



Senior Officials' Meeting
13 –14 June 2023

CAREC 2030: Infrastructure & Economic Connectivity

July 2022 to June 2023

Central Asia Regional Economic
Cooperation (CAREC) Program



CAREC ENERGY SECTOR PROGRESS REPORT AND WORK PLAN

JULY 2022 - JUNE 2023

Reference Document
Senior Officials' Meeting
Central Asia Regional Economic Cooperation
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List of Acronyms

CAREC	Central Asia Regional Economic Cooperation
CAREM	Central Asia Regional Electricity Market
CASA	Central Asia South Asia
CATCA	Central Asia Transmission Cooperation Association
CDC	Central Dispatch Center
EIF	Energy Investment Forum
ESCC	Energy Sector Coordinating Committee
SOM	Senior Officials Meeting
TA	Technical Assistance
TAP	Turkmenistan-Afghanistan-Pakistan
TAPI	Turkmenistan-Afghanistan-Pakistan-India
TUTAP	Turkmenistan-Uzbekistan-Tajikistan-Afghanistan-Pakistan

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I. **Executive Summary**

The CAREC Energy Program has continued to make progress in executing the CAREC Energy Strategy 2030. Although the COVID-19 Pandemic limited the opportunities for in-person meetings and events during most of 2022, the CAREC Energy Sector Coordinating Committee (ESCC) has maintained a high spirit of collaboration through virtual meetings. Building on the successes of Phase 1 of the CAREC Energy Strategy 2030, CAREC Energy has consolidated its standing as an ambitious, results-focused, and visible program. With the end of COVID-related travelling restrictions, the program will go forward host a series of events focusing on interconnectivity, energy security, energy efficiency and energy investments in the region.

Continued Implementation of Key Initiatives: The initiatives from the 2020-2022 work program include the following:

1. Development of the Central Asia Transmission Cooperation Association (CATCA) concept
2. Establishment of a concept for the CAREC Green Energy Alliance
3. Publication of the CAREC Energy Outlook 2030
4. Launching of the CAREC Energy Reform Atlas
5. Realization of the CAREC Women in Energy Program

These reports and concept studies now form the backbone of CAREC Energy's knowledgebase, enabling the program to harvest existing knowledge and implement meaningful projects and actions.

Publication of CAREC Energy Outlook 2030: Following the endorsement of the CAREC Energy Outlook 2030 by all CAREC members and development partners at the 2022 ESCC meeting, the report was officially published in December 2022. This pivotal document outlines the energy landscape of the region and aims to attract the investments necessary to achieve the ambitious targets of the Energy Strategy 2030.

ESCC Meeting and New Workplan 2023-2025: The Energy Sector Coordinating Committee (ESCC) held a productive meeting on May 16, 2023. At this meeting, the new work plan for the 2023-2025 period was agreed upon, marking the start of the next phase of implementing the CAREC Energy Strategy 2030.

In summary, the CAREC Energy Program has maintained its momentum towards the realization of its strategic objectives. The publication of the CAREC Energy Outlook 2030 and the agreement on a new work plan for 2023-2025 stand as notable achievements during this reporting period, further solidifying the program's role in driving a sustainable and resilient energy future for the region. With the Covid Pandemic finally behind us, the program will in the next year reactivate face-to-face meetings and nourish stronger collaboration in the region through in-person meetings, seminars and workshops.

II. Key Developments and Results

A. Sector Implementation

As part of the 2030 strategic framework of the CAREC Program, long-term goals for the Energy Sector were identified and integrated in the CAREC 2030 Program Results Framework (see table 1).

The overarching goal in the energy sector is to achieve improved regional energy security and enhanced deployment of green energy until 2030. To this end, several flagship cross-border electricity interconnection projects (TUTAP, TAP and CASA-1000)¹ as well as gas interconnection projects (TAPI)² are in place to boost regional energy trade and improve overall energy security in the region.³

Table 1: CAREC 2030 Program Results Framework – Progress in the Energy Sector (2021-2022)

Sector Outcomes & Outputs by 2030	Indicator	2017 Baseline	Progress		2022	2023
			2020	2021		
Enhanced regional energy security and deployment of green energy in the energy sector of CAREC countries	% renewable energy in CAREC countries	<1% renewable energy in CAREC countries	6% renewable energy in CAREC countries	6% renewable energy in CAREC countries*	6% renewable energy in CAREC countries*	Data available at end of 2023
Output 1: Increased regional energy trade through implementation of the TUTAP, TAP, and CASA-1000 electricity interconnection projects	TUTAP, TAP, and CASA-1000 electricity interconnection projects and the TAPI gas pipeline project operational	0 project operational	TUTAP partially operational	TUTAP and other projects' progress impacted by situation in Afghanistan**	TUTAP and other projects' progress impacted by situation in Afghanistan**	TUTAP and other projects' progress impacted by situation in Afghanistan**

¹ CASA = Central Asia–South Asia, TAP = Turkmenistan–Afghanistan–Pakistan, TAPI = Turkmenistan–Afghanistan–Pakistan–India, TUTAP = Turkmenistan–Uzbekistan–Tajikistan–Afghanistan–Pakistan.

² TAPI = Turkmenistan–Afghanistan–Pakistan–India

³ ADB placed on hold its assistance in Afghanistan effective 15 August 2021. (ADB Statement on Afghanistan published on November 10, 2021: <https://www.adb.org/news/adb-statement-afghanistan>). This impacted progress of regional interconnection projects during the reporting period covered by this report.

and the TAPI gas pipeline project						
Output 2: Financing vehicle for green energy projects developed and consumer awareness for energy efficiency strengthened	# of donor organizations providing finance to new CAREC green energy	0 donor organizations providing finance to new CAREC green energy alliance	0 donor organizations providing finance to new CAREC green energy alliance	0 donor organizations providing finance to new CAREC green energy alliance	3 organizations expressed support for CAREC Green Energy Alliance***	Concept note published, under review.

* share of variable renewable energy sources (solar PV and wind) – Source: IRENA (2022), Renewable capacity statistics 2022. International Renewable Energy Agency (IRENA), Abu Dhabi

** Progress of regional interconnection projects are impacted as ADB placed on hold its assistance in Afghanistan effective 15 August 2021. ADB Statement on Afghanistan published on November 10, 2021: <https://www.adb.org/news/adb-statement-afghanistan>

*** EBRD, IsDB and UNECE (as expressed at 32nd ESCC meeting, April 2022)

D CAREC launches first region-wide energy efficiency campaign: <https://carecenergy.org/carec-first-region-wide-energy-efficiency-campaign/>

B. Implementation Progress by Priority Area

The CAREC Energy Strategy 2030⁴, adopted on 14 November 2019 at the CAREC Ministerial Conference in Tashkent, remains the key guiding document for all CAREC energy activities. It rests on the overarching principle of “Common Borders. Common Solutions. Common Energy Future.”, and aims at achieving a reliable, resilient, sustainable and reformed energy market in the CAREC region by 2030.

