



CAREC 2030 Transport Sector Annual Progress Report

Reference Document

**Transport Sector Progress Report and Work Plan
(May 2023 – March 2024)**

**21st Transport Sector Coordinating Committee Meeting
22-23 April 2024**

I. Executive Summary

The global disruptions in recent years have created uncertainties and difficulties for which the transport industry was quite unprepared. The Russian invasion of Ukraine disrupted global supply chains, while pandemic-motivated measures restricted travel and curtailed mobility altogether. The resilience of the transport industry, however, has only become more evident in this context. Slowly, it has bounced back from such challenges, and now continues to support economic activity and to facilitate the safe and seamless movement of people, goods, and services.

There are new challenges that are emerging, however. The geopolitical tensions in the Red Sea are disrupting supply chains further, thus causing surges in transport and logistical costs. Meanwhile, the adverse impacts of climate change are becoming an enduring threat to transport infrastructure and to the overall safety of transport users. Against this background, the CAREC Transport Program continues to embark on activities that aim to enhance CAREC countries' preparedness and capacities to overcome these challenges.

CAREC Transport is providing knowledge support to help CAREC countries accelerate their green transition and fulfill their commitments under the Paris Agreement. A Climate-resilient Road Asset Management (RAM) Action Plan is being developed to integrate climate resilience measures and climate-proofed standards in CAREC countries' RAM strategies. Along similar lines, a CAREC-initiated study will explore the interaction of road safety and climate change and will examine its potential policy implications on road safety and decarbonization of CAREC countries' transport sector.

To encourage greater uptake of safety practices and Safe System principles among CAREC DMCs, a Road Safety Engineering Training will be organized this year for Pakistan, Kazakhstan and Georgia. The sixth installment to the CAREC RSE Manual Series (Road Safety Engineering Manual 6: Blackspot Investigation) is also currently being prepared for publication, while the seventh in the series (CAREC Road Safety Manual 7: Why and How to Manage Speed) is now underway.

To facilitate the fast and seamless movement of goods across borders, CAREC Transport continues to support initiatives to simplify and streamline cross-border procedures, including building National Single Window systems and upgrading Border Crossing Points facilities. Plans are underway to construct three fully equipped BCPs and one training center under the Almaty-Bishkek Economic Corridor Regional Improvement of Border Services (ABEC RIBS) Project; CAREC Transport is providing support with the engineering design and due diligence documents. Similar projects are ongoing to build BCPs between Pakistan and Afghanistan, and to rehabilitate and provide modern equipment in several BCPs in Mongolia.

Meanwhile, with the growing interest in the Middle Corridor as an alternative to routes affected by the geopolitical tensions in the Red Sea and the Russian invasion of Ukraine, the CAREC Middle Corridor Assessment Report has been completed, while an assessment of the Red Sea Crisis is currently being prepared to examine its impact on overall global transport operations in general, and on the Middle Corridor (CAREC 2) in particular. Both knowledge initiatives explore the potential benefits that these developments hold for CAREC transport, including appropriate measures that could be taken to increase CAREC corridor capacity and thus take full advantage of freight traffic diverted from affected routes.

To promote financial sustainability and sound transport infrastructure investments, the Performance-based Road Maintenance (PBRM) Contracts in the CAREC Region report was published recently, which espouses the use of PBRM contracts to optimize road asset investments and incentivize cost-effective delivery of high-quality maintenance of road assets. A

RAM System Action Plan will also be developed for CAREC countries at their request, which will include building a database that can serve as a tool for road planning and programming.

Lastly, various reports have also been completed to explore regulatory reforms that will facilitate transport sector development in the CAREC region. The recently published Air Cargo Report emphasizes the importance of greater private sector participation in air cargo infrastructure development. Along similar lines, the Low-Cost Carrier (LCC) Opportunities, Air Transport Liberalization, and Post-Pandemic Recovery in CAREC study espouses a supportive regulatory environment to support the continued development of LCCs' and the broader CAREC aviation industry.

II. Key Developments and Results

This report covers progress made by the CAREC member countries in 2023 under the new CAREC Transport Strategy (CTS) 2030. It covers progress achieved in the implementation of events and knowledge products under the five sector pillars. CTS2030 uses several performance indicators to inform countries about their progress in key transport pillars (Table 1).

