIR-EPD), which is being piloted in some CAREC countries. Trucks that have adopted TIR-EPD should be given priority treatment and not queue along with the other trucks.
- (iii) **Alternative BCP to divert traffic.** Many high-traffic BCPs rely on a single node to facilitate external trade. When Chaman was closed in June and trucks were diverted to Torkham, queues of thousands of trucks were visible at both sides of Afghanistan and Pakistan. The capacity simply could not cope with the increased volume and resulted in severe delays. Both countries agreed to expedite work to establish Ghulam Khan as the third international BCP and relieve the stress at Torkham.

- (iv) **Improve the throughput of the border-crossing point.** Many BCPs will be tested in the coming months as the production volume increases and leads to more goods crossing the border by various modes of transport available. BCPs could improve their throughput by many ways, such as redesign of the layout, segregating cargo and passenger flows, and simplifying the controls at the border.
- (v) **Encourage the use of containerization.** Containerization is critical for ocean freight but the pace of its adoption in landlocked countries has been slow. This could change due to the pandemic. A container is easily transferred and handled, avoiding the time-consuming manual loading and unloading by hand, which is also unsafe in current times. A container can also lead the progress toward multimodal transport, especially for road–rail or road–sea shipments. The use of semitrailers is also advocated. Instead of using a rigid truck for haulage, the use of semitrailers allows “drop and pull” transport. This transport method is flexible because it permits the tractor and the trailer to be decoupled or combined when needed. This can reduce the idle time of the vehicle because the driver can leave the cargo and hook to another trailer with return load, without the need to wait for loading and unloading.
- (vi) **Support the development of the rail sector.** COVID-19 has a significant impact on the growth of rail traffic. The benefits of rail transport became apparent during this period, as for example, it takes one locomotive driver to run a 50-container train across the border, compared to 50 truck drivers, which greatly reduce the testing and quarantine burden. In addition, the locomotive driver operating cross-border trains is part of a small, vetted group, much easier for authorities to monitor their health.
- (vii) **Establish cold chain infrastructure.** The “paralysis” of transportation resulted in the spoilage of many agricultural produce, a key export category in Central Asia—which unfortunately coincided with the peak export summer season. Available cold storage and transport would have alleviated the problem by preserving the quality of the harvest, instead of the natural degradation as the produce were left on the fields or ambient sheds.
- (viii) **Enhance the local value chain.** Another problem was that many domestically produced items in the CAREC region have low unit value and are transported to other countries for value-added processing such as the Russian Federation or Turkey. When the transportation to these countries stopped, the raw materials did not have enough domestic market to absorb the surplus. Extending the industrial ecosystems to use the raw materials as feedstocks and produce higher value-added items benefit the economy.
- (ix) **Institute gradual relaxation in controls.** Developed nations have floated the idea of a “travel bubble” in aviation to allow business and mission essential travel to resume between two countries through mutually agreed controls in place. This could be discussed bilaterally or between regions so that regional trade could resume in a more expedient and secure manner.

In conclusion, COVID-19 has resulted in far-reaching consequences. This resulted in border-crossing complications, and diversion by shippers of freight from road and air transport to rail. The increase in rail freight was not pronounced but showed signs of increase toward the year-end. Additional health and quarantine measures showed a quantifiable impact on duration of operations at BCPs, leading to border-crossing delay. Digitalization would be useful to reduce human interactions so that border-crossing performance could improve, in conjunction with simplification of procedures and development of infrastructure.

## 8 Conclusion

After exhibiting some visible progress in 2019, the TFI estimates for road transport displayed considerable deterioration in 2020 caused by the disruptions brought about by the COVID-19 pandemic. As borders were closed and people stayed at home to minimize human interactions, cross-border traffic became seriously affected, as reflected in the time and cost estimates. Average border-crossing time and cost estimates increased in 2020 compared to the previous year, as well as total transport cost. These results were driven by the complete border closures to road traffic at the beginning, which only gradually resumed to normal operations; as well as longer time to consolidate freight; and difficulty finding drivers and workers to handle and move the cargoes. Moreover, countries adopted strict measures on health, sanitation, and quarantine. The additional efforts in temperature screening, COVID-19 testing, waiting for results, and disinfecting procedures for vehicles and containers led to increased time and cost. The transfer of cargoes between foreign vehicles to a locally registered vehicle at the border to avoid the spread of the virus was also a tedious process, creating chokepoints at the high-traffic BCPs.

While the TFI estimates for rail transport indicated long border-crossing time at gauge change points compared to road, 2020 has shown that rail transport is an indispensable mode of transport during this challenging year. Trains continued to operate and carry essential goods such as food supplies, medical equipment, and consumables at a time when road and air cargo traffic came to a standstill. This positive outcome was a sign that CAREC member countries coordinated with a sense of urgency to sustain trade despite their attempt to control the infection. Despite the estimated average border-crossing time increasing in 2020 compared to the year before, border-crossing cost decreased slightly while total transport cost increased moderately, due to a rise in rail freight rates. Average speeds also dipped. A worrisome sign was that border-crossing time escalated toward the end of 2020, as the PRC adopted a very strict and mandatory set of controls on noncontainerized rail movements. This resulted in a long queue of rail cars waiting at the BCPs. The problem remains unsolved as of Q1 2021 while negotiations between the PRC and Kazakhstan are ongoing. Another concern was the surge in rail freight rate observed at the end of 2020. As the road BCPs required longer time to cross, shippers resorted to rail transport. The sharp rise of ocean freight rates also encouraged shippers to use container express trains, as the cost differential between ocean and rail freight rates narrowed. This could result in a significant rise in rail transport cost in 2021.