To achieve the goals of the CAREC Energy Strategy 2030, the following three strategic pillars were identified:

- Strategy Pillar 1: Better Energy Security through Regional Interconnections
- Strategy Pillar 2: Scaled-Up Investments through Market-Oriented Reforms
- Strategy Pillar 3: Enhancing Sustainability by Greening the Regional Energy System



To support the above priority areas, the following three cross-cutting themes also form integral part of the CAREC Energy Strategy 2030’s focus:

- Cross Cutting Theme 1: Building Knowledge and Forming Partnerships
- Cross Cutting Theme 2: Attracting Private Sector Investments across the Energy Value Chain
- Cross Cutting Theme 3: Empowering Women in Energy

⁴ Asian Development Bank (ADB). [CAREC Energy Strategy 2030](#). Manila.

Under all strategy pillars and cross-cutting themes, a list of deliverables was agreed as part of the CAREC Energy 2030 work plan. The following table shows all actions to be implemented between 2020 and 2030 and the progress made to date.

Table 2: Energy Sector Progress by Priority Area (2022/2023)

 Strategy Pillar 1: Better Energy			
40%			
Action	Description	Performance Indicators	Progress
Realize TUTAP, TAP, and CASA-1000 electricity interconnection projects	The CAREC region's flagship power transmission line projects connecting Central and South Asia are at various stages of implementation and shall go into operation within the strategy period.	TUTAP, TAP, and CASA-1000 projects in operation	In progress, but delayed due to issues in Afghanistan
Advance TAPI gas pipeline project	Ongoing negotiations for possible modalities to realize the TAPI gas pipeline shall be accelerated.	Dialogue on the implementation of TAPI project intensified	In progress, but delayed due to issues in Afghanistan
Facilitate cooperation among regional transmission system operators (TSOs)	Growing electricity and gas interconnections require increased cooperation among TSOs. The establishment of a corresponding platform for regional network development planning, identification of projects of common interest, and information sharing shall be facilitated by this activity.	Central Asia Transmission Cooperation Association (CATCA) concept developed	Completed (April 2022) https://carecenergy.org/foundation-laid-for-new-regional-transmission-body-catca/
Identify new cross-border infrastructure projects	New cross-border gas and electricity links shall be identified to increase energy security in the region.	New regional gas and/or power interconnections identified	In progress
 Strategy Pillar 2: Scaled-Up Investments through Market-Oriented Reforms			
80%			
Action	Description	Performance Indicators	Progress
Build capacity for unbundling models and liberalization of energy markets	This activity shall support policy makers in making informed decisions when embarking on unbundling and market liberalization reforms.	CAREC Energy Reform Atlas (containing access to practical handbooks and	Completed (April 2022) https://atlas.carecene.rgy.org/

		database with study materials) established	https://atlas.carecene.rgy.org/home-utk/
Advise on tariff-setting principles and methods of introducing tariff reform	Financial health of network companies is critical to ensuring high quality of service. This activity shall shed light on tariff design options and ways of implementing gradual tariff reform.	Handbook on Tariff Principles and Reform Options published Capacity building workshops held	Completed (April 2022) https://atlas.carecene.rgy.org/home-trf/
Develop options for social protection measures for vulnerable energy consumers	This activity shall assist in elaborating options for social protection measures to accompany tariff reform and shall include the development of a definition for “vulnerable consumers” to assist policy makers in identifying the appropriate target group.	CAREC Guide to Social Protection and Energy Sector Reform published	Completed (April 2022) https://atlas.carecene.rgy.org/home-vct/
Share international best practices in legal enforcement of sector reform	Sector reform requires adapting existing energy laws and creating new laws. This activity is aimed at discussing successful examples of relevant sector laws and methods of law enforcement.	Capacity building workshops held	Upcoming



Strategy Pillar 3: Enhancing Sustainability by Greening the Regional Energy System

70%

Action	Description	Performance Indicators	Progress
Establish a joint platform for mobilizing sources of funding for emission reduction projects	For emission reduction projects to be realized, a dedicated platform shall be established for identifying and securing funding for priority projects.	CAREC Green Energy Alliance established	In progress <i>A concept defining the role, structure and functioning of the CAREC Green Energy Alliance was endorsed by ESCC in April 2022 and published in November 2022. Currently under review.</i>
Identify suitable energy efficiency measures and track progress	Energy efficiency is a powerful tool for reducing emissions. The aim of this activity is to disseminate practical skills in implementing efficiency measures and establish a regional benchmarking tool for comparing	CAREC Energy Efficiency Week held Regional Energy Efficiency Scorecard	Upcoming workshop on energy efficiency planned in the 2023-25 work program.

	progress and rewarding high performers.	developed Capacity building workshops held	
Create public awareness of energy efficiency	This activity shall enhance public awareness of energy efficiency and empower consumers to engage in more conscious use of energy.	CAREC Consumer Leaflet on Energy Saving prepared Energy efficiency radio or TV commercial developed Handbook for organizing consumer awareness campaigns published	Completed (June 2021) https://carecenergy.org/carec-first-region-wide-energy-efficiency-campaign/ Completed (June 2021) https://carecenergy.org/carec-first-region-wide-energy-efficiency-campaign/ Cancelled, will focus with key stakeholders and decision makers instead of general public.
Support in the development of renewable energy and the diversification of the energy mix	This activity is aimed at supporting CAREC members in adding renewable energy to their energy mix by providing practical guidance on the necessary pre-requisites.	Workshop on pros and cons of different renewable incentive schemes held Coping mechanisms for renewable energy intermittency developed Manual on legislative requirements for the integration of renewable energy prepared Role of gas as a transition fuel discussed	Under review Completed (August 2020) https://carecenergy.org/carec-finds-cooperation-on-renewable-energy-to-save-millions-of-dollars/ Completed (August 2020) https://carecenergy.org/carec-finds-cooperation-on-renewable-energy-to-save-millions-of-dollars/

			Under review
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Strategy Pillar 3: Enhancing Sustainability by Greening the Regional Energy System
(progress from 5% in 2021 to 50% 2022)

50%

Action	Description	Performance Indicators	Progress
Develop CAREC Energy Outlook and Investment Report	This activity is aimed at providing investors and other relevant stakeholders with reliable regional data to make investment and policy decisions.	CAREC Energy Outlook and Investment Report published	Completed (May 2022) ESCC approved the Outlook in April 2022. Published in Dec, 2022
Establish relevant partnerships to support the implementation of the three strategy pillars	All three strategy pillars include capacity building, institution-building, and training initiatives, which shall be implemented in collaboration with experienced partner organizations.	Partnerships with global centers of excellence in the fields covered by the strategy established	In progress UNECE, UNDP, Energy Charter, ERRA and EFSD are some of the new organizations that joined ESCC activities between 2020-2022 https://carecenergy.org/partners/
	The CAREC program shall facilitate cross-regional networking and skills development of next-generation energy professionals to allow a natural sense for regional cooperation to emerge among the target group.	CAREC Young Energy Leaders initiative established	Put on hold



Cross Cutting Theme 2: Attracting Private Sector Investments across the Energy Value Chain
(progress from 0% in 2021 to 50% 2022)