Table 1: Outcome Level Indicators for CAREC Transport Sector

Pillar	Title	Outcomes	Indicators (Sources or Reports)
1	Transport and Logistics Facilitation	Efficiency improvements in border crossing points (BCPs), customs clearance, immigration procedures and cross-border logistics.	<ul style="list-style-type: none"> Average speed by corridors, speed with delay (SWD) Time and cost to clear a border crossing point, by corridor, country and BCP Logistics Perception Index (LPI)
2	Roads and Road Asset Management	Improvement on the CAREC Road Asset Management maturity model*	<ul style="list-style-type: none"> 2019 (provisional): All countries at level 1 except Pakistan at level 3, for National Highway network (CAREC Transport Sector Progress Report) Average speed of traffic without delay (SWOD), by corridors (CAREC CPMM) Perception of highway quality improved (World Economic Forum Global Competitiveness Index) for selected countries
3	Road Safety	Reduction in the number of road crash fatalities on CAREC international road corridors	<ul style="list-style-type: none"> By 2030: 50% reduction from 2010 figure (82,000 fatalities).
4	Railways	Improved service level and operation efficiency of railways	<ul style="list-style-type: none"> CPMM average commercial speed, by CAREC corridor, SWD and SWOD Perception of railway quality improved ((World Economic Forum Global Competitiveness

			Index for railways) for selected countries
5	Aviation	Creation of a more open aviation market that catalyzes enhanced exchange and trade outcomes	<ul style="list-style-type: none"> • Number of CAREC country pairs achieving unrestricted third- and fourth-freedom rights • Number of CAREC countries adopting paperless e-freight systems for aviation • Number of countries with e-visa systems

* RAMS maturity model (Phase 1 – RAMS at construction; Phase 2 – RAMS provides full inventory assessment, albeit it can be at the fixed time, not regularly updated, not used in full for decision making and financial planning; Phase 3 – continuous (periodic) monitoring of the road asset inventory, good cost models, cost/management accounting and planning, decisions and financial planning based on all well-known factors and clear performance targets).

CAREC = Central Asia Regional Economic Cooperation, CPMM = Corridor Performance Measurement and Monitoring.

Source: CAREC Secretariat.

A. Sector Implementation

The CAREC transport program continues to support knowledge work and capacity-building initiatives to guide CAREC countries in formulating strategic responses to major developments, opportunities and challenges confronting the transport sector.

Over the current work plan period, CAREC Transport organized workshops and launched knowledge products which aimed to build institutional capacities among CAREC countries, as well as increase stakeholder awareness on key developments and trends in the transport sector. These include the CAREC Middle Corridor Assessment Report which examined the impact of COVID-19 and the Russian invasion of Ukraine on ocean freight and container traffic and rates in the Middle Corridor (also referred to as CAREC Corridor 2). The modal shift in freight transport that was triggered by surging ocean freight rates benefited the CAREC Corridor 2 and heightened interest in developing it into a more viable overland route. The report, however, recommends a conservative approach and proposes improving operational efficiencies in the interim, and to delay longer-term decisions relating to hard infrastructure until freight demand and prices return to competitive levels.

Relatedly, CAREC Transport is also conducting an assessment of the Red Sea Crisis and its impact on the CAREC transport and logistics network including the Middle Corridor. The preliminary results of the assessment will be presented at the forthcoming TSCC Meeting in April.

In aviation, the Low-Cost Carrier Opportunities, Air Transport Liberalization, and Post-Pandemic Recovery in CAREC study was published in 2023. The study investigates the recovery of CAREC’s aviation market after the pandemic, with a focus on low-cost carriers (LCCs). The study notes that, fundamentally, a supportive regulatory environment is necessary for LCCs and the broader CAREC aviation market to thrive and grow. The report includes country-specific recommendations for the six CAREC country case studies (i.e., Azerbaijan, Georgia, Kazakhstan, the Kyrgyz Republic, Mongolia, and Uzbekistan).

The Air Cargo Report was also published in February 2024. The report provides an in-depth analysis of the gaps, opportunities, and major trends shaping CAREC’s aviation industry. The report also discusses country-specific findings along with recommendations for each.

As part of CAREC Transport’s commitment to promote road safety in CAREC countries, the latest installment to the Road Safety Engineering Manual series (Road Safety Engineering Manual 6: Blackspot Investigation) is underway and will be completed in April 2024. The manual introduces the basic principles of blackspot investigation and is a useful reference for road safety practitioners on how to perform blackspot investigations.

Meanwhile, a Road Safety Engineering Training will be organized for Pakistan, Kazakhstan and Georgia in Q2 2024. The training course, which is envisioned to strengthen stakeholder capacity in managing road safety issues, will discuss the safe system approach, and safe system principles and elements, along with other important topics covered in the various RSE manuals. A web-based dashboard is also in the pipeline, which will allow road safety professionals to access, analyze, and visualize crash data, as well as create or generate reports.