Since the COVID-19 pandemic occupied the headlines of the media in 2020, it is only logical that this CPMM Annual Report 2020 features the impact of this pandemic as a case study. The case study chapter elaborates on how the pandemic affected border-crossing and the diversion of freight from road to rail. A notable outcome was the spike in the time taken for completing health and quarantine activities at BCPs. The pandemic has amplified border-crossing delays due to transloading in the CAREC region, especially when transporting goods in and out of the Central Asian republics. It also increased the cost of doing business. Although governments have offered waivers, rebates, and other supporting measures that cushioned the impact of the pandemic, these were temporary. The elevated ocean freight rate has diverted attention to alternative forms of transport such as rail, and this increased demand is projected to raise the rail freight rate. The chapter also offers recommendations for policy makers to consider and implement. The pandemic would demand close and stronger regional cooperation and motivate the drive toward more automation; as well as harmonization and optimization of policies, standards, and administration. Only by recognizing that—with or without a pandemic like COVID-19—such measures are necessary to enhance national and regional competitive advantage, could this crisis turn into a positive force for change. Essentially, the crisis exposed the existing problems such as cumbersome procedures, heavy reliance on manual interventions and signatures, rampant informal payment at certain BCPs, underdeveloped infrastructure that struggled to cope with increasing traffic, and outdated policies.

In conclusion, the year 2020 was unique. The consequences of the pandemic have been devastating to many families and businesses, with far-reaching implications. While these are not expected to subside in the short term, it is necessary to prepare for a post-COVID-19 environment when global trade and travel would have normalized. Human civilizations have shown remarkable resilience. From the Black Death to the Spanish Flu, to more recent epidemics such as SARS and H1N1, individuals and countries have always rebounded. Nonetheless, it is also unwise to assume that trade and businesses would be “business as usual,” because the crisis has reshaped the ways human beings work, interact, and communicate. Work-from-home has become an accepted conduct of business, and “Zoom” has come to mean online meetings. It is timely to address the existing and new challenges as well as opportunities between CAREC countries so that the members are prepared, before the next crisis, to increase trade ties, facilitate more efficient cross-border movement, and eliminate structural trade friction and impediments.

# 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.

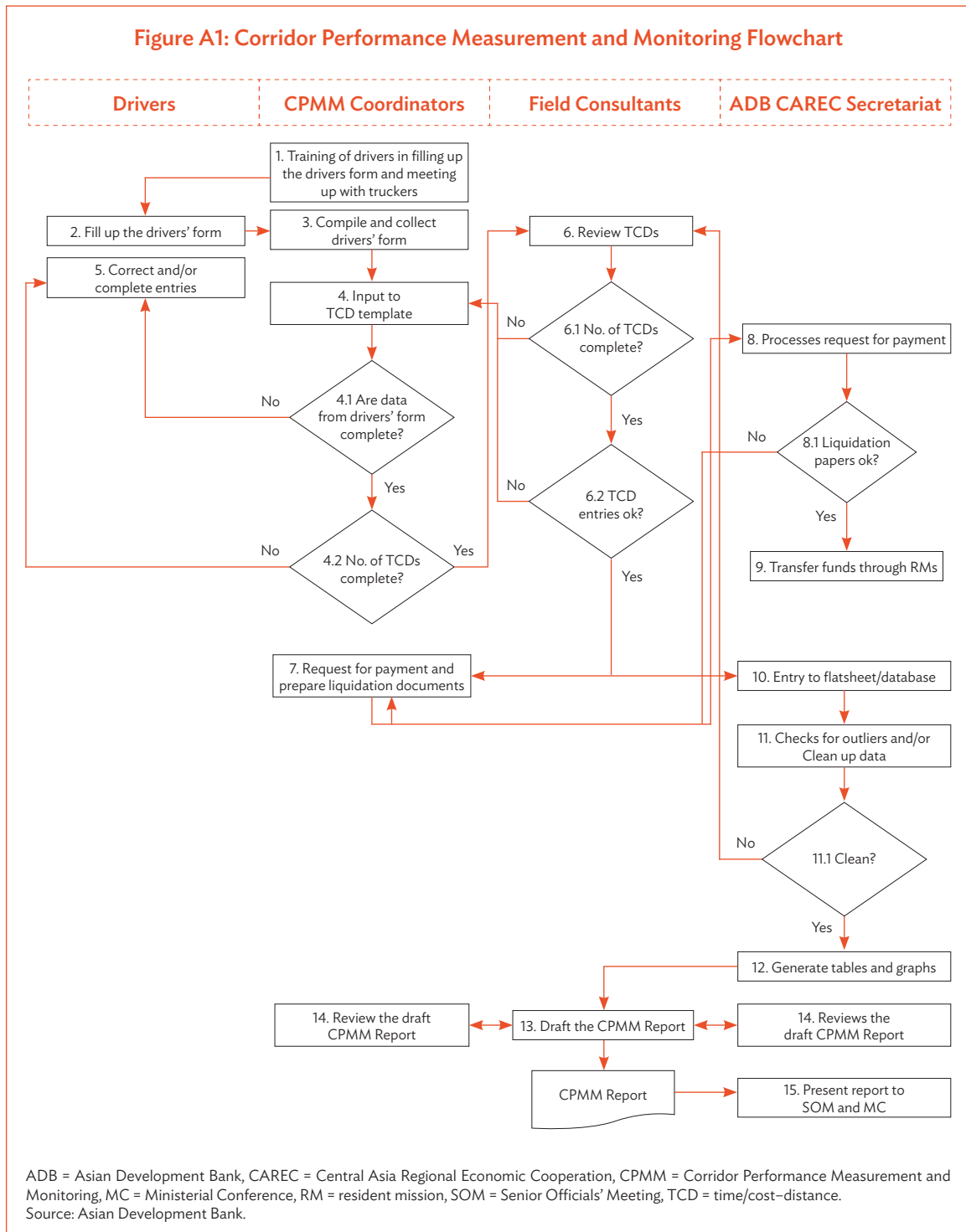
Normalization of each TCD sheet comprises the following steps:

- (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 flowchart is in Figure A1.

Figure A1: 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.

## 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 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 predetermined 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 2

# 2020 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 A2: 2020 Corridor Performance Measurement and Monitoring Partner Associations**

	Country	Association	Abbreviation	Data Collected in 2020
1	Afghanistan	Association of Afghanistan Freight Forwarding Companies	AAFFCO	360
2	People's Republic of China	Chongqing International Freight Forwarders Association	CQIFA	275
3		Inner Mongolia Autonomous Region Logistics Association	IMARLA	200
4		Xinjiang Uygur Autonomous Region Logistics Association	XULA	419
5	Georgia	Georgia International Road Carriers Association	GIRCA	79
6	Kazakhstan	Association of National Freight Forwarders of the Republic of Kazakhstan	KFFA	120
7	Kyrgyz Republic	Freight Operators Association	FOA	119
8	Mongolia	Mongolia Chamber of Commerce and Industry	MNCCI	239
9		National Road Transport Association of Mongolia	NARTAM	240
10	Pakistan	Pakistan International Freight Forwarders Association	PIFFA	229
11	Tajikistan	Association of Road Transport Operators of Republic of Tajikistan	ABBAT	119
12	Uzbekistan	Association for Development of Business Logistics	ADBL	360
13		Association of International Road Carriers of Uzbekistan	AIRCUZ	240
		<b>TOTAL</b>		<b>2,999</b>

Source: Asian Development Bank.



## 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, CAREC 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 2008, 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 effectively monitor 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 regarding border crossings and other impediments along a transit corridor. Aside from time and cost, derived measures 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.

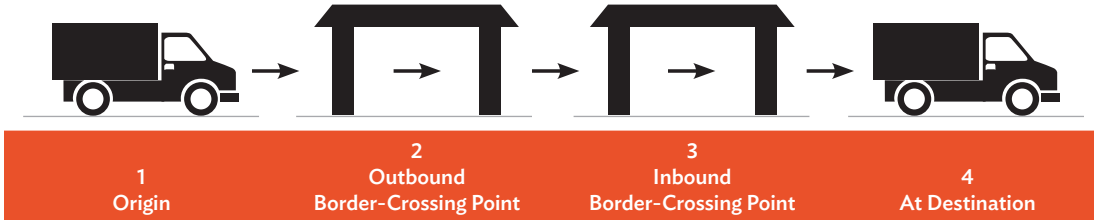
With data from TCD-format questionnaires, four trade facilitation indicators (TFIs) are monitored regularly to enable assessment of improvements made in the CAREC corridors. However, unlike other indicators, TFIs are less easy to quantify as they depend on a variety of factors such as (i) the quality 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 A2 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 a 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 A2: Measuring the Trade Facilitation Indicators

Road Transport

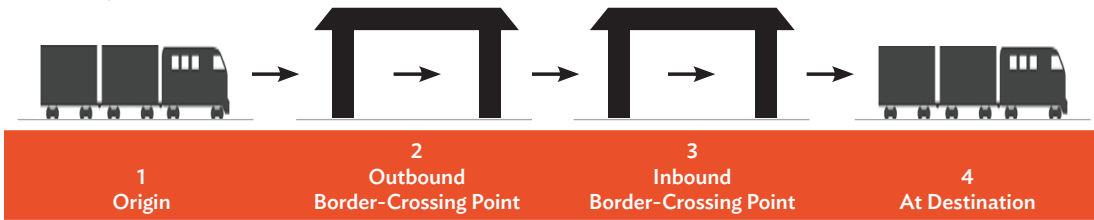


1 Origin	2 Outbound Border-Crossing Point	3 Inbound Border-Crossing Point	4 At Destination
<p>CPMM starts measurement when goods are loaded at the origin.</p> <p>Often, a truck must stop at intermediate nodes (for example, traffic police checkpoints) before reaching the outbound BCP of the country of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

TFI3 measures the total road 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 train while it is in transit.  
TFI4 is derived by adding the time spent on BCPs and intermediate stops.