50%

Action	Description	Performance Indicators	Progress
Prepare a regional investment strategy	A regional investment strategy containing recommendations for improved enabling conditions for	CAREC Energy Investment Strategy developed	Upcoming

	private investments in the CAREC region shall be developed.		
Hold annual CAREC Energy Investment Forum	The annual Energy Investment Forum shall continue to attract investors to the region and foresee a dedicated space for B2B meetings.	CAREC Energy Investment Forum held yearly	Completed (Dec 2021) https://carec-eif.org/ <i>next EIF is tentatively envisaged in Q4 2022</i>
Provide practical support to investors to enhance their business operations in the region	This activity shall create improved enabling conditions for private investors operating in the region.	CAREC Business Advisory Council created to identify needs of private investors	Upcoming



Cross Cutting Theme 3: Empowering Women in Energy
(progress from 10% in 2021 to 60% 2022)

60%

Action	Description	Performance Indicators	Progress
Establish CAREC Women in Energy Program	This activity shall provide women in the CAREC region with the necessary tools to boost their career, build a regional network, and become more visible in the region's energy sector.	Women in Energy Summit organized	Completed (March 2022) https://women-energy-summit.org/
		Secondment program for women in energy established	Upcoming
		Educational scholarship program for women in energy facilitated	Upcoming

C. Conferences and Meetings conducted.

No conferences or workshops were organized during the reporting period. On May 16, 2023, the Energy Sector Coordinating Committee meeting was successfully held virtually. All member countries participated, except Afghanistan.

III. Challenges and Key Issues

The main challenge for the current reporting period, has been the global COVID-19 pandemic which continued making- and planning personal meetings more challenging. Despite these circumstances, meetings have been successfully held (in virtual format). While it is unfortunate that personal meetings were more difficult to arrange, the virtual format also brought a number of positive effects:

- No restriction in the number of participants allowed a lot more CAREC members to join our meetings compared to the face-to-face format and led to more active participation
- A much bigger number of development partners joined our meetings compared to the past with some new partners joining the energy activities for the first time

During the reporting period and following the events of August 2015, ADB placed on hold its assistance in Afghanistan effective 15 August 2021 (ADB Statement on Afghanistan published on November 10, 2021: <https://www.adb.org/news/adb-statement-afghanistan>).

IV. Work Program for Coming Period

The CAREC Energy Strategy 2030 is implemented in sequences of 2-year work programs. Thus, until 2030, there will be a total of five work programs to achieve the goals of the strategy. The deliverables of the first work program (covering the period 2020-2022) were completed at the end of 2022. A new work program for the period 2023-2025 was agreed at the ESCC meeting on May 16 2023. Activities to be taken up for the period 2023-2025 is aligned with the CAREC Energy Strategy 2030 work plan, and focus primarily on in-person meetings and events. These include the following initiatives for the next 12-18 months:

1. Energy Investment Forum during Q4-2023
2. Workshop on regional transmission and grid infrastructure.
3. Workshop on energy efficiency in the CAREC Region.
4. Study Tour to the Nordic Region

V. Deliverables for the Ministerial Conference

The following list gives an outlook of deliverables (i) completed during the reporting period covered by this report and (ii) expected to be completed until the MC 2023:

Table 3: List of Deliverables for the 2023 Ministerial Conference

Deliverables	Completion	NFP/MC action
Publication of 1st CAREC Energy Outlook	Q4 - 2022	for information
Organization of a CAREC Energy Investment Forum	Q4 2023	for information

VI. Key Issues for Guidance by the Senior Officials' Meeting

Alongside the adoption of the CAREC Energy Strategy 2030, the CAREC Energy Ministers signed a declaration in September 2019 in Tashkent in the framework of the 1st CAREC Energy Ministers Dialogue which contains specific commitments for the CAREC Energy Sector including the following:

- Double regional power flows until 2023
- Double solar and wind power capacity by 2023
- Double the level of energy efficiency until 2030
- Attract private investors through suitable financing vehicles
- Affordable and clean energy for all including in hard to reach areas before 2030
- Implement energy sector reform including phase out of fiscal and fossil fuel subsidies
- Gender Equality in the CAREC Energy Sector by 2030

In view of the commitments, it is suggested to hold a 2nd Energy Ministers Dialogue in 2023/2024 to report on the progress made of these commitments and agree on new commitments as deemed necessary. The CAREC Senior Officials are kindly invited to transmit this suggestion to their governments and report back whether the idea of holding a 2nd Energy Ministers Dialogue is supported.



CAREC TRANSPORT SECTOR PROGRESS REPORT AND WORK PLAN

JULY 2022 - JUNE 2023

Reference Document
Senior Officials' Meeting
Central Asia Regional Economic Cooperation
13-14 June 2023

I. Executive Summary

The pandemic and the ongoing Russian invasion of Ukraine have altered the way we view the transport industry. More than anything, these events have underlined the importance of a reliable transport sector for sustained mobility of goods and people, continued access to critical services, and resilient value chains under extremely challenging circumstances.

Yet these events likewise exposed the vulnerabilities of the transport sector amidst unforeseen disruptions on a global scale. Most of these hurdles are, in fact, longstanding pre-pandemic issues but which were highlighted and exacerbated by the recent health crisis and Russia's continued invasion of Ukraine. For the transport sector, in general, these include obsolete transport infrastructure, congested roads and ports, tight asset maintenance budgets, and complex government regulations, to list a few.

In October 2022, the Transport Sector Coordinating Committee (TSCC) convened for its 19th meeting to discuss the strategic directions and priorities for the CAREC transport sector, current developments and ongoing transport initiatives, as well as challenges and key issues faced by CAREC transport in particular.

Among the issues raised at the TSCC meeting was the low uptake of safety practices and Safe System principles among CAREC DMCs as well as the slow progress in improving cross-border transport and logistics in DMCs. The meeting noted that based on CPMM metrics, the performance of CAREC corridors in terms of time and cost savings has not improved historically.

On another note, the expanded role of SOEs and limited private sector participation are believed to contribute to substandard service, limited customer and commercial orientation, underinvestment, and deteriorating transport infrastructure across sub-pillars.

Against this background, the CAREC Transport program continues to embark on activities that aim to support an agile, resilient, and reliable transport sector among CAREC DMCs. Along these lines, the CAREC Transport program organized workshops and launched important knowledge products on transport over the current work plan period. These include the Developers' Guide to Planning and Design of Logistics Centers in CAREC Countries, which aims to guide stakeholders in the design and planning, as well as operation of logistics centers.

To help create a culture of road safety among CAREC DMCs, the CAREC Transport program has developed the Road Safety Report Card for the CAREC Region, which outlines country-specific recommendations on how DMCs can improve their road safety performance and achieve the objectives of the CAREC Road Safety Action Plan.

As CAREC also puts a strong focus on financial sustainability, the Road Funds and Road User Charges in the CAREC Region report was developed to document the experiences of five DMCs (Azerbaijan, the Kyrgyz Republic, Mongolia, Pakistan, and Uzbekistan) in operating and managing road funds efficiently, which other DMCs can draw lessons from to help them achieve sustainable funding for road maintenance and repair.

On aviation, the Aviation Cargo Study is being developed to facilitate the development of competitive aviation freight and logistics services. Meanwhile, the Low-Cost Carriers Study is also underway, which outlines recommendations to help LCCs flourish and strengthen their presence in the CAREC aviation sector.