On road asset management, the Performance-based Road Maintenance (PBRM) Contracts in the CAREC Region Report was published in 2023. The report discusses how performance-based payments under PBRM contracts incentivize contractors to deliver high-quality maintenance cost-effectively. The report details the PBRM experiences of six CAREC countries (i.e., Azerbaijan, PRC, Georgia, the Kyrgyz Republic, Mongolia, and Tajikistan), and outlines recommendations for future piloting and replication of PBRM contracts. Meanwhile, Key Performance Indicators (KPIs) for the road sector are being developed to monitor and measure RAM progress in CAREC countries, while a Climate-resilient RAM Action Plan is also in the pipeline. A Road Asset Management Systems (RAMS) Action Plan will also be developed for CAREC countries at their request.

CAREC Transport also held the Highways Workshop in May 2023, which included knowledge sharing sessions covering topics relating to road safety improvement and road infrastructure financing, management, and maintenance. The CAREC Railway Working Group (RWG) also convened in May 2023 for its seventh meeting which brought together representatives from CAREC DMCs and development partners. The meeting included presentations on emerging trends, developments, and best practices in the broader railway industry which hold valuable insights for CAREC railways. The RWG’s eighth meeting will be held in May 2024 in Baku, Azerbaijan.

To facilitate the fast and seamless movement of goods across borders, CAREC Transport also provides support in upgrading cross-border infrastructure, as well as improvements in operational procedures, including building National Single Window systems and provision of ICT equipment through various projects and TA activities.

Table 2. Workshops, Training Programs, and Knowledge Products Completed

Title of Publication / Event	Timeframe
Cross border transport and logistics	
Middle Corridor Initial Assessment Report	May 2023
Roads and road asset management	
Performance-Based Road Maintenance Contracts in the CAREC Region	December 2023
Performance-Based Road Maintenance Contracts in the CAREC Region (Russian)	February 2024
Road safety management	

Title of Publication / Event	Timeframe
CAREC Road Safety Engineering Manual 6: Black Spot Investigation	April 2024
Railways	
7 th Railway Working Group Meeting	22-23 May 2023
Aviation	
Low-Cost Carrier Opportunities, Air Transport Liberalization, and Post-Pandemic Recovery in CAREC	September 2023
Low-Cost Carrier Opportunities, Air Transport Liberalization, and Post-Pandemic Recovery in CAREC (Russian)	December 2023
Air Cargo Report	February 2024
Overall transport	
20 th Transport Sector Coordinating Committee Meeting	24-25 May 2023
CAREC Highways Workshop	22-23 May 2023

*ADB placed on hold its assistance to Afghanistan effective 15 August 2021.

B. Implementation Progress by Priority Area

Cross-border transport and logistics facilitation. This pillar facilitates greater economic cooperation and connectivity among CAREC countries by reducing impediments to cross-border transport. It focuses specifically on improving cross-border infrastructure, streamlining the implementation and enforcement of transport agreements and conventions. Progress in these areas for 2023-2024 includes:

- CAREC Middle Corridor Assessment Report.** This report examined the impact of COVID-19 and Russian invasion of Ukraine on ocean freight and container traffic and rates of the multimodal Middle Corridor. Operational bottlenecks on the Eurasian transit routes and the surge in ocean freight rates have diverted container traffic to the Middle Corridor and have generated a keen interest in developing it into an alternative overland route. However, unless addressed, the Corridor's operational constraints could undermine its competitiveness and divert container traffic to maritime transport once ocean freight rates have stabilized. The report thus recommended taking a more conservative approach until freight demand and prices returned to competitive levels. The report proposed that soft measures be taken in the interim to improve the Corridor's operational efficiency, including procedural alignment among different transport operators and modes of transport (e.g., improved customs control, harmonized and simplified customs and regulatory procedures, etc.). Longer term investment decisions relating to hard infrastructure (e.g., improving vessel fleet and port capacity, building new rail networks, etc.) could then be made once demand and prices had become more stable. The report was published in May 2023.
- Support for improved cross-border infrastructure, operational procedures, and stronger border management capacity through various projects and TA activities.** National Single Window systems were designed and built in Kyrgyzstan and Tajikistan in 2023, as well as a BCP in each country under a CAREC RIBS project. Meanwhile, an ongoing

CAREC RIBS project in Pakistan will build two BCPs between Pakistan and Afghanistan, help establish the Pakistan Land Port Authority (PLPA), as well as supply ICT hardware and software for the Pakistan Single Window (PSW).

A RIBS project for Mongolia will rehabilitate and provide modern equipment in Sukhbaatar, Borshoo, Bichigt, and Altanbulag BCPs; upgrade Customs Automated Information System; and develop first phase of single-electronic window system. Construction work at Sukhbaatar and Borshoo have been completed, while construction work at Bichigt and at Altanbulag are ongoing.