Rail Transport



1 Origin	2 Outbound Border-Crossing Point	3 Inbound Border-Crossing Point	4 At Destination
<p>CPMM tracks the movement of a specific wagon or container, rather than the entire train, as reported by its partner international freight forwarder.</p> <p>CPMM starts measurement when goods are loaded at the origin.</p> <p>Often, a train must stop at intermediate nodes (for activities such as classification and marshalling) before reaching the outbound BCP of the country of departure.</p>	<p>At the outbound BCP, the shipment undergoes customs formalities, as well as other rail operations, to ensure the safety of the train and goods.</p> <p>After completion, the train is released to the inbound BCP of the adjacent country.</p> <p>At times, trains are held up if the inbound BCP is congested.</p>	<p>At the inbound BCP, the shipment undergoes another set of customs formalities and necessary rail operations.</p> <p><b>TFI1 and TFI2 measure the duration and cost, respectively, of the activities upon reaching and until exiting each BCP.</b></p>	<p>The process of exiting a country and entering another is repeated until the shipment reaches its destination country.</p> <p>At the final destination, wagons or containers are offloaded. In general, CPMM does not include in its measurement either customs clearance or collection by the consignee.</p>

TFI3 measures the total rail freight 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 train 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, km = kilometer, SWOD = speed without delay, 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 United States dollars, 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.

The 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 A3.1).

Table A3.1: Statistical Derivation of the Trade Facilitation Indicator 1

	Formula	Remarks
<b>Formula</b> , per TCD calculation	$TFI_i = \sum_{j=1}^a t_j$ <p><math>t_j</math> = time spent on each activity <math>j</math></p> <p><math>j = 1, 2, \dots, a</math> = number of activities in each border crossing</p> <p><math>i = 1, 2, \dots, n</math> = number of TCDs</p>	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.
<b>Aggregation</b> , average value per corridor and per mode of transport	$\sum_{i=1}^n TFI_i$ <p><math>n</math> = number of TCDs qualifying a given filter (per mode/per corridor)</p> <p><math>i = 1, 2, \dots, n</math> = number of TCDs</p>	The computation of the average is straightforward; no weights are necessary.

TCD = time/cost–distance.  
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 A3.2).

Table A3.2: Statistical Derivation of the Trade Facilitation Indicator 2

	Formula	Remarks
<b>Formula</b> , per TCD calculation	$TFI2_i = \sum_{j=1}^a c_j$ <p><math>c_j</math> = cost incurred on each activity <math>j</math></p> <p><math>j = 1, 2, \dots, a</math> = number of activities in each border crossing</p> <p><math>i = 1, 2, \dots, n</math> = number of TCDs</p>	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.
<b>Aggregation</b> , average value per corridor and per mode of transport	$\sum_{i=1}^n TFI2_i$ <p><math>n</math> = number of TCDs qualifying a given filter (per mode/per corridor)</p> <p><math>i = 1, 2, \dots, n</math> = number of TCDs</p>	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 A3.3).

Table A3.3: Statistical Derivation of the Trade Facilitation Indicator 3

	Formula	Remarks
<b>Formula</b> , per TCD calculation	$TFI3_i = v_i + b_i + s_i$ $v_i = \text{cost incurred during transit, per 500 km}$ $b_i = \text{cost incurred during border crossing, per 500 km}$ $s_i = \text{cost incurred during intermediate stops, per 500 km}$ $i = 1, 2, \dots, n \text{ } n = \text{number of TCDs}$	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.
<b>Aggregation</b> , average value per corridor and per mode of transport	$\sum_{i=1}^n TFI3_i$ $n = \text{number of TCDs qualifying a given filter (per mode/per corridor)}$ $i = 1, 2, \dots, n \text{ } n = \text{number of TCDs}$	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 traveling 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 A3.4).

Table A3.4: Statistical Derivation of the Speed without Delay

	Formula	Remarks
<b>Formula</b> , per TCD calculation	$SWOD_i = \frac{D_i}{T_i}$ $D = \text{distance traveled from previous stop}$ $T = \text{duration of travel}$ $i = 1, 2, \dots, n \text{ } n = \text{number of TCDs}$	
<b>Aggregation</b> , average value per corridor and per mode of transport	$\sum_{i=1}^n (w_i)SWOD_i$ $n = \text{number of TCDs qualifying a given filter (per mode/per corridor)}$ $w_i = \frac{c_i}{\sum_{i=1}^n c_i}$ $i = 1, 2, \dots, n \text{ } n = \text{number of TCDs}$	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 A3.5).