On cross-border transport and logistics facilitation, support for improved cross-border infrastructure under the RIBS projects is still ongoing. Preparatory work for modernization of BCPs Patar, Gissar, Kushtegirmon, Madaniyat (e.g., conceptual design, preliminary cost estimates) was completed within the scope of the CAREC RIBS Project, while the full modernization of Ak-Tilek, Karkyra, Kichi-Kapka [KGZ, border with KAZ] is being planned under a new RIBS project.

Finally, CAREC DMCs are now paying closer attention to sustainable transport and climate-resilient infrastructure as part of their broader climate agenda and commitments made under the Paris Agreement. Going forward, the CAREC Transport program will also support transport initiatives in this area, including promoting Paris Aligned infrastructure.

To lay the groundwork for a more sustainable CAREC Transport sector, the Secretariat considers introducing the Paris Agreement Alignment (PAA) as a cross-pillar initiative in the CAREC Transport Strategy 2023 and to develop a scoping study to guide the CAREC Transport program in promoting the PAA agenda.

II. Key Developments and Results

This report covers progress made by the CAREC member countries in 2022 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
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* 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 organized workshops and launched important knowledge products on transport over the current work plan period. These include the Developers’ Guide to Planning and Design of Logistics Centers in CAREC Countries, which compiles knowledge materials on various aspects relevant to the design and planning, as well as operation of logistics centers. Published in April 2023, this compendium includes technical guidelines on business models, as well as best practice and case studies from CAREC DMCs and other countries.

Meanwhile, support for improved cross-border infrastructure under the RIBS projects is still ongoing. Preparatory work for modernization of BCPs Patar, Gissar, Kushtegirmon, Madaniyat (e.g., conceptual design, preliminary cost estimates) was supported within the scope of the CAREC RIBS Project, while full modernization of Ak-Tilek, Karkyra, Kichi-Kapka [KGZ, border with KAZ] is being planned under a new RIBS project. Plans are also underway to develop the Joint BCP (JBCP) Silk Road (BCP Ipek-Yolu – Abreshumis Gza), along with connecting roads on Azerbaijan’s and Georgia’s sides of the border. Moreover, the Bulgan, Khangi, and Khavirga BCPs in Mongolia are also planned to be rehabilitated, which includes upgrading border facilities and BCP infrastructure.

On road safety, the CAREC Transport program has developed the Road Safety Report Card for the CAREC Region, which tracks CAREC DMCs’ progress on their road safety initiatives. The report outlines country-specific recommendations on how DMCs can improve their road safety performance and achieve the objectives of the CAREC Road Safety Action Plan.

Moreover, the CAREC Road Safety Engineering Manual 6: Speed Management is underway and will be launched in the third quarter of 2023. This manual will guide road safety practitioners in creating a safe road system through speed management, including setting safe and appropriate speed limits, and in enforcing and improving speed limit compliance. The CAREC Road Safety Engineering Manual 7: Black Spot Investigation, which introduces the concept of blackspots and the basic elements of blackspot investigation, is also in progress and is expected to be completed by Q4 2023.

A 2-day training course on Crash Investigation was also organized for Mongolia and Tajikistan in March 2023. The training course imparted to participants skills that are required to carry out thorough crash investigation. Representatives from the Ministry of Transportation, Ministry of Interior Affairs, road agencies, traffic police, and the private sector participated in the training.

On road transport, CAREC hopes to establish a strong focus on sustainability among DMCs, not only from an environmental perspective, but from a financial perspective as well. In this context, the Road Funds and Road User Charges in the CAREC Region was developed to examine the current operation of various types of road user charges in Azerbaijan, the Kyrgyz Republic, Mongolia, Pakistan, and Uzbekistan. It documents the experiences of the five DMCs in operating and managing road funds efficiently, which other CAREC DMCs can draw lessons from to help them achieve adequate and sustainable funding for road maintenance and repair.

On aviation, the Aviation Cargo Study is ongoing and is expected to be completed and published within the year. This study aims to facilitate the development of competitive aviation freight and logistics services by helping guide CAREC governments in prioritizing national policy actions and regional agreements. Further, the Low-Cost Carriers Study, which was put on hold amidst the pandemic, is also in progress. This study provides an overview of the current state of low-cost carriers (LCCs) operations in the CAREC region, examines the opportunities and challenges for LCCs. LCCs share in the CAREC air transport market significantly grew during the pandemic, albeit still well below international averages. Within this context, the study also outlines recommendations to help LCCs thrive and to strengthen their presence in the CAREC aviation sector.

Meanwhile, the Railway Working Group (RWG) convened for its sixth meeting in October 2022. Among other things, the meeting discussed the current gaps in railway operational performance and infrastructure, as well as initiatives carried out and completed during the preceding TA work plan period, including the Track Capacity and Timetabling Software, Cost Price Calculation of Rail Transport Services study, the Rolling Stock Needs and Financing Facility study, Commercialization and Reform study, and case studies on railway commercialization and reform measures.

Field studies for the Traffic study on the (PRC-Kyrgyz Republic-Uzbekistan) railway corridor that was initiated in 2020 when study-related tasks were interrupted due to the pandemic, have already resumed. Advisory support on the Preparation of a Railway Commercialization, Reform and Investment Program for the Kyrgyz Republic and Tajikistan is also being provided by the CAREC Program. Draft final reports for both Tajikistan and the Kyrgyz Republic will be available in May 2023.

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

Title of Publication / Event	Timeframe
Cross border transport and logistics	
Developers' Guide to Planning and Design of Logistics Centers in CAREC Countries	Apr 2023
Roads and road asset management	
Road Funds and Road User Charges in the CAREC Region	Dec 2022
Road safety management	
Road Safety Report Card for the CAREC Region	Jul 2022
Mongolia - Crash Investigation Training	Mar 2023
Tajikistan - Crash Investigation Training	Mar 2023
Railways	

Title of Publication / Event	Timeframe
6 th Railway Working Group Meeting	Oct 2022
Overall transport	
19 th CAREC Transport Sector Coordinating Committee Meeting	Oct 2022
CAREC Transport webpage update (country highlights and partnerships)	Oct 2022
2022 CAREC Transport Sector Progress Report and Work Plan	Oct 2022

*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 2022-2023 includes:

- CAREC Middle Corridor Assessment Report.** This is a rapid assessment of conditions and situation of the freight movements between PRC and Europe as it relates to the multi-modal Middle Corridor. The COVID-19 pandemic and the Russian invasion of Ukraine resulted in significant operational bottlenecks on the Eurasian transit routes. The focus of this study was the so-called Middle Corridor (aka CAREC Corridor 2 and TRACECA), which has seen a significant increase in container traffic since February 2022. Among others, the report presented data and demonstrated the pre-COVID-19 trends in container traffic volumes, costs, and lead times for transportation between the PRC and selected EU, Caucasian and Central Asian destinations by different routes, specifically (i) by the combined sea-rail and by sea-road container routes, (ii) by the Northern rail corridor (PRC, KAZ, RUS, EU), and (iii) by the Middle Multimodal corridor (PRC, KAZ, Caspian Sea, AZE, GEO, EU).