Other projects in Mongolia include the Regional Upgrades of Sanitary and Phytosanitary Measures for Trade project, which will modernize laboratories and inspection facilities, strengthen inspection management system, and align sanitary and phytosanitary systems with international standards. Meanwhile, the Developing Economic Cooperation Zone project will support the development of the economic cooperation zone of Mongolia's Zamyn-Uud free zone and link it with the Erenhot zone in the PRC's Inner Mongolia Autonomous Region and will introduce integrated border management systems. Finally, the Border Efficiency for Sustainable trade project will develop climate-resilient border facilities and enhance trade facilitation systems proposed to be at the Bulgan, Tsagaannuur, and Khavirga BCPs in Mongolia.

Roads and road asset management. This pillar supports the adoption of preventive knowledge-based road maintenance to minimize road maintenance costs while also maintaining good road network quality, with the aim of extending road asset life and increasing traffic safety. Activities in 2023-2024 under this pillar includes:

- **Performance-based Road Maintenance (PBRM) Contracts in the CAREC Region.** As opposed to volume-based or input-based payments under traditional contracts, payments under PBRM contracts are based on performance. Such arrangement incentivizes contractors to deliver timely and high-quality maintenance at least cost. This promotes greater efficiency and accountability, and ultimately leads to safer, higher quality roads. In this regard, this report aims to enhance stakeholders' understanding of PBRM contracts and how they help improve the sustainability of road assets and extend their service life. Drawing lessons from the PBRM experiences of six CAREC countries (i.e., Azerbaijan, PRC, Georgia, the Kyrgyz Republic, Mongolia, and Tajikistan), the report provides recommendations for future piloting and replication of PBRM contracts. The English version of the report was published in December 2023, while the Russian version will be available in March 2024.

Railways. Guided by the CAREC Railway Strategy (Unlocking the Potential of Railways: A Railway Strategy for CAREC, 2017–2030), this pillar supports the long-term development of the railway sector in CAREC countries to facilitate cross-border trade and promote economic development in the region. A dedicated railway sector TA has been launched in 2019 to provide practical support through prefeasibility studies, knowledge sharing and management support.

- **7th Railway Working Group Meeting.** Representatives from CAREC DMCs and development partners convened for the 7th CAREC Railway Working Group (RWG) Meeting in Tbilisi, Georgia on 22-23 May 2023. The meeting reported on progress achieved in the implementation of the CAREC Railway Strategy and presented updates on ongoing and planned TA activities. Highlights of the meeting include presentations on emerging trends and

developments in the sector, in particular the Middle Corridor. Further, the meeting shared insights on railway asset management and requirements of financially sustainable long-distance railway corridors. The Meeting included a briefing on railway management support provided to the Kyrgyz Republic and Tajikistan on developing a commercialization reform and investment program (completed in 2023),

- **Prefeasibility studies.** Project preparatory studies have been initiated on the Uzbekistan Northwestern International Freight Corridor as well the establishment of Uzbekistan-Turkmenbashi block train services. The studies are to be completed by May 2024.
- **Rolling stock financing.** In 2024, a comprehensive study has been undertaken to define the options for (private) financing of rolling stock in the CAREC region. The results of the study will be presented at the 8th RWG meeting.

Road Safety. This pillar helps ensure that CAREC road corridors continue to support safe and efficient movement of people and goods with high reliability and connectivity. Key achievements in these areas for 2023-2024 include:

- **Road Safety Engineering Manual 6: Blackspot Investigation.** Sixth in the series of CAREC's Road Safety Engineering Manuals, the Road Safety Engineering Manual 6: Blackspot Investigation introduces the concept of blackspots, which are road locations that are characterized by high rates of accidents or crashes. The manual provides practical guidelines on how to perform blackspot investigations to help reduce the frequency and severity of road accidents and make roads safer for road users. It discusses in detail the basic principles of blackspot investigation, including methods for identifying blackspots, collection, analysis, and identification of patterns from crash data, conducting detailed site investigations, and development and implementation of low-cost countermeasures. The manual is in progress and will be completed in April 2024.

Aviation. The 2018 CAREC Aviation scoping study, which served as a reference document for establishing the aviation pillar under CAREC Transport Strategy 2030, outlines key issues and priorities for the aviation sector in CAREC member countries. This pillar emphasizes the importance of establishing more direct, cost-efficient, and safe aviation links among CAREC member countries for a more open regional aviation market in the CAREC region.