**Table A3.5: Statistical Derivation of the Trade Facilitation Indicator 4**

	Formula	Remarks
<b>Formula</b> , per TCD leg	$SWD_i = \frac{D_i}{T_i + A_i}$ <p><math>D</math> = distance traveled from previous stop  <math>T</math> = duration of travel  <math>A</math> = duration of activities (BCP and non-BCP)  <math>i = 1, 2, \dots, n</math> <math>n</math> = number of TCDs</p>	
<b>Aggregation</b> , average value per corridor and per mode of transport	$\sum_{i=1}^n (w_i) SWD_i$ <p><math>n</math> = number of TCDs qualifying a given filter (per mode/per corridor)</p> $w_i = \frac{c_i}{\sum_{i=1}^n c_i}$ <p><math>i = 1, 2, \dots, n</math> <math>n</math> = number of TCDs</p>	<p>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.</p>

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

## 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 (Gosudarstvennaya Avtomobilnaya Inspektsyya, or GAI).
- (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 PRC railway 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.

# 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 A5 lists key BCP pairs for each side of the border.

**Table A5: Central Asia Regional Economic Cooperation 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	Takehiken	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 Khatavch	MON	Bichigt
37	2a, 2b, 2c	AZE	Krasnyi Most	GEO	Tsiteli Khidi

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

Source: Asian Development Bank.

APPENDIX 6

Trade Facilitation Indicators: Summary Statistics

Table A6 provides a brief comparison of Corridor Performance Measurement and Monitoring road and rail trade facilitation indicators for all applicable corridors during 2018 and 2019. 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 A6: Trade Facilitation Indicators—Summary Statistics

Corridor	Overall						Road						Rail					
	2019		2020		2019		2020		2019		2020		2019		2020			
	Mean	Median	Margin	Mean	Median	Margin	Mean	Median	Margin	Mean	Median	Margin	Mean	Median	Margin			
<b>TF11</b>	Time taken to clear a border-crossing point, hr																	
<b>Overall</b>	15.8	8.1	± 0.5	18.9	8.6	± 1.0	12.2	6.0	± 0.4	15.1	7.1	± 0.7	20.6	10.5	± 1.1	23.0	7.2	± 2.9
1	22.5	15.0	± 1.3	27.9	18.3	± 3.7	6.9	2.3	± 1.7	9.5	5.5	± 1.1	27.6	20.0	± 1.6	37.3	35.2	± 5.5
2	15.0	8.3	± 2.4	22.4	7.5	± 3.8	7.6	7.3	± 0.7	10.6	5.4	± 2.1	12.0	12.0	± 0.0	61.2	61.2	± 747.0
3	4.6	2.7	± 0.3	6.8	3.9	± 0.6	5.2	3.4	± 0.4	7.1	3.9	± 0.6	1.7	1.3	± 0.3	5.3	2.8	± 2.2
4	8.2	3.3	± 0.7	8.1	4.4	± 1.2	3.9	2.5	± 0.3	6.3	2.8	± 1.6	15.7	10.0	± 1.6	9.1	5.5	± 1.0
5	28.0	24.0	± 1.3	40.2	26.8	± 2.8	28.0	24.0	± 1.3	40.2	26.8	± 2.8	-	-	-	-	-	-
6	14.6	9.8	± 0.8	14.0	9.9	± 0.6	14.0	9.5	± 0.8	13.5	9.7	± 0.6	4.6	3.9	± 0.3	4.6	3.9	± 0.3
<b>TF12</b>	Cost incurred at border-crossing clearance, \$																	
<b>Overall</b>	174	136	± 4	202	135	± 10	162	142	± 4	199	138	± 12	198	120	± 10	193	125	± 10
1	235	160	± 11	422	295	± 48	174	37	± 23	639	290	± 117	256	190	± 13	279	300	± 15
2	135	65	± 14	116	70	± 12	128	64	± 13	115	70	± 12	-	-	-	-	-	-
3	85	75	± 4	91	92	± 4	85	71	± 4	92	96	± 4	85	85	± 25	14	14	± 0
4	106	86	± 5	97	89	± 5	116	130	± 5	109	130	± 6	57	24	± 9	64	31	± 7
5	296	310	± 5	300	320	± 4	296	310	± 5	300	320	± 4	-	-	-	-	-	-
6	151	122	± 7	136	96	± 6	137	126	± 5	124	102	± 5	147	119	± 9	147	121	± 9