Along similar lines, the USAID initiated a study tour to Kazakhstan, Azerbaijan, and Georgia in May 2022. The study tour aimed to assess the viability of moving goods from Central Asia to Europe along the Middle Corridor as an alternative to the Northern routes. Among others, the study finds that the Middle Corridor has seaports that have under-utilized capacity prior to Russia's invasion of Ukraine, and that additional resources may be required to improve vessel fleet and port capacity to accommodate diverted traffic. Interim results of EBRD's study on sustainable transport connections between Central Asia and Europe also finds that if increased diverted transit cargo traffic at the Middle Corridor keeps up, large investments could indeed be required to improve sea infrastructure and increase port capacity.

Global shipping rates in 2022 were held artificially high due to disruptions to existing trade routes. This made it difficult to make sound investment decisions, particularly in the context of the Middle Corridor development, but it offered a rather opportune time for urgently needed operational improvements instead. Now that shipping rates have stabilized since, the CAREC Transport program, for its part, will further assess the Middle Corridor especially with regard to the longer-term investments and initiatives that might be required to support its development.

- Developers' Guide to Planning and Design of Logistics Centers in CAREC Countries.** This compendium provides a compilation of knowledge materials on market, institutional, financial, and operational aspects relevant to the design and planning, as well as operation of logistics centers. Intended for use as reference guide in the efficient development and

implementation of logistics centers, it provides key stakeholders with relevant information on trends, as well as opportunities and challenges in logistics centers development in the CAREC region. Apart from technical guidelines on business models and roadmap for logistics centers operation, best practice and case studies from CAREC DMCs and other countries are also included in this compendium.

- **Continued improvement and application of the CAREC Corridor Performance Measurement and Monitoring (CPMM) tool.** The CPMM tool is continuously being improved and applied in identifying and analyzing border crossing costs and delays in CAREC corridors. By making cross-border speed and cost data analyses available to authorities and relevant stakeholder groups, they can thus be guided in identifying and addressing bottlenecks effectively toward the overall objective of improving and enhancing efficiency of CAREC corridors.
- **Support for improved cross-border infrastructure, operational procedures, and stronger border management capacity through various projects and TA activities.** The CAREC Regional Improvement of Border Services (RIBS) projects in the Kyrgyz Republic, Mongolia, Pakistan, and Tajikistan aim to support BCP improvements through the deployment of BCP security and ICT equipment, creation of National Single Window (NSW) facilities, and establishment of integrated border management institutions.

The RIBS project in Pakistan aims for full modernization of the BCP facilities in Torkham Chaman and with civil works now halfway done, BCP construction is expected to be completed within a year. Under a new project, the full modernization of the BCP in Ak-Tilek, Karkyra, Kichi-Kapka (KGZ, border with KAZ) is being planned and contracting of the engineering design firm has already started. Civil works for the BCP Guliston in Tajikistan was completed in 2018 and its NSW facility has been fully operational since January 2021. BCP facilities at the Karamyk BCP (KGZ) were completed in 2020, while the Kyrgyz Republic NSW was launched in full operation in February 2023. The Karamyk BCP facilities and the full design of the NSW were both completed within the CAREC RIBS project. Meanwhile, the conceptual design and preliminary cost estimates for modernization of BCPs Patar, Gissar, Kushtegirmon, Madaniyat were completed within the scope of the CAREC RIBS Project. Plans are underway to upgrade BCP infrastructure and border facilities at the Bulgan, Khangi, and Khavirga BCPs in Mongolia, while Azerbaijan and Georgia also plan to develop the Joint BCP (JBCP) Silk Road (BCP Ipek-Yolu – Abreshumis Gza), and connecting roads on both sides of the border. Assessment of the implementation strategy for the JBCP Silk Road is ongoing.

- **Aviation Cargo Study.** Air freight plays an important role in intermodal supply chains and can help contribute to greater trade and economic activity. It offers shorter transit times and is an important alternative mode of cargo transport especially if land and sea transport infrastructure are unreliable. Within this context, this study aims to guide CAREC governments in prioritizing national policy actions and regional agreements to facilitate the development of competitive aviation freight and logistics services. Amidst pandemic-related restrictions that made field research and data collection difficult, the study encountered some delays but it is ongoing and making progress toward completion and expected publication within the year.

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 2022-2023 under this pillar includes:

- **Road Funds and Road User Charges in the CAREC Region.** Published in December 2022, this report examines the origins and current operations of road funds in Azerbaijan, the Kyrgyz

Republic, Mongolia, Pakistan, and Uzbekistan. It describes the history and current operations of various types of road user charges that are implemented in these five DMCs, and the extent to which revenues generated from road user charges are earmarked for road funds. Subsequently, the report examines in detail the use and management of these funds with respect to road maintenance and repair, including operational procedures and institutional aspects of road funds, management structure, and reporting and auditing requirements.

Drawing lessons from the experiences of the five DMCs, the report provides recommendations for the introduction and continued development of road funds in the CAREC region. Specifically, the report identifies best practices in operating and managing road funds efficiently, which CAREC DMCs can adopt to ensure adequate and sustainable funding for road maintenance and repair.

- **CAREC Performance Based Maintenance Contracts Manual.** This manual introduces the concept of performance-based contracting and how it helps improve the sustainability of road assets and extend their functional life. Designed to enhance stakeholders' understanding of PBCs as well as to guide them on PBC implementation in road maintenance, the manual includes detailed discussions of contract scope, performance standards, response times, contract cost, procurement and contract award, among other things. The manual is in progress, and is expected to be completed in Q3 2023.

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.

- **6th Railway Working Group Meeting.** The Railway Working Group (RWG) convened for its sixth meeting in October 2022 to report on the achievements made under the TA supporting the implementation of the CAREC Railway Strategy. The meeting agreed that regional cooperation would be the effective response to the current opportunities and challenges faced by the CAREC railway transport sector. It also discussed the potential of the Middle Corridor in attracting freight traffic from long distance routes, the potential of the Caspian Sea ports, and the current gaps in railway operational performance and infrastructure. Other matters discussed at the meeting include initiatives carried out during the preceding TA work plan period, including the Track Capacity and Timetabling Software, Cost Price Calculation of Rail Transport Services study, the Rolling Stock Needs and Financing Facility study, the Situation of Railways in CAREC Countries and the Opportunities for Investment study, Commercialization and Reform study, and case studies on railway commercialization and reform measures. Development partners also presented an outline of their ongoing and planned initiatives supporting the CAREC railway sector. The RWG also endorsed the CAREC railway TA workplan for 2022/2023 at the meeting. The RWG will convene for its seventh meeting in 22-23 May 2023.
- **Traffic study on the (PRC-Kyrgyz Republic-Uzbekistan) railway corridor.** A traffic study for a potential rail corridor connecting PRC-Kyrgyz Republic-Uzbekistan was initiated in 2020 but was put on hold amidst the COVID-19 pandemic. As pandemic-related restrictions started to ease, study-related tasks and activities resumed in Q2 2022, while field studies (i.e., field visits, stakeholder consultations, etc.) began in Q3 2022.