- **Air Cargo Report.** The Aviation Cargo study examines aviation freight logistics services in CAREC countries. As well as an overview of the region's air freight industry, the study provides an in-depth analysis of the gaps, opportunities, and major trends shaping the industry. Broadly, it finds that air cargo makes up a large and increasing chunk of the global airline industry's revenues. Meanwhile, CAREC's air freight industry has yet to reach its highest potential; cargo capacity in and out of the region outstrips the region's air cargo demand. The study notes further the importance of greater private sector participation, especially in the context of infrastructure development. Finally, the study concludes that many of the issues confronting the air cargo industry - such as those relating to air cargo facilities and other infrastructure constraints - are country specific. Accordingly, the study outlines country-specific findings and recommendations. The report was published in February 2024.
- **Low-Cost Carrier Opportunities, Air Transport Liberalization, and Post-Pandemic Recovery in CAREC.** The study provides an overview of the current state of low-cost carriers

(LCCs) in the CAREC region and the post-pandemic recovery of CAREC's broader aviation market. It examines in detail the opportunities and challenges facing CAREC's low-cost airline industry, such as high airport costs and slow uptake of an Open Skies policy within the region. The study finds that while more liberal aviation policies are already creating an impact, further liberalization is needed to support LCCs' and the broader CAREC aviation's continued development. The report outlines a range of recommendations to help CAREC LCCs flourish and share fully in the region's thriving aviation industry. Specific recommendations are also included for each of the six CAREC country case studies (i.e., Azerbaijan, Georgia, Kazakhstan, the Kyrgyz Republic, Mongolia, and Uzbekistan). The English and Russian versions of the report were published in September 2023 and December 2023, respectively.

III. Challenges and Key Issues

CAREC transport continues to play an important role in facilitating regional integration and connectivity, and in propelling the region's overall economic growth. However, while the CAREC transport sector has demonstrated resilience amidst its recent biggest setbacks (i.e., COVID-19 pandemic and Russian invasion of Ukraine), new challenges are emerging which the sector needs to address and overcome.

One such challenge is the escalating geopolitical tensions in the Red Sea as well as the prolonged Russian invasion of Ukraine. Taken together or separately, these crises have exposed the fragility of global supply chains as well as the logistics and transport sectors that hold these "chains" together.

Owing to these developments, rising freight rates and delays along affected routes have prompted carriers to redirect maritime traffic. In the process, this has provided alternative routes the chance to step in and capture the trade diverted from affected routes. Within this context, it is worthwhile to assess the potential benefits that these developments hold for CAREC transport and examine how CAREC corridor capacity can be augmented to accommodate the diverted freight traffic. Along these lines, the CAREC Middle Corridor Assessment Report that was published in 2023 and similar reports prepared by CAREC's development partners would be good references.

Along similar lines, trade and supply chains are also becoming increasingly fragmented due to growing risks of 'friendshoring' and geoeconomic fragmentation. Reallocation of trade flows and fragmented trade disrupt established supply chains, with similarly adverse implications on the transport and logistics sector, such as higher transport and coordination costs and longer transport lead times. Whether this would have significant impacts on CAREC's trade and transport sectors over time – and the extent of such impacts, if any – is also something that should be worth looking into.

Climate change also adds another layer of concern among CAREC countries' respective transport sectors. Extreme and volatile weather can cause floods and sea level rises as well as extreme heat which can damage transport infrastructure. Ultimately, this limits transportation access, causes delays in the movement of people, goods and services and jeopardizes the overall safety of passengers and travelers. In addition, the transport sector is one of the biggest contributors to global carbon emissions. As part of CAREC countries' commitments to the Paris Agreement (PA), it is thus important that CAREC countries accelerate their green transition and ensure that their transport infrastructure and investments are climate resilient and PA-aligned.

In parallel, changing consumer behavior and growing patronage of online business, as well as the digital shift taking place across the global supply chain, also add to the important changes that CAREC transport needs to adapt to in order to remain competitive. In fact, at the 20th CAREC

TSCC Meeting held in May 2023, CAREC DMCs widely agreed that adopting innovative solutions, including digitalization, is important for enhanced transport efficiency.

To sum, the above scenarios highlight the need for CAREC transport to continuously take steps to strengthen and improve its competitiveness. Taking a longer-term perspective, prudent upkeep of existing infrastructure, building new ones where these are needed, and continuous improvement of operational efficiency and strengthening institutional capacities will help in this regard.

C. Work Program for Coming Year

The CAREC program will offer technical assistance to CAREC countries in the remaining period of 2024 onward through knowledge products and workshops on the five pillars: roads and road asset management, road safety, railways, cross-border facilitation, and aviation.

Cross border transport and logistics.