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Table A6 continued

Corridor	Overall												Road						Rail						
	2019			2020			2019			2020			2019			2020			2019			2020			
	Mean	Median	Margin	Mean	Median	Margin	Mean	Median	Margin	Mean	Median	Margin	Mean	Median	Margin	Mean	Median	Margin	Mean	Median	Margin	Mean	Median	Margin	
<b>TFI3</b> Cost incurred to travel a corridor, \$ per 500 km, per 20-ton cargo																									
<b>Overall</b>	876	731	±23	895	696	±30	901	762	±28	918	703	±38	820	646	±42	836	651	±41							
1	781	637	±41	1,105	715	±89	1,092	998	±64	1,788	1,075	±195	629	527	±47	655	532	±43							
2	662	637	±38	563	573	±48	662	637	±38	563	573	±48	-	-	-	-	-	-							
3	544	582	±59	719	737	±73	606	676	±66	728	741	±78	136	57	±50	36	36	±4							
4	1,308	1,078	±62	1,224	1,012	±66	1,491	1,368	±82	1,510	1,227	±88	1,084	918	±91	1,018	788	±89							
5	706	298	±62	650	249	±79	706	298	±62	650	249	±79	-	-	-	-	-	-							
6	876	706	±45	758	673	±34	823	673	±50	717	644	±36	1,243	1,236	±76	1,100	1,053	±80							
<b>TFI4</b> Speed to travel on CAREC corridors, km/h																									
<b>Overall</b>	21.4	20.4	±1.8	20.7	16.9	±1.9	22.6	22.7	±2.0	22.7	21.8	±2.2	19.0	13.8	±3.6	16.8	13.3	±3.4							
1	24.6	22.2	±4.9	27.6	24.0	±5.6	31.4	27.7	±6.2	41.1	41.8	±7.0	21.6	11.6	±6.3	20.2	9.1	±6.3							
2	25.6	23.3	±4.3	24.4	23.8	±4.6	25.7	23.3	±4.3	24.7	23.9	±4.5	7.4	7.4	-	5.4	6.2	±91.0							
3	26.3	25.1	±5.6	20.8	20.6	±4.6	25.9	25.1	±6.0	21.4	21.4	±4.8	28.1	23.3	±15.4	17.5	15.2	±13.5							
4	19.5	15.4	±3.3	16.4	15.1	±2.9	24.2	29.2	±5.0	22.2	24.6	±5.8	15.1	15.2	±3.1	13.5	15.0	±1.7							
5	10.5	9.2	±1.4	8.6	7.8	±1.3	10.5	9.2	±1.4	8.6	7.8	±1.3	-	-	-	-	-	-							
6	20.9	22.2	±2.9	20.3	21.5	±2.5	21.9	23.0	±3.2	21.1	22.3	±2.8	13.4	13.7	±1.1	13.4	13.6	±1.1							
<b>SWOD</b> Speed without delay, km/h																									
<b>Overall</b>	44.1	43.9	±2.9	42.7	37.1	±3.1	43.6	44.5	±2.5	42.9	39.4	±2.7	45.0	30.0	±7.4	42.2	27.2	±8.1							
1	62.3	61.1	±6.0	68.1	75.3	±6.0	57.4	57.3	±4.5	69.5	75.7	±7.1	64.4	75.4	±8.4	67.3	75.3	±8.7							
2	51.9	53.4	±3.4	46.1	50.4	±5.4	52.0	53.4	±3.3	46.6	50.4	±5.0	8.4	8.4	-	7.9	6.4	±190.1							
3	41.9	45.4	±5.8	37.7	36.6	±6.3	43.7	46.7	±5.4	41.2	43.2	±5.7	33.8	32.6	±18.6	19.6	17.4	±15.1							
4	30.4	24.0	±6.5	23.5	17.8	±5.4	41.1	44.3	±9.8	33.8	36.8	±9.6	20.6	17.4	±4.8	18.4	15.6	±4.6							
5	30.3	26.9	±3.4	28.4	26.9	±2.2	30.3	26.9	±3.4	28.4	26.9	±2.2	-	-	-	-	-	-							
6	40.2	36.8	±2.8	38.9	35.9	±2.6	42.4	39.6	±2.6	40.6	37.2	±2.4	24.3	27.8	-	24.4	28.3	±5.9							

- = no data, CAREC = Central Asia Regional Economic Cooperation, hr = hour, km = kilometer, km/h = kilometer per hour, TFI = trade facilitation indicator.  
Source: Asian Development Bank.

# Activities at Road Border-Crossing Points

Table A7.1 shows the time and cost spent on activities of outbound road shipments from the indicated country at selected border-crossing points.