Advisory Support on Preparation of a Railway Commercialization, Reform and Investment Program for Kyrgyz Republic and Tajikistan. At the 5th meeting of the CAREC Railway Working Group (December 2019), the Kyrgyz Republic and Tajikistan - the smallest railways in

the CAREC region - requested ADB to provide advisory support to develop a program for commercialization, reform and investment. This program will identify proposals for (i) corporatization, restructuring or introducing private sector participation; (ii) reorganizing of railway functions, staffing, and management, (iii) introducing a modern railway accounting system, (iv) strengthening the sales and marketing function; (v) preparing and implementing a market-based turnaround strategy, including a business plan, a revised tariff, and a program of small investments to address critical bottlenecks, with a view to quickly expanding the railway business and improve its financial performance; and (vi) preparing a longer term investment masterplan of projects expected to be economically and financially feasible. Draft final reports for both Tajikistan and the Kyrgyz Republic will be available in May 2023.

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 2022-2023 include:

- **Road Safety Report Card for the CAREC Region.** This report tracks the status of implementation and progress of road safety initiatives of individual DMCs under the CAREC Road Safety Strategy. The report, which includes a road safety assessment for each DMC, outlines country-specific recommendations to help DMCs improve road safety performance and achieve the objectives of the CAREC Road Safety Action Plan. The status updates can guide stakeholders in identifying priorities, resources, and reforms necessary to improve road safety in CAREC DMCs. The Report is also a good reference source for compiling case studies on good practices in road safety. The report was published in July 2022.
- **Crash Investigation Training.** A 2-day training course on Crash Investigation was organized for Mongolia and Tajikistan in March 2023. The course introduced the concept of crash investigation and reporting, and highlighted the importance of collecting accurate crash data in understanding why crashes occur and how they can be prevented. Accurate and comprehensive crash data can guide evidence-informed measures and policy decisions relating to road safety, traffic safety laws, and road engineering improvements, among other things. The training equipped participants with the skills necessary to carry out thorough crash investigation, covering relevant topics including vehicle damage, equipment examination and dynamics; scene diagrams, plans and photography; and an introduction to speed estimates from skid marks and distance and time equations. Representatives from the Ministry of Transportation, Ministry of Interior Affairs, road agencies, traffic police, and the private sector participated in the training.

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.

- **Low-Cost Carriers Study.** A study on low-cost carriers was initiated in 2021 following endorsement by the CAREC Aviation community at the conclusion of the initial CAREC Aviation webinar series. The study was put on hold until restrictions on travel were lifted in order to conduct research missions. Work resumed with missions to six CAREC countries in September and October 2022. The study investigates the opportunities and challenges for low-cost carriers (LCCs) in the CAREC region. It has been expanded to include an analysis of the recovery of the CAREC Aviation market as passenger traffic has now recovered from the pandemic driven in part by rapid LCC expansion, as well as an update on the progress of

liberalization in the CAREC Aviation market, which was a focus of the initial CAREC Aviation scoping study from 2018. Some CAREC countries have since implemented significant reforms and liberalization of their aviation sectors but more work in this area is still needed to facilitate air transport growth, particularly LCC growth.

The report includes detailed case studies on six CAREC countries with specific recommendations as well as CAREC overall recommendations that are aimed at facilitating overall air transport development, including LCCs. The draft report was completed in February 2023 and was circulated to stakeholders in March 2023 for feedback and comments with the view of publishing the study by the end of Q2 2023.

III. Challenges and Key Issues

The transport sector continues to deal with the hurdles that emerged during the pandemic as well as the ongoing Russian invasion of Ukraine. In fact, most of these are longstanding pre-pandemic issues, but which were highlighted and exacerbated by these two major developments. For the transport sector, in general, these issues include obsolete transport infrastructure, congested roads and ports, shortfalls in transport asset maintenance budgets, poor or unreliable logistics services, and bureaucratic regulations, to list a few.

In October 2022, the Transport Sector Coordinating Committee (TSCC) convened for its 19th meeting to discuss strategic directions and priorities for the CAREC transport sector, current developments and ongoing transport initiatives, as well as challenges and key issues faced by CAREC transport in particular.

Among the issues raised at the TSCC meeting was the low uptake of safety practices and Safe System principles among CAREC DMCs, and the similarly slow progress in improving cross-border transport and logistics in DMCs. By contrast, Road Asset Management is increasingly being institutionalized in the CAREC region, but the uptake has been uneven across DMCs and more remains to be done.

Across sub-pillars, substandard service, limited customer and commercial orientation, underinvestment and deteriorating infrastructure are, in part, attributed to limited private sector participation.

On corridor performance, the meeting noted the lack of improvement in the performance of CAREC corridors. CPMM metrics indicate that cost and time of border crossing and speed of cross-border transport along CAREC corridors have not improved historically. Accordingly, the meeting highlighted the need to simplify border control processes, adopt harmonized approaches and standards, and improve coordination along road and railway corridors to ease corridor bottlenecks. This also puts increased digitization front and center in speeding up transport processes and in transforming CAREC transport into a more competitive sector.

As part of their broader climate agenda and commitments made under the Paris Agreement, DMCs are now attaching greater importance to sustainable transport and climate-resilient transport infrastructure.. Within this context, CAREC Transport will also support Paris Aligned transport initiatives to help DMCs achieve their climate ambitions. Along these lines, the Secretariat considers introducing the Paris Agreement Alignment (PAA) as a cross-pillar initiative in the CAREC Transport Strategy 2023. A scoping study could be developed subsequently to guide the CAREC Transport program in promoting the PAA agenda.

C. Work Program for Coming Year

The CAREC program will offer technical assistance to CAREC countries in the remaining period of 2023 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.

Workshops on Planning and Design of Logistics Centers in CAREC Countries.

Subsequent to the publication of the *Developers' Guide to Planning and Design of Logistics Centers in CAREC Countries* tentatively in April 2023, national and regional workshops, focus group discussions, as well as regional and international exchanges and site visits are being planned over the current work plan period. Stakeholders from various groups, including investors, the private sector and representatives from subnational and planning authorities, are expected to participate.

- **Aviation Cargo Study.** A spin-off of the COVID-19 Aviation study that was published in 2020, the Aviation Cargo study examines aviation freight logistics services in CAREC DMCs, including regional freight operations by land, air, and sea. Specifically, it will provide an overview of the current state of the air freight industry in the CAREC region, including background information on available aviation freight logistics services in CAREC DMCs. The study will also outline strategic choices for the sector, including regulatory and policy actions, to help it capitalize on its competitive advantages and facilitate the future development of the aviation freight industry. The study is in progress and is scheduled for completion in Q4 2023.
- **Joint BCP (JBCP) Silk Road (BCP Ipek-Yolu – Abreshumis Gza) Assessment.** Azerbaijan and Georgia seek to develop the *Joint BCP Silk Road*, along with connecting roads on both sides of the border. The BCP is envisioned to be a greenfield development, located south of the railway line connecting Boyuk-Kesik and Gardabani railway stations. An assessment of the implementation strategy for the *Joint BCP Silk Road* is underway, and preparation of an operational concept for the new JBCP and roadmap for implementation of the project is expected to be completed in May 2023.