- **Red Sea Crisis Report.** The shipping crisis in the Red Sea has disrupted global supply chains, prompting hikes in freight rates and transportation delays along traditional routes. Amidst these developments, the Middle Corridor is drawing interest as a faster, more economical, and more secure alternative to the affected trade routes. In view of this, CAREC Transport is preparing a brief report to examine the ongoing Red Sea crisis and its impact on the global and regional supply chains and the CAREC transport and logistics network including the CAREC Corridor 2 (Middle Corridor). It will assess the traffic volumes and bottlenecks at the Middle Corridor and ways to increase corridor capacity for trade between Turkey/South Europe and Central Asia/Caucasus. Interim results of the assessment will be presented at the forthcoming 21st TSCC Meeting in April.
- **Almaty–Bishkek Economic Corridor Regional Improvement of Border Services (ABEC RIBS) Project Readiness.** To facilitate trade and transport connectivity between the cities of Almaty and Bishkek, the Almaty-Bishkek Economic Corridor (ABEC) initiative plans to construct three fully equipped BCPs and one training center under the Almaty-Bishkek Economic Corridor Regional Improvement of Border Services (ABEC RIBS) Project. Security and ICT equipment will also be deployed at other selected BCPs. Along these lines, this project supports the preparation of detailed engineering design (DED) of the project facilities, procurement documents, and due diligence documents of the ensuing ABEC RIBS Project which is planned for implementation in 2025-2027.

Roads and road asset management.

- **Key Performance Indicators (KPIs) for the Road Sector.** A set of Key Performance Indicators (KPIs) has been developed to support the measurement and tracking of achievements on road asset management (RAM) in the CAREC region against the CAREC Transport Strategy RAM objectives. Specifically, this baseline study describes and documents the RAM KPIs that will be used in the monitoring and measurement of CAREC RAM progress in terms of funding allocation, strategic planning, improved social and economic conditions, lifecycle costing and quality, RAMS maturity, institutional reforms, and private sector participation. The report also includes baseline data on the KPIs to understand the current state of road asset management in CAREC countries and to identify areas where RAM support is needed. The report is in progress and will be published in Q3 2025.

- **Road Asset Management System (RAMS) Action Plans.** To guide key players and stakeholders in the development and application of RAMS in the short- and long-term management of road networks, a RAMS Action Plan will be developed for CAREC member countries at their request. The Action Plan will outline the processes involved in the collection, management, and analysis of road data, and in using the database as a tool for road planning and programming.
- **Climate-resilient Road Asset Management (RAM) Action Plan.** Besides high traffic volumes, substandard road materials, and poor maintenance, anomalous weather events due to climate change (e.g., extreme heat, inundation caused by sea level rise, etc.) also contribute to the premature deterioration of road assets and their shorter lifespan. Integrating climate resilience measures not only during road construction but likewise over the road assets' active life is thus important. Within this context, CAREC Transport will develop a climate-resilient RAM Action Plan that incorporates climate-proofed standards and climate-responsive road management strategies with the view to improving the durability and longevity of road assets in CAREC countries.
- **State-owned Enterprises in Road Maintenance.** This report examines the role of state-owned enterprises in the provision and delivery of road maintenance services in CAREC countries, as well as its advantages and disadvantages relative to their private sector counterparts. It will also assess how SOE-oriented road maintenance strategies fare in terms of resource use, cost and budget implications, road network performance and overall efficiency. The report is under preparation and is slated for publication in Q3 2025.

Road safety.

- **Road Safety Engineering Training.** A Road Safety Engineering training course will be organized for Pakistan, Kazakhstan and Georgia in Q2 2024. The high and rising incidence of road crashes has made road safety a growing concern among CAREC countries. Along these lines, the CAREC Program embraces the "safe system" approach: combining safer road infrastructure, safer vehicles and safer road users. Within this context, the workshop aims to raise awareness on safe systems, and to strengthen stakeholder capacity in managing road safety issues. The course will cover important topics including best practices for road design and blackspot programs, speed management, crash investigation and analysis, and measures to help improve road user behavior. Stakeholders from various groups, including the academia and the private sector and representatives from the transportation and infrastructure ministries/agencies and other road safety practitioners are expected to participate.
- **CAREC Road Safety Manual 7: Why and How to Manage Speed.** This manual provides guidelines on effective speed management toward the broader goal of improving road safety and creating a safe road system. Unsafe and excessive driving speeds are a contributing factor to the high and growing number of road crashes and accidents globally. The CAREC region is particularly at greater risk given its higher risk roadsides and more vulnerable road users (pedestrians, motorcycles, bicycles). Within this context, the manual proposes cost-effective interventions on speed management for use in CAREC countries (through road design and road engineering improvements, enforcement, vehicle technology, and education). Accordingly, it guides policymakers and road safety professionals on processes

for intervention, selection, and implementation. The manual, which is the seventh in the series of the CAREC Road Safety Engineering Manuals, will be published in Q3 2024.