**Table A7.1: 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			
Chaman	PAK	5,6	105	70.7	62.8	0.7	43.4		0.9			0.6			0.7		0.6									24.8
Kuryk	KAZ	2	13	69.7	49.1	0.1	0.2		5.6							0.1	0.2								0.1	65.4
Peshawar	PAK	5,6	464	50.0	28.0	0.8	26.0		1.8								0.8							4.3		49.9
Sarpi	GEO	2	27	36.2	5.3	0.2	0.4		0.3	0.1		0.2	0.1			0.1	0.1	0.1								34.9
Takeshikent	PRC	4	9	31.8	40.6	0.2	1.2	0.9	0.5			0.2												28.6		0.6
Khiyagt	RUS	4	80	25.2	1.6	0.2	0.9					0.1						0.1							0.1	23.9
Torghondi	AFG	2,6	84	20.2	18.6	0.6	0.7		0.8						0.5		0.6							3.7		13.7
Alashankou	PRC	1,2	26	18.6	8.3	0.1	1.2	0.9	0.5			0.1					0.4							3.6		12.4
Shirkhan Bandar	AFG	2,5,6	120	17.3	17.6	0.8	0.9	0.7	1.0	0.6		0.6			0.5									4.6		8.2
Khorgos	PRC	1	133	16.4	12.4	0.2	1.2	0.9	0.6	0.8		0.2	0.3			0.3	0.5	1.0						10.6		4.4
Pakhtaabad (Dusti)	TAJ	3	27	13.8	11.1	1.1	2.2		3.7	0.6						0.6	0.7	0.6								4.9
Konysbayeva	KAZ	3,6	4	12.0	13.9	1.3	1.9	0.1	0.6	0.6						0.8	0.7	0.6								6.3
Tazhen	KAZ	2,6	136	10.7	11.4	0.9	1.9		0.8	0.6		0.2	0.1			0.6	0.6	0.6								5.5
Yallama	UZB	3,6	122	9.6	10.5	0.9	1.8	0.2	0.5	0.6	0.6	0.2	0.1			0.7	0.6	0.6								4.6
Alat	UZB	2,3	9	9.6	9.5	0.8	1.8		0.6	0.6		0.3				0.7	0.6	0.6								4.5
Farap	TKM	2,3	3	9.4	8.1	1.2	1.9									0.7	0.7	0.6	0.4							4.6
Dautota	UZB	2,6	221	8.1	8.1	0.6	1.2	0.1	0.6	0.6	0.2	0.2	0.1			0.7	0.5	0.6								4.6
Sarabs	TKM	3	1	7.3	7.3	1.0	1.3									0.6	0.7	0.7								3.0
Nur Zholy	KAZ	1	12	6.7	4.8	0.1	1.7	0.3	0.3	0.2		0.1	0.1			0.2	0.2							0.5	0.3	7.0
Erenhot	PRC	4	310	6.4	7.1	0.5	1.1	0.8	1.9			0.6					0.8	0.1								2.6
Hairatan	AFG	3,6	156	5.6	5.5	0.7	0.7		0.9						0.6									2.7	0.6	
Saryasia	UZB	3	129	5.3	4.0	0.4	1.9		0.3	0.4	0.3	0.2				0.4	0.7	0.6		0.5						4.4
Tsiteli Khidi	GEO	2	65	5.1	2.2	0.1	0.1	0.1	0.1							0.1									0.1	4.8
Fotehobod	TAJ	2,3,6	4	4.8	4.3	0.2	0.7		0.2	0.1		0.2				0.2										3.5
Krasnyi Most	AZE	2	7	4.5	3.4	0.1	0.2	0.1	0.1																	4.1
Krasnyi Yar	RUS	6	9	4.4	2.8	0.2			0.3			0.2	0.2			0.1	0.1									3.6
Uchkurgan	UZB	0	2	4.3	4.3	0.2	0.4		0.4			0.2	0.1													3.0
Karasu	KAZ	1	20	4.0	2.6	0.9			2.4																	5.6
Ozinki	RUS	1,6	1	3.9	3.9	0.3			0.1	0.2		0.2	0.1			0.1	0.1									3.0
Sarp	OTH	2	5	3.9	3.9	0.2	0.4		0.2			0.2	0.1			0.1										2.7
Irkeshdam	KGZ	2,5	5	3.7	3.9	0.2	0.3		1.5	0.2		0.2	0.1											2.5	3.0	
Zhaisan	KAZ	1,6	62	3.3	3.2	0.3			0.6	0.1		0.2	0.1			0.1	0.1									2.7

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Table A7.1 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
Kurmangazy	KAZ	6	131	3.3	2.8	0.4	3.4		0.4	0.1		0.2	0.1			0.1	0.1				5.0		2.4
Pogodaevo	KAZ	0	1	3.1	3.1	1.3																	1.8
Mashtakovo	RUS	0	1	3.1	3.1	0.3			0.3	0.1		0.2	0.1			0.2							2.0
Novomarkovka	RUS	1,6	17	3.1	2.8	0.2			0.8	0.1		0.2	0.1			0.1	0.1						3.1
Guliston	TAJ	0	2	3.0	3.0	0.2	0.6		4.0	0.3													
Khunjerab	PRC	5	6	2.8	2.8	0.2	0.2		0.5			0.2									0.5		1.4
Taskala	KAZ	1,6	33	2.8	2.5	0.7			0.4	0.1		0.2	0.1			0.1	0.1						1.9
Karasu	PRC	0	26	2.8	3.3	0.2	0.5		0.5			0.2					0.4				0.6		1.1
Oibek	UZB	2,3,6	2	2.8	2.8	0.1	0.1																5.0
Merke	KAZ	1,3	6	2.5	2.6	0.9																	1.6
Aul	KAZ	3	1	2.4	2.4	0.4			2.0														
Torugart	KGZ	1	1	2.4	2.4	0.3	0.1		2.0														
Karamyk	TAJ	2,3,5	10	2.4	2.3	0.2	0.6		1.9	0.3													
Dostuk	KGZ	2	12	2.2	2.3	0.1	0.5		1.5	0.3	0.6	0.2	0.1			0.1	0.1						2.0
Karamyk	KGZ	2,3,5	30	2.2	2.3	0.3	0.3		0.6	0.2	0.3	0.3				0.3		0.3					
Dustlik	UZB	2	12	2.1	2.5	0.1	0.4		1.5	0.2	0.3	0.2	0.1				0.1						1.5
Torugart	PRC	1	15	2.1	2.6	0.2			0.6			0.2									0.5		1.3
Petuchovo	RUS	1,6	1	2.1	2.1	0.1			2.0														
Panji Poyon	TAJ	2,5,6	119	2.1	2.3	0.2	0.3		0.2	0.2	0.2	0.2				0.2		0.3			0.5		
Yarant	MON	4	18	1.8	2.0	0.2	1.0		0.5			0.2									0.5		
Kyzyl-Bel	KGZ	0	7	1.7	2.2	0.1	0.5		1.8	0.3	0.8												
Baku	AZE	2	69	1.7	0.4	0.1	3.0		1.5	1.0			0.1			0.2					4.3	0.1	
Irkeshstan	PRC	2,5	2	1.4	1.4	0.1			1.3														
Zuun Khatavch	PRC	4	10	1.4	1.4	0.2	0.7					0.1					0.1						0.2
Ak-Tilek	KGZ	1	45	1.1	1.1	0.1	0.3		1.5														
Troitsk	RUS	1	2	0.6	0.6	0.1			1.0														