Modernization of BCP Oibek (Uzbekistan) and BCP Fotehobod (Tajikistan). Uzbekistan plans to modernize BCP Oibek in Tashkent oblast, which currently handles more than 40% of all freight traffic with Tajikistan. Meanwhile, Tajikistan is also planning to modernize the BCP on its side of the border, BCP Fotehobod in Sugd oblast. To maximize transit potential along the Shymkent – Tashkent – Khujand Economic Corridor, other BCPs between Tashkent and Sugd oblasts are also being considered for upgrading.

- **Almaty–Bishkek Economic Corridor (ABEC) RIBS Project.** The ABEC initiative seeks to enhance economic connectivity between the cities of Almaty and Bishkek through economic corridor development, which includes a good transport network as one of its prerequisites, among other things. Along these lines, the proposed ABEC RIBS Project seeks to facilitate trade and transport traffic and improve BCPs between the Kyrgyz Republic and Kazakhstan by constructing three fully equipped BCPs and one training center, and by deploying security and ICT equipment at other selected BCPs.
- **Rehabilitation of Bulgan, Khangai, and Khavirga BCPs in Mongolia.** Plans are underway to upgrade BCP infrastructure and border facilities at the Bulgan, Khangai, and Khavirga BCPs to reduce congestion and increase cross-border cargo and passenger traffic. Trade documents will also be digitalized and border crossing procedures of relevant agencies will

be connected to promote paperless border crossing procedures and enhance the NSW platform. The project preparation is ongoing and the project is expected to start within a year.

Roads and road asset management.

- **Regional Road Asset Management Workshop.** This workshop will introduce the concept of road asset management, and discuss how it helps maximize economic benefits by minimizing maintenance costs and road user costs. Among other things, the workshop will discuss the institutional aspects of RAMS, including institutional responsibilities for its management, as well as the sources, use, and management of funding for the road sector in general, and for road maintenance and repairs in particular. It will be a platform for sharing experiences, problems encountered, best practices, and lessons learned from RAMS development and implementation in CAREC DMCs. The workshop, which is scheduled to be held in Tbilisi, Georgia in the third quarter of 2023, will also lay out recommendations for the introduction, continued development and implementation of road asset management in CAREC DMCs.
- **CAREC Performance Based Maintenance Contracts Manual.** With payments to road maintenance contractors tied to performance outputs and outcomes, PBCs result in road networks that are well-preserved and maintained, ultimately leading to safer roads as well as sound road asset investments and improved fiscal position. Within this context, the CAREC Performance Based Maintenance Contracts Manual aims to enhance stakeholders' understanding of PBCs as well as to guide them on PBC implementation in road maintenance. It introduces the concept of performance-based contracting and how it helps improve the sustainability of road assets and extend their functional life, and includes detailed discussions of contract scope, performance standards, response times, contract cost, procurement and contract award, among other things. It is scheduled for publication in Q3 2023.

Road safety.

- **Crash Investigation Training (Pakistan and Kazakhstan).** A 2-day training course on Crash Investigation will be organized for Pakistan in September and Kazakhstan in October 2023. The course will teach the foundations for crash investigation and reporting, and discuss the importance of collecting accurate crash data in understanding the nature of road traffic crashes. Participants will learn techniques and gain the requisite skills for carrying out a systematic crash investigation, including proper collection, interpretation, recording, and analysis of crash data. Specifically, the training will cover relevant topics including vehicle damage, equipment examination and dynamics; scene diagrams, plans and photography; and an introduction to speed estimates from skid marks, and distance and time equations. Representatives from the Ministry of Transportation, Ministry of Interior Affairs, road agencies, traffic police and the private sector will be invited to participate in the training.
- **Pedestrian Safety and Blackspot Investigation Training (Georgia, Kazakhstan).** A 4-day training course on pedestrian safety and blackspot investigation will be organized for Georgia and Kazakhstan in Q3 2023. The training will follow the fourth CAREC road safety engineering manual (Pedestrian Safety) and the upcoming seventh CAREC road safety engineering manual (Blackspot Identification, Investigation, and Treatment). Representatives from the Ministry of Transportation, road agencies, academia and the private sector will be invited to participate in the training.

- **Regional Road Safety Workshop.** A Road Safety Workshop is being organized for CAREC DMCs on 23 May 2023. The workshop, which aims to enhance road safety and road safety awareness in the CAREC region, will discuss the road safety issues and challenges in the region. It will cover important topics including best practices for road design and blackspot programs, speed management, and measures to help improve road user behavior, crash investigation and analysis. The workshop will also be a platform for greater stakeholder engagement, particularly in identifying opportunities and areas for cooperation among CAREC DMCs towards safer roads and improved road safety in the CAREC region.
- **CAREC Road Safety Engineering Manual 6: Speed Management.** This manual, which is sixth in the series to the CAREC Road Safety Engineering Manuals, is a practical guide on improving road safety and creating a safe road system through speed management. Unsafe and excessive driving speeds compromise road users' safety and are a contributing factor to road crashes and accidents. This manual will guide road safety practitioners in setting and enforcing safe and appropriate speed limits, developing countermeasures to enforce and improve compliance (including road engineering measures and other infrastructure, e.g., speed humps, speed enforcement camera systems, etc.), and raising awareness on the importance of safe driving speeds through informational campaigns. The manual will be launched in the third quarter of 2023.
- **CAREC Road Safety Engineering Manual 7: Black Spot Investigation.** Seventh in the series to the CAREC Road Safety Engineering Manuals, the manual introduces the concept of blackspots, which are hazardous road locations or road spots (road lengths) that are prone to accidents. The manual covers the basic elements of blackspot investigation, including identifying blackspots, conducting detailed site investigation, and guidelines for rectifying hazardous spots. Specifically, the manual will guide stakeholders on the proper collection, analysis, and identification of patterns from crash data; site investigation; and development and implementation of countermeasures for site improvement and crash reduction. The manual will be launched in the fourth quarter of 2023.

Railways.

- **7th Railway Working Group Meeting.** The Railway Working Group (RWG) will convene for its seventh meeting in 22-23 May 2023 in Tbilisi, Georgia to report on the progress achieved in TA implementation during the workplan period 2022/2023. The meeting will present findings of recent TA publications and research undertakings, and share updates on the status of TA activities agreed at the 6th RWG meeting. Finally, the Group will outline initiatives and activities proposed to be undertaken over the next workplan period, and agree on the next steps in TA implementation. Representatives from CAREC DMCs and development partners will be invited to participate in the 7th RWG.
- **TA Workplan 2023-2024.** At the 6th meeting, the RWG endorsed the inclusion of the following additional projects for provision of pre-feasibility study assistance through the TA: (i) Uzbekistan-Turkmenbashi Block Trains and Ferry Services, and (ii) the Uzbekistan Northwestern International Freight Corridor (i.e. corridor via Samarkand, Bukhara, Nukus and Beyneu providing links to Caspian Sea ports and the North-South Corridor). These studies are expected to be completed by October 2023. For knowledge and capacity development support, the RWG endorsed (i) TA support for establishing and operating a railway sales and marketing function, (ii) the preparation of a rolling stock needs and financing study, (iii) a CAREC railway containerization study, and (iv) advisory support to implementing international accounting standards and systems for railway commercialization. Preparatory actions are being undertaken to follow up on these later in 2023.