- **Review of Road Crash Data of CAREC Countries and Web Based Dashboard.** A knowledge product would be developed which will assess road crash data management practices for each CAREC country and develop guidance and tools in an effort to improve crash data management. Further, the knowledge product will identify opportunities for improving these practices and establishing a basis for harmonized data management across the CAREC region. In addition, a web-based dashboard would be developed. The CAREC crash mapping and analysis dashboard will support road safety professionals to visualize crash data, conduct basic analysis and produce standard reports to show critical issues and trends. This will guide CAREC country road safety organizations and professionals to effectively enhance road safety in the region. The knowledge product and dashboard is under preparation and will be available in Q4 2024.
- **Interaction of Road Safety and Climate Change.** This study explores the interaction between road safety and climate change. Addressing road use related greenhouse emissions and reducing road traffic death and injury require multi-sectoral activities with the potential for impacts on one another. Moreover, as the priority strengthens for decarbonizing road transport, all aspects of road system management are expected to take into account their impacts on future greenhouse emissions and their alignment with decarbonization pathways. Minimal work has been done to quantify the interactions between climate and road safety action regarding the potential impacts from one domain on outcomes in the other. This report will examine the interactions between climate and road safety action for countries in the CAREC region. Further, the report will address three fundamental questions for the CAREC region: (i) what are the climate impacts of road safety action?; (ii) what are the road safety impacts of climate action?; and (iii) what are the climate impacts of death and injury in road use? Accordingly, this study will explore the potential policy implications on road safety and decarbonization of CAREC countries' transport sector. The report is under preparation and will be available in Q4 2024.

Railways.

- **Prefeasibility studies of the Uzbekistan Northwestern International Freight Corridor and the establishment of Uzbekistan-Turkmenbashi block train services.** These studies are expected to be completed by May 2024. As regards the block train services, discussions are initiated to establish a pilot service for a period of six months with support of the CAREC railway TA program.
- **8th Railway Working Group Meeting.** The Railway Working Group (RWG) will convene for its eighth meeting to provide progress updates on TA implementation workplan period 2023/2024. The meeting will bring together representatives from CAREC DMCs, sector experts and other stakeholders to discuss the findings of TA studies and decide on new TA activities and identify priorities and potential areas for collaboration for the next workplan period. The meeting will take place on 22-24 May in Baku, Azerbaijan.
- **Identification new TA activities.** The TA aims to continue providing practical support to railway management in key areas, such as sales and marketing, accounting, rolling stock

financing, rail corridor development, port-rail connectivity, and the digitalization of transportation, financial and corporate planning processes.

Aviation.

- **Kazakhstan Domestic Airport Tariff Study: Phase 1 (Scoping and Initial Assessment).** This study will review Kazakhstan's current airport landscape, as well as the country's small airport strategy and domestic tariff policy, including a stocktaking of current issues surrounding the country's smaller airports. The study will also identify options for improving how smaller airports are managed and funded, including potential adjustments to the domestic tariff policy and small airport strategy to support its overall development. By looking at the opportunities as well as stumbling blocks to small airports development in Kazakhstan, other countries can draw lessons and useful insights from the Kazakhstan experience, particularly those with large domestic operations.

Appendix 1: Outcome indicators by pillar

Transport and Logistics Facilitation: Efficiency improvements in BCPs, customs clearance, immigration procedures and cross-border logistics.				
Average speed by corridors, speed with delay (SWD; km/hr)	Corridor	2021	2022	Change
	Overall	18.9	20.1	(1.7)
	1	20.7	19.2	(6.9)
	2	26.3	19.9	+1.9
	3	21.7	24.7	+0.9
	4	13.7	22.4	(2.7)
	5	10.6	12.5	+2.0
	6	20.7	21.6	+0.4
Time taken to clear a border crossing point, by corridor, country and BCP (hour)	Corridor	2021	2022	Change
	Overall	24.0	21.9	+5.1
	1	51.2	42.1	+23.7
	2	11.7	43.1	(10.8)
	3	5.0	3.1	(1.8)
	4	25.7	11.4	+17.7
	5	25.2	18.0	(15.0)
	6	11.8	9.6	(2.2)
Cost incurred to clear a border crossing point, by corridor, country and BCP (\$)	Corridor	2021	2022	Change
	Overall	323	216	+121
	1	1083	643	+660
	2	103	117	(13)
	3	79	74	(12)
	4	85	62	(12)
	5	279	226	(20)
	6	123	108	(13)
Logistics Perception Index (LPI)	Country	2018	2023	Change
	Afghanistan*	1.95 [160]	1.9 [139]	(0.19)
	Azerbaijan	-	-	
	PRC	3.61 [26]	3.7 [19]	(0.06)
	Georgia	2.44 [119]	2.7 [79]	+0.09
	Kazakhstan	2.81 [71]	2.7 [79]	+0.06
	Kyrgyz Republic	2.55 [108]	2.3 [123]	+0.39
	Mongolia	2.37 [130]	2.5 [97]	(0.13)
	Pakistan	2.42 [122]	-	(0.50)
	Tajikistan	2.34 [134]	2.5 [97]	+0.28
	Turkmenistan	2.41 [126]	-	+0.20
	Uzbekistan	2.58 [99]	2.6[88]	+0.17
Roads and Road Asset Management: Improvement on the CAREC Road Asset Management maturity model*				