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Table A8 continued

## 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
Dostyk	KAZ	1,2	143	72.7	54.8				3.4				3.0		2.2	0.2	0.2	2.1	1.7		47.9		15.3		
Altynkol	KAZ	1	157	51.4	49.2				1.4	0.3				288.0	3.1	0.2	0.3	0.7	4.5		48.1		16.8	24.0	91.1
Farap	TKM	2,3	12	21.4	2.8										2.7								77.7		
Zamiin-Uud	MON	4	297	11.5	6.9	1.0	1.5	3.0	3.4			3.0		1.6	1.7		1.5	1.0	4.6		8.5		13.9	30.5	
Termez	UZB	3,6	24	9.1	9.1	8.5									0.6										
Erenhot	PRC	4	119	7.4	5.0				2.7	1.6					1.6	1.5		0.8	1.1		7.8		31.4	31.5	
Sukhbaatar	MON	4	48	4.8	4.8					1.7				1.6	1.6		1.0						2.7		
Serkhet Abad	TKM	2,6	84	3.7	3.7		0.8								2.4	0.7									
Keles	UZB	3,6	70	3.5	2.7										2.3	0.4	0.4	0.4					4.1		
Saryagash	KAZ	3,6	5	1.7	1.6										0.4	0.5	0.5	0.4							
Challdovar	KGZ	1,3	18	1.7	1.5											0.5							1.6		
Naushki	RUS	4	12	1.1	1.0								1.1												
Pakhtaabad (Dusti)	TAJ	3	1																						

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		
Dostyk	KAZ	1,2	143	524	425					329													195		0	-	-	-	-
Altynkol	KAZ	1	157	271	114					182	100				100								89		-	-	-	-	-
Farap	TKM	2,3	12	120	120											120													
Zamiin-Uud	MON	4	297	32	-	-	15		33						3	10		89	5										
Termez	UZB	3,6	24	120	117	106										14													
Erenhot	PRC	4	119	125	133					120	4				1			14											
Sukhbaatar	MON	4	48	5	5										2	3		7											
Serkhet Abad	TKM	2,6	84	82	82			20								50	12												
Keles	UZB	3,6	70	139	150											139													
Saryagash	KAZ	3,6	5	14	14											14													
Challdovar	KGZ	1,3	18																										
Naushki	RUS	4	12	21	21																								
Pakhtaabad (Dusti)	TAJ	3	1																										

■ More than one hour ■ More than \$100

- = no data, AFG = Afghanistan, AZE = Azerbaijan, BCP = border-crossing point, GAI = Gosudarstvennaya Avtomobilnaya Inspektsyya (Traffic Inspectorate or State Traffic Safety Inspectorate), GEO = Georgia, IRN = Iran, KAZ = Kazakhstan, KGZ = Kyrgyz Republic, MON = Mongolia, PAK = Pakistan, PRC = 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 2020**

## *The Coronavirus Disease and Its Impact*

This report presents the performance of road and rail transport in 2020 in the 11 countries that make up the Central Asia Regional Economic Cooperation (CAREC). Using data from real-time road and rail cargo shipments, it employs the Corridor Performance Measurement and Monitoring model to assess the efficiency of the six CAREC transport corridors that link country members. It shows where shipments move faster to help businesses do better and pinpoints delays and blockages that hinder rapid and cost-effective trade; provides country- and corridor-specific snapshots, and key recommendations to improve the efficiency of trade along CAREC corridors; informs national policy-making bodies on transport and trade blockages; and helps guide infrastructure investment and trade facilitation reform and modernization. This edition also contains a special case study on the impact of the coronavirus disease on the region.

### **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.

### **About the Asian Development Bank**

ADB is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. Established in 1966, it is owned by 68 members —49 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.



### **CAREC Secretariat**

[www.carecprogram.org](http://www.carecprogram.org)

### **ASIAN DEVELOPMENT BANK**

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