Aviation.

- **CAREC Aviation Workshop (Regional Aviation Forum).** The first CAREC Aviation workshop was held in 2017, which kicked off the CAREC Aviation program, leading to the initial scoping study from 2018. A second workshop that was initially planned for 2020 was postponed due to the pandemic. With CAREC aviation sector now recovered and with the LCC study completed, the second workshop is now considered for 2023-2024 implementation period. The workshop will assess the current status of the aviation sector and provide an update on CAREC's role in facilitating regional cooperation in aviation. It will discuss priority topics for CAREC aviation, including: (i) opportunities for air transport growth in the post-pandemic environment; (ii) continued air transport market liberalization and (iii) facilitation of regional international travel within CAREC. The workshop will bring together representatives from all CAREC countries, including aviation authorities, airlines and airports (from both the public and private sectors).
- **CAREC Aviation Webinars.** Following a successful first series of webinars that were held in Q1 2021, a second series of CAREC Aviation webinars is planned for Q4 2023. These webinars will include discussions on the recommendations and topics that are covered in the CAREC LCC and CAREC Aviation Cargo studies.
- **CAREC Aviation Knowledge Support.** VCs are planned for Q3 2023 with countries interested in discussing the recommendations from the LCC study and potential follow-up studies. A study may be initiated in Q3 2023 or Q4 2023 assessing LCC development and opportunities in Pakistan, a large market with huge potential for domestic LCC development but with different characteristics than the six countries examined in the CAREC LCC study. Knowledge support for other CAREC countries is also possible. Over the last few years, the CAREC Aviation has provided specific support to Georgia, the Kyrgyz Republic, Mongolia, and Kazakhstan. The CAREC Aviation program strives to facilitate development of the CAREC aviation sector and welcomes requests from any member country.
- **Georgia Airport Sector Assessment.** CAREC Aviation has been supporting this project, which is under the ADB Georgia Resident Mission office, since its inception in 2020, assisting in defining the TOR, recruiting a consulting firm and helping manage the work since it began in early 2023. The project is slated to be completed in Q3 2023, assessing Georgia's airports and helping the Georgia government in developing a long-term strategy for its airport sector. There will be a brief report for CAREC following the completion of the project, outlining what was accomplished, lessons learned and providing suggestions for similar future projects in other CAREC countries. CAREC Aviation earlier supported potential airport projects in other CAREC countries and continues to discuss potential airport projects in the CAREC region with stakeholders.

Overall Transport

- **CAREC Decarbonization Pathways in the Transport Sector.** The proposed study will showcase ongoing decarbonization initiatives in CAREC DMCs and examine how these initiatives are contributing to DMCs' emission reduction targets. The results and findings of the study are envisioned to help determine potential future CAREC support to DMCs in their climate ambitions. Data collection, desk research, and other study-related tasks are expected to commence in May 2023 with a view to completing the study for publication in early 2024.

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	2020	2021	Change
	Overall	20.7	18.9	(1.7)
	1	27.6	20.7	(6.9)
	2	24.4	26.3	+1.9
	3	20.8	21.7	+0.9
	4	16.4	13.7	(2.7)
	5	8.6	10.6	+2.0
	6	20.3	20.7	+0.4
Time taken to clear a border crossing point, by corridor, country and BCP (hour)	Corridor	2020	2021	Change
	Overall	18.9	24.0	+5.1
	1	27.9	51.6	+23.7
	2	22.4	11.7	(10.8)
	3	6.8	5.0	(1.8)
	4	8.1	25.7	+17.7
	5	40.2	25.2	(15.0)
	6	14.0	11.8	(2.2)
Cost incurred to clear a border crossing point, by corridor, country and BCP (\$)	Corridor	2020	2021	Change
	Overall	202	323	+121
	1	422	1083	+660
	2	116	103	(13)
	3	91	79	(12)
	4	97	85	(12)
	5	300	279	(20)
	6	136	123	(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*				
	Corridor	2020	2021	Change

Average speed of traffic without delay (SWOD; km/hr)	Overall	42.9	41.6	(1.4)
	1	69.5	63.5	(6.0)
	2	46.6	49.7	+3.1
	3	41.2	39.4	(1.8)
	4	33.8	36.0	+2.2
	5	28.4	27.5	(1.0)
	6	40.6	39.6	(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	2020	2021	Change
	Overall	16.8	12.1	(4.7)
	1	20.2	14.6	(5.7)
	2	5.4	15.2	+9.8
	3	17.5	13.4	(4.1)
	4	13.5	7.5	(6.0)
	5	-	-	-
6	13.4	13.3	(0.1)	
CPMM average commercial speed, SWOD (km/hr)	Corridor	2020	2021	Change
	Overall	42.2	38.0	(4.2)
	1	67.3	56.2	(11.1)
	2	7.9	15.5	+7.6
	3	19.6	14.9	(4.7)
	4	18.4	14.8	(3.6)
	5	-	-	-
6	24.4	24.6	+0.2	
Perception of railway quality improved (World Economic Forum Global Competitiveness Index for railways)	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)
	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 2023 onwards

Pillar	Type	Activities	Timeframe
Cross border transport and logistics		Joint BCP (JBCP) Silk Road (BCP Ipek-Yolu – Abreshumis Gza) Assessment	Q2 2023
Roads and road asset management	Event	Regional Road Asset Management Workshop ^{1/}	22 May 2023
	KP	CAREC Performance Based Maintenance Contracts Manual	Q3 2023
Road safety management	Events	Crash Investigation Training (Pakistan)	September 2023
		Crash Investigation Training (Kazakhstan)	October 2023
		Training on Pedestrian Safety and Blackspot Investigation (Georgia)	Q3 2023
		Training on Pedestrian Safety and Blackspot Investigation (Kazakhstan)	Q3 2023
		Regional Road Safety Workshop ^{1/}	23 May 2023
	KPs	CAREC Road Safety Engineering Manual 6: Speed Management	Q3 2023
		CAREC Road Safety Engineering Manual 7: Black Spot Investigation	Q4 2023
Railways	Event	7th Railway Working Group Meeting	22-23 May 2023
Aviation	Event	Webinar on Low-Cost Carriers Study in selected CAREC Countries	Q3 2023
	KPs	Low-Cost Carriers Study	Q3 2023
		Aviation Cargo Study	Q4 2023
		Georgia Airport Sector Assessment	Q2 2023
Overall transport	Event	20th CAREC Transport Sector Coordinating Committee (TSCC) Meeting	24-25 May 2023
	KPs	CAREC Decarbonization Pathways in the Transport Sector	Q3 2023
		2023 CAREC Transport Sector Progress Report	Q3 2023
	Other	CAREC Transport webpage update (country highlights and partnerships)	Q3 2023

^{1/} Road asset and road safety management will be combined as CAREC Highways Workshop preceding the 20th CAREC TSCC Meeting.