Average speed of traffic without delay (SWOD; km/hr)	Corridor	2021	2022	Change
	Overall	41.6	42.0	(1.4)
	1	63.5	64.4	(6.0)
	2	49.7	48.3	+3.1
	3	39.4	39.6	(1.8)
	4	36.0	52.9	+2.2
	5	27.5	25.6	(1.0)
	6	39.6	36.9	(1.0)
Perception of highway quality improved (World Economic Forum Global Competitiveness Index)	Country	2018	2019	Change
	Afghanistan*	-	-	-
	Azerbaijan	4.78 [34]	5.16 [27]	+0.38
	PRC	4.58 [42]	4.58 [45]	0.00
	Georgia	3.79 [80]	3.79 [81]	0.00
	Kazakhstan	3.23 [106]	3.59 [93]	+0.36
	Kyrgyz Republic	2.81 [118]	3.05 [113]	+0.24
	Mongolia	3.14 [110]	3.08 [112]	(0.06)
	Pakistan	3.94 [69]	4.04 [67]	+0.09
	Tajikistan	4.53 [44]	4.49 [50]	(0.04)
	Turkmenistan	-	-	-
Uzbekistan	-	-	-	
Railways: Improved service level and operation efficiency of railways				
CPMM average commercial speed, SWD (km/hr)	Corridor	2021	2022	Change
	Overall	12.1	11.9	(4.7)
	1	14.6	13.1	(5.7)
	2	15.2	5.3	+9.8
	3	13.4	14.5	(4.1)
	4	7.5	6.9	(6.0)
	5	-	-	-
	6	13.3	13.3	(0.1)
CPMM average commercial speed, SWOD (km/hr)	Corridor	2021	2022	Change
	Overall	38.0	53.9	(4.2)
	1	56.2	62.2	(11.1)
	2	15.5	78.7	+7.6
	3	14.9	17.1	(4.7)
	4	14.8	16.0	(3.6)
	5	-	-	-
	6	24.6	24.7	+0.2
Perception of railway quality improved (World Economic Forum Global)	Country	2016-2017	2017-2018	Change
	Afghanistan*	-	-	-
	Azerbaijan	4.15 [29]	4.69 [20]	+0.54
	PRC	5.07 [14]	4.80 [17]	(0.27)
	Georgia	3.85 [38]	3.84 [39]	(0.02)

Competitiveness Index for railways)	Kazakhstan	4.26 [26]	4.14 [32]	(0.12)
	Kyrgyz Republic	2.37 [81]	2.45 [76]	+0.08
	Mongolia	2.73 [69]	2.80 [69]	+0.07
	Pakistan	3.08 [53]	3.33 [52]	+0.26
	Tajikistan	3.74 [41]	3.74 [41]	0.00
	Turkmenistan	-	-	-
	Uzbekistan	-	-	-

* ADB placed on hold its assistance to Afghanistan effective 15 August 2021.

Appendix 2: Transport Sector Activities from Q2 2024 onwards

Pillar	Type	Activities	Timeframe
Cross border transport and logistics	KP	Red Sea Crisis Report	Q2 2024
Roads and road asset management	KPs	Key Performance Indicators (KPIs) for the Road Sector	Q3 2025
		Road Asset Management System (RAMS) Action Plans	Q2 2025
		Climate-resilient Road Asset Management (RAM) Action Plan	TBD
		State-owned Enterprises in Road Maintenance	Q3 2025
Road safety management	Events	Road Safety Engineering Training: Kazakhstan	Q2 2024
		Road Safety Engineering Training: Georgia	Q2 2024
	KPs	CAREC Road Safety Manual 7: Why and How to Manage Speed	Q3 2024
		Review of Road Crash Data of CAREC Countries and Web Based Dashboard.	Q4 2024
		Interaction of Road Safety and Climate Change	Q4 2024
Railways	Event	8 th Railway Working Group Meeting	Q2 2024
Aviation	KPs	Low-Cost Carrier Opportunities, Air Transport Liberalization, and Post-Pandemic Recovery in CAREC (as ADB publication)	Q2 2024
		Kazakhstan Domestic Airport Tariff Study	Q3 2024
Overall transport	Event	21 st CAREC Transport Sector Coordinating Committee (TSCC) Meeting	Q2 2024
	KP	2024 CAREC Transport Sector Progress Report	Q2 2024
	Other	CAREC Transport webpage update (country highlights and partnerships)	Q3 